

2023–2028 National Outer Continental Shelf Oil and Gas Leasing Proposed Program

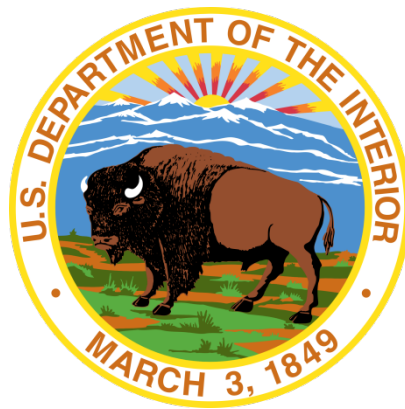
July 2022

BOEM
Bureau of Ocean Energy
Management



2023–2028
NATIONAL OUTER CONTINENTAL SHELF
OIL AND GAS LEASING

Proposed Program



July 2022

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Whale bones

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Anemone

Sinclair, James. *Close up of the fire coral (Milepora alaicornis) in the East Flower Garden Bank*. June 9, 2006. Available online at <https://www.flickr.com/photos/boemgov/12002579596/>. Accessed September 6, 2018.

Lighthouse

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Flowers

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Oil platform

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Right whale

Nagelkrik. *NARW April 14*. April 14, 2017. National Marine Fisheries Service permit number 19674. Reprinted with permission from the New England Aquarium.

Fish

Boland, Greg S. *Platform Legs often double as Artificial Reefs Drawing Numerous Fish*. June 1, 2003. Available online at <https://www.flickr.com/photos/boemgov/12003914203/>. Accessed September 6, 2018.

Sea turtles

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Sea lion

Sanders, Greg. *Untitled*. No date. Available online at <https://www.flickr.com/photos/boemgov/16103362797/>. Accessed September 6, 2018.

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Part I: PROPOSED PROGRAM:

The Second Proposal on the Size, Timing, and Location of OCS Lease Sales



Part I: Proposed Program

Second Proposal on the Size, Timing, and Location of OCS Lease Sales

Introduction

Under Section 18 of the Outer Continental Shelf (OCS) Lands Act, the Secretary of the Interior (Secretary) is responsible for establishing a schedule of lease sales for a 5-year period in a National OCS Oil and Gas Leasing Program (National OCS Program) by evaluating specified attributes of OCS regions. The Secretary is authorized to select the size, timing, and location of proposed OCS lease sales that best meet national energy needs and that balances, to the maximum extent practicable, the potential for environmental damage, discovery of oil and gas, and adverse impact on the coastal zone.

National OCS Program Development Process

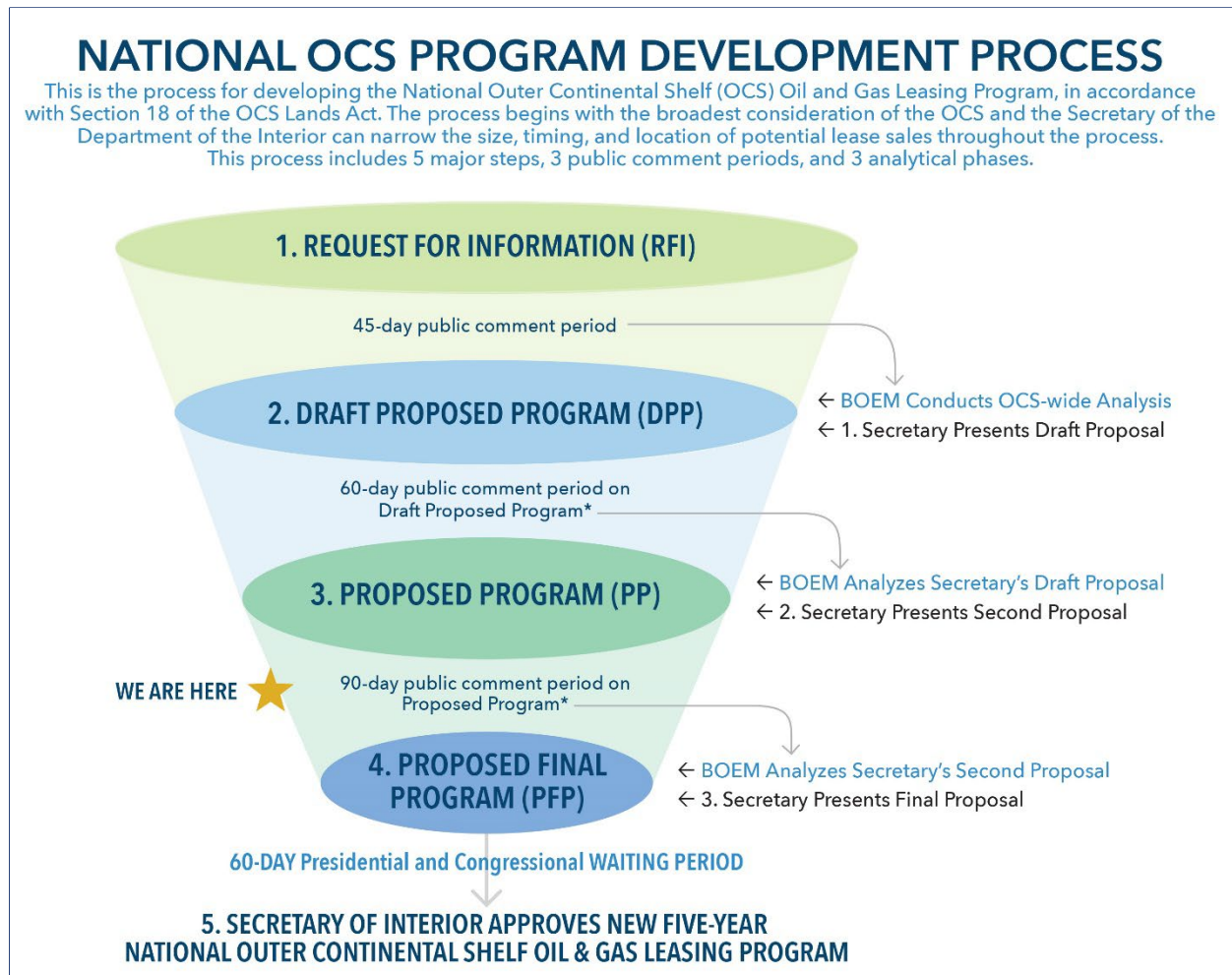
The Bureau of Ocean Energy Management (BOEM) in the U.S. Department of the Interior (USDOl) is responsible for advising the Secretary on the National OCS Program and administering the Program. The three analytical phases required to develop a new National OCS Program include issuance of the (1) Draft Proposed Program (DPP); (2) Proposed Program; and (3) Proposed Final Program (PFP). This National OCS Program development process always begins with the broadest consideration of areas available for leasing (all 26 OCS planning areas) and the areas under consideration can be narrowed at each stage throughout the National OCS Program development process. The Proposed Program (also referred to as the Second Proposal) described herein is the second step in this three-step process. See [Figure 1](#) for a depiction of the National OCS Program development process.

In January 2018, BOEM published the first of the three phases, the DPP, which included a

proposed schedule of 47 lease sales in all four OCS regions and 25 of the 26 planning areas. Following the publication of the DPP, BOEM received more than two million comments from the public and stakeholders, including governors, Federal agencies, state agencies, local agencies, energy and non-energy industries, Tribal governments, environmental non-governmental organizations and advocacy groups, and the public (see [Appendix A](#) for more information). Comments received in response to the DPP ranged from supporting exploration and development of the entire OCS to opposing all such exploration and development.

This Proposed Program document and the companion Draft Programmatic Environmental Impact Statement (EIS), prepared in accordance with the National Environmental Policy Act (NEPA), present the analysis of the DPP schedule of lease sales, referred to as the Draft Proposal, and incorporate input received during the public comment period. Although not required to do so, BOEM opted to evaluate the potential environmental and socioeconomic impacts associated with the Draft Proposal in the Draft Programmatic EIS and analyzed how those impacts could vary depending on the areas or regions that may be included in the approved Program. BOEM prepared that analysis so that, together, the Proposed Program and Draft Programmatic EIS analyses present a comprehensive picture of the environmental, cultural, economic, and resource considerations to aid the Secretary in the presentation of the size, timing, and location of potential lease sales evaluated in this Proposed Program covering the period 2023–2028.

Figure 1. National OCS Program Development Process



These documents examine the entirety of the Draft Proposal – which was the most expansive in history and includes even areas withdrawn under OCS Lands Act Section 12(a). The Secretary did not consider withdrawn areas in this Proposed Program. Nevertheless, the analyses of the areas included in the Draft Proposed Program are presented in their entirety for transparency and to demonstrate the breadth of information available to inform the Secretary's decision.

The final phase of the National OCS Program development process is preparation of the PFP and Final Programmatic EIS, which will involve analyses of the areas included in this Proposal Program and the comments

received during the 90-day comment period following its publication.

Proposal Framework

The OCS Lands Act grants the Secretary discretion in applying Section 18(a)(2) factors. The size, timing, and location of the areas and potential lease sales presented in this Proposed Program reflects the Secretary's careful balancing of the potential for the discovery of OCS oil and gas resources with the potential for environmental damage and for adverse impact on the coastal zone, as required by Section 18(a)(3). The inclusion of an area for analysis in this Proposed Program is not a final determination that the area will be included in the PFP, or ultimately offered in a future lease sale. The Secretary may

decide to reduce or completely remove an area from potential leasing at the PFP stage or decide in the future not to conduct a lease sale that was included in the PFP. Once the 2023–2028 Program has been approved, there are additional requirements at the lease sale stage for lease sale size, timing, and location analyses, environmental review, and public comment (see [Figure 1-9](#)).

Meeting national energy needs for the 5-year period following Program approval is a stated purpose of the OCS Lands Act. Many factors, including the need to confront the climate crisis, are relevant to how national energy needs are met. Climate change is already having significant impacts on communities across the U.S., causing damage to environments, infrastructure, and the economy that are costing billions of dollars every year. There is scientific consensus and confidence, as illustrated by a recent report from the Intergovernmental Panel on Climate Change (IPCC), that avoiding the most severe climate impacts by limiting global warming to 1.5°C will require reducing global greenhouse gas (GHG) emissions to net-zero by 2050 (IPCC 2022). Pathways to achieve these goals—and their likelihood—are discussed in [Section 1.2](#), including de-carbonizing the electricity sector; electrifying the economy, from cars to buildings and industrial processes; and increasing energy efficiency. These pathways envision a transformation of the energy sector away from fossil fuels that have implications for OCS oil and gas development and are important when considering national energy needs within the context of the National OCS Program.

According to the International Energy Agency, a roadmap to net-zero emissions by 2050 for the global energy sector would require no new investment in fossil fuel supply projects (IEA 2021). Under this scenario, the Nation’s energy needs would need to be met by sources other than new OCS leasing, as oil and gas production from

new leases sold as part of this Program will likely not commence until approximately 5 (shallow water) to 10 (deepwater) years after lease award, at which time energy needs could be met by other sources and reduced demand. Absent future lease sales, OCS oil and gas production would continue only from existing leases, which currently constitute 15% of domestic oil production and 2% of domestic natural gas production (SEI 2019). Of the 2,013 active OCS leases as of June 2022, 549 are in producing status. BOEM’s short-term (20-year) production forecast for existing leases shows steady growth from 2022 through 2024 and declining thereafter (see [Section 5.2.1](#)). The long-term nature of OCS oil and gas development, such that production on a lease can continue for decades makes consideration of future climate pathways relevant to the Secretary’s determinations with respect to how the OCS leasing program best meets the Nation’s energy needs.

[Chapter 5](#) discusses the change in net benefits of a hypothetical net-zero emissions pathway over baseline analyses, whereby, in the case of reduced OCS oil and gas development, an increase in renewable energy production, electrification, energy efficiency, and reduced consumption assumes less reliance on imports and domestic onshore oil and gas production as energy substitutions. BOEM continues to research potential net-zero emissions pathways and implications for the National OCS Program and will review available data to refine its analysis in the PFP. Importantly, the Secretary may re-evaluate national energy needs on an ongoing basis prior to holding any lease sales included in the National OCS Program. These additional decision points allow the Secretary to consider new information about national energy needs, policy direction, or other factors in choosing whether to hold any lease sale.

2023–2028 Proposed Program Lease Sale Schedule

After careful consideration of public input and the OCS Lands Act Section 18(a)(2) factors, this Proposed Program includes, for further analysis and public comment, a range of potential OCS oil and gas lease sales from zero lease sales anywhere on the OCS to up to ten potential sales in the Gulf of Mexico (GOM) Region Program Area 1 (i.e., up to two annual sales) and one potential lease sale in the northern portion of the Cook Inlet Program Area offshore south-central Alaska. Accordingly, this Proposed Program dramatically narrows the areas to be further evaluated to only GOM Program Area 1 (which includes the Western and Central GOM Planning Areas and a small portion of the Eastern GOM Planning Area, consistent with the Gulf of Mexico Energy Security Act [GOMESA]), where more than 95% of current OCS production occurs, and the Cook Inlet Planning Area, where there is significant existing natural gas production in adjacent state waters. The associated PEIS includes a no action alternative, and this Proposed Program retains the Secretary’s discretion at the PFP stage to determine that no OCS oil and gas lease sales in any planning area should be scheduled during the 2023–2028 period.

The Secretary also identified two Subarea Options that will be analyzed in the development of the PFP and Final Programmatic EIS: a 15-mile no leasing buffer offshore Baldwin County, Alabama, and a targeted leasing approach in the GOM Program Area 1. There are no potential lease sales scheduled for planning areas in the Pacific Region, Atlantic Region, GOM

Program Area 2 (which contains most of the Eastern GOM Planning Area), or Alaska Region (other than Cook Inlet). The schedule in **Table 1** reflects the maximum potential lease sales for the 2023–2028 Proposed Program. **Figures 2** through **4** depict the program areas included in the 2023–2028 Proposed Program.

This Proposed Program has dramatically narrowed the schedule of potential lease sales for further analysis from the DPP’s 47 in 24 program areas for several reasons.

First, the Proposed Program and Draft Programmatic EIS analyses recognize that the potential for impacts on the OCS increases with increasing number of lease sales and planning areas. Areas with existing offshore oil and gas development in closer proximity to supportive infrastructure and commercial markets, like the GOM and Cook Inlet Program Areas, require relatively less new infrastructure and could result in overall lower impacts on the human environment and sociocultural resources than areas where there is no existing oil and gas development and infrastructure. In addition, uncertainty in estimates of undiscovered oil and natural gas and the potential risks is greatest for areas with little or no exploratory efforts, whereas areas that have been extensively explored and developed (e.g., GOM Program Area 1) have less uncertainty. Further, under a scenario in which domestic fossil energy needs fall in response to global decarbonization, industry would likely focus bidding and exploration in areas with the lowest costs, which would be those with currently active leases, with a history of recent lease sales, and that do not require extensive infrastructure buildouts.

Table 1: 2023–2028 Proposed Program Maximum Potential Lease Sale Schedule

Count	Sale Number	Sale Year	OCS Region and Program Area
1.	262	2023	Gulf of Mexico: GOM Program Area 1
2.	263	2024	Gulf of Mexico: GOM Program Area 1
3.	264	2024	Gulf of Mexico: GOM Program Area 1
4.	265	2025	Gulf of Mexico: GOM Program Area 1
5.	266	2025	Gulf of Mexico: GOM Program Area 1
6.	267	2026	Alaska: Cook Inlet Program Area
7.	268	2026	Gulf of Mexico: GOM Program Area 1
8.	269	2026	Gulf of Mexico: GOM Program Area 1
9.	270	2027	Gulf of Mexico: GOM Program Area 1
10.	271	2027	Gulf of Mexico: GOM Program Area 1
11.	272	2028	Gulf of Mexico: GOM Program Area 1

Figure 2: 2023–2028 Proposed Program Areas

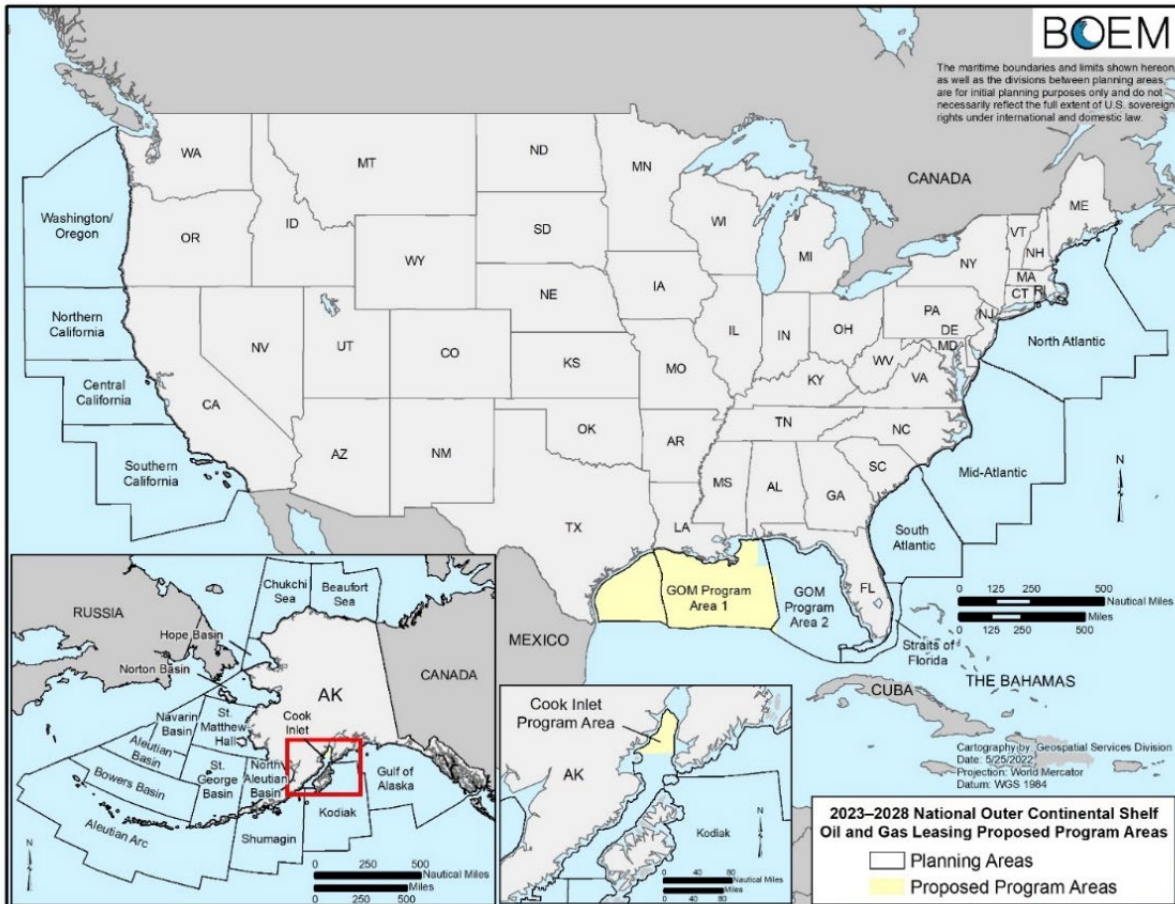


Figure 3: 2023–2028 Proposed Program Areas

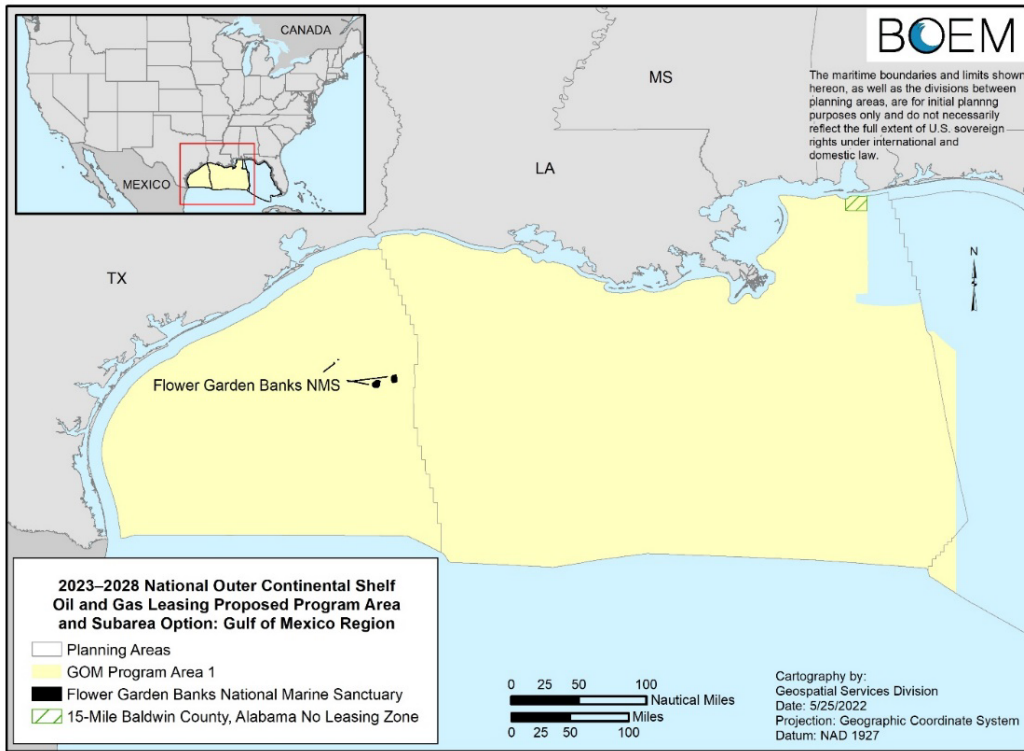
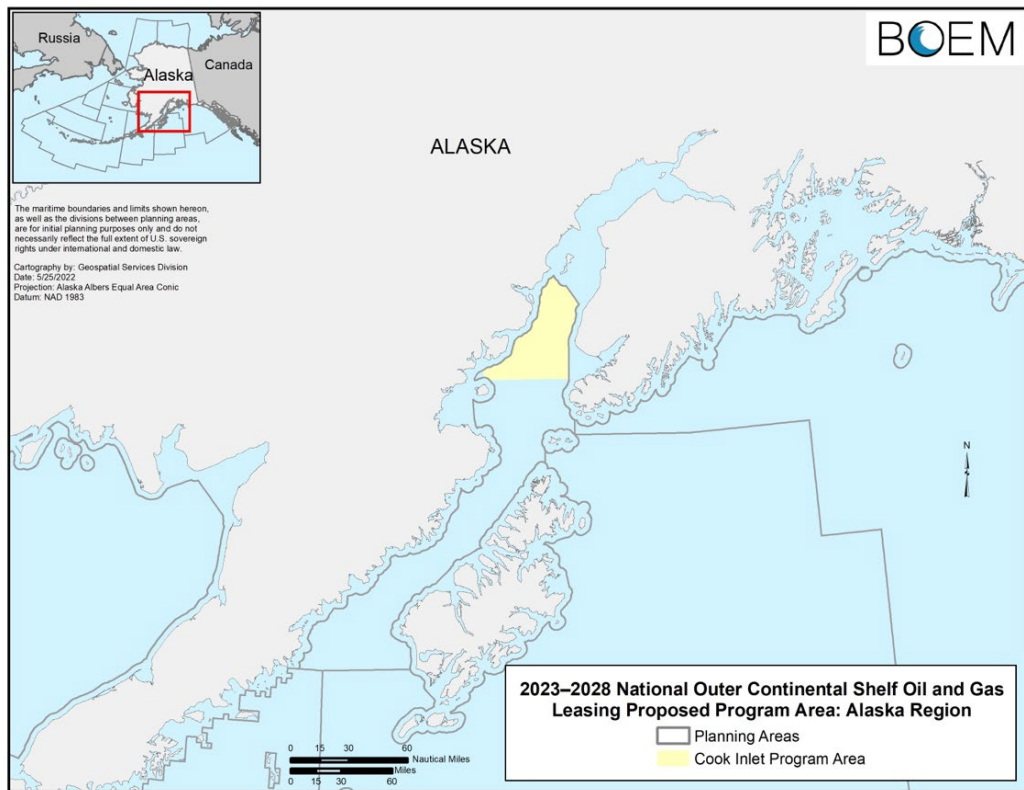


Figure 4: 2023–2028 Proposed Program Alaska Region Program Area



The proposal to offer a maximum of two potential lease sales per year from 2023–2028 in the GOM Program Area 1 reflects the area’s relatively high number of existing leases, level of production, and exploration. The GOM accounted for 99% of oil and gas production on the OCS in 2021, with existing production and new exploratory efforts mostly focused in deepwater areas. Slightly more than one quarter of the 1,963 active leases in the GOM are currently in production as of June 2022. Based on the number of active, non-producing leases and BOEM’s recent production forecast for the GOM (see [Section 5.2.1](#)) — which quantifies future contributions from existing proved reserves, discovered resources not already developed, and undiscovered resources — the Secretary determined that two potential lease sales per year in the GOM Program Area 1 provides adequate access to the region’s oil and gas resources to meet national energy needs.

The option to include a maximum of one potential lease sale in the northern portion of the Cook Inlet Program Area in 2024 balances availability of areas with industry interest and oil and gas resource potential with other potential uses of the area, including subsistence, commercial and recreational fishing, tourism, ports and shipping routes, and protection of marine mammal habitat. There have been six lease sales in this area since 1977, and there are 14 existing leases, all of which were issued in Lease Sale 244 held June 21, 2017. The northern portion of the Cook Inlet Planning Area is close to commercial markets and infrastructure in Anchorage, Alaska, and able to serve Alaska’s energy markets and needs.

Second, BOEM’s current analysis finds that there are potential net benefits of a National OCS Program with a maximum of two sales per year in the GOM Program Area 1 and one sale in the northern portion of the Cook Inlet Program Area for 2023–2028. Based on current demand and consumption patterns, a National OCS Program with no lease sales for

2023–2028 would reduce net benefits as substitute energy sources increase to meet the largely unchanged energy demand. But in a net-zero emissions pathway — where substitutions rely less on imports and domestic onshore oil and gas and more on renewable energy and electrification, as well as reduced demand—the net benefits of no lease sales could change. In the absence of adequate data at this stage of the Program’s development, BOEM has not performed a quantitative net benefits analysis that assumes a net-zero emissions pathway. The agency seeks feedback on the qualitative assessment presented in [Chapter 5](#), which considers changes in anticipated production, substitutions, and impacts in the PFP. BOEM is specifically interested in any potential data sources sufficient for BOEM’s modeling that could help enhance the model and better reflect assumptions associated with a transitioning economy. See the *Federal Register* docket number [BOEM-2022-0031](#) for more details on the type of information BOEM is requesting from commenters regarding model enhancements.

Third, the Subarea Option to include a 15-mile no leasing buffer offshore Baldwin County, Alabama, is anticipated to have minimal impact on developmental benefits and the ability to meet energy needs in the region.

Fourth, the GOM Program Area 1 hosts many other potentially conflicting uses of the OCS that warrant a targeted leasing approach for the upcoming Program. Under a targeted leasing approach, lease sale areas in the GOM Program Area 1 could be further refined and narrowed based on public input and analysis at either or both the PFP and lease sale stages. A targeted leasing approach could, for example, remove acreage that has not recently seen extensive bidding activity, actively pursued geologic plays, areas of recent seismic acquisition and processing, or exploration and development activity, as well as biologically sensitive areas and areas of

potential conflict with other uses and users of the marine environment. This targeted approach would only offer lease sales in areas with high resource potential while appropriately weighing environmental protection, other uses of the ocean and seabed, and other considerations, consistent with the policy of the OCS Lands Act to make OCS oil and gas resources available for expeditious and orderly development while considering safeguards for the human, marine, and coastal environments.

Finally, per OCS Lands Act Section 18(a)(3), the potential for discovery of OCS oil and gas resources must be balanced with the potential for environmental damage and for adverse impact on the coastal zone. The burden of environmental risk resulting from OCS oil and gas activities is borne primarily by the marine and coastal areas adjacent to and within areas where oil and gas activities occur — near drilling and production sites and transportation routes. The construction or development of onshore infrastructure could cause changes in air quality, impacts from reductions in coastal marshland, the value of ecosystem services lost (e.g., flood protection), or impacts on water quality, depending on the location and nature of construction or development activity. Destruction or alteration of existing habitat like wetlands or nesting areas for turtles and birds, permanent or temporary displacement of species that rely on those habitats, and behavioral disruption could have acute and long-term impacts on individuals and populations. In the GOM, wetlands protect the coastline, store carbon, provide critical habitat, and recreational opportunities. Without them, the coastline could become more susceptible to climate change-related impacts, such as higher storm surge, flooding, and erosion. Vulnerable coastal communities are often near onshore infrastructure and could be disproportionately impacted by construction or increased use of existing onshore infrastructure. These communities can experience disproportionate and adverse

human health or environmental effects, which could be further exacerbated by climate change. BOEM continues to study ongoing and potential impacts to vulnerable communities from BOEM-authorized activities, including environmental justice communities, to better include these effects. On balance, the maturity and level of existing oil and gas development in the GOM Program Area 1 and northern portion of the Cook Inlet Program Area in terms of discovery of OCS oil and gas resources and the potential for environmental damage and adverse impact on the coastal zone in this climate-vulnerable area warrants fewer proposed lease sales.

The Proposed Program excludes all other areas in the Alaska, Pacific, and Atlantic regions, and GOM Program Area 2 (comprised of the Eastern GOM Planning Area except for the GOMESA area). These areas were removed for several reasons, including relatively low resource potential, minimal to no existing development and supporting infrastructure, limited interest from potential oil and gas producers, potential conflicts with other uses of the sea and seabed, the goals and policies of certain affected states, and the comments and recommendations of interested and affected parties. Their removal also reflects careful consideration of the comparative analysis of the economic, social, and environmental values associated with exploration, development, and production of OCS oil and gas in the regions, and the potential impacts of oil and gas activities on other resource values of the OCS and on the marine, coastal, and human environments. On the whole, when the potential for discovery of oil and gas resources was balanced with the potential for environmental impact and adverse impact on the coastal zone, the Secretary determined that inclusion of these areas in the 2023–2028 Proposed Program was not needed to meet national energy needs. If approved in the PFP, this means that no lease sales would be

offered in these regions for the 2023–2028 Program.

The 10 potential lease sales in the GOM Program Area 1 and one potential lease sale in the northern portion of the Cook Inlet Program Area were identified by the Secretary for further analysis because they have the greatest resource potential and net benefits with the least potentially significant impacts and costs to society to meet national energy needs under existing laws and policies, while acknowledging that progress along a net-zero emissions pathway is likely

to change future energy markets and national energy needs. The Secretary is requesting public and stakeholder input on the Proposed Program and Draft Programmatic EIS to inform the PFP and Final Programmatic EIS analyses, which inform the Final Proposal (see *Federal Register* docket number [BOEM-2022-0031](#)). The size, timing, and location of any potential lease sales may be further narrowed at the PFP stage, including the option of zero lease sales scheduled during the 2023–2028 period covered by the Program.

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Part II: Analysis of the Secretary's Draft Proposal



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Abbreviations and Acronyms

§	Section
2-D	two-dimensional
3-D	three-dimensional
2021 National Assessment	<i>2021 Assessment of Undiscovered Oil and Gas Resources of the Nation’s Outer Continental Shelf</i>
2019–2024 Program	2019–2024 National OCS Oil and Gas Leasing Program
2023–2028 Program	2023–2028 National OCS Oil and Gas Leasing Program
AEO	Annual Energy Outlook
Agreement	<i>Agreement between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico</i>
ANCSA	Alaska Native Claims Settlement Act
ANWR	Arctic National Wildlife Refuge
Area ID	Area Identification
BBO	billion barrels of oil
BBOE	billion barrels of oil equivalent
BLM	Bureau of Land Management
BOE	barrel of oil equivalent
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
BTU	British thermal unit
Call	Call for Information and Nominations
<i>California I</i>	<i>California v. Watt</i> , 688 F.2d 1290 (D.C. Cir. 1981)
<i>California II</i>	<i>California v. Watt</i> , 712 F.2d 584 (D.C. Cir. 1983)
CCS	carbon capture storage
CES	clean electricity standards
CFR	Code of Federal Regulations
COVID-19	2019 novel coronavirus
<i>CSE</i>	<i>Center for Sustainable Economy v. Jewell</i> , 779 F.3d 588 (D.C. Cir. 2015)
CZM	Coastal Zone Management
D.C.	District of Columbia
degree	°
Department	United States Department of the Interior
DNA	Determination of NEPA Adequacy
DOD	Department of Defense
DPP	Draft Proposed Program

Draft Proposal	Initial decision on the proposed schedule of lease sales based on the DPP analysis
E&D	exploration and development
E.O.	Executive Order
EA	environmental assessment
Economic Inventory Report	<i>Economic Inventory of Environmental and Social Resources Potentially Impacted by a Catastrophic Discharge Event within OCS Regions</i>
EEZ	Exclusive Economic Zone
EIA	Energy Information Administration
EIS	environmental impact statement
EJ	environmental justice
ESA	Endangered Species Act of 1973
ESC	environmental and social costs
ESI	environmental sensitivity index
ESP	Environmental Studies Program
FERC	Federal Energy Regulatory Commission
Final Proposal	Final decision on the proposed schedule of lease sales based on the PFP analysis
FMV	fair market value
FONSI	finding of no significant impact
FY	fiscal year
G&G	geological and geophysical
GAOA	Great American Outdoors Act
GDP	gross domestic product
GHG	greenhouse gas
GIS	geographic information system
GOM	Gulf of Mexico
GOMESA	Gulf of Mexico Energy Security Act of 2006
GRASP	Geologic Resource Assessment Program
GW	gigawatt
HPF	Historic Preservation Fund
IEA	International Energy Agency
IPCC	International Panel on Climate Change
IPF	impact-producing factor
IWG	Interagency Working Group
km ²	square kilometers
LME	Large Marine Ecosystem
LNG	liquified natural gas
LOOP	Louisiana Offshore Oil Port

LWCF	Land and Water Conservation Fund
MARAD	U.S. Maritime Administration
<i>MarketSim</i>	Market Simulation Model
mcf	thousand cubic feet
MMP	Marine Minerals Program
MWA	military warning area
National OCS Program	National OCS Oil and Gas Leasing Program
NASA	National Aeronautics and Space Administration
NASCA	North American Submarine Cable Association
NEPA	National Environmental Policy Act of 1969
NEV	net economic value
nm	nautical miles
NMFS	National Marine Fisheries Service
NMS	National Marine Sanctuary
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOS	Notice of Sale
NP	National Park
NPP	net primary productivity
NPS	National Park Service
NRDC	Natural Resources Defense Council
NS	national seashore
NSV	net social value
NWR	national wildlife refuge
OCS	Outer Continental Shelf
OECM	Offshore Environmental Cost Model
OPAREA	Operational Area
OPD	official protraction diagrams
OPEC	Organization of the Petroleum Exporting Countries
OSU	Oregon State University
P.L.	Public Law
PADD	Petroleum Administration for Defense District
Programmatic EIS	Programmatic Environmental Impact Statement
PFP	Proposed Final Program
RFI	Request for Information and Comments
ROD	Record of Decision
RPS	Renewable Portfolio Standard
Second Proposal	Second decision on the proposed schedule of lease sales based on the Proposed Program analysis
Secretary	Secretary of the Interior

SPR	Strategic Petroleum Reserve
TAPS	Trans-Alaska Pipeline System
Tcf	trillion cubic feet
t C km ⁻² yr ⁻¹	metric tons of carbon per square kilometer per year
TIMS	Technical Information Management System
UERR	undiscovered economically recoverable resources
U.S.	United States
U.S.C.	United States Code
USCG	United States Coast Guard
USDOl	United States Department of the Interior
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UTRR	undiscovered technically recoverable resources
VGPM	Vertically Generalized Production Model
WEA	wind energy area
WEB3	When Exploration Begins model, version 3

Overview

Management of the oil and gas resources of the Outer Continental Shelf (OCS) is governed by the OCS Lands Act (43 U.S. Code [U.S.C.] §1331 et seq.). The OCS Lands Act sets forth procedures to administer leasing, exploration, development, and production of those resources. Section 18 of the OCS Lands Act (43 U.S.C. 1344) calls for the preparation of a nationwide OCS oil and gas leasing program that sets forth a 5-year schedule of potential lease sales designed to best meet the Nation’s energy needs. The Bureau of Ocean Energy Management (BOEM), within the U.S. Department of the Interior (USDOl), is responsible for implementing the requirements of the OCS Lands Act related to preparing the leasing program.

BOEM is in the process of preparing a national OCS oil and gas leasing program (generally referred to as the National OCS Program; formerly known as the Five-Year Program) for 2023–2028 to follow the 2017–2022 National OCS Oil and Gas Leasing Program. Throughout this document, the 2023–2028 National OCS Oil and Gas Leasing Program title could be shortened to “2023–2028 Program” and past National OCS Programs referred to as a variation of this short-hand (e.g., 2007–2012 Program).

See **Chapter 1** for further information regarding the OCS oil and gas leasing program development process. This document consists of the following parts:

Part I: Second Proposal on the Size, Timing, and Location of OCS Lease Sales presents the Secretary’s Second Proposal (Proposed Program), the second of three stages of Program development. The Second Proposal is the result of the Secretary’s consideration of the analysis contained in this Proposed Program (**Part II**) as well as the Draft Programmatic Environmental Impact Statement, which is concurrently published with this document. **Part I** contains the lease sale schedule and program areas potentially to be included in the 2023–2028 Program. This part also summarizes the rationale behind the Second Proposal.

Part II: Chapters 1 through 4 describe the framework for developing a new National OCS Program. These chapters discuss the substantive and procedural requirements to prepare a National OCS Program under Section 18 of the OCS Lands Act and describe BOEM’s approach to meeting those requirements. This includes a discussion of the Section 18 factors relating to OCS oil and natural gas resources and environmental, economic, and social considerations that Section 18 requires be taken into account to decide where and when to schedule lease sales. Also included is a summary of the judicial guidance from court decisions regarding the National OCS Program.

Chapters 5 through 9 present the Section 18 analyses of the first proposal—the Draft Proposal. The Secretary uses the Section 18 analyses in the Proposed Program to inform the Second Proposal. **Chapter 10** presents the approach to public outreach and a snapshot of the comments

received on the DPP. **Chapter 11** is the glossary, and **Chapter 12** contains all references cited in the Proposed Program.

Appendix A: Summaries of Public Comments summarizes the comments BOEM received and considered in response to the DPP issued on January 8, 2018 (83 FR 829), which requested comments from all interested parties.

Chapter 1

OCS Oil & Gas
Leasing Program
Development
Process



Chapter 1 OCS Oil and Gas Leasing Development Process

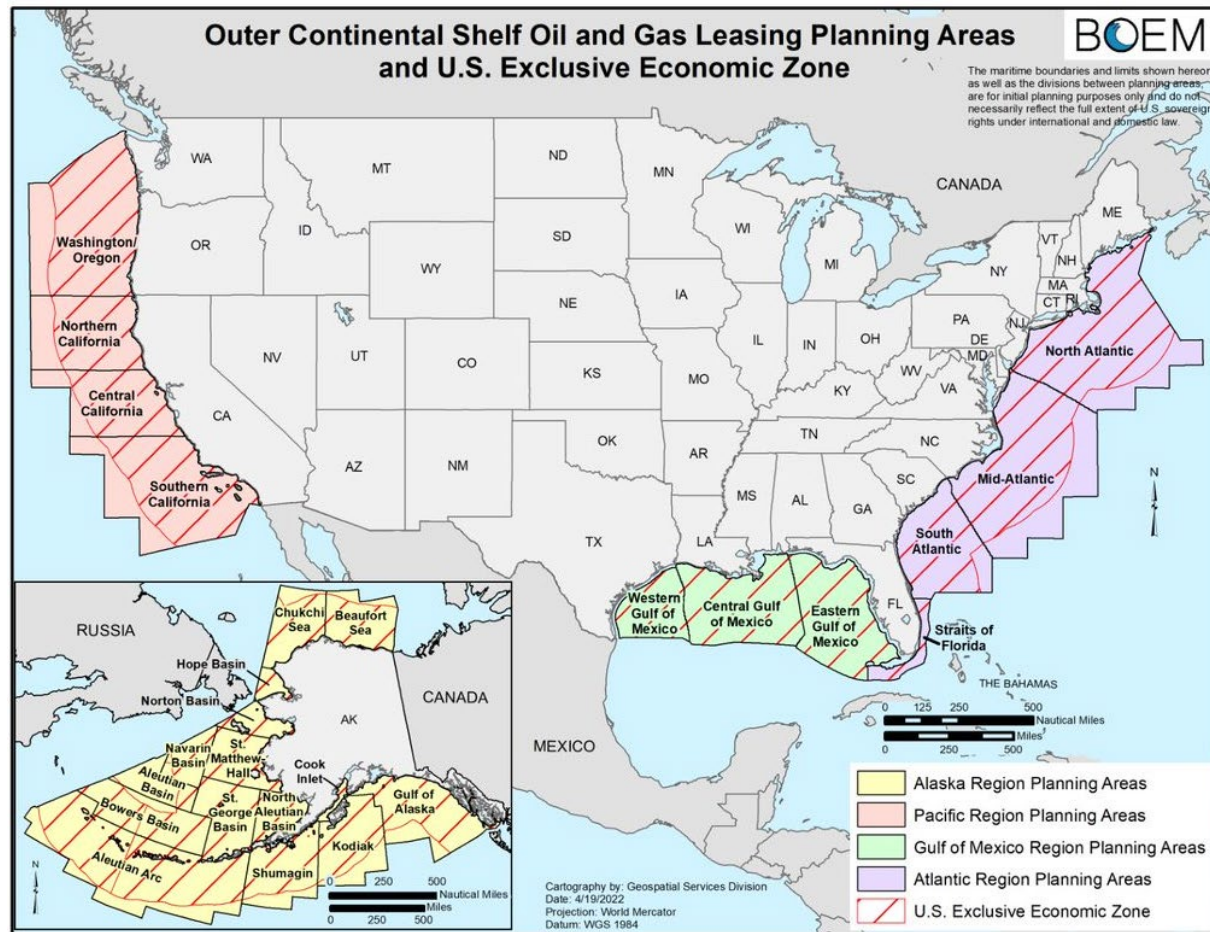
1.1 Introduction

Section 18 of the Outer Continental Shelf (OCS) Lands Act (43 U.S.C. § 1344) requires the Secretary of the Interior (Secretary) to prepare and maintain a schedule of proposed OCS oil and gas lease sales (referred to as the National OCS Program or Program, formerly called the Five-Year Program) that “best meet national energy needs for the five-year period following its approval or reapproval.” The proposed National OCS Program must be prepared and maintained in a manner consistent with the principles and criteria specified in Section 18 of the OCS Lands Act. Those criteria, and the way in which they have been considered in preparing this Proposed Program, are summarized in **Chapter 2**.

The OCS is defined in the OCS Lands Act (43 U.S.C. §1331) and consists of all submerged lands, subsoil, and seabed lying between the seaward extent of the jurisdictions of coastal states. In most cases, the OCS extends 3 nautical miles [nm] from the coastline and the seaward extent of the jurisdiction of the United States (U.S.), which is generally 200 nm from the coastline (see **Figure 1-1**).¹

Section 18 of the OCS Lands Act requires that the proposed schedule of lease sales be based upon a comparative analysis of the oil and gas-bearing regions of the OCS. For administrative and planning purposes, the Bureau of Ocean Energy Management (BOEM) has established four OCS Regions composed of 26 planning areas. The four OCS Regions are: Alaska, Pacific, Gulf of Mexico (GOM), and Atlantic. Administratively, the Pacific Region includes the State of Hawaii, but Hawaii lacks known hydrocarbon resources. Therefore, for the National OCS Program, the Pacific Region is only composed of the four planning areas off the U.S. West Coast.

¹ The jurisdictions of Texas and Florida’s Gulf Coast extend 9 nm from the coastal baseline. Louisiana’s jurisdiction extends to 3 imperial miles, reflecting boundaries at the time these states joined the U.S. In 1983, President Reagan proclaimed the sovereign rights and jurisdiction of the U.S. over submerged lands and seas adjacent to the U.S. within the Exclusive Economic Zone (EEZ), as it was understood to be under international law. The United Nations Convention on the Law of the Sea (UNCLOS) subsequently addressed the continental shelf in Article 76, providing that it extends to at least 200 nm and beyond in some cases. The U.S. is not a party to UNCLOS but recognizes the rules in Article 76 as customary international law, which the U.S. follows.

Figure 1-1: OCS Planning Areas and EEZ Boundaries for Alaska and the Lower 48 States

1.2 National Energy Needs

Meeting national energy needs is a stated purpose of the OCS Lands Act Amendments of 1978 (Public Law [P.L.] 95-372). The 1978 Amendments added Section 18 of the OCS Lands Act, which requires the Secretary to formulate a National OCS Program to “best meet national energy needs for the five-year period following its approval or reapproval” (Section 18(a), 43 U.S.C § 1344(a)).² Since passage of the OCS Lands Act Amendments in 1978, the U.S. energy outlook has changed several times, prices have dramatically varied, and technology has advanced. In fact, less than two decades ago, there were global concerns about “peak oil,” a scenario after which an irreversible, long-term decline in production was expected to begin. However, this concern pivoted to discussions regarding “peak oil demand,” with changes in fuel

² Section 18 also requires the Secretary to consider “the location of such regions [oil- and gas-bearing physiographic regions] with respect to, and the relative needs of, regional and national energy markets” (Section 18(a)(2)(c), 43 U.S.C. §1344(a)(2)(c)). **Chapter 6** contains the energy markets analysis conducted to help the Secretary meet that requirement.

efficiency, alternative energy availability, and consumption patterns leading to an anticipated decline in future energy demand (Gross 2018).

Climate change poses a significant global threat. Impacts have already been realized through increased flooding events, drought, extreme heat, wildfires, and hurricanes. The White House Office of Management and Budget estimates that a subset of these events resulted in costs of \$120 billion a year over the past 5 years and warns that greater costs are anticipated if greenhouse gas (GHG) emission levels remain unchanged (The White House 2022b). There is scientific consensus and confidence, as illustrated by a recent report from the Intergovernmental Panel on Climate Change (IPCC), that avoiding the most severe climate impacts by limiting global warming to 1.5 degrees (°) C will require reducing GHG emissions to net-zero by 2050 (IPCC 2022).

Net-zero emissions means zero emissions of GHGs or an economy that emits no more GHGs into the atmosphere than are permanently removed and stored each year (Larson et al. 2021). This could be achieved through a combination of natural carbon sinks, like forests, or through technology such as carbon capture and storage (CCS) in addition to drastic reductions in carbon fuel consumption.

The long-term goal of the Biden Administration is to reach net-zero GHG emissions by 2050 and to limit global warming to less than 1.5° Celsius. Accordingly, the Administration published the *Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050 (Long-Term Strategy)* in November 2021 (The White House 2021c). The Administration also established goals of a 50% reduction of 2005 emissions by 2030 and a carbon pollution-free power sector by 2035 (The White House 2021a). To meet these targets, the U.S. will have to drastically change both the way it consumes and also supplies energy, whereby an increase in renewable energy production, electrification, energy efficiency, and reduced consumption assumes less reliance on oil and gas resources and reduced demand. The U.S. could rely on and achieve numerous potential pathways to reach domestic net-zero emissions by 2050.

BOEM considers different pathways outlined in notable reports in **Section 1.2.1.1.2**. These pathways envision a transformation of the energy sector away from fossil fuels that will have implications for OCS oil and gas development and are important when considering national energy needs within the context of the National OCS Program (Larson et al. 2021).

This section considers the broad interpretation of domestic energy needs recognized in the language of the OCS Lands Act and applicable case law, such as *Center for Sustainable Economy v. Jewell*, 779 F.3d 588 (D.C. Cir. 2015) (*Center for Sustainable Economy v. Jewell* [CSE] at 607) (recognizing that assessment of “the nation’s ‘energy needs’” for purposes of Section 18 necessarily extends beyond “meeting current demand for domestic consumption”). Consistent with the mandate of Section 18 of the OCS Lands Act, this section considers energy needs under

both the current national energy landscape and the possibility of an energy market significantly transformed by climate changes and related public and private responses thereto.

1.2.1 Contribution of Oil and Natural Gas to the U.S. Economy

Americans have spent more than \$1 trillion a year on energy since 2005 (EIA 2021aj). Energy expenditures as a percentage of U.S. Gross Domestic Product (GDP), reached their highest level in 1981, totaling 13.3% of GDP. The expenditures have increased and decreased in the intervening years, but fell to 5.7% in 2019, the second lowest of any year since 1970; the lowest being 5.5% in 2016 (EIA 2021aj). In 2019, 70% of those expenditures were on natural gas and petroleum (EIA 2021ad).

1.2.1.1 Consumption of Energy Sources

Although the United States consumes more than just oil and natural gas to fulfill its demand for energy, these fuels currently are fundamental to powering the U.S. economy. At present, the U.S. continues to significantly rely on oil and natural gas but given the potential production period of leases issued in this Program, the impacts of activities on such leases would extend past 2050. As such, this section considers both the Nation’s energy needs under current laws and policies and demand and consumption patterns as well as under a scenario that considers potential energy market changes in response to climate change.

Section 1.2.1.1.1 considers projections based on the Energy Information Agency (EIA)’s 2022 *Annual Energy Outlook* (AEO) reference case.³ These projections are “policy-neutral” and account only for climate policies that are currently in place and actively enforced. The projections for 2050 would change depending on various factors, including the different energy market pathways adopted for addressing climate change.

Using policy-neutral projections allows decisionmakers to assess the potential impact of a specific decision against the policy baseline, which incorporates, into the future, currently enforced policy, technological and legal conditions, trends, and constraints. **Section 1.2.1.1.2** highlights some of the assumptions and considerations outlined in the *Long-Term Strategy* to explain how energy usage could differ substantially in the years ahead.

1.2.1.1.1 Consumption of Energy Sources: Baseline Policies

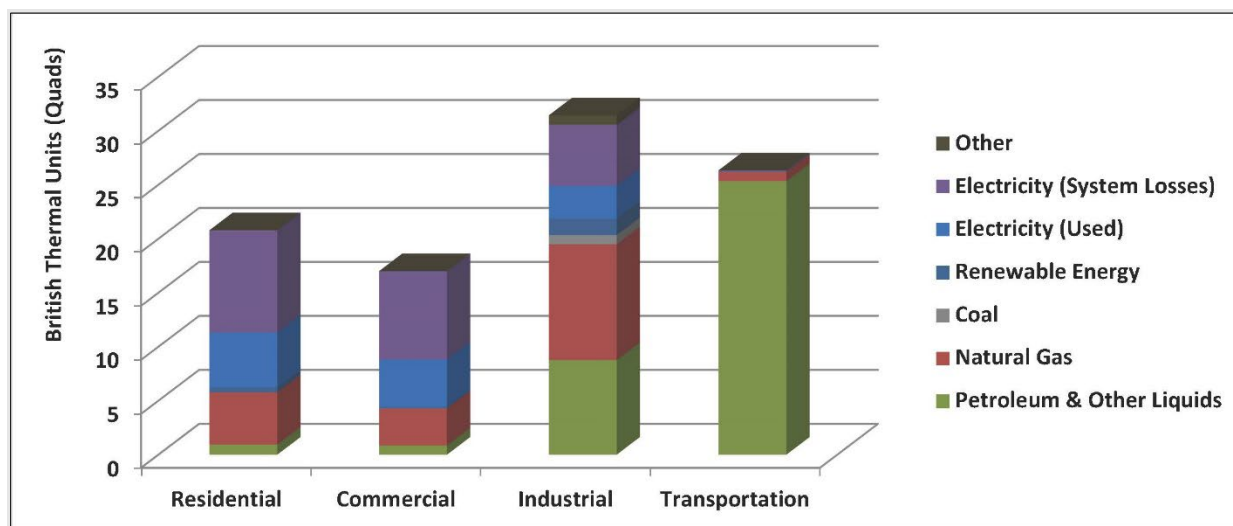
Figure 1-2 shows energy consumption by sector and source in the U.S. for 2021 and **Figure 1-3** shows the 2022 AEO’s forecast of energy consumption by sector and source in 2050.

³ The definition for the reference case can be found in the 2021 AEO narrative at the website https://www.eia.gov/outlooks/aeo/pdf/AEO_Narrative_2021.pdf. EIA states that the “reference case projection assumes improvement in known energy production, delivery, and consumption technologies. The reference case generally assumes that current laws and regulations affecting the energy sector, including laws that have expiration dates, remain unchanged throughout the projection period. This assumption enables EIA to use the reference case as a benchmark to compare with alternative policy-based cases.”

Of particular note is the predominance of petroleum and other liquids in the transportation sector. Recent changes in energy markets have affected consumption of different fuels, but petroleum continues to remain the dominant fuel for transportation. In 2020, petroleum accounted for more than 90% of transportation fuel, down from 96% in 1974. Sources of energy other than petroleum have gained roughly six percentage points of the transportation fuel market share since the initial price shocks of 1974 related to the Organization of Petroleum Exporting Countries' (OPEC) oil embargo (EIA 2021e).

The AEO projections (out to 2050) show that petroleum and other liquids⁴ will continue to power 92% of the transportation energy market. The majority of this decline (from 96% to 92%) is expected to be replaced by the growth in electric, plug-in hybrid electric, and hybrid vehicles as electricity's share of transportation energy is projected to rise from less than 1% in 2020 to 3.7% in 2050 (EIA 2021e). Natural gas and liquefied natural gas are expected to increase from a combined 3.2% in 2020 to 4.1% in 2050 (EIA 2021e). While growth in alternative fuels and increases in fuel efficiency will likely reduce petroleum's share of transportation energy, petroleum is still anticipated to meet a large majority of future transportation energy demand under this baseline scenario.

Figure 1-2: Energy Consumption by Sector & Source, 2021



Note: The “other” category represents biofuels heat and co-products for the industrial sector and hydrogen for the transportation sector.

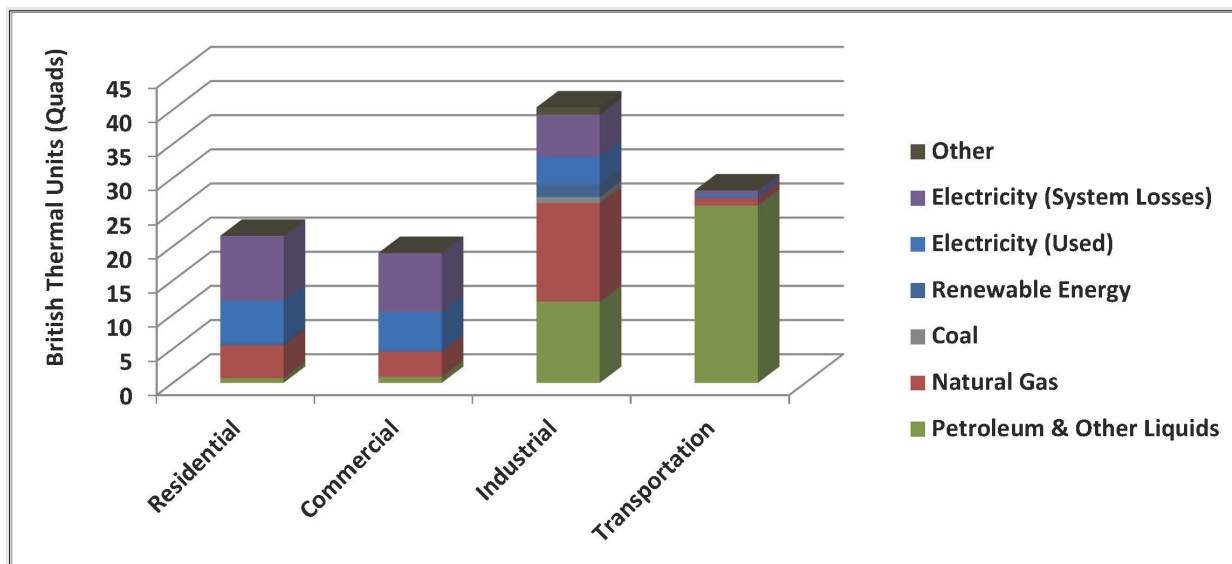
Source: EIA (2021e)

Consumption in the electricity sector has changed more than in the transportation sector. From 2000 to 2020, electricity sector energy consumption increased 93%. Over that same period, electric power generated from natural gas has increased from 14% to 34%, and power generated from renewable sources has increased from 9% to 19%. Further, over those two decades, the

⁴ Petroleum and other liquids is a combined category including all petroleum including crude oil and products of petroleum refining, natural gas liquids, biofuels, and liquids derived from other hydrocarbon sources (including coal to liquids and gas to liquids). Liquefied natural gas and liquid hydrogen are not included (EIA).

share of electricity generation from coal has decreased from 53% to 23%, and the share from petroleum has remained low and decreased from 3% to just 0.5% (EIA 2021ak).

Figure 1-3: Energy Consumption by Sector & Source, 2050



Note: The “other” category represents biofuels heat and co-products for the industrial sector and hydrogen for the transportation sector.

Source EIA (2021e)

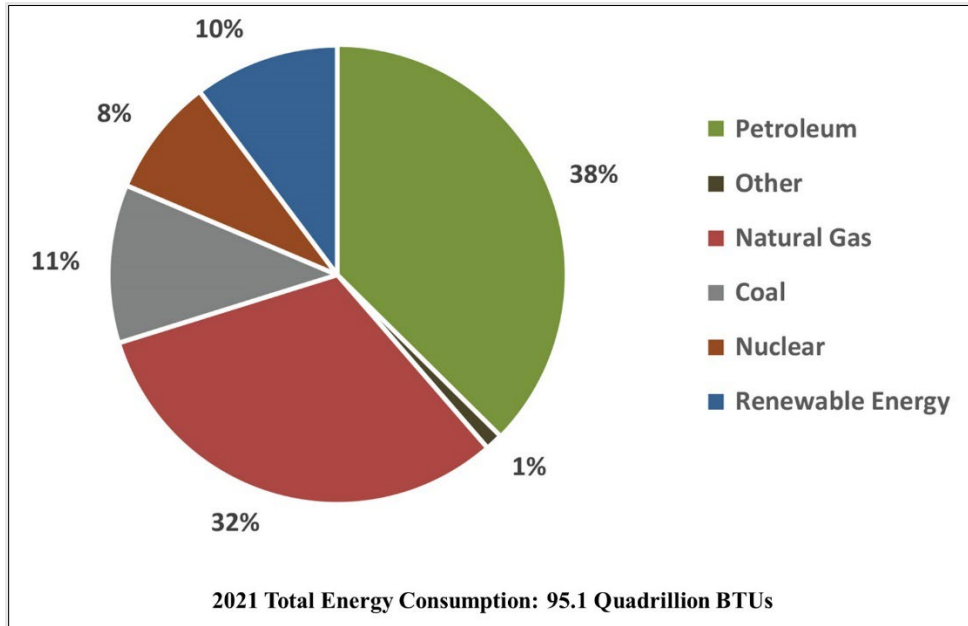
Moving forward, the 2021 AEO reference case projects an increase in electricity demand through 2050 of roughly 30% (EIA 2021e). The cases modeled by EIA show different future scenarios for the different sources of electricity generation, but the reference case shows that the percentage of natural gas will continue to increase relative to coal. In addition, the AEO projects that renewable electricity generation will grow at a faster pace than any other source, including natural gas (EIA 2021b).

Domestically, the share of electricity generation from renewable sources will nearly double from 21.3% in 2021 to 39.8% in 2050, driven in part by short-term Federal tax credits and relatively favorable economics (EIA 2021e). Additional policies could also further increase these gains in renewable energy electricity generation; for example, the Infrastructure Investment and Jobs Act provides funding to upgrade power infrastructure and facilitate the expansion of renewable energy development (The White House 2021b).

Figures 1-4 and 1-5 show EIA’s projections of total energy consumption by source between 2021 and 2050. Although petroleum’s share of energy consumption shrinks from 2021 to 2050, it still represents substantial consumption. Natural gas and renewable energy increase in share of energy consumption, while the shares of nuclear and coal significantly shrink.

Section 6.2.1 provides more information on the consumption of oil and natural gas.

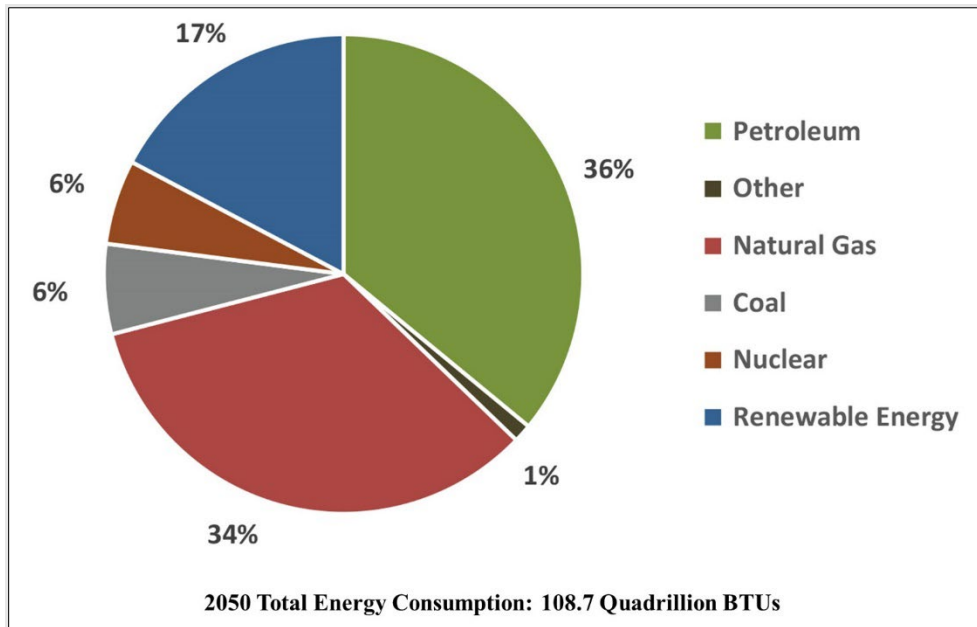
Figure 1-4: Energy Consumption by Source, 2021



Note: Total does not equal 100% due to rounding. The “other” category includes biofuels, hydrogen, non-biogenic municipal waste, and electricity imports.

Source: EIA (2021e)

Figure 1-5: Energy Consumption by Source, 2050



Note: The “other” category includes biofuels, hydrogen, non-biogenic municipal waste, and electricity imports.

Source: EIA (2021f)

1.2.1.1.2 Consumption of Energy Sources: Climate Change

EIA’s AEO data indicates that absent major policy changes, energy consumption will remain relatively constant from today through 2050 with only modest on the margin changes. This is supported by the *Long-Term Strategy*, which notes that “in the absence of additional policies, emissions would remain largely flat moving forward” and that to achieve “net-zero emissions will require actions that go far beyond business as usual.”

Federal, state, and local governments—in addition to the private sector—are implementing new policies to transform the energy sector in response to climate change, reduce non-CO₂ emissions, and remove carbon. Studies that consider how to reach a 2050 net-zero emissions goal acknowledge that there are several potential pathways to achieving net-zero emissions. All pathways highlight the need for, and policies to, improve energy efficiency, the decarbonization of electricity, and the transition to clean fuels. This section includes information on different pathways considered in the *Long-Term Strategy*, Princeton University’s *Net-Zero America*, and the International Energy Agency’s *Net-Zero by 2050: A Roadmap for the Global Energy Sector* (IEA 2021a, Larson et al. 2021, The White House 2021c).

These pathways directly implicate the OCS Lands Act’s mandate to consider “the nation’s ‘energy needs’” beyond those that “meet *current* demand for domestic consumption.” CSE, 779 F.3d at 607 (emphasis added). Specifically, the Secretary may, when proposing and finalizing the Program, account for the fact that, under many net-zero emissions pathways, leases issued during the next Program would begin producing 10–15 years after lease issuance.

Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050

The *Long-Term Strategy* documents the economy-wide actions that would be required in all sectors to meet net-zero emissions no later than 2050. Transitioning to carbon-free electricity will require generating enough new zero-carbon electricity to replace fossil fuel-fired generation as well as to provide enough carbon-free electricity for the additional electrification required to meet net-zero emissions goals.

As shown in **Figures 1-2** and **1-3**, currently and in the absence of major policy changes, petroleum and other liquids make up almost the only source all of transportation energy (through 2050). The *Long-Term Strategy* highlights the need for electrifying most light-duty vehicles by 2050, with an intermediate goal of half of all new light-duty cars sold in 2030 to be zero-emissions vehicles (electric vehicles comprised 3.4% of vehicle sales in the fourth quarter of 2021) (EIA 2022c). Additional policies to increase the proportion of electric vehicles, and switch to biofuels or hydrogen for alternative fuel sources would also be required. The report recognizes significant challenges from aviation and legacy vehicles as well as the need for a change in consumer usage of other transit options such as biking and walking.

Also shown in **Figures 1-2** and **1-3**, industrial sources are the highest energy consuming sector. Reducing emissions there will also take a broad, multi-level approach with increased energy efficiency, industrial electrification, low-carbon fuels, feedstock, and industrial CCS.

The *Long-Term Strategy* outlines sectors of the U.S. economy that must transition over the next three decades and highlights the importance of advanced technologies and policies to meet a net-zero goal emissions. In this changing landscape, the need for oil and gas will decline with increased electrification, increased energy efficiency, and a reduction of oil and gas fueled electricity.

Princeton University: *Long-Term Strategy*

Similar to the *Long-Term Strategy*, a Princeton University study outlined five domestic pathways to reach net-zero emissions (Larson et al. 2021). The five domestic pathways outlined by Princeton University share multiple features but differ in several important respects. The key differences are the assumptions made about the degree of electrification, certain supply constraints put on different energy sources, and use of carbon sequestration.

For example, one pathway shows the U.S. using 100% renewable energy, no fossil fuels, and no nuclear energy in 2050. In this scenario, wind and solar energy would provide 98% of U.S. power in 2050. The pathway also assumes no carbon storage, instead capturing and using carbon rather than releasing it into the atmosphere. Under this pathway, fossil fuels are replaced by compounds such as methane gas (CH₄) synthesized from hydrogen (H₂) and captured carbon dioxide (CO₂), thereby rendering carbon storage unnecessary.⁵

At the other end of the spectrum in the *Long-Term Strategy* is a net-zero emissions pathway that has constrained renewable energy development and requires continued use of some fossil fuels. As a result, this pathway predicts expanded use of nuclear power and requires more carbon storage than other pathways to achieve net-zero emissions. Under this scenario, wind and solar energy would supply 44% of power in 2050.

International Energy Agency: *Net-Zero Emissions by 2050*

The International Energy Agency's 2021 report *Net-Zero by 2050: a Roadmap for the Global Energy Sector* also considers the transition to a net-zero energy system on a global scale. The analysis outlines specific "milestones" along the pathway, including: no investment in new fossil fuel projects, no additional unabated coal plants, no new internal combustion engine passenger cars by 2035, and a net-zero emissions global electricity sector by 2040 (IEA 2021b). IEA identifies the need for clean energy technology investment, including major increases in energy

⁵ Synthetic liquids such as Fischer Tropsch fuels can also be synthesized from H₂ and CO₂. Other pathways make use of these technologies as well, but not to the same extent.

efficiency, as well as clean energy innovation in areas such as advanced batteries, hydrogen electrolyzers, and direct air capture and storage.

The IEA shows that behavioral changes, such as exchanging a car trip for a walk or forgoing a long-haul flight, account for a 4% reduction in cumulative emissions reductions. Because no new oil and gas fields are needed on this pathway to net-zero emissions, any oil and gas production would be consolidated into a few producers, which would increase OPEC's market share and lead to reduced revenues in many countries. Further, additional energy security concerns would occur through the requirement of substantial quantities of critical minerals and the importance of the electrical grid to all aspects of the economy and people's lives. The IEA report highlights the need for international cooperation among all governments and citizens to increase innovation and investment while decreasing consumption (IEA 2021a).

1.2.1.2 Balance of Payments and Trade

In one decade, from 2010 to 2020, U.S. production of crude oil increased by 102%, and natural gas production increased more than 59% (EIA 2021ah). Since 2014, the U.S. has been the world's largest producer of crude oil, natural gas, and refined petroleum products (EIA 2021v, w).⁶ This change was largely driven by the increase in onshore production made possible by advances in hydraulic fracturing and horizontal drilling technology. Given these technological breakthroughs and rapid production increases, the U.S. has reduced its reliance on imports.

The U.S. has pivoted from being a consistent net importer of 3.8 trillion cubic feet of natural gas at its highest level in 2007 to being a net exporter of 2.7 trillion cubic feet of natural gas in 2020 (EIA 2021). The U.S. went from a peak in net imports of 12.55 million barrels per day of petroleum and crude oil (combined) in 2005 to 0.64 million barrels of net exports per day in 2020, a shift of 105% from 2005 (EIA 2021a).

While the U.S. is now a net exporter of crude and petroleum products (combined) for the first time since 1949, when strictly considering only crude oil, the U.S. remains a net importer. However, the U.S. has gone from a peak of 10.09 million barrels of crude oil net imports per day in 2005 to a recent low of 2.67 million barrels per day in 2020; a decrease of 74% from 2005 levels (EIA 2021a). These changes illustrate the U.S.'s important role as the world's largest producer of crude oil, petroleum products, and natural gas.

Unlike the \$925 billion trade deficit for all U.S. goods and services in 2020, petroleum had a trade surplus of \$14 billion (USCB 2021). That represents a dramatic shift in the trade balance for petroleum, which showed a deficit of \$189 billion, or 35% of the \$546 billion trade deficit in 2014,

⁶ The U.S. has been the world's leading producer of refined petroleum since EIA's records begin in 1980. The U.S. became the world's largest producer of natural gas in 2011, surpassing Russia.

one year before the export ban was lifted (USCB 2021). Since the end of the oil export ban in 2015, the U.S. has seen a significant increase in its crude oil exports (EIA 2021ai).

The U.S. became a net exporter of refined petroleum products in 2011 and a net exporter of natural gas in 2017 and is expected to retain these statuses through 2050 (EIA 2021al, 2021h, i, 2021aq). Declines in net imports of crude oil and increases in net exports of petroleum products in recent years resulted in the U.S. being a net exporter of crude oil and petroleum products (combined) in 2020 for the first time when annually measured (EIA 2021al).

Although the U.S. is expected to remain a net importer of crude oil for the foreseeable future, current projections show the U.S. is expected to become a consistent, aggregate net exporter of petroleum products and crude oil (combined) by 2023 (EIA 2021h). Additionally, the U.S. became a net exporter of primary energy (all sources) in February 2019. The U.S. continued to be a net exporter of total primary energy sources for 25 of the 31 months from February 2019 to September 2021 (EIA 2021ag), despite the low prices early in 2020. Long-term projections by the EIA following current laws and policies show the U.S. as a net energy exporter through 2050 (EIA 2021g). The country's transition away from being a net importer of energy will continue to improve the balance of trade.

1.2.1.3 Energy Security

Domestic energy production has the potential to enhance America's national security by reducing U.S. dependence on imported oil and supplying domestic energy, particularly to the Department of Defense (DOD) and to ally nations. The U.S. can reduce dependence on foreign oil by increasing domestic energy supply, including substitutes for oil, and/or reducing domestic energy consumption. Domestic production can contribute to both U.S. and world energy security by providing additional supply that can help limit the impact of supply shocks and reduce future price volatility (Krauss 2018). Oil is a global commodity sold in a competitive world market; a reduction in supply (or an increase in demand) in one part of the world causes shifts in global prices. Additional U.S. supply helps mitigate any potential price shocks (Krauss 2018).

Although the U.S. has dramatically increased its oil production, the U.S. does not have the power to directly impact global oil prices as state-owned enterprises do. Oil production in the U.S. is completed by thousands of individual producers making individual decisions about responding to the market (Sobczyk and Brugger 2022).

The possibility of high and volatile prices remains and raises important energy policy issues about supply options and their effects on the economy and the environment. As the U.S. transitions to a new energy economy on the pathway to meeting climate goals, it will rely less on oil and gas and be less susceptible to global oil and gas supply shocks. However, the transition to

new energy technologies will still require a global commitment and dynamic shifts in supply-chains.

1.2.1.4 Technology

New technologies in the oil and gas industry are, in large part, responsible for making the U.S. the world's top producer of petroleum and natural gas. Technological advances, especially in hydraulic fracturing and horizontal drilling, along with high oil prices, incentivized and led to the onshore boom in production, reversing a long-term decline that had been expected to continue.

Offshore, technological advances in the oil and natural gas industry over the past several decades have greatly expanded the resources accessible for production. Companies can explore for and develop previously inaccessible resources, especially in deeper water depths. In addition, the OCS oil and gas industry has reduced deepwater project costs through greater equipment standardization. The offshore industry continues to reduce costs to stay competitive with onshore oil and gas production (Dittrick 2018).

Additionally, improvements in industry practices and enhanced Bureau of Safety and Environmental Enforcement (BSEE) inspection capabilities have made OCS exploration and development safer and more environmentally sound. Higher-quality geological and geophysical (G&G) data—achieved through state-of-the-art technology, acquisition methods, and processing—aid in identification of prospects and effective well placement, which improves the probability for commercial discoveries. Consequently, companies are able to drill fewer wells per discovery in the best prospects (Raval Anjli 2018). Advanced composite materials and materials engineering have improved OCS structures and moorings to better withstand the operating environment. These and other technologies developed for oil and gas operations have contributed to U.S. leadership in the worldwide energy industry. These technological advances support U.S. economic growth and help meet global energy needs.

Technological advancements and enhanced regulations on the OCS have allowed production to be more environmentally friendly compared to other areas of oil and natural gas production like domestic onshore production and production in other countries. Based on current research, the data suggest that deepwater GOM production and onshore tight oil production generally have the lowest carbon intensities of oil projects. More information on the carbon intensity of OCS production is included in **Chapter 5**.

1.2.1.5 Employment and Public Revenues

The domestic energy industry is an important component of the U.S. economy through its contribution to GDP, employment, and public revenues. Production of domestic oil and gas not only provides employment at higher-than-average wages to industry employees, but also provides work for many Americans in other industries that supply goods and services for exploration, development, production, and domestic transportation of oil and gas.

While the industry surrounding OCS oil and gas creates higher-paying jobs, the amount of those jobs supported annually has declined over the past few years in part due to lower oil and gas prices and industry adaptations to cut costs and streamline activities. The impact of the OCS oil and gas industry on GDP and employment is discussed in **Chapter 8** in the context of the geographical distribution of developmental benefits and environmental risk, which also describes the revenues available to the local, state, and Federal governments. In general, OCS leasing and production provide the following public revenues:

- billions of dollars a year in bonus bids, rentals, and royalties to the U.S. Treasury
- funding for the Historic Preservation Fund
- funding for the Land and Water Conservation Fund (LWCF)
- OCS Lands Act Section 8(g) and Gulf of Mexico Energy Security Act (GOMESA) revenue sharing payments to states⁷
- indirect revenues to state and local governments through worker and industry tax payments.

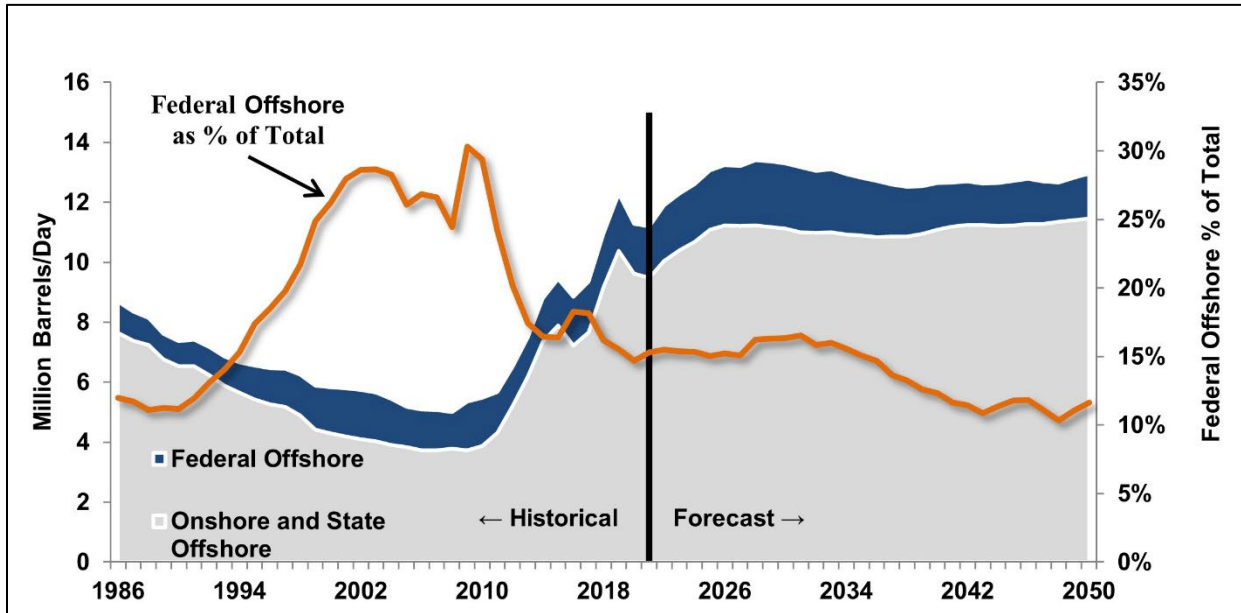
1.2.2 Contribution of OCS Production to National Energy Needs

Energy plays an important role in the U.S. economy and production from the OCS is a meaningful component of the U.S. energy picture. The OCS has also seen an increase in crude oil production, reaching a record high 1.9 million barrels per day in 2019 (EIA 2021n). Although production was slightly lower in 2020 and 2021 (EIA 2021s) given significant market disruptions, notably the COVID-19 pandemic and shut-ins caused from 2020's most active Atlantic hurricane season on record (EIA 2021r), BOEM and the EIA anticipate several new projects coming online in 2022 and likely another record production year for 2022 (EIA 2021q).

OCS natural gas production has declined significantly since 2000, with almost all production being associated gas. In recent years, due to increased onshore production (for both oil and gas), the percentage of OCS oil and gas, as a share of domestic production, has declined (see **Figures 1-6 and 1-7**). Production on the OCS constituted 15% of domestic oil production in 2020 and 2% of domestic natural gas production in 2020 (see **Figures 1-6 and 1-7**).

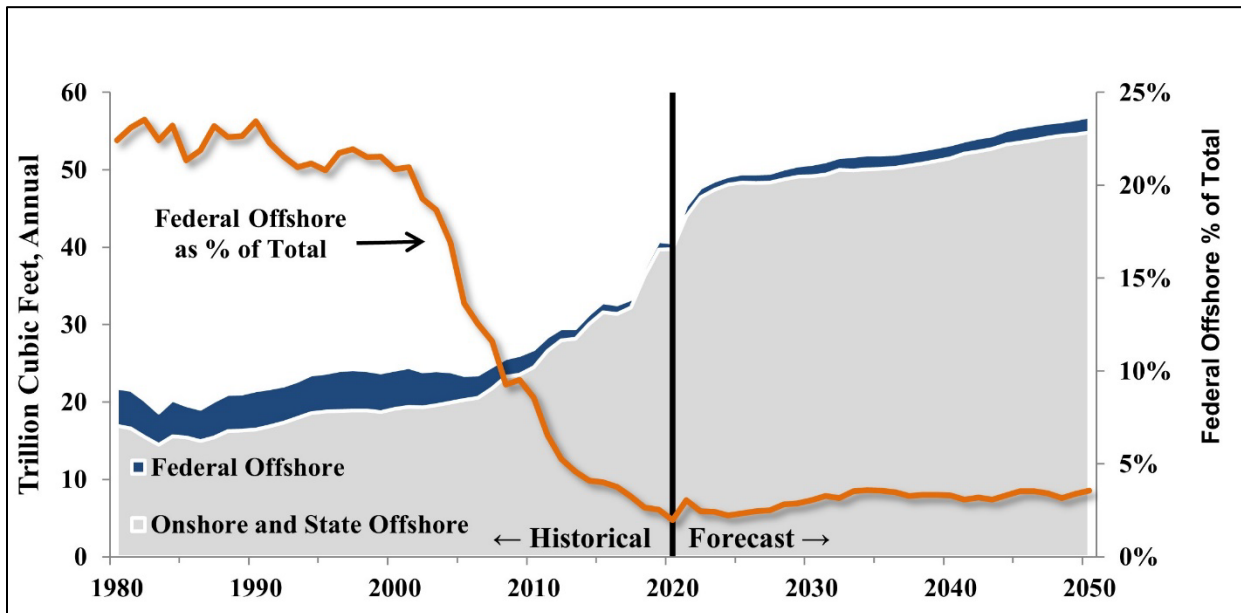
⁷ Section 8(g) of the OCS Lands Act provides for the Federal government to share with any coastal state adjacent to OCS oil and gas activity 27% of revenues earned from OCS leases within 3 nm seaward of the state's submerged lands boundary. The shared revenues are referred to as "8(g) revenues." In 2006, Congress passed the Gulf of Mexico Energy Security Act, which mandates that the states of Texas, Louisiana, Mississippi, and Alabama receive a portion of revenues from new oil and natural gas development in Federal waters adjacent to these states.

Figure 1-6: Historical and Forecasted U.S. Crude Oil Production



Sources: EIA (2021n, 2021d)

Figure 1-7: Historical and Forecasted U.S. Natural Gas Production



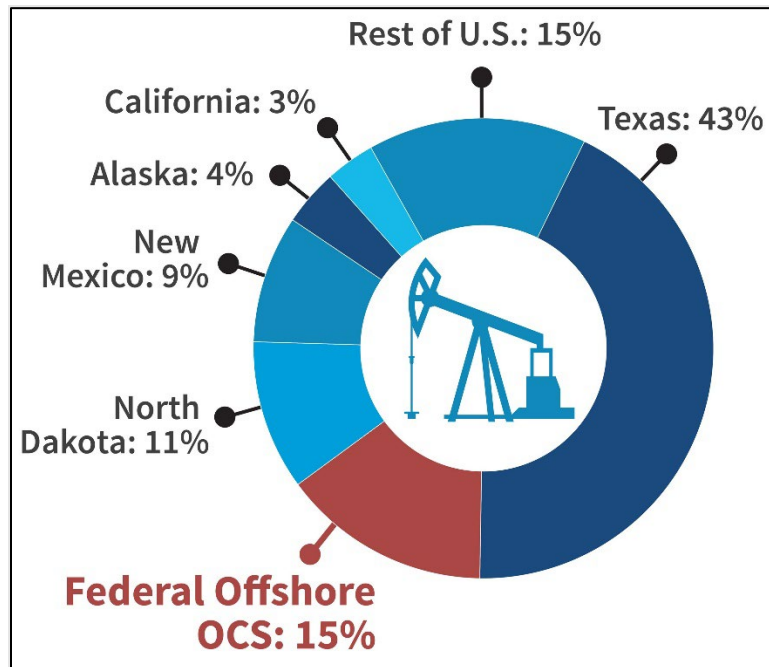
Sources: EIA (2021y, 2021d)

Figure 1-8 highlights the relative contribution of OCS crude oil to national production. In 2020, when ranked against U.S. production at the state level, the OCS at 15% of U.S. crude oil production ranked second only to Texas. In the 2021 AEO reference case, the EIA forecasts that OCS oil production will peak in 2031 and then decline through 2050.⁸ Total domestic oil

⁸ The 2021 AEO reference case does not include the full leasing schedule from the Draft Proposal.

production is also forecast to peak in 2034 and then to gradually decline through 2050 (EIA 2021d).

Figure 1-8: U.S. Crude Oil Production, 2020



Source: EIA (2021n)

For the U.S. GOM, BOEM has developed a short-term (10-year) production forecast that incorporates oil and gas reserves under lease and committed to development, contingent resources that are known but not yet sanctioned for development, and undiscovered resources that are both leased and unleased. While the BOEM forecast results are similar to EIA estimates and are developed using a similar methodology, the BOEM forecast is more granular and informed by local proprietary subsurface data. EIA employs a broad national approach that necessarily incorporates simplifying assumptions.

BOEM forecasts steady oil production growth in the GOM reaching consecutive peak production rates from 2022 through 2024 at more than 2 million barrels per day. Near-term production growth is driven by several large, announced discoveries that are expected to come online between 2022 and 2025. Additions to oil production for the past 5 years of the forecast rely on an increasing contribution from resources that are not yet discovered. Of the 1,963 active leases (10,488,879 acres) in the GOM as of June 2022, 516 are in producing status with 485 producing leases in the Central GOM and 31 in the Western GOM. BOEM's short-term forecast shows strong continued production in the GOM.

Although leasing decisions made in this National OCS Program would not result in new production for several years, the developments and production would eventually be able to

contribute to the national energy needs by contributing supply as well as benefits in terms of the balance of payments, energy security, technology, revenues, and employment.

Absent future lease sales, OCS production could only continue from existing leases. **Figures 5-7 and 5-8 in Section 5.2.8**, show the expected oil and natural gas production from existing leases in the GOM only. Without additional opportunities for project expansions, tie-back fields, or new developments, production would ultimately decline.

BOEM's responsibility for developing a National OCS Leasing Program requires consideration of the size, timing, and location of lease sales over a 5-year period, but the implication of that leasing could have impacts for decades to come. While activities associated with new leases will generate years of economic opportunities, oil and gas production from new leases will likely not commence until approximately 5 (shallow water) to 10 years (deep water) after lease award.

The Secretary may also re-evaluate national energy needs during the lease sale process when deciding whether to hold any individual lease sales included in the approved Program. These additional decision points allow the Secretary to consider new information about U.S. energy needs, policy direction, or other factors in choosing whether to hold any lease sale.

After lease issuance, OCS production can occur for many decades, contributing toward meeting national energy needs. The long-term nature of OCS oil and gas development make considering future climate pathways of utmost importance.

1.3 Program Development Process

Multiple Section 18 steps are required to prepare a new *2023–2028 National Outer Continental Shelf Oil and Gas Leasing Program (2023–2028 Program)*. The 2023–2028 Program follows the current 2017–2022 Program, which became effective on July 1, 2017, and expired on June 30, 2022. The National OCS Program development process begins with the publication of the Request for Information (RFI) (see **Section 1.3.1**), followed by the publication of the Draft Proposed Program (DPP). The Proposed Program contains a summary of the Draft Proposal and associated analyses conducted to assist the Secretary in creating the schedule of lease sales found in the Second Proposal.

The three Program stages are: (1) the Draft Proposal, resulting from the analysis of all 26 OCS planning areas; (2) the Second Proposal, resulting from the analysis of the Draft Proposal; and (3) the Proposed Final Program (PFP) stage, resulting from the analysis of the Second Proposal (these proposals are published in the DPP, Proposed Program, and PFP, respectively). Final National OCS Program approval may occur at least 60 days after publication of the PFP. This Proposed Program includes the Second Proposal and the second of three analyses resulting in a proposed schedule of lease sales for the 2023–2028 timeframe.

The National OCS Program development process typically starts with the broadest consideration of areas available for leasing (all 26 OCS planning areas) and can be narrowed throughout the National OCS Program development and lease sale processes. During the development of the National OCS Program, once a defined area is included in the National OCS Program, it becomes known as a program area. Program areas are therefore the portions of the original OCS planning areas that remain under consideration for leasing during the National OCS Program development process. For example, the Cook Inlet Program Area in the 2017–2022 Proposed Program included only the northern portion of the larger Cook Inlet Planning Area that was originally considered for leasing in the 2017–2022 DPP.

Section 18(a)(2) of the OCS Lands Act lists eight factors that the Secretary must consider when determining the size, timing, and location of oil and gas leases among the different OCS areas (see **Chapter 2**). The analysis contained in the DPP examined and compared all 26 OCS planning areas in regard to the Section 18(a)(2) factors for consideration and Section 18(a)(3) balancing.

However, for the Proposed Program, only those areas and Subarea Options (see **Chapter 3**) that the Secretary decided were appropriate to include in the Draft Proposal are further analyzed in this document and the associated *2023–2028 National OCS Oil and Gas Leasing Program Draft Programmatic Environmental Impact Statement* (Draft Programmatic EIS) (BOEM 2022a). Subsequently, the analysis of the program areas that the Secretary decides to include in this Second Proposal, and any potential subsets thereof, will be presented in the PFP.

BOEM has decided to prepare a Programmatic EIS in accordance with the National Environmental Policy Act (NEPA) (42 U.S.C. §§ 4321 *et seq.*) and its implementing regulations as a vehicle for conducting and disclosing the environmental analyses for the National OCS Program. BOEM's decision to prepare the Programmatic EIS is discretionary because the U.S. Court of Appeals for the District of Columbia has ruled that the approval of a National OCS Program does not constitute an irreversible and irretrievable commitment of resources, and that, in the context of BOEM's multiple stage leasing program, the obligation to fully comply with NEPA does not mature until the lease sale stage. (*Center for Biological Diversity v. Department of the Interior*, 563 F.3d 466 (D.C. Cir. 2009); *Center for Sustainable Economy v. Jewell*, 779 F.3d 588 (D.C. Cir. 2015).

The NEPA analysis includes an evaluation of the potential environmental and socioeconomic impacts associated with the proposed lease sale schedule, and how those impacts could vary depending on the areas or regions that are included in the National OCS Program. The NEPA process is introduced in the discussion of Factor (H) in **Section 2.2** in this document, and a more detailed description is contained in the Draft Programmatic EIS.

The Draft Programmatic EIS identifies sensitive areas that could warrant exclusion due to potential environmental impacts from oil and gas lease exploration and development. The Draft Programmatic EIS addresses the collective effects of lease sales under the new National OCS

Program, which includes those lease sale affects that could be experienced beyond BOEM program area boundaries, such as potential impacts on migratory animals.

The Draft Programmatic EIS considers potential geographic exclusions and restrictions on lessee activities for the 2023–2028 Program. The final decision on the National OCS Program can adopt any analyzed exclusions within program areas otherwise included, which are sufficiently identifiable at the Programmatic stage. Conversely, it could be determined that such decisions not to offer sensitive areas are more appropriately considered at subsequent stages, such as at the lease sale stage.

Table 1-1 shows the NEPA documentation associated with the various stages of National OCS Program and lease sale development. The key steps in preparing a new National OCS Program under Section 18 of the OCS Lands Act and the Programmatic EIS under Section 102(2)(C) of NEPA are shown in **Figure 1-9**, with a star identifying where BOEM is in the process of developing the 2023–2028 Program and associated NEPA analyses.

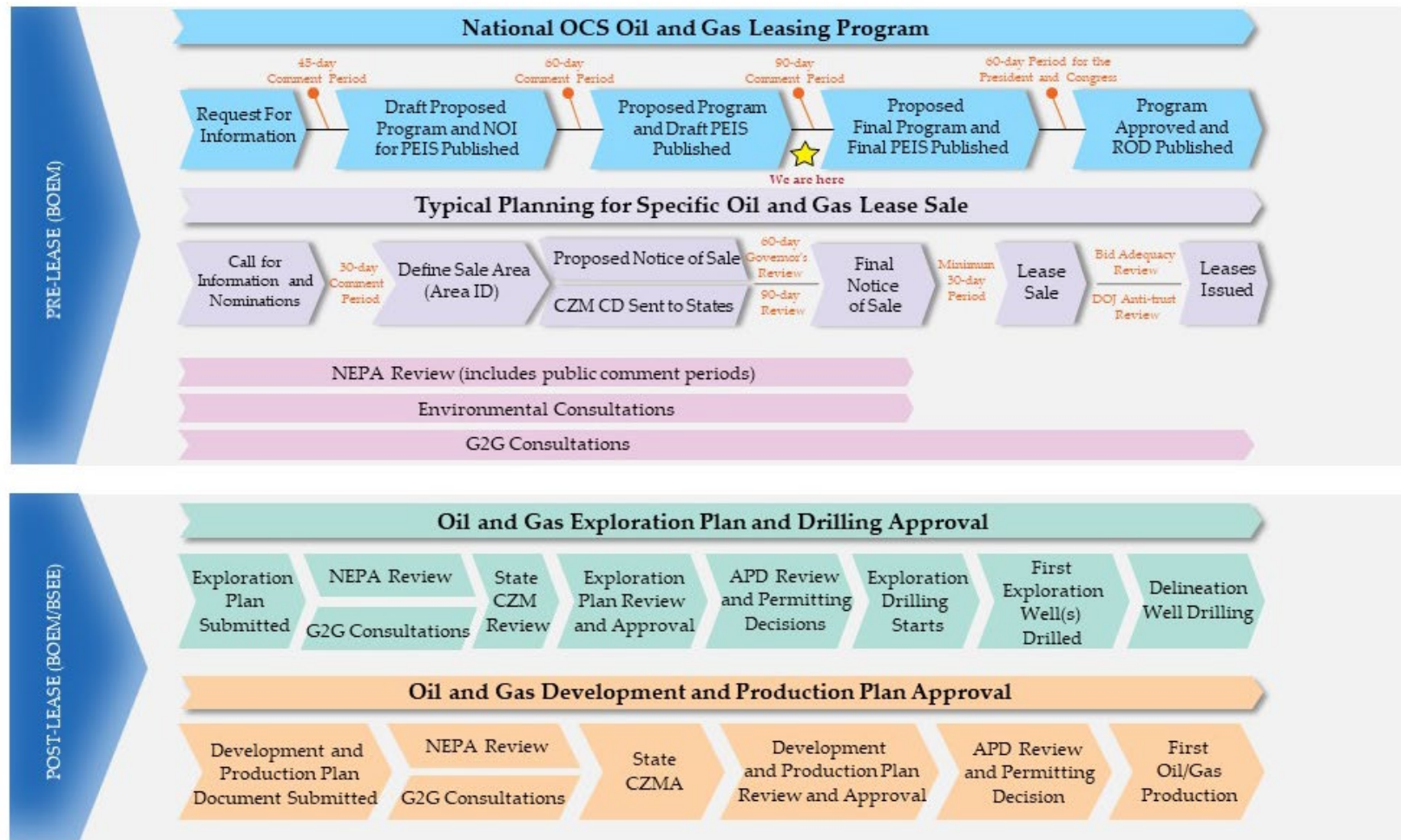
Table 1-1: NEPA Assessments Typically Conducted for the OCS Oil and Gas Leasing Program

Program Level	Program Stage	NEPA Analysis	Geographic Scope	Focus and Scope
Planning	National OCS Program	Programmatic EIS (NEPA is discretionary at this stage)	National	Inform choice of program areas and number of sales for the schedule of lease sales in the National OCS Program and consider National OCS Program-level environmental impacts and identify mitigation measures.
Lease sale	Lease sale	NEPA Review (EIS, EA, or DNA)	Program area	Assess potential environmental impacts and mitigation measures (EIS or EA) to inform choice of parcels to be offered, or determine that these are adequately covered in a previously prepared NEPA document (DNA)
Project	Exploration	CER, EA, or EIS	Portion of lease block(s)	Assess effects of proposed activities to inform decision to approve, disapprove, or approve with mitigation measures
	Production	CER, EA, or EIS	Portion of lease block(s)	
	Decommissioning	CER, EA, or EIS	Specific facility within a lease block	

Note: The level of NEPA analysis at the project level is determined by the complexity of the project, risk factors associated with the project, project location relative to other uses or environmentally important areas in the area, technologies proposed for use, and other factors.

Key: CER = categorical exclusion review; DNA = Determination of NEPA Adequacy; EA = environmental assessment; EIS = environmental impact statement.

Figure 1-9: National OCS Oil and Gas Leasing Program and Development Process



Key: APD = Application for Permit to Drill; BOEM = Bureau of Ocean Energy Management; BSEE = Bureau of Safety and Environmental Enforcement; CD = Consistency Determination; CZM = Coastal Zone Management; DNA = Determination of NEPA Adequacy; G2G = government-to-government; NEPA = National Environmental Policy Act; NOI = Notice of Intent; OCS = Outer Continental Shelf; PEIS = programmatic environmental impact statement; ROD = Record of Decision

Additionally, BOEM informs federally recognized Tribal governments that a National OCS Program is being prepared, of the steps in the National OCS Program development process, and where to find additional information on meetings and opportunities to provide comments (see **Section 10.1**). BOEM recognizes the unique relationship between the U.S. and Tribes and invites requests for government-to-government consultation. This consultation can occur at the National OCS Program stage as well as during the subsequent stages of the process (e.g., lease sales, plan reviews). Consultation and coordination with other Federal agencies, and state and Tribal governments, as required under specific environmental statutes, occur at subsequent stages of the process as well.

1.3.1 Request for Information and Comments

In developing this Program, BOEM analyzes, among other items, regional and national energy needs; leasing interest as expressed by possible oil and gas producers; applicable laws, goals, and policies mentioned in the comments of affected states; comments and concerns of local governments and Tribes; public input; competing uses of the OCS; relative environmental sensitivity and marine productivity among OCS Regions; and the equitable sharing of benefits and risks among OCS Regions.

On July 3, 2017, BOEM published in the *Federal Register* the RFI regarding the preparation of a 2019–2024 Program that would supersede the approved 2017–2022 Program (82 FR 30886). BOEM also sent letters to all governors and the heads of interested Federal agencies requesting their input. Pursuant to the OCS Lands Act Section 18, BOEM requests that governors and oil and gas companies provide updated information regarding state laws and policies or industry interest, respectively.

1.3.2 Draft Proposed Program and Notice of Intent to Prepare a Programmatic Environmental Impact Statement

After considering all the analyses associated with the Section 18 factors and principles (see the DPP), the Secretary made the Draft Proposal, the initial proposal for this Program (see **Chapters 2 and 3**). BOEM announced the availability of, and requested comments on, the DPP in the *Federal Register* on January 8, 2018 (83 FR 829).

That *Federal Register* notice also announced the Notice of Intent (NOI) to prepare a discretionary Programmatic EIS, which signaled the initiation of scoping for the NEPA document. The DPP was distributed to interested and affected parties for a 60-day comment period and transmitted to all 50 governors and relevant Federal agencies. See **Chapter 10** for a more detailed discussion on public involvement and outreach for the National OCS Program and Programmatic EIS.

1.3.3 Proposed Program and Draft Programmatic EIS

The analyses prepared for this Proposed Program focus on the Secretary's Draft Proposal, as well as other Program Options identified when making the Draft Proposal. The analyses provide information relevant for consideration of required Section 18 factors (see **Chapter 2**) and comments received by BOEM on the DPP and NOI. OCS areas identified for potential leasing in the Draft Proposal have been analyzed in this Proposed Program and Draft Programmatic EIS, which inform the Second Proposal (i.e., the second version of the Secretary's proposed schedule for this National OCS Program).

BOEM has announced the publication of this Proposed Program document and Draft Programmatic EIS and associated request for comments in the *Federal Register*. In addition, the Proposed Program has been submitted to governors and relevant Federal agencies. In that *Federal Register* notice, BOEM also requests feedback on the Proposed Program and Draft Programmatic EIS from other interested and affected parties during a 90-day comment period. BOEM will send written responses to the Proposed Program comments from governors and the attorneys general commenting on behalf of governors, in conjunction with transmittal of the PFP and Final Programmatic EIS.

1.3.4 Proposed Final Program and Final Programmatic EIS

At the last phase of the National OCS Program analysis, BOEM prepares a PFP based on analyses of the Second Proposal and comments BOEM receives on the Proposed Program and Draft Programmatic EIS. The PFP is the third and last stage. Additionally, a Final Programmatic EIS that informs the Final Program will be prepared and released in conjunction with the PFP. The OCS areas identified for potential leasing in the Second Proposal described in **Part I** will be analyzed for the PFP and Final Programmatic EIS.

BOEM will announce publication of the PFP in the *Federal Register* and will submit it to the President and Congress. BOEM provides the President and Congress with the Final Programmatic EIS along with the PFP because the Programmatic EIS contains information and analyses that address Section 18 factors. Copies of all incoming comments received on the Proposed Program and BOEM's responses to comments on the Proposed Program received from state and local governments and Federal agencies will also be submitted to the President and Congress as required. In accordance with Section 18(c)(2), the Secretary will not approve the PFP until at least 60 days after sending it to the President and Congress.

1.3.5 Program Approval and Record of Decision

Sixty days after the PFP is submitted to the President and Congress, the Secretary may approve the Program. At the time of approval, the Secretary's decision is described in the record of decision (ROD) that is made publicly available. The ROD is the final step in the Programmatic EIS

and Section 18 processes, and, in general, identifies the selected alternative, presents the basis for the decision, and identifies methods to avoid, minimize, or otherwise mitigate environmental impacts. The ROD could adopt any programmatic mitigation measures or other restrictions on leasing activities that the Secretary considers necessary for environmental protection and that are sufficiently identifiable at the programmatic stage.

1.4 Lease Sale Process

Approval of a National OCS Program does not constitute final approval of the lease sales scheduled in that Program. Each potential lease sale scheduled in the 2023–2028 Program will be subject to separate established pre-lease sale decision processes, including environmental review and analysis.

During the lease sale process, the Secretary may further define the area available for leasing. For example, the Secretary could choose an area-wide approach, in which all available unleased acreage in a program area is offered for lease, or a targeted leasing approach, which is designed to result in a more focused lease area configuration.

A targeted approach would only offer lease sales in areas with high resource potential while appropriately weighing environmental protection. The Secretary is considering a targeted leasing approach that would only offer specific blocks in a lease sale that have recently had extensive bidding activity, actively pursued geologic plays, areas of recent seismic acquisition and processing, or exploration and development activity.

Other potential considerations could include biologically sensitive areas, and areas of potential conflict with other uses and users of the marine environment such as subsistence hunting and fishing activity. This is consistent with the policy of the OCS Lands Act to make OCS oil and gas resources available for expeditious and orderly development while considering safeguards for the human, marine, and coastal environments.

For example, Cook Inlet Lease Sale 244 was successfully held in 2017, and only 20% of the planning area, or 442,331 hectares, was available for leasing. The remaining 80% of the planning area contains critical habitat for the Steller sea lion, most of the critical habitat for the northern sea otter and beluga whale, and important subsistence areas, and was therefore not considered for leasing.

Interested and affected parties have multiple opportunities to participate and comment prior to any decision to hold a specific lease sale (see **Figure 1-9**). The lease sale process has traditionally taken about 2 years to complete and contains multiple steps and decision points along the way.

While a lease sale may not occur until an approved National OCS Program is in place, in some cases lease sales occurring early in a National OCS Program schedule require steps be taken in the pre-lease sale process prior to final National OCS Program approval. This is not a pre-

judgment by the Secretary concerning any area that may be made available for leasing, only an initiation of the statutory and analytical steps required to hold a lease sale on time should it remain in an approved National OCS Program.⁹

The full process for a typical lease sale is described below in more detail.

1. **Call for Information and Nominations (30 Code of Federal Regulations [CFR] 556.301)**—In the first step of the lease sale process, BOEM issues a Call for Information and Nominations (Call) in the *Federal Register* on an area proposed for leasing. Potential bidders are invited to submit nominations or indications of interest in specific OCS blocks within the Call Area. The Call also solicits comments about geological conditions; archaeological sites; potential multiple uses of the area including navigation, recreation, and fisheries; socioeconomic, biological, and other environmental information; and asks the public for information on areas of special concern that should be analyzed.
2. **Area Identification (30 CFR 556.302)**—Area Identification (Area ID) is the second major step in BOEM’s oil and gas lease sale process. During Area ID, BOEM uses information and comments received in response to a Call, and in consultation with appropriate Federal agencies, develops a recommendation to the Secretary for the area(s) to be subject to further leasing consideration and environmental analyses. The Area ID decision is announced in the *Federal Register*.
3. **Review under NEPA**—BOEM performs a NEPA review for each lease sale. This typically includes an EIS that considers the impacts associated with oil and gas activities for a given region or program area. The NEPA for subsequent lease sales in the same region or program area may rely on that EIS as appropriate, after BOEM confirms through a DNA or EA that EIS supplementation is not required.
4. **Government-to-Government Consultations**—Under E.O. 13175 and the *Department of the Interior Policy on Consultation with Indian Tribes*, BOEM is obligated to engage in government-to-government consultations with Tribes on any Departmental action with Tribal implications. This includes federally recognized Tribes with current and historic interests in coastal areas of Alaska, the Pacific, the GOM, and the Atlantic. In Alaska, BOEM additionally consults with Alaska Native Claims Settlement Act (ANCSA) Corporations. These consultations are conducted throughout the life of an OCS oil and gas lease.
5. **Environmental Consultations**—Consultations under various environmental statutes occur, such as the Endangered Species Act (ESA) of 1973 (16 U.S.C. §§ 1531 *et seq.*) and Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. §§ 1801 *et seq.*). Pursuant to these environmental statutes, BOEM is

⁹ Solicitor’s M Opinion 36954, *Whether the Department May Issue a Call for Information & Nominations for Outer Continental Shelf Lease Sale 91*, 93 I.D. 125 (1986).

required to consult with agencies such as the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). BOEM also consults, as appropriate, under Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108).

6. **Proposed Notice of Sale (NOS) (30 CFR 556.304)**—The proposed NOS describes the timing, size, and location of a proposed oil and gas lease sale. It also provides potential bidders with information on proposed economic terms and conditions and any proposed mitigation measures (i.e., lease stipulations) designed to reduce potential conflicts with other ocean uses and to protect the environment. BOEM publishes a notice of availability of the proposed NOS in the *Federal Register*.
7. **Coordination with Governors of Affected States (30 CFR 556.304-307)**—Section 19 of the OCS Lands Act (43 U.S.C. § 1345) requires BOEM to solicit input on the size, timing, and location of lease sales from governors of affected states. BOEM sends the proposed NOS to governors of affected states requesting their recommendations on the proposed size, timing, and location of the lease sale. The governors have 60 days to submit their recommendations to BOEM. Prior to holding the lease sale, BOEM sends each governor written reasons for USDJOI’s determination to accept or reject each governor’s recommendation.
8. **Consistency Determination (30 CFR 556.305(b))**— All Federal activities affecting the coastal zone, including OCS oil and gas lease sales, must be consistent to the maximum extent practicable with the enforceable policies of an affected state’s coastal zone management (CZM) program (see 16 U.S.C. § 1456(c)(1) and (2)). BOEM provides coastal states with a consistency determination on whether the proposed lease sale is consistent, to the maximum extent practicable, with the enforceable policies of federally approved state Coastal Management Plans. That is not done, however, for Alaska sales since the State of Alaska no longer has a federally approved Coastal Management Plan. For more information on BOEM’s CZM work, see <https://www.boem.gov/Coastal-Zone-Management-Act/>.
9. **Issuance of a ROD (EIS-level), Finding of No New Significant Impact (FONSI; EA-level) or DNA**—Upon completion of the NEPA review for each individual lease sale, a determination is made as to the significance, or lack thereof, of potential environmental impacts. Depending on the type of NEPA review undertaken for a lease sale, the NEPA review process is completed through the issuance of a ROD, a FONSI, or a DNA.
10. **Final NOS (30 CFR 556.308(a))**—BOEM will publish a final NOS at least 30 days before a lease sale is held. The final NOS includes information on how to submit bids; the date, time, and location of the bid opening and reading; the OCS blocks being offered; and terms and conditions of the lease sale, including required lease stipulations.
11. **Holding the Lease Sale (30 CFR 556.516)**—BOEM opens the sealed bids at the place, date, and hour specified in the final NOS for the sole purpose of publicly announcing and recording the bids. BOEM does not accept or reject any bids at that time.

12. **Lease Issuance (30 CFR 556.520-522)**—Before a lease can be issued, high bids are subject to evaluation regarding the receipt of fair market value (FMV) and analysis confirming that the award of any tract to the highest bidders in the sale would not create or maintain a situation inconsistent with anti-trust laws. BOEM will issue a lease following completion of its FMV analysis and the anti-trust review conducted by the Department of Justice in consultation with the Federal Trade Commission.

1.5 Exploration and Development Process

Areas with mature oil and gas development, such as the GOM, generally have more recent and therefore more sophisticated seismic data available (e.g., three-dimensional [3-D] seismic surveys). Frontier areas like the Atlantic OCS generally only have older, less sophisticated seismic data (e.g., two-dimensional [2D] seismic surveys) available for oil and gas resource assessment. If leasing and related activities increase in frontier areas, new seismic data will be collected, and more detailed information will become available. On the U.S. OCS, seismic data are typically acquired prior to (through the issuance of a permit), during, and after a lease is in effect.

After BOEM issues a lease, a lessee typically accelerates the process of exploration for oil and gas accumulations. In some cases, potential oil and gas resources could already be identified through analysis of existing data and information that would allow a producer to receive a favorable return on investment. In the case of new exploration activities on the lease, an exploration plan is submitted to BOEM for environmental review and consideration for approval (see **Figure 1-9**).

High-resolution geophysical surveys on a lease are performed prior to exploration plan submittal to identify natural and man-made hazards, areas of potential benthic habitat such as hard bottom habitat and coral reefs, and significant cultural resources such as historic shipwrecks or inundated occupation sites on or below the seabed. The next phase of exploration involves drilling an exploration well that targets the interpreted oil or gas trap in the subsurface to determine if an oil and/or gas resource exists. If oil or gas is discovered in quantities appearing to be economically favorable, one or more follow-up delineation wells could be drilled to help define the amount of resource or the extent of the reservoir.

Delineation and production wells are sometimes both termed development wells. If a lessee wishes to drill a development well, a development and production plan must be submitted to BOEM so that BOEM can perform environmental review and consider plan approval (see **Figure 1-9**). Assuming that hydrocarbon resources are discovered and successfully delineated, a production facility could be installed at the site. The number of wells that will be served by a single facility varies according to the type of production facility used, the prospect site, and the drilling and production strategy deployed. Oil and gas are brought to market via a system of pipelines and processing facilities or through production into a floating system.

Exploration plans and development and production plans are subject to focused, site-specific environmental analyses under NEPA and other environmental statutes, as well as the requirement for an operator to certify consistency of the proposed activities with the enforceable policies of a state's CZM program, as appropriate.

For more information about the exploration and development process, see BOEM's web pages on the status of oil and gas plans for the Alaska Region (<https://www.boem.gov/akplans>), GOM Region (<https://www.boem.gov/Status-of-Gulf-of-Mexico-Plans/>), and Pacific Region (<https://www.boem.gov/Pacific-Lease-Management/>). For more information about BOEM's oil and gas resource evaluation program, see the web page: <https://www.boem.gov/Resource-Evaluation-Program/>.



Chapter 2

Section 18
Factors for
Consideration &
Balancing

Chapter 2 Section 18 Factors for Consideration and Balancing

2.1 BOEM’s Approach to Analyzing Program Areas

Section 18(a) of the OCS Lands Act contains four subsections that set forth principles and factors to guide National OCS Program formulation. These subsections provide the foundation for BOEM’s analysis and development of proposed options (Program Options) for a potential lease sale schedule. The Secretary may select from these Program Options “indicating, as precisely as possible, the size, timing, and location of leasing activity which [the Secretary] determines will best meet national energy needs for the five-year period following [Program] approval...” (43 U.S.C. §1344(a)). This chapter presents a brief overview of those Section 18 requirements as well as guidance provided in court decisions on prior National OCS Programs (see **Section 2.7**).

Proposed Program Options

Lease Sale Option: Lease sale for each program area contained in the Draft Proposal

Subarea Option: Option that subtracts acreage from a lease sale and contains potential exclusions within a program area

No Sale Option: No lease sale in a program area

This Proposed Program document presents the analysis of the Draft Proposal (Lease Sale Option) as well as Subarea Options (collectively called the Proposed Program Options) identified by the Secretary for further analysis under the principles and factors in Section 18 of the OCS Lands Act. These principles and factors include the eight factors listed in Section 18(a)(2) of the OCS Lands Act (see **Section 2.2**).

The Proposed Program Options are also considered throughout the Draft Programmatic EIS. See **Chapter 3** for a full description of the Proposed Program Options.

The analyses underlying the 2023–2028 Program use the best available information. Previous studies and analyses are augmented by the latest documents, reports, and studies available, along with pertinent information provided in public comments on the DPP. Additionally, BOEM reviews and reinterprets existing oil and gas resource data as necessary.

2.2 Section 18(a): Factors for Determining Size, Timing, and Location of Leasing

As stated above, Section 18(a) of the OCS Lands Act states that a 5-year leasing program must be prepared and maintained by the Secretary consistent with principles set forth in the section. Section 18(a)(2) lists eight factors that the Secretary must consider when determining the size, timing, and location of oil and gas leasing activity among the different areas of the OCS. While

some of these factors lend themselves to quantification to facilitate the comparison among program areas, others cannot readily be quantified and so are qualitatively considered. Each of the eight factors provided in Section 18(a)(2)(A) through (H) is introduced below:

A) Geographical, Geological, and Ecological Characteristics

The main sources of information on geographical, geological, and ecological characteristics of the program areas considered in preparing this Proposed Program analysis are the 2023–2028 Draft Programmatic EIS, other recently completed NEPA documents prepared for leasing and operational activities, BOEM oil and gas resource assessments and associated regional geologic and reserves reports, the 1994 National Research Council report concerning information for Alaska OCS decisions (NRC 1994), scientific study results (including those reported in BOEM’s Environmental Studies Program Information System [ESPIS]), expert scientific and Indigenous traditional knowledge, and information submitted or cited by commenters. Such information can be found in various places in this document (e.g., geological characteristics in **Chapter 5** and geographical and ecological characteristics in **Chapter 7** and Chapter 4 in the Draft Programmatic EIS).

B) Equitable Sharing of Developmental Benefits and Environmental Risks

Chapter 8 presents the analysis for the equitable sharing of developmental benefits and environmental risks associated with oil and gas leasing activities. The chapter provides a discussion of the developmental benefits accruing in regions near existing and potential OCS oil and gas production and the benefits that are widely distributed throughout the U.S.

The onshore areas adjacent to the regions possessing substantial oil and gas resources tend to both receive a high proportion of the benefits from, and be subject to, the associated environmental risks of developing those resources. Developmental benefits analyzed include increased wages, additional jobs, increased tax collection, Federal revenues, revenue sharing (with states, localities, and grant programs) where applicable, company profits, and proximity of supply to consumers of energy.

The Proposed Program, along with the Draft Programmatic EIS, identifies and discloses potential impacts associated with the Proposed Program Options. Environmental risks include the potential for activities stemming from the Proposed Program to adversely affect the following:

- the quality of the human environment (e.g., water quality, air quality, accidental or catastrophic discharge events)
- species and habitats, including those that are commercially valuable
- culturally, or recreationally valuable (e.g., commercial fisheries, coastal tourism, subsistence harvest)

- species and habitats that are protected by Federal environmental laws and regulations
- cultural and archaeological resources
- access to subsistence resources
- overall marine productivity that could affect or diminish ecosystem services (see **Section 7.2**).

By discussing the impacts affecting both regional and national interests, **Chapter 8** provides the Secretary with information on the sharing of developmental benefits and environmental risk. The chapter also includes a discussion of the developmental benefits and environmental risks associated with substitution of other energy sources that would be anticipated if the No Sale Option were chosen in any of the program areas.

C) Location with Respect to Regional and National Energy Markets and Needs

The analyses in **Chapter 6** focus on recent developments in energy markets, including high domestic oil and gas production, the 2015 elimination of the ban on crude oil exports, and the effects of the COVID-19 pandemic.¹⁰ The chapter includes the analysis of the U.S. Department of Energy’s projections of national and regional production and consumption according to the EIA’s 2021 AEO (EIA 2021e), the potential contribution of OCS oil and gas production in meeting national energy needs, regional energy markets and the location of OCS planning areas, and alternatives to OCS production.

Chapter 3 of the Draft Programmatic EIS describes the human environment on a national level and for each OCS region and nearby onshore areas, as appropriate, as well as the existing oil and natural gas infrastructure and its relationship to new leasing. Recent OCS oil and gas lease sale EISs and other NEPA documents also provide relevant information relating to regional distribution and processing of OCS oil and natural gas. See <https://www.boem.gov/environment/environmental-documents> to access BOEM’s environmental review documents.

D) Location with Respect to Other Uses of the Sea and Seabed

Section 6.5 discusses uses of the OCS. This section includes information received from Federal, state, and local government agencies; Tribal governments; environmental and other organizations; and regional fishery management bodies (see **Appendix A**); as well as information provided by BOEM’s Marine Minerals and Renewable Energy programs.

¹⁰ **Section 1.2** also addresses energy needs but with respect to the overriding purpose of the National OCS Program “to best meet national energy needs” As noted above, the focus of **Chapter 6** is on providing information to allow the Secretary to meet the requirements of Section 18(a)(2)(C).

E) Interest of Potential Oil and Gas Producers

Section 10.3 describes industry interest as indicated in response to the DPP. Appendix A summarizes the comments received, including those from oil and natural gas companies and associations in the exploration and production sector of the energy industry. The Notice of Availability and Request for Comments on the Proposed Program and Draft Programmatic EIS initiates an additional comment period for all stakeholders and an explicit request for industry interest information.

F) Laws, Goals, and Policies of Affected States Identified by Governors

Section 10.5 summarizes relevant laws, goals, and policies—including policies of federally approved CZM programs—that state governments identified when responding to BOEM’s request for comments. As required by Section 18(c)(1), BOEM sent letters to the governors of all 50 states requesting their suggestions and asking them to identify any relevant state laws, goals, and policies for the Secretary’s consideration. **Appendix A** summarizes the comments received on the DPP, including those from governors and state government agencies. The Notice of Availability and Request for Comments on the Proposed Program and Draft Programmatic EIS initiates an additional comment period for all stakeholders.

G) Relative Environmental Sensitivity and Marine Productivity

Chapter 7 contains an analysis of the environmental sensitivity and marine productivity for the program areas. In **Chapter 7**, as in previous National OCS Programs, BOEM defines the term “sensitivity” as sensitivity to potential impacts from oil and gas exploration and development as measured by indicators of vulnerability and/or resilience to impact. Additional information on the plants, animals, habitats, and human activities that could affect the sensitivity of an area is provided in the Draft Programmatic EIS.

This document provides estimates of OCS marine productivity. Productivity is defined in terms of biomass production per unit of time. In the marine environment, primary production through photosynthesis determines the total amount of biomass available to higher trophic levels. However, the relationship between primary and secondary, or higher-level, production is not straightforward or uniform across marine ecosystems (Pomeroy 1991). Higher-level productivity is difficult to estimate, especially across geographically large and ecologically diverse areas such as the OCS (Balcom et al. 2011).

Measurements for the BOEM ecoregion areas were produced using satellite-based measurements of chlorophyll-*a*, available light, and photosynthetic efficiency (Balcom et al. 2011). These measurements allow BOEM to directly compare different areas. For the analysis of environmental sensitivity in this Proposed Program, the OCS was divided into nine regions, referred to as BOEM ecoregions, using an ecosystem-based approach.

H) Environmental and Predictive Information

The 2023–2028 Programmatic EIS describes the environmental setting and potential impacts of leasing activities on physical, biological, and human resources in each program area. Information is presented on potential environmental impacts from the Proposed Program Options as well as additional alternatives.

The Programmatic EIS analysis is used to inform OCS Lands Act considerations, including social, environmental, and human concerns. The Draft Programmatic EIS and appendices are available at www.boem.gov/National-OCS-Program.

The environmental impact analysis in the Draft Programmatic EIS was prepared under NEPA and applies to the environmentally focused Section 18 factors in the OCS Lands Act, particularly the following:

- Section 18(a)(1), consideration of economic, social, and environmental values of renewable and non-renewable OCS resources and the impact of oil and gas exploration on other resource values of the OCS and the marine, coastal, and human environments
- Section 18(a)(2)(A), existing information concerning the geographical, geological, and ecological characteristics of such regions
- Section 18(a)(2)(H), relevant environmental and predictive information for different areas of the OCS.

The Proposed Program references the Draft Programmatic EIS, as appropriate, particularly with respect to the three Section 18 factors above, so readers can easily find pertinent, detailed environmental information and impact analyses that address each of the environmentally relevant Section 18 factors.

The Proposed Program also addresses the Section 18(a)(2)(B) environmentally focused factor of the equitable sharing of developmental benefits and environmental risks among the various regions (see **Chapter 8**); and Section 18(2)(G), the relative environmental sensitivity and marine productivity of different areas of the OCS (**Section 7.2**).

The Draft Programmatic EIS and Proposed Program together present a comprehensive picture of the environmental, cultural, economic, and resource considerations to aid the Secretary in balancing environmental concerns with energy needs and to inform the decision on the 2023–2028 lease sale schedule regarding the size, timing, and location of leasing activities.

2.3 Section 18(a)(3): Balancing the Potential for Environmental Damage, Discovery of Oil and Gas, and Adverse Impact on the Coastal Zone

After considering all the Section 18(a)(2) factors, Section 18(a)(3) requires the Secretary, when making decisions on the size, timing, and location of OCS leasing, to strike a balance among the potential for environmental damage, the discovery of oil and gas, and adverse impacts on the coastal zone. The Secretary's balancing effort is informed by an analysis of all the Section 18(a)(2) factors. This Proposed Program document presents a comparative analysis of the Proposed Program Options considered by the Secretary.

The comparative analysis includes an estimation of societal net benefits for each program area, derived by calculating the value of production anticipated from the Proposed Program Options minus the economic cost of obtaining that production and the environmental and social costs (ESCs) of developing the produced resources. The analysis also considers environmental impacts of the energy substitutes that would probably be provided in the absence of sales in any or all of the program areas. BOEM refers to the results of this analysis as the incremental net benefits (see **Section 5.3**). See also the descriptions of the various types of value in **Section 2.6**.

The comparative analysis also considers the program areas according to quantified information relating to environmental sensitivity and marine productivity (see **Section 7.2**) and relating to the interests of potential oil and natural gas producers (see **Section 10.3**). Other Section 18(a)(2) factors, including geographical, geological, and ecological characteristics, and laws, goals, and policies of affected states, do not lend themselves to quantification and are therefore treated qualitatively.

The comparative analysis also examines additional qualitative information pertaining to the findings and purposes of the OCS Lands Act, the comments and recommendations of interested and affected parties, and other information relevant to striking a balance under Section 18(a)(3). The OCS Lands Act does not specify how the factors in Section 18(a)(2) should be weighed to achieve the balancing required by Section 18(a)(3), leaving it to the Secretary's discretion to reach a reasonable determination under the existing circumstances.

2.4 Section 18(a)(4): Assurance of Fair Market Value

Section 18(a)(4) of the OCS Lands Act requires receipt of FMV from OCS oil and gas leases. BOEM's two-phase, post-sale bid evaluation process used since 1983 assures the FMV requirement is met for the issuance of individual leases. Under its bid adequacy procedures, BOEM reviews all high bids received and evaluates all blocks to ensure the receipt of FMV for each lease issued. In addition to the assurance of FMV in the National OCS Program development and implementation process, BOEM continues to assess market and resource

conditions as each lease sale approaches and designs the lease sale fiscal terms to achieve FMV. Additional information on, and analysis of, FMV is contained in **Chapter 9**, which also considers the uncertainties surrounding OCS oil and gas leasing, and how these uncertainties can impact the value of OCS acreage.

2.5 Section 18(a): Energy Needs

As stated in Section 18(a) of the OCS Lands Act, the purpose of the National OCS Program is to help meet the future energy needs of the U.S. **Section 1.2** presents an analysis of anticipated energy needs in the context of meeting anticipated energy needs of consumers of all types. It looks at how meeting those energy needs through new leasing on the OCS supports job creation, improves the GDP, the national balance of trade, national energy security, and how climate policies and goals could impact national energy needs if the energy sector transitions to produce and use fewer fossil fuels.¹¹ Decisions on if, when, and where to hold new OCS lease sales have varying effects on these metrics of the Nation’s economic health.

2.6 Section 18(a)(1): Economic, Social, and Environmental Values

Section 18(a)(1) of the OCS Lands Act requires that the Secretary manage the OCS “in a manner which considers economic, social, and environmental values of the renewable and non-renewable resources contained in the outer Continental Shelf...” The Proposed Program analyses presented in this document are conducted to ensure that economic, social, and environmental values associated with exploration, development, and production of OCS resources are considered as important aspects of the National OCS Program’s development.

The OCS Lands Act also requires the Secretary to consider potential impacts that oil and gas activities could have on other resource values of the OCS and on the marine, coastal, and human environments. The purpose of the analyses performed for the Proposed Program is to assist the Secretary with meeting these requirements (including the balancing requirement described in **Section 2.3**, Section 18(a)(3): Balancing the Potential for Environmental Damage, Discovery of Oil and Gas, and Adverse Impact on the Coastal Zone), in consideration with the analyses in the Programmatic EIS.

The Programmatic EIS analysis is described in **Section 2.2** under Section 18 factor (H). The Programmatic EIS describes the environmental setting and potential impacts on environmental and socioeconomic resources from the Draft Proposal’s schedule of lease sales and alternatives to that schedule. **Appendix A** contains summaries of comments received in response to the DPP, including issues or concerns that were identified by commenters.

¹¹ **Chapter 6** addresses similar energy subjects but instead of focusing on broad themes, **Chapter 6** focuses on information the Secretary must consider pursuant to Section 18(a)(2)(C), discussed in **Section 2.2**, Section 18(a): Factors Determining Size, Timing, and Location of Leasing.

2.6.1 *Economic Value*

Economic value will be realized from decades of oil and natural gas activity and production that result from leases awarded during the implementation of the next National OCS Program. Several metrics are used to calculate economic value, such as net economic value (NEV) of the extracted oil and natural gas resources, which includes employment, wages, and income from oil and natural gas activity¹² and government receipts of cash bonuses, rentals, royalties, and taxes.

BOEM also considers the adverse economic impacts associated with oil and gas production, such as those from air pollution and potential oil spills. Economic values are discussed primarily in the Net Benefits Analysis (**Section 5.3**), Program Area Location Considerations (**Chapter 6**), Equitable Sharing Considerations (**Chapter 8**), and Consideration of the Value of OCS Leases and Assurance of Fair Market Value (**Chapter 9**). BOEM provides additional methodological details and analysis in a separate economic methodology document (*Economic Analysis Methodology for the 2023–2028 National Outer Continental Shelf Oil and Gas Leasing Program*).

2.6.2 *Social Value*

Social value is realized when OCS resources are combined with inputs or processes to generate improvements in the lives of people or benefits to society. When OCS resources are used to maximize social value, the National OCS Program is being efficiently managed. Social value can be negatively impacted (a social welfare loss) when OCS resources are not developed in accordance with the principles of conservation¹³ or when oil and gas activities result in adverse consequences to society, such as a highly damaging event like a large oil spill.

Oil spill studies in the GOM have found that impacts are experienced differently across communities, and access to resources varies depending on socioeconomic, political, and legal status of individuals. The severity of oil spill impacts is compounded by recurring natural and economic disasters in the region (e.g., hurricanes, flooding, and economic recessions) (Austin et al. 2014a, Austin et al. 2014b, Austin et al. 2022). Within this larger context, the effects on vulnerable communities are more difficult to overcome than those in other communities with greater economic and social resources.

At the same time, energy substitutes for forgone OCS oil and gas production can also cause social welfare losses, resulting from such things as spills of imported oil or air pollution from increased onshore production. Social values include cultural and community values but also broad considerations of a wide array of factors, many of which could also be considered economic or

¹² Consistent with standard practices in cost-benefit analysis, the analysis in **Chapter 5** treats employment, wages, and income as costs necessary to obtain the oil and natural gas that provide economic value. However, in general, these results of OCS development are widely viewed as benefits to society, and they are treated as such in **Chapter 8**.

¹³ In this context, conservation refers to the responsible development of oil and gas resources by preventing waste and maximizing recovery of economically producible reservoirs (MMS 2007).

environmental effects. Components of social value are reflected in all the substantive requirements analyses prepared in support of this Proposed Program.

2.6.3 Environmental Value

Environmental value is the worth society places on the intrinsic natural capital in the OCS's renewable and non-renewable resources. Natural capital provides goods and services from nature, including marine productivity, quality of aesthetic resources, human-ecological connectivity, and air and water quality.

The analyses presented in **Chapter 7** discuss environmental sensitivity and marine productivity, and the important effect of relevant environmental impacts on environmental value. Section 18(a)(2)(G) calls for the consideration of the relative environmental sensitivity and marine productivity of the OCS. BOEM sponsored developing a new method to perform the corresponding assessment for the 2017–2022 Program, the results of which were first presented in the 2017–2022 DPP. See **Section 2.2** (G) and **Chapter 7** for methodological explanations. Feedback from internal and external reviews of this new approach was incorporated into the analysis for the 2017–2022 PFP, as well as the analysis presented in **Chapter 7** of this document.

2.7 Judicial Guidance

The 2023–2028 Program will be the tenth National OCS Program prepared by the Department. Section 23(c)(1) of the OCS Lands Act provides that any action of the Secretary to approve a leasing program pursuant to Section 18 of the Act shall be subject to judicial review only in the United States Court of Appeals for the District of Columbia. The 1980–1985, 1982–1987, 1987–1992, 2007–2012, and 2012–2017 Programs prepared and approved under Section 18 were challenged in court. No lawsuits were filed with respect to the approved 1992–1997, 1997–2002, 2002–2007, or 2017–2022 Programs.

The 2023–2028 Program is being prepared consistent with applicable court rulings. A brief description of such decisions and how they have guided preparation of the National OCS Programs over time follows.

California v. Watt, 688 F.2d 1290 (D.C. Cir. 1981) (*Watt I*) — In this case, the State of California challenged the 1980–1985 Program. This National OCS Program was the first to follow the passage of the OCS Lands Act Amendments of 1978, which added the Section 18 requirement for a leasing program. The court stated that the Secretary must consider all eight factors and not defer consideration of required factors to later stages because more information might be available. It accepted the use of a cost-benefit type analysis and recognized that certain analyses could be qualitative. The court found that the three balancing factors in Section 18(a)(3) were not inherently equal, and the Secretary had discretion in weighting them as

long as the decision was not arbitrary. The case was remanded to consider those of the eight factors not previously considered, better quantify environmental costs, and present a coherent explanation of how NEV is determined and the possible value of deferring leasing. However, because a new National OCS Program for 1982–1987 was already in preparation, the 1980–1985 Program was not revised.

California v. Watt, 712 F.2d 584 (D.C. Cir. 1983) (*Watt II*) — In this case, the court held that the 1982–1987 Program met the requirements found lacking in the 1980–1985 Program. The court upheld the methodology and assumptions used for the net social value (NSV) analysis. The court reiterated the “pyramidal” nature of the entire leasing process and upheld the first use of area-wide leasing because exact tracts (blocks) do not need to be identified at the National OCS Program stage. It found that receipt of FMV does not mean “maximization of revenues” and validated the post-sale bid evaluation methodology. The court also stated that once the determination has been made to not consider an area for leasing, that area does not need to be analyzed further.

Natural Resources Defense Council (NRDC), et al. v. Hodel, 865 F.2d 288 (D.C. Cir. 1988) — In this case, the court remanded the 1987–1992 Program for a more thorough analysis of the cumulative impacts resulting from simultaneous development in different planning areas. The court validated the use of administratively established planning areas as the basis for comparing “oil- and gas-bearing physiographic regions,” a term used, but not defined, in the OCS Lands Act. As in the previous cases, the court upheld the cost-benefit methodology and assumptions used. The court stated that while the Secretary was required to receive and consider nominations for the exclusion of areas, there was no requirement to exclude nominated areas. Should a decision be made to exclude an area, the court agreed with the Secretary that such exclusion decisions must be reasoned, and their basis identified, but there is no “formula” for such decisions, meaning a full Section 18 analysis is not a prerequisite. The court cited *Watt I* (at 1321–22) to explain that the Secretary’s duty as to the exclusion decisions is “simply to identify his legal or factual basis and to explain why he acted as he did.” Once an area is excluded from availability for leasing, “[t]he Secretary need not perform a Section 18 analysis” on that area (*Watt II* at 608).

Center for Biological Diversity, et al. v. Department of the Interior, 563 F.3d 466 (D.C. Cir. 2009) — In this case, the court remanded the 2007–2012 Program for failure to consider the relative environmental sensitivity and marine productivity of “different areas of the outer Continental Shelf,” not just the shoreline, and required the Secretary to rebalance under Section 18(a)(3) using the revised

analysis along with the other seven factors. The court determined that the OCS Lands Act does not allow consideration of the impact of consuming OCS oil and gas. Further, the Court determined that the NEPA claims were not ripe because an agency's NEPA obligations mature only once it reaches a critical stage of a decision, which will result in irreversible and irretrievable commitments of resources that will affect the environment. The court reasoned that in the case of the National OCS Program, the point of irreversible and irretrievable commitment of resources and the concomitant obligation to comply with NEPA does not occur until the lease sale stage.

Center for Sustainable Economy v. Jewell, 779 F.3d 588 (D.C. Cir. 2015) — The court found CSE's NEPA challenges unripe because the Department makes no irreversible and irretrievable commitment of resources at the National OCS Program stage such that NEPA would be triggered. The Court also upheld the Department's chosen methods of cost-benefit analysis as reasonable and consistent with the statute. For example, the Court upheld (1) the Secretary's decision to assess costs of energy substitutes where they would occur, and to attribute a proportionate share of those costs to each planning area, (2) the Secretary's decision not to track which proportion of OCS energy was consumed by the American public, and (3) the Secretary's qualitative assessment of the informational value in delaying leasing because there was not yet a sufficiently well-established methodology for quantifying it.



Chapter 3

Proposed
Program
Options for
Analysis

Chapter 3 Proposed Program Options for Analysis

The Proposed Program analyzes the Draft Proposal in its entirety, which included a schedule of 47 potential lease sales in all four OCS Regions (see **Figure 3-1** for the flow of analyses and decision points and **Figure 3-2** for the program areas included in the Draft Proposal). **Table 3-1** reflects the 2019–2024 Draft Proposal lease sale schedule, which consists of 19 lease sales offshore Alaska, seven in the Pacific, 12 in the GOM, and nine in the Atlantic.

Based on a review of this analysis of the Draft Proposal, the Secretary has narrowed potential leasing under the 2023–2028 Program in the Second Proposal (see **Part I**). Although the timing of the Draft Proposal schedule of lease sales has been updated to reflect a revised start date, the number and relative order of sales remains constant. As **Part I** explains, Secretary Haaland did not actively consider such an expansive National OCS Program, but this document provides the analysis of the full Draft Proposal for informational and transparency purposes. The Secretary is not considering inclusion of any withdrawn area in the 2023–2028 Program.

The **Lease Sale Options** are the lease sales for each of the program areas contained in the Draft Proposal. A former Secretary deemed these program areas suitable for further analysis for potential oil and gas leasing with respect to size, timing, and location.

Nine **Subarea Options** were also included in the Draft Proposal. Subarea Options are options that subtract acreage and contain potential exclusions within program areas. The Subarea Options (see **Figures 3-3** through **3-5**) represent regions of important environmental, subsistence, or multiple use value where there is potential for conflict between possible oil and gas development and ecologically important or sensitive habitats; maintenance of social, cultural, and economic resources; and/or military operations and training. The identification and analysis of Subarea Options in the Beaufort Sea, Chukchi Sea, GOM Region, and Atlantic Region underscore the ecological and sociocultural complexities and multiple use challenges requiring careful analysis and consideration.

Collectively, the Lease Sale Options and Subarea Options presented in the Draft Proposal are referred to as **Proposed Program Options** (see **Table 3-2**). A **No Sale Option** is also included. The Secretary may choose any of the Proposed Program Options or any combination of options to form the Second Proposal. All the Proposed Program Options are described in this chapter.

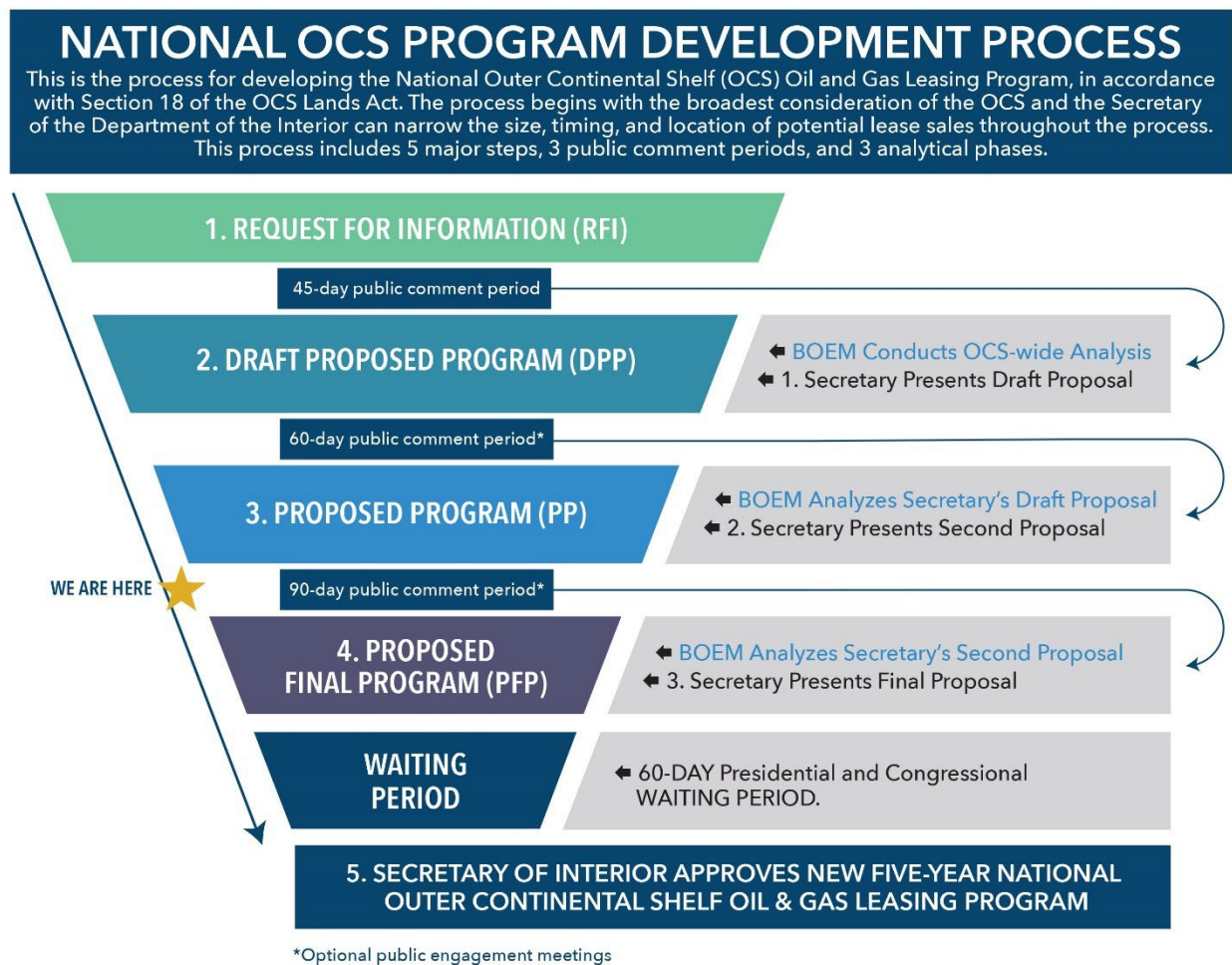
Because this analysis is designed to evaluate the Draft Proposal, it includes analysis of certain areas that are not available for leasing regardless of the Final Program. For example, the entirety of the Chukchi Sea Program Area is withdrawn from leasing by Presidential memorandum made pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a), but this document includes an

analysis of the entirety of the Chukchi Sea as well as three Chukchi Sea Subarea Options because they were presented as part of the Draft Proposal.

Table 4-3 lists and describes all areas that are currently unavailable for OCS oil and gas leasing and the Secretary is not considering inclusion of any withdrawn area in the 2023–2028 Program.

Table 3-2 summarizes the defining characteristics of each of the Subarea Options. Background information on geologic plays and hydrocarbon resources is presented in **Chapter 5**. Qualitative analyses of the Subarea Options with respect to the Section 18 factors are presented, as appropriate, throughout this document. The Subarea Options are analyzed in this Proposed Program and the Draft Programmatic EIS.¹⁴ The Subarea Options are analyzed as potential exclusion areas that, if adopted, would not be available for leasing under the 2023–2028 Program.

Figure 3-1: Analysis and Decisionmaking Flow Chart



¹⁴ In *NRDC v. Hodel*, 865 F.2d 288, 300 (D.C. Cir. 1988), the D.C. Circuit described the OCS Lands Act’s standard of review as “deferential;” one that “require[s] that the record show that the Secretary’s factual determinations are based upon substantial evidence, that the Secretary’s policy judgments are based upon rational consideration of identified, relevant factors, and that the Secretary’s construction of the statute is permissible.”

Figure 3-2: Program Areas included in the Draft Proposal

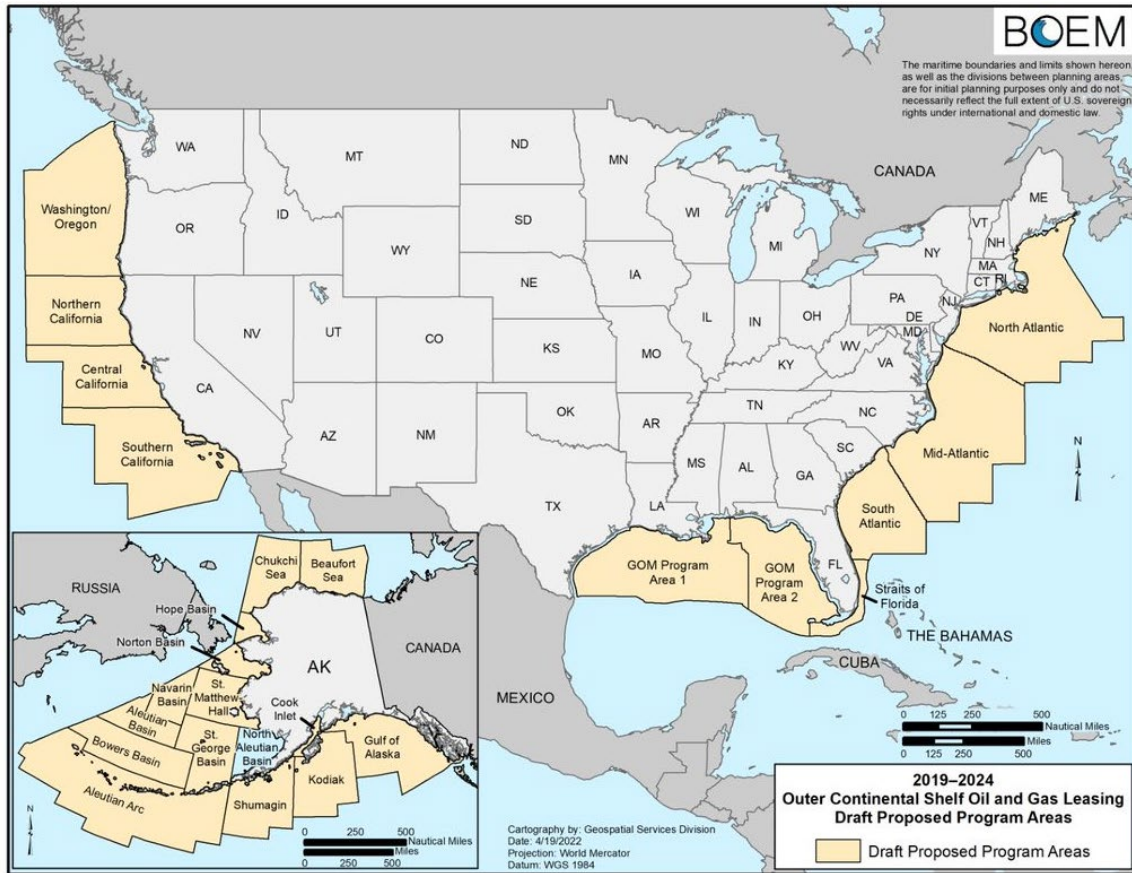


Table 3-1: 2019–2024 Draft Proposed Lease Sale Schedule

Count	OCS Region	Program Area
1.	Alaska	Beaufort Sea
2.	Alaska	Chukchi Sea
3.	Pacific	Southern California
4.	Gulf of Mexico	GOM Program Area 1
5.	Gulf of Mexico	GOM Program Area 1
6.	Atlantic	South Atlantic
7.	Atlantic	Mid-Atlantic
8.	Alaska	Beaufort Sea
9.	Alaska	Cook Inlet
10.	Pacific	Washington/Oregon
11.	Pacific	Northern California
12.	Pacific	Central California
13.	Atlantic	North Atlantic
14.	Gulf of Mexico	GOM Program Area 1
15.	Gulf of Mexico	GOM Program Area 1
16.	Alaska	Chukchi Sea
17.	Pacific	Southern California
18.	Atlantic	Mid-Atlantic

Count	OCS Region	Program Area
19.	Atlantic	South Atlantic
20.	Gulf of Mexico	GOM Program Area 1
21.	Gulf of Mexico	GOM Program Area 1
22.	Alaska	Beaufort Sea
23.	Alaska	Cook Inlet
24.	Alaska	Hope Basin
25.	Alaska	Norton Basin
26.	Alaska	St. Matthew-Hall
27.	Alaska	Navarin Basin
28.	Alaska	Aleutian Basin
29.	Alaska	St. George Basin
30.	Alaska	Bowers Basin
31.	Alaska	Aleutian Arc
32.	Alaska	Shumagin
33.	Alaska	Kodiak
34.	Alaska	Gulf of Alaska
35.	Pacific	Central California
36.	Pacific	Northern California
37.	Gulf of Mexico	GOM Program Area 1
38.	Gulf of Mexico	GOM Program Area 1
39.	Gulf of Mexico	GOM Program Area 2
40.	Atlantic	Straits of Florida
41.	Atlantic	North Atlantic
42.	Alaska	Chukchi Sea
43.	Gulf of Mexico	GOM Program Area 1
44.	Gulf of Mexico	GOM Program Area 1
45.	Gulf of Mexico	GOM Program Area 2
46.	Atlantic	South Atlantic
47.	Atlantic	Mid-Atlantic

Table 3-2: Proposed Program Options Analyzed for the Secretary’s Consideration

OCS Region	Program Area	Lease Sale Option	Subarea Options
Alaska	Beaufort Sea	3 Sales	(1) Barrow Whaling Area Exclusion (2) Kaktovik Whaling Area Exclusion
	Chukchi Sea	3 Sales	(1) Hanna Shoal Area Exclusion (2) Subsistence Use Area Exclusion (3) 25-mile Coastal No Leasing Zone
	Cook Inlet	2 Sales	None identified
	Hope Basin	1 Sale	None identified
	Norton Basin	1 Sale	None identified
	St. Matthew-Hall	1 Sale	None identified
	Navarin Basin	1 Sale	None identified
	Aleutian Basin	1 Sale	None identified
	St. George Basin	1 Sale	None identified
	Bowers Basin	1 Sale	None identified
	Aleutian Arc	1 Sale	None identified
	Shumagin	1 Sale	None identified
	Kodiak	1 Sale	None identified
	Gulf of Alaska	1 Sale	None identified
Pacific	Southern California	2 Sales	None identified
	Washington/Oregon	1 Sale	None identified
	Northern California	2 Sales	None identified
	Central California	2 Sales	None identified
Gulf of Mexico	GOM Program Area 1	10 Sales	(1) 15-Mile Baldwin County No Leasing Zone
	GOM Program Area 2	2 Sales	(1) 15-Mile Baldwin County No Leasing Zone (2) 50-mile Coastal No Leasing Zone (3) 75-mile Coastal No Leasing Zone (4) 100-mile Coastal No Leasing Zone (5) 125-mile Coastal No Leasing Zone
Atlantic	South Atlantic	3 Sales	(1) Coastal No Leasing Zone
	Mid-Atlantic	3 Sales	(1) Coastal No Leasing Zone (2) Atlantic Canyons Exclusion
	North Atlantic	2 Sales	(1) Coastal No Leasing Zone (2) Atlantic Canyons Area Exclusion
	Straits of Florida	1 Sale	(1) Coastal No Leasing Zone

Note: A No Sale Option analysis has been conducted for each program area.

Figure 3-3: Subarea Options in the Arctic Program Areas

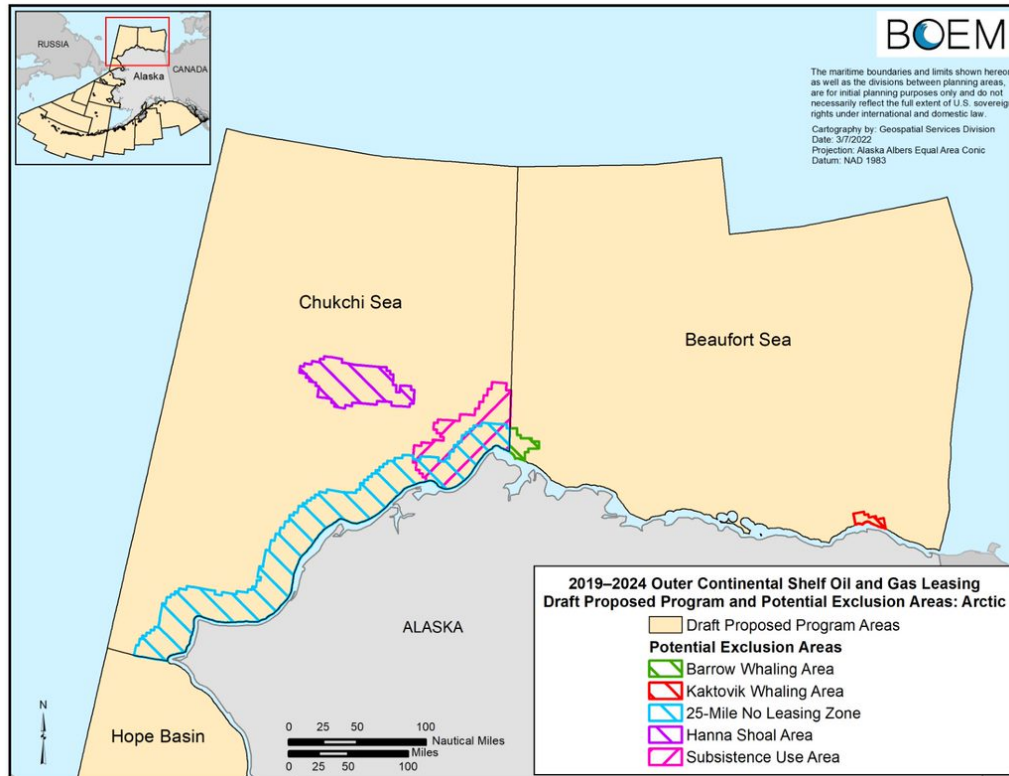


Figure 3-4: Subarea Options in the Gulf of Mexico Region

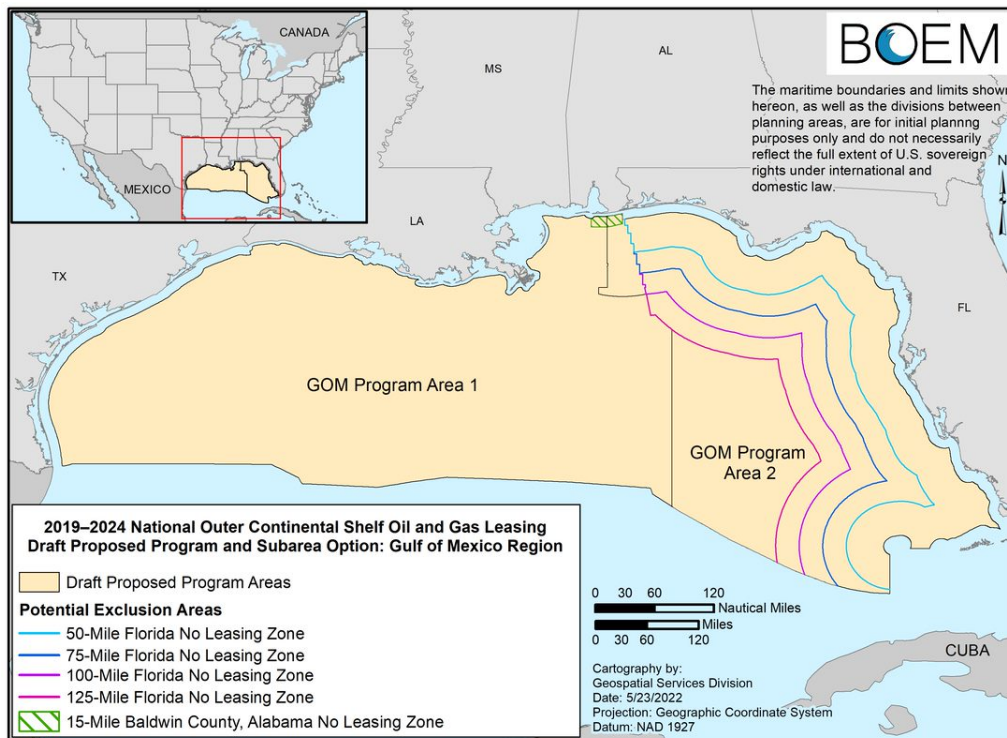
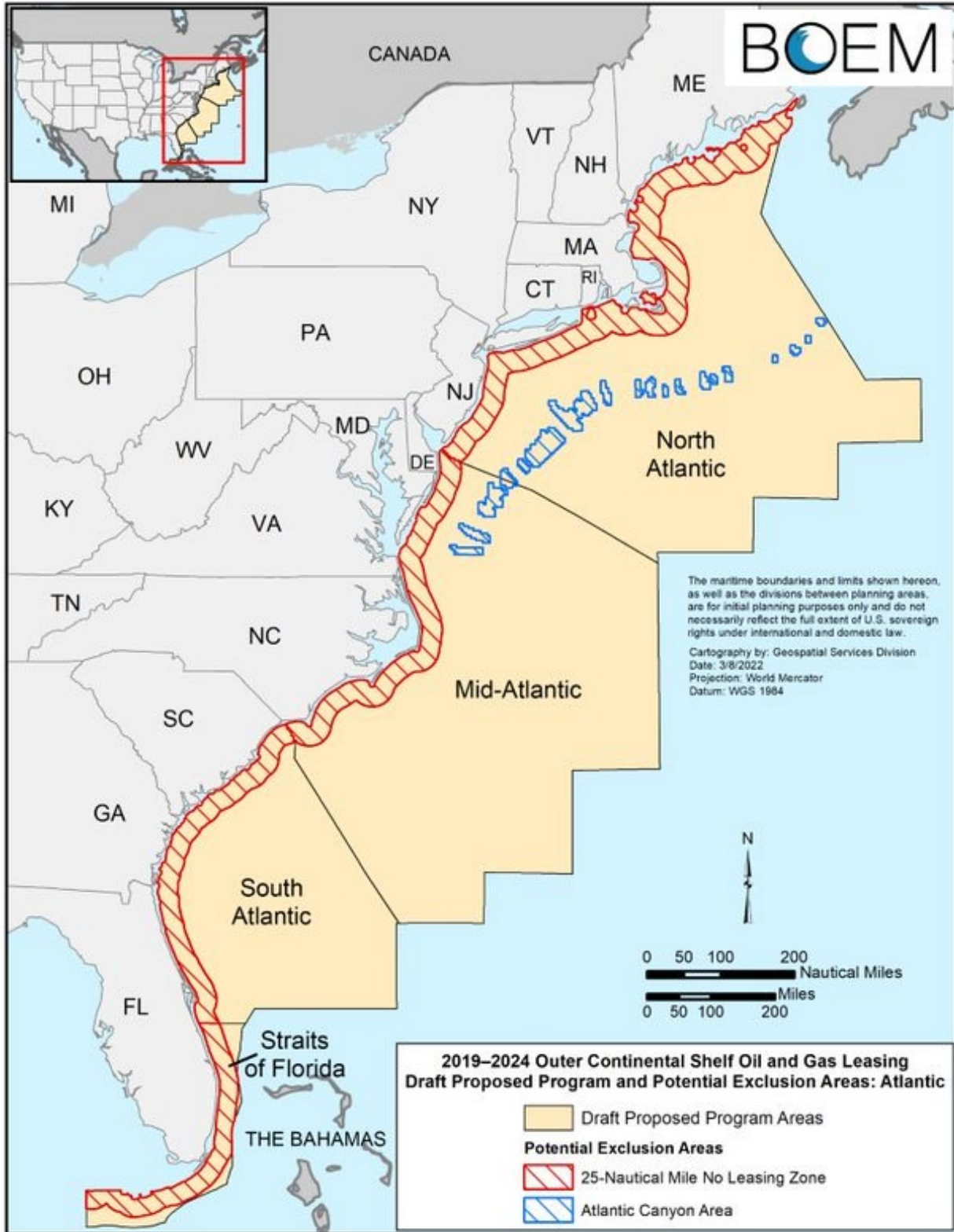


Figure 3-5: Subarea Options in the Atlantic Region



The Programmatic EIS provides information on the geographical, geological, and ecological characteristics of the program areas in the proposed lease sale schedule, including the Subarea Options and additional possible environmentally focused exclusion areas. Section 4.1 of the Draft Programmatic EIS contains the analysis for the program areas included in the proposed lease sale schedule, and Section 4.5 presents the analysis for the Subarea Options and other potential exclusion areas. The crosswalk of Proposed Program Options and Programmatic EIS alternatives is shown in **Table 3-3** in this document.

Table 3-3: Crosswalk of Proposed Program Options and Programmatic EIS Alternatives

OCS Region	Program Area	Programmatic EIS Alternative
Alaska	Beaufort Sea	Alternatives B, C, and D
	Chukchi Sea	Alternatives B, C, and D
	Cook Inlet	Alternatives B, C, and D
	Hope Basin	Alternative D
	Norton Basin	Alternative D
	St. Matthew-Hall	Alternative D
	Navarin Basin	Alternative D
	Aleutian Basin	Alternative D
	St. George Basin	Alternative D
	Bowers Basin	Alternative D
	Aleutian Arc	Alternative D
	Shumagin	Alternative D
	Kodiak	Alternative D
	Gulf of Alaska	Alternative D
Pacific	Southern California	Alternatives C and D
	Washington/Oregon	Alternative D
	Northern California	Alternative D
	Central California	Alternative D
Gulf of Mexico	GOM Program Area 1	Alternatives B, C, and D
	GOM Program Area 2	Alternatives B, C, and D
Atlantic	South Atlantic	Alternatives C and D
	Mid-Atlantic	Alternatives C and D
	North Atlantic	Alternative D
	Straits of Florida	Alternative D

Notes: A No Action Alternative (A) analysis has been conducted for each program area. The alternatives analysis is in Section 4.2 of the Programmatic EIS. The Programmatic EIS presents the analysis of the Subarea Options and other potential exclusion areas in Section 4.5.

3.1 Additional Analysis Considerations: Section 12 Withdrawals

Restrictions on OCS leasing can originate from outside the National OCS Program development process. For example, under Section 12(a) of the OCS Lands Act, 43 U.S.C. § 1341(a), the President may “withdraw from disposition any of the unleased lands of the outer Continental Shelf” (White House 2020a, c). The analyses in this document are based on the Draft Proposal, which includes full program areas, with additional analysis presented for Subarea Options and environmental exclusions. Therefore, the Proposed Program analysis does not consider any of the Section 12(a) withdrawals. The PFP and Final Programmatic EIS analyses will reflect the

Secretary's Second Proposal. **Section 4.3** describes the areas unavailable for leasing, including Section 12 withdrawals. The Secretary is not considering inclusion of any withdrawn area in the 2023–2028 Program.

3.2 Proposed Program Options by OCS Region

The following sections present the Proposed Program Options for each of the OCS Regions. Each region has a short description of the Lease Sale Options and any Subarea Options that the Secretary identified as potentially relevant to inform decisions on size, timing, and location of OCS oil and gas leasing. A No Sale Option is included for the purposes of comparison.

3.3 Alaska Region Proposed Program Options

Three types of Proposed Program Options are analyzed for 14 program areas: (1) the Lease Sale Option; (2) five Subarea Options; and (3) the No Sale Option. The Alaska Region program areas are depicted in **Figure 3-2**; Subarea Options are shown in **Figure 3-3**.

3.3.1 Lease Sale Option

This Proposed Program presents the analysis of three potential sales each in the Beaufort Sea Program Area and the Chukchi Sea Program Area, and two sales in the Cook Inlet Program Area. One sale each is scheduled in each of the following 11 program areas: Hope Basin, Norton Basin, St. Matthew-Hall, Navarin Basin, Aleutian Basin, St. George Basin, Bowers Basin, Aleutian Arc, Shumagin, Kodiak, and Gulf of Alaska.

In advance of any potential lease sale, BOEM uses scientific information and stakeholder and partner feedback regarding which specific areas offer the greatest resource potential and which carry the greatest potential for impacts on the environment, subsistence activities, and other ocean uses.

3.3.2 Subarea Options

This Proposed Program document provides a qualitative analysis for the Subarea Options, which consists of the Lease Sale Option combined with the exclusion of one or more of the following five Subarea Options. These exclusion areas have been identified as having exceptional ecological and/or subsistence values (**Figure 3-3**). Additional analysis on these and other potential exclusion areas is included in the Draft Programmatic EIS.

3.3.2.1 Barrow Whaling Area Exclusion (Beaufort Sea)

This is an important migration and foraging area for beluga whales, bowhead whales, gray whales, and many species of birds. This area also encompasses areas of high benthic biomass and high

productivity, likely driving the associated occurrence of marine mammals and birds. The presence of marine mammals in this area makes it important for subsistence hunting.

3.3.2.2 Kaktovik Whaling Area Exclusion (Beaufort Sea)

This area is used for subsistence purposes and was also highlighted during public scoping as important ecologically and for subsistence use with data and studies supporting both aspects. This area is important to feeding bowhead and beluga whales (especially in the fall), seabirds, pinnipeds, and feeding and denning polar bears.

3.3.2.3 Hanna Shoal Area Exclusion (Chukchi Sea)

The Hanna Shoal Area Exclusion is an area important to Pacific walrus foraging and includes areas of high biological productivity that serve as a foraging area for other marine mammals.

3.3.2.4 Subsistence Use Area Exclusion (Chukchi Sea)

The Chukchi Sea Subsistence Use Area encompasses offshore hunting grounds where Alaska Native peoples from Wainwright and Utqiagvik target bowhead and beluga whales and walrus.

3.3.2.5 Chukchi Sea 25-mile Coastal No Leasing Zone

The Chukchi Sea coastal area has been recognized as an important bowhead whale migration corridor, coastal habitat for many bird species, and a protective buffer to offshore subsistence areas and resources for communities along the coast. As such, this area has been excluded during many past National OCS Programs and lease sales.

3.3.3 No Sale Option

This Proposed Program presents the analysis for no lease sales held in any of the Alaska Region program areas during 2023–2028.

3.4 Pacific Region Proposed Program Options

Two types of Proposed Program Options are analyzed for the Pacific program areas: (1) the Lease Sale Option; and (2) the No Sale Option. The Washington/Oregon, Northern California, Central California, and Southern California program areas are depicted in **Figure 3-2**. No Subarea Options were identified in the Draft Proposal for the Pacific Region.

3.4.1 Lease Sale Option

This document includes the analysis for two sales each in the Southern California Program Area, Northern California Program Area, and the Central California Program Area, and one sale in the Washington/Oregon Program Area.

3.4.2 No Sale Option

This Proposed Program document presents the analysis of anticipated effects for holding no Pacific Region lease sales during 2023–2028.

3.5 Gulf of Mexico Region Proposed Program Options

Proposed Program Options analyzed in this Proposed Program document for the GOM include: (1) the Lease Sale Option; (2) Subarea Options; and (3) the No Sale Option. The GOM program areas are shown in **Figure 3-2**; Subarea Options are shown in **Figure 3-4**.

3.5.1 Lease Sale Option

Commensurate with the Draft Proposal lease sale configurations, the GOM has been divided into two areas based on availability for lease sale activities (see **Figure 3-2**). GOM Program Area 1 contains the portions of the Western, Central, and Eastern GOM planning areas not currently under Presidential withdrawal. GOM Program Area 2 contains the portions of the Central and Eastern GOM planning areas that are under Presidential withdrawal.

The analysis in this document is based on the Draft Proposal, which scheduled 10 lease sales in GOM Program Area 1. For GOM Program Area 2, two lease sales are scheduled conditioned upon these areas being available for leasing.

BOEM has included this analysis even though the recent Presidential withdrawal (see **Section 3.1**) ensures that GOM Program Area 2 will be unavailable for leasing for the duration of the 2023–2028 Program. Under this Proposed Program Option, BOEM has provided the analysis of the impacts of offering for sale the entire GOM Region that is unleased and not otherwise excluded from leasing. The majority of the Eastern GOM Planning Area has not been available for leasing since 1988.

3.5.2 Subarea Options

This Proposed Program document presents the analysis for (1) a coastal no leasing zone to accommodate military activities and nearshore use; and (2) a 15-mile, no leasing zone offshore Baldwin County, Alabama,¹⁵ as requested in the comment letter from Alabama Governor Ivey (see **Figure 3-4**).

¹⁵ An analysis of the 15-Mile Baldwin County No Leasing Zone is included in this Second Proposal but was not analyzed as a separate NEPA alternative in the Programmatic EIS because it would not analytically differ from the Proposed Action.

3.5.3 No Sale Option

This Proposed Program presents the analysis for no GOM Region lease sales held during 2023–2028.

3.6 Atlantic Region Proposed Program Options

Proposed Program Options analyzed in this Proposed Program document for the Atlantic Region include: (1) a Lease Sale Option; (2) Subarea Options; and (3) the No Sale Option. **Figure 3-2** shows the Atlantic Region program areas; Subarea Options are shown in **Figure 3-5**.

3.6.1 Lease Sale Option

This Proposed Program document presents the analysis for three sales each in the Mid-Atlantic and South Atlantic program areas; two sales in the North Atlantic Program Area; and one sale in the Straits of Florida Program Area.

3.6.2 Subarea Options

This Proposed Program document presents the analysis of the Lease Sale Option combined with the exclusion of the Atlantic Canyons, and a 50-nm coastal no leasing zone to accommodate concerns such as military use, fish and marine mammal migration, and other nearshore uses (see **Figure 3-5**). BOEM has included this analysis even though the Presidential withdrawal (see **Section 3.1**) ensures that the Straits of Florida Program Area, the South Atlantic Program Area, and a portion of the Mid-Atlantic Program Area will be unavailable for leasing for the duration of the 2023–2028 Program.

3.6.3 No Sale Option

This Proposed Program document presents the analysis of anticipated effects of holding no Atlantic Region lease sales during 2023–2028.



Chapter 4

Background,
History, &
Leasing Status of
OCS Program
Areas

Chapter 4 Background, Leasing History, and Status of OCS Planning Areas

4.1 Background

This chapter contains the background and history of the planning areas. This chapter also discusses the Proposed Program Options deemed suitable by the Secretary, in the Draft Proposal, for further analysis for potential oil and gas leasing with respect to size, timing, and location.

Table 4-1 contains the acreage of OCS Regions and the number of planning areas in each region. The environmental setting of an area where oil and gas leasing activities could occur is defined by various geological, geographical, and ecological characteristics. **Section 6.5** provides an overview of the various economic, military, and public uses of the OCS and nearby coastal regions.

Table 4-1: Acreages of the OCS Regions

Region	Acres (Millions)	Number of Planning Areas
Alaska	1,035	15
Pacific	248	4
Gulf of Mexico	160	3
Atlantic	269	4

The planning areas were initially established for administrative convenience to implement the OCS Lands Act Amendments of 1978. They have been reconfigured several times over the years, most recently to correspond to the administrative lines announced in the *Federal Register* in January 2006 (71 FR 127) and included in the February 2006 DPP for 2007–2012. Unless otherwise noted, references to a planning area in this document correspond to the current configuration.

A program area is the area under consideration in the National OCS Program and can be an entire planning area; a portion of a planning area; parts, or all, of more than one planning area; or any size/configuration in between (see **Part I**). As discussed in the National OCS Program development process in **Chapter 1**, the preparation of a new National OCS Program begins with an RFI and analysis and consideration of all 26 planning areas, as indicated by the OCS Lands Act. Once areas are chosen for further consideration by the Secretary, the subsequent analyses focus only on the chosen areas.

The Proposed Program analyses are based on the schedule of 47 potential lease sales in 24 program areas as described in the Draft Proposal. Based on a review of this analysis of the Draft Proposal, the Secretary has narrowed potential leasing under the 2023–2028 Program (see **Part I**).

In the Draft Proposal, lease sales were proposed for each planning area except for the North Aleutian Basin Planning Area, which has been under a moratorium since 2014, and is therefore unavailable for leasing consideration. See **Sections 3.1** and **4.3** for discussions on Presidential withdrawals. See **Chapter 5** for a discussion on the resource potential for each program area.

Alaska Region. The Alaska Region is the largest OCS region, covering more than 1,035 million acres. This Region consists of 15 planning areas (see **Figure 1-1**), including the Chukchi Sea, Beaufort Sea, the Bering Sea, Cook Inlet, and Gulf of Alaska, among others. Water depths in the Alaska OCS range from less than 10 feet to more than 25,000 feet. Lease sales have been held in eight of the planning areas over the years, the most recent of which was held in 2017 in the Cook Inlet Planning Area. Four of the areas (Aleutian Arc, Aleutian Basin, Bowers Basin, and St. Matthew-Hall) have been determined to have negligible oil and gas resource potential. As of June 2022, a total of 20 existing Federal leases were in the Beaufort Sea Planning Area and Cook Inlet Planning Area.

Pacific Region. The Pacific Region encompasses an area of more than 248 million acres in four planning areas and includes the Pacific offshore area from the Canadian border in the north to the Mexican border in the south (see **Figure 1-1**).¹⁶ Water depths range from approximately 30 feet to more than 17,500 feet. Lease sales have been held in all four areas, with the most recent lease sale occurring in the Southern California Planning Area in 1984. As of June 2022, the Southern California Planning Area had 30 existing Federal oil and gas leases. The Pacific Region also contains one renewable energy research lease.

A Call for Information and Nominations (Call) was published on October 19, 2018, for expressions of interest to develop OCS wind for areas offshore northern and central California. A Proposed NOS was published on May 31, 2022. For more information on potential wind energy development offshore California, visit <https://www.boem.gov/renewable-energy/state-activities/california>. On April 29, 2022, BOEM announced a Call to assess commercial interest in—and obtain public input on—potential wind energy leasing activities in Federal waters off the Oregon coast. For more information on potential wind energy development offshore Oregon, visit <https://www.boem.gov/renewable-energy/state-activities/Oregon>. Additionally, BOEM has received and is currently reviewing two unsolicited lease requests for wind projects offshore the State of Washington.

¹⁶ Administratively, the Pacific Region includes the State of Hawaii. However, for National OCS Program analysis purposes, the Pacific Region only includes the four planning areas adjacent to the U.S. West Coast.

Hawaii is not analyzed for oil and gas leasing consideration, but a Call was issued in 2016 for expressions of interest to develop wind energy on the OCS off Hawaii (see footnote). For more information on potential wind energy development offshore Hawaii, visit <https://www.boem.gov/renewable-energy/state-activities/hawaii-activities>.

Gulf of Mexico Region. The GOM Region is on the southern margin of the U.S. and contains approximately 160 million acres in three planning areas. The coastline distance is approximately 1,650 miles from Texas to the Straits of Florida (see **Figure 1-1**). Water depths range from less than 30 feet to greater than 11,000 feet. The Central and Western GOM planning areas are the most mature and active oil and gas areas of the OCS, with production ongoing for more than 60 years.

Annual planning area-wide lease sales in these two areas had been typical for the past 30 years. The 2017–2022 Program instituted semi-annual, region-wide lease sales of all available acreage in the Western, Central, and Eastern GOM planning areas. As of June 2022, there were 1,963 existing Federal leases in all three planning areas.

BOEM published a Call on November 1, 2021, to further assess commercial interest in, and invite public comment on, possible commercial wind energy leasing in a proposed area in the GOM. On January 11, 2022, BOEM announced it is preparing a Draft EA to consider potential GOM OCS wind leasing. For more information on potential wind energy development in the GOM, visit <https://www.boem.gov/renewable-energy/state-activities/gulf-mexico-activities>.

Additionally, millions of cubic yards of OCS sand for coastal protection projects in this region have been conveyed through leases and agreements (see **Section 6.5**). As of June 2022, there was one active agreement for OCS sand offshore Louisiana.

Atlantic Region. The Atlantic Region encompasses an area of nearly 270 million acres in four planning areas. It extends north to Canada, and south to the territorial waters of Cuba (see **Figure 1-1**). Water depths in the Atlantic OCS range from approximately 12 feet to more than 18,000 feet. Lease sales have been held in all four areas, the most recent in 1983. There was exploration activity in the past, but there has been no production in this region. There are no existing oil and gas leases in the Atlantic Region; however, as of June 2022, there were 27 active commercial wind leases, one research lease, and one right-of-way grant. For more information on wind energy development in the Atlantic, visit: <https://www.boem.gov/renewable-energy/state-activities>. Millions of cubic yards of OCS sand for coastal protection projects in this region have been conveyed through leases and agreements; as of June 2022, there were six active leases or agreements.

4.2 Lease Sale History Statistics

Table 4-2 shows general leasing history statistics for each OCS region. **Figure 4-1** shows the trends in lease sale offerings for each approved National OCS Program.

Table 4-2: General Leasing History Statistics per OCS Region as of June 2022

Region	Existing Leases	First Lease Sale	Most Recent Lease Sale
Alaska	20 (Beaufort Sea, Cook Inlet)	1976 (Gulf of Alaska)	2017 (Cook Inlet)
Pacific	30 (Southern California)	1963 (Northern, Central, and Southern California)	1984 (Southern California)
Gulf of Mexico	1,963 (All GOM planning areas)	1954	2021 (Western/Central, Eastern)*
Atlantic	0	1959 (Straits of Florida)	1983 (Mid-Atlantic, South Atlantic)

Key:

* All available areas, not including those subject to the GOMESA moratorium through June 30, 2022.

4.3 Areas Unavailable for OCS Oil and Gas Leasing

Restrictions on OCS leasing can originate outside the National OCS Program development process. Areas may be withdrawn by the President under Section 12(a) of the OCS Lands Act, 43 U.S.C. § 1341(a), and are referred to as Presidential withdrawals (also referred to as executive withdrawals). Areas can also be withdrawn or otherwise made unavailable for leasing by the President under the Antiquities Act, or by Congress by statute (e.g., GOMESA).

Table 4-3 lists the areas withdrawn from OCS oil and gas leasing and the status of withdrawal. Additional information on areas under restriction can be found at <https://www.boem.gov/Areas-Under-Moratoria/>.

4.3.1 National Marine Sanctuaries

The National Marine Sanctuaries Act (16 U.S.C. § 1431 et seq.) was enacted in 1972 and is the legislative mandate that governs the National Oceanic and Atmospheric Administration's (NOAA) Office of National Marine Sanctuaries and the National Marine Sanctuary (NMS) System. Under the Act, the Secretary of Commerce is authorized to designate and manage areas of the marine environment as NMSs. Such designation is based on attributes of special national significance, including conservation, and recreation, ecological, historical, scientific, cultural, archaeological, educational, or aesthetic qualities.

Figure 4-1: Number of Proposed Lease Sales Included in Approved National OCS Programs by Planning Area

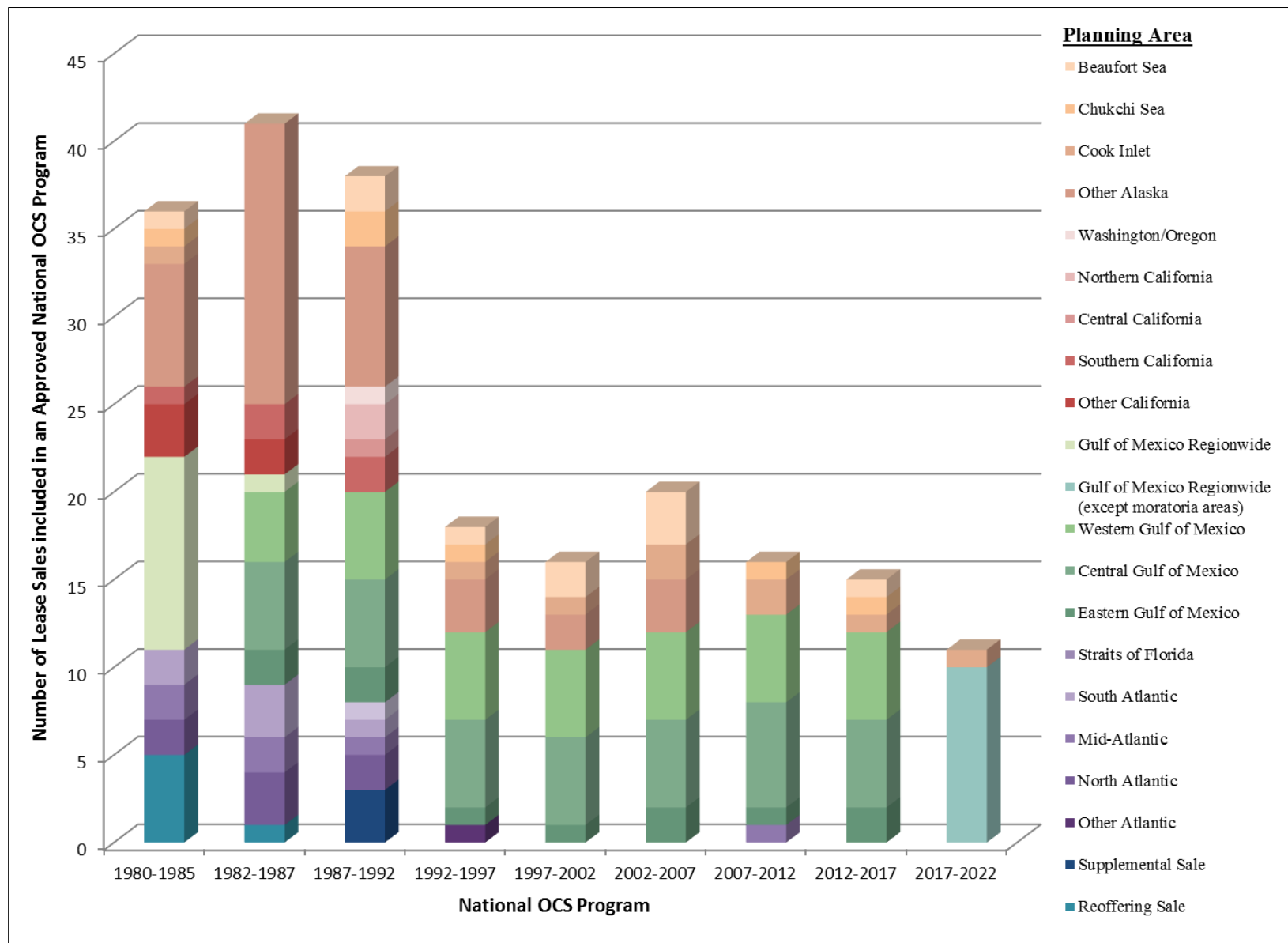


Table 4-3: Areas Unavailable for OCS Oil and Gas Leasing

Area/Feature	Withdrawal Date	Status
National Marine Sanctuaries (as designated as of July 14, 2008)	July 14, 2008	Unavailable for OCS oil and gas leasing, pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a)
Majority of the Eastern GOM and a portion of the Central GOM	December 20, 2006	Unavailable for oil and gas leasing until June 30, 2022, pursuant to GOMESA (and see below)
North Aleutian Basin (Alaska)	December 16, 2014	Unavailable for OCS oil and gas leasing, pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a)
Northeast Canyons and Seamounts Marine National Monument (Atlantic)	September 15, 2016	Unavailable for OCS oil and gas leasing, pursuant to the Antiquities Act (54 U.S.C. § 320301)
Majority of the Eastern GOM and a portion of the Central GOM (GOM Program Area 2); Straits of Florida; South Atlantic	September 8, 2020	Unavailable for oil and gas OCS leasing, from July 1, 2022, to June 30, 2032, pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a)
Portion of the Mid-Atlantic	September 25, 2020	Unavailable for oil and gas OCS leasing, from July 1, 2022, to June 30, 2032, pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a)
Majority of the Alaskan Arctic (entire Chukchi Sea Planning Area and majority of Beaufort Sea Planning Area) and the Northern Bering Sea Climate Resilience Area	December 20, 2016 (reaffirmed January 20, 2021)	Unavailable for OCS oil and gas leasing, pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a)
Atlantic Canyons	December 20, 2016 (reaffirmed January 20, 2021)	Unavailable for OCS oil and gas leasing, pursuant to Section 12 of the OCS Lands Act, 43 U.S.C. § 1341(a)

Key: GOM = Gulf of Mexico; GOMESA = Gulf of Mexico Energy Security Act

Whole OCS lease blocks and portions of these blocks that lie within the boundaries of the NMSs listed above are excluded from leasing. Additional information can be found in BOEM’s OCS regulatory framework document at <https://www.boem.gov/OCS-Regulatory-Framework/>. There are no NMSs in the Alaska Region. The following five NMSs are in the Pacific Region: Olympic Coast, Greater Farallones, Cordell Bank, Monterey Bay, and Channel Islands. NMSs in the GOM Region are the Flower Garden Banks and Florida Keys. The Atlantic Region includes Stellwagen Bank, Gray’s Reef, and Monitor NMSs, and one proposed NMS in the area of Hudson Canyon, currently under Presidential withdrawal (see **Section 4.3.8**).

4.3.2 GOMESA Areas

On December 20, 2006, the President signed GOMESA into law. The GOMESA established a moratorium on leasing, preleasing, or any related activity for designated areas until June 30, 2022. However, as described below, President Trump, using his authority under Section 12(a) of the OCS Lands Act, withdrew this area from leasing consideration until June 30, 2032. The GOMESA

(and now withdrawal) areas are shown at <https://www.boem.gov/GOMESA-Map/> and are described as follows:

- the area within 125 miles of the State of Florida in the Eastern GOM Planning Area
- the 181 Area in the Central GOM Planning Area that is within 100 miles of the State of Florida
- the area east of the Military Mission Line.

4.3.3 North Aleutian Basin Planning Area

There was one lease sale in the North Aleutian Basin in 1986 with 23 leases issued in 1988 after resolution of litigation concerning the lease sale. However, those leases were relinquished in the 1995 settlement of litigation. There has been no exploratory activity and there are no existing leases in this area. One lease sale was scheduled for this area in the 2007–2012 Program. However, pursuant to Section 12(a) of the OCS Lands Act, the area was withdrawn from leasing consideration through June 30, 2017, by President Obama on March 31, 2010. The lease sale proposed in the original 2007–2012 Program was not included in the December 2010 Revised 2007–2012 Program that followed the remand by the District of Columbia Circuit Court of Appeals (see **Section 2.7** for further information).

Pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. 1341(a), in March 2014, President Obama withdrew the Bristol Bay area of the North Aleutian Basin, and then on December 16, 2014, he revoked the March decision and withdrew the entire North Aleutian Basin Planning Area, including Bristol Bay, from future leasing consideration for a period without specific expiration (see **Figure 1-1**).

4.3.4 Northern Bering Sea Climate Resiliency Area

Pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. § 1341(a), President Obama created the Northern Bering Sea Climate Resiliency Area, withdrawing from oil and gas leasing consideration the area encompassing the Norton Basin Planning Area and the OCS lease blocks within the St. Matthew-Hall Planning Area lying within 25 nautical miles of St. Lawrence Island. On April 28, 2017, President Trump issued E.O. 13795, reducing existing Presidential withdrawals to include only those for the North Aleutian Basin and NMSs that were designated as of July 14, 2008. On January 20, 2021, President Biden issued E.O. 13990, reinstating the December 20, 2016, withdrawals, thereby restoring the original withdrawal of the Northern Bering Sea Climate Resiliency Area.

4.3.5 Chukchi Sea and Beaufort Sea Planning Areas

Pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. § 1341(a), on December 20, 2016, President Obama withdrew the entire Chukchi Sea Planning Area and the majority of the

Beaufort Sea Planning Area in the Alaskan Arctic from future oil and gas leasing consideration for a period without specific expiration (see **Figure 4-2**). On April 28, 2017, President Trump issued E.O. 13795, reducing existing Presidential withdrawals to include only those for the North Aleutian Basin and NMSs that were designated as of July 14, 2008. On January 20, 2021, President Biden issued E.O. 13990, reinstating the December 20, 2016, withdrawals, thereby restoring the original withdrawal of the entire Chukchi Sea Planning Area and the majority of the Beaufort Sea Planning Area.

4.3.6 Northeast Canyons and Seamounts Marine National Monument

The Northeast Canyons and Seamounts Marine National Monument was established by Presidential Proclamation on September 15, 2016, pursuant to the Antiquities Act (54 U.S.C. § 320301). Exploring for, developing, or producing oil and gas or minerals, or undertaking any other energy exploration or development activities within the monument is prohibited.

4.3.7 Majority of the Eastern GOM and a Portion of the Central GOM (GOM Program Area 2); Straits of Florida; South Atlantic

On September 8, 2020, the President withdrew the areas described in **Section 4.3.2** (GOM Program Area 2) and the Straits of Florida and South Atlantic planning areas from leasing consideration for the purposes of exploration, development, or production during the 10-year period beginning on July 1, 2022 and ending on June 30, 2032.

4.3.8 Atlantic Canyons

On December 20, 2016, the President withdrew, for a period without specific expiration, the areas of the OCS associated with 26 major canyons and canyon complexes offshore the Atlantic Coast lying within the North Atlantic and Mid-Atlantic planning areas.

4.3.9 Portion of the Mid-Atlantic

On September 25, 2020, the President withdrew a large portion of the planning area from consideration for any leasing for purposes of exploration, development, or production during the 10-year period beginning on July 1, 2022 and ending on June 30, 2032.

4.4 Alaska Region Planning Areas

The Alaska Region is composed of 15 planning areas surrounding the state. Federal lease sales have been held in eight of those planning areas. Existing Federal leases are present only in the Beaufort Sea Planning Area and the Cook Inlet Planning Area. The only Federal production is occurring in a joint Federal/state unit (Northstar) in the Beaufort Sea Planning Area.

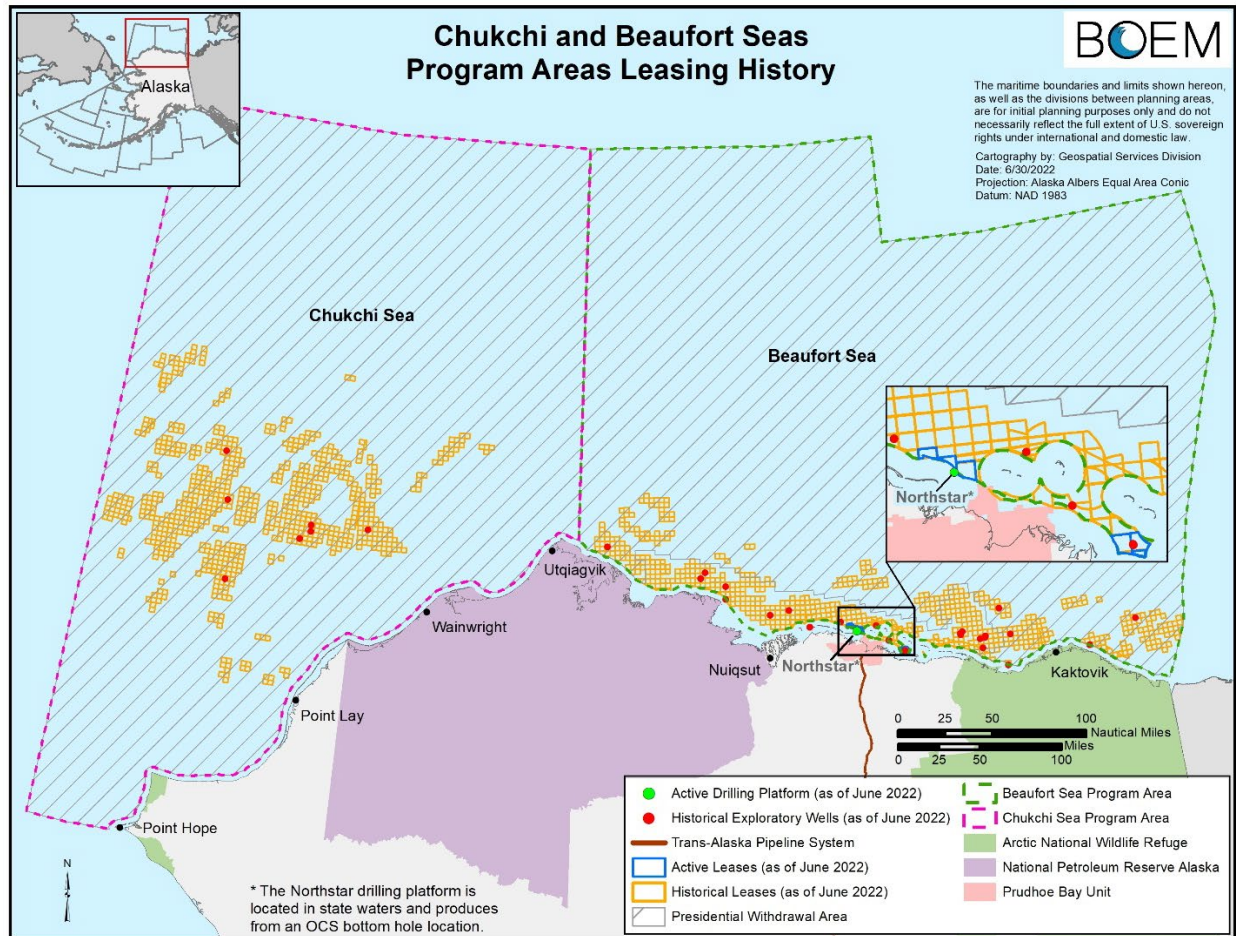
In October 2018, BOEM conditionally approved an oil and gas development and production plan in the Beaufort Sea associated with the Liberty Project. That approval was contested by several environmental groups. On December 7, 2020, the Ninth Circuit Court of Appeals found the Liberty EIS inadequate because it failed to consider the effects of foreign consumption of the oil to be produced, and found the ESA Biological Opinion flawed, and, therefore, BOEM’s reliance on it unlawful.

Figures 4-2 through **4-5** show the leasing history in each area. Outside of the Beaufort Sea and Cook Inlet, there is little, if any, existing oil and gas infrastructure and activity offshore Alaska. See **Chapter 5** for information on the oil and gas resource potential in Alaska. **Figure 10-3** shows the general position on OCS oil and gas production stated by the Governor of Alaska, in comments on the DPP. **Figure 4-6** shows the number of wells drilled per year in the Alaska Region.

4.4.1 Beaufort Sea Planning Area

Ten lease sales have been held in this area since 1979. One lease sale was scheduled in the 2012–2017 Program, but was subsequently cancelled on October 16, 2015, due to then-existing market conditions. One lease sale was planned in the 2017–2022 Proposed Program but was subsequently removed in the 2017–2022 PFP decision.

Pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. 1341(a), on December 20, 2016, President Obama withdrew the majority of the Beaufort Sea Planning Area in the Alaskan Arctic from future oil and gas leasing consideration for a period without specific expiration (**Figure 4-2**). However, E.O. 13795 rescinded this withdrawal, thus making the entire Beaufort Sea Planning Area available for leasing consideration.

Figure 4-2: Beaufort and Chukchi Seas Program Areas Leasing History

On May 3, 2017, several environmental groups filed suit in the U.S. District Court for Alaska (*League of Conservation Voters et al. v. Trump*) complaining that the OCS Lands Act does not authorize the President to reverse a prior withdrawal made under Section 12. On March 29, 2019, the Alaska District Court issued the decision on this case, vacating Section 5 of E.O. 13795, and effectively leaving in place prior withdrawals of OCS areas that had been revoked by the E.O. The U.S. appealed that decision to the Ninth Circuit Court of Appeals.

On January 20, 2021, President Biden issued E.O. 13990, reinstating the December 20, 2016, withdrawals, thereby restoring the original withdrawal of most of the Beaufort Sea Planning Area.¹⁷ On April 13, 2021, the appeal became moot, and the Ninth Circuit Court of Appeals remanded the case to the District Court for dismissal. The District Court dismissed the case on April 16, 2021.

¹⁷ These areas are analyzed in this document as they were included in the Draft Proposal. See discussion in **Chapter 3**.

Figure 4-3: Western Alaska Program Areas Leasing History

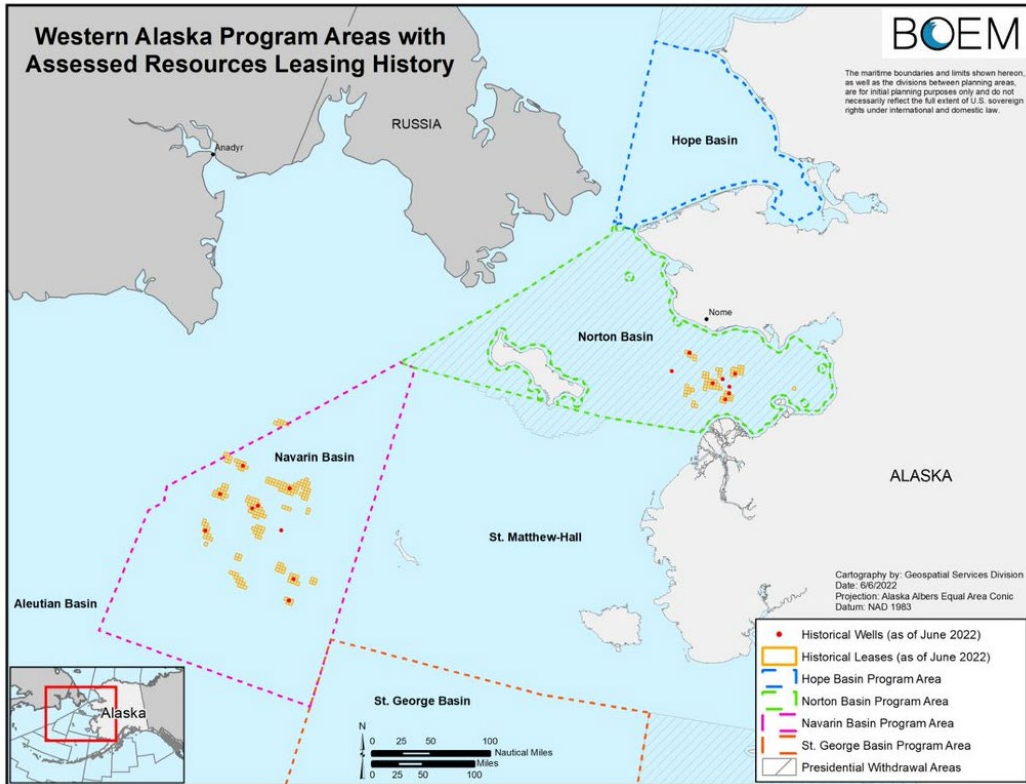


Figure 4-4: Southwestern Alaska Program Areas Leasing History

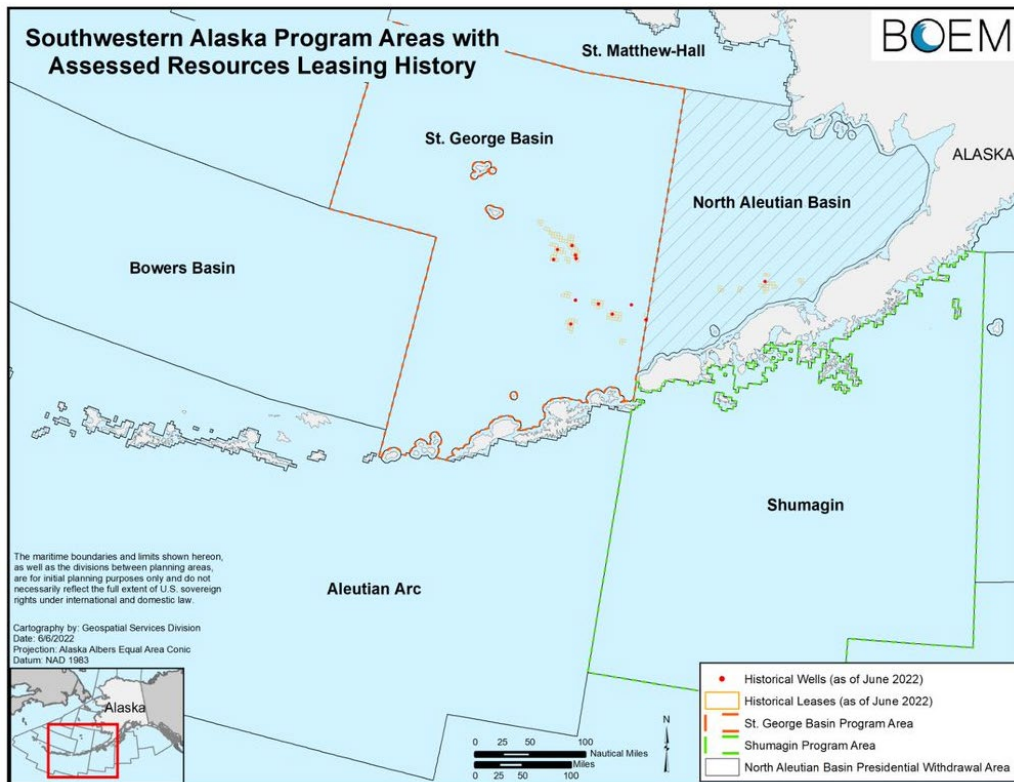


Figure 4-5: Southeastern Alaska Program Areas Leasing History

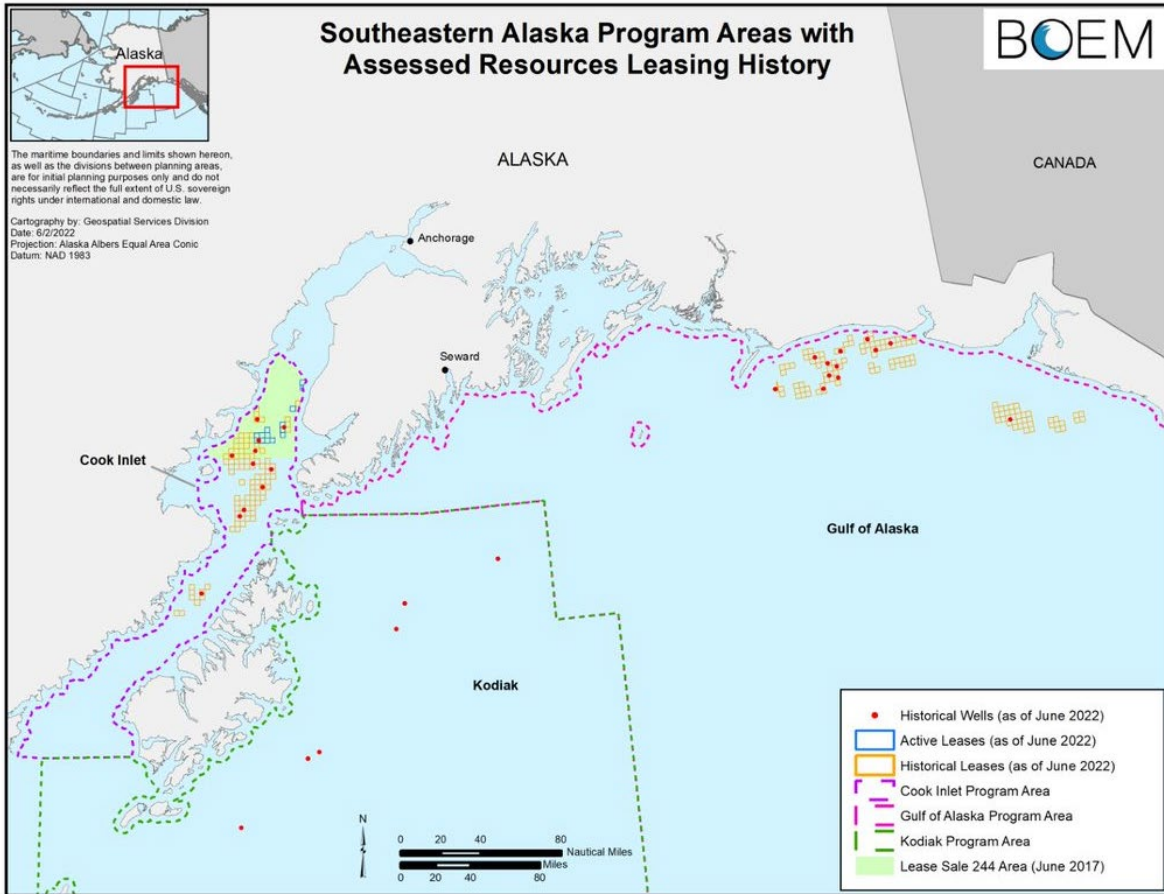
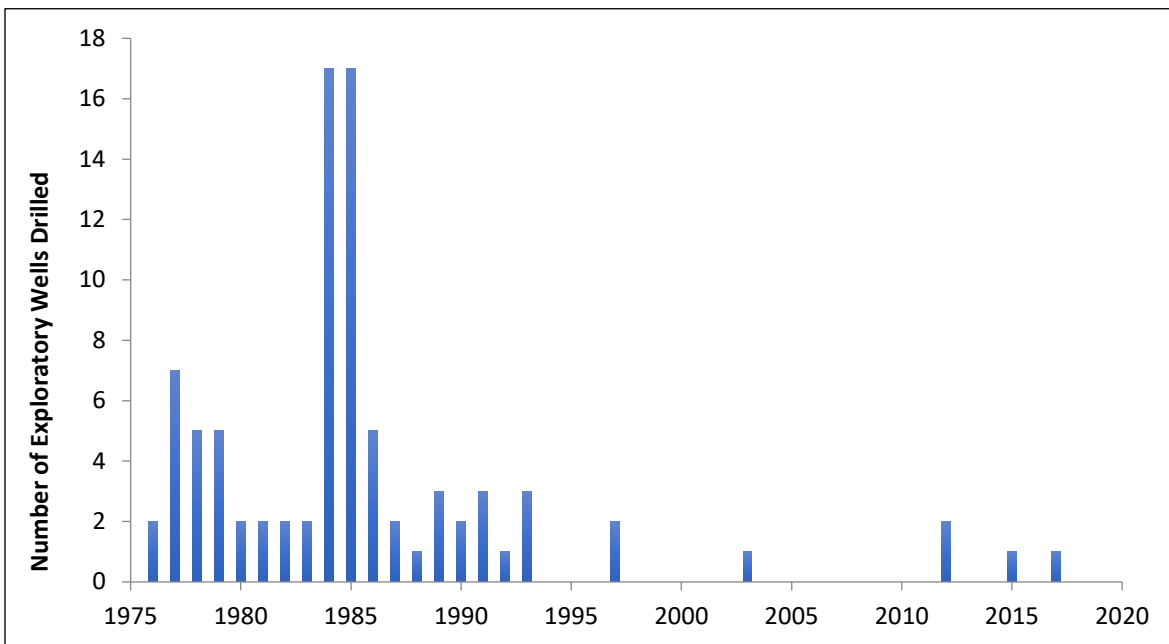


Figure 4-6: Number of Exploratory Wells Drilled per Year in the Alaska Region



As of June 2022, there were six existing OCS leases in the Beaufort Sea Planning Area. Thirty-three exploratory and seven development wells have been drilled.¹⁸ The most recently drilled wells were drilled in 2015 and 2017. In preparation for the proposed 2020 Beaufort Sea Lease Sale, as included in the DPP lease sale schedule, BOEM published a Call on March 30, 2018, and an NOI on November 16, 2018.¹⁹ The State of Alaska holds area-wide lease sales in the adjacent state waters annually in the fall, and there is active production from state acreage adjacent to existing OCS leases.

The North Slope Borough and others, in public comments on the DPP, stated the importance of ensuring adequate oil production to extend the operation of the Trans-Alaska Pipeline System (TAPS). TAPS is currently operating at approximately one-quarter of its capacity and requires new discoveries to continue operations. Both the Beaufort Sea and the Chukchi Sea planning areas have the potential for oil discoveries to keep TAPS operating.

4.4.2 Chukchi Sea Planning Area

Three lease sales have been held in this area since 1988. Five exploratory wells were drilled prior to 1992 on leases issued in earlier lease sales; all have since been plugged and abandoned. An uneconomic gas discovery was made in 1990 in the Burger prospect and the well was plugged and abandoned. One exploration well was drilled in 2012 but was also plugged and abandoned without being drilled to total depth. In 2015, one exploration well was drilled to total depth and has been plugged and abandoned. Lease Sale 193, the most recent in this area, was held in February 2008, and was the largest lease sale in the history of Alaska OCS leasing, generating more than \$2.6 billion in bonus revenues. However, all 487 leases issued in Lease Sale 193 were relinquished by the leaseholders due to lackluster drilling results and significant litigation.

Although there are no existing leases in the Chukchi Sea Planning Area, it has significant estimated hydrocarbon potential.

One lease sale was scheduled in the 2012–2017 Program, but subsequently cancelled on October 16, 2015, due to lack of industry interest and then-existing market conditions. One lease sale was scheduled in the 2017–2022 Proposed Program but was removed in the 2017–2022 PFP decision.

Pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. § 1341(a), on December 20, 2016, President Obama withdrew the entire Chukchi Sea Planning Area in the Alaskan Arctic from future oil and gas leasing consideration for a period without specific expiration (see **Figure 4-2**).

¹⁸ The 31 wells include a top hole well drilled in 2012, which is not considered a well drilled to completion.

¹⁹ The first lease sale scheduled in the 2019–2024 Draft Proposal was the 2019 Beaufort Sea lease sale. However, due to adjustments in timing to the National OCS Program that sale did not occur, and any sale would have to occur after the National OCS Program is approved.

However, E.O. 13795, issued April 28, 2017, rescinded this withdrawal of the Chukchi Sea Planning Area making this area available for leasing consideration.

On May 3, 2017, several environmental groups filed suit in the U.S. District Court for Alaska (*League of Conservation Voters et al. v. Trump*) complaining that the OCS Lands Act does not authorize the President to reverse a prior withdrawal made under Section 12. On March 29, 2019, the Alaska District Court issued the decision in this case, vacating Section 5 of E.O. 13795, and effectively leaving in place prior withdrawals of OCS areas that had been revoked by the E.O. The U.S. appealed that decision to the Ninth Circuit Court of Appeals.

On January 20, 2021, President Biden issued E.O. 13990, reinstating the December 20, 2016, withdrawals, thereby restoring the original withdrawal of the entire Chukchi Sea Planning Area.²⁰ On April 13, 2021, the appeal became moot, and the Ninth Circuit Court of Appeals remanded the case to the District Court for dismissal. The District Court dismissed the case on April 16, 2021.

4.4.3 Hope Basin Planning Area

No lease sales have been held in the Hope Basin Planning Area. The area was included in the 1997–2002 Program as a simultaneous U.S./Russia OCS lease sale, but that sale was cancelled. Subsequently, this area was included in the 2002–2007 Program as a special interest lease sale, meaning that multiple Calls would be issued to determine if there was interest in a sale, in conjunction with the Chukchi Sea Planning Area. However, no interest was expressed for the Hope Basin in response to three Calls issued during the 2002–2007 Program timeframe, so the sale was cancelled.

4.4.4 Norton Basin Planning Area

One lease sale was held in 1983 in Norton Basin. Six exploratory wells have been drilled, with no commercial discoveries. There are no existing leases. The area was included in the 2002–2007 Program as a special interest lease sale. Four Calls were issued with no expressions of interest, so no sale was held.

Pursuant to Section 12(a) of the OCS Lands Act (43 U.S.C. § 1341(a)), on December 20, 2016, President Obama withdrew the Norton Basin Planning Area from future oil and gas leasing consideration for a period without specific expiration as part of the Northern Bering Sea Climate Resiliency Area (see **Figure 4-3**). However, E.O. 13795, issued April 28, 2017, rescinded this withdrawal, making this area available for leasing consideration. On January 20, 2021, President Biden issued E.O. 13990, reinstating the December 20, 2016, withdrawals, thereby restoring the original withdrawal of the entire Norton Basin Planning Area.

²⁰ These areas are analyzed in this document as they were included in the Draft Proposal. See discussion in **Chapter 3**.

4.4.5 Navarin Basin Planning Area

One lease sale was held in 1983 in the Navarin Basin. Eight exploratory wells were drilled, with no commercial discoveries. There are no existing leases, and the area has not been included in an approved lease sale schedule since the 1987–1992 Program.

4.4.6 St. George Basin Planning Area

One lease sale was held in 1983 in St. George Basin. Ten exploratory wells were drilled, with no commercial discoveries. There are no existing leases in this area. One lease sale was scheduled in the 1992–1997 Program, but it was cancelled. The area has not been included in a proposed lease sale schedule since that National OCS Program.

4.4.7 Cook Inlet Planning Area

There have been six lease sales in this area since 1977. As of June 2022, there are 14 existing leases in the planning area, all of which were issued in Lease Sale 244 held June 21, 2017. As of June 2022, a completed exploration plan has not been submitted for these leased areas. The Secretary decided to not hold Lease Sale 258, scheduled as part of the 2017–2022 National OCS Program, due to lack of industry interest in the area. Thirteen exploratory wells have been drilled on leases issued through earlier sales, with no commercial discoveries.

The upper Cook Inlet is a mature basin in which extensive exploration and development in state submerged lands have occurred during the past 40 years. The State of Alaska schedules annual area-wide lease sales in state submerged lands, the most recent of which was held in May 2022, with two tracts leased. Existing infrastructure in the upper portion of Cook Inlet includes 17 platforms in state waters, associated oil and gas pipelines, and onshore drill pads, processing, and support facilities.

4.4.8 Gulf of Alaska Planning Area

Three lease sales were held from 1976 to 1981 in the Gulf of Alaska. Twelve exploratory wells were drilled, but no commercial discoveries were found. The lease sale scheduled in the 1997–2002 Program was cancelled, primarily due to low oil and gas prices and low industry interest. There are no existing leases in this planning area.

4.4.9 Alaska Program Areas with No Historical Lease Sales

The following planning areas have had no lease sales and no wells have been drilled:

- Aleutian Arc
- Aleutian Basin
- Bowers Basin

- Hope Basin
- Kodiak
- Shumagin
- St. Matthew-Hall.

4.5 Pacific Region Planning Areas

The Pacific OCS planning areas encompass more than 248 million acres and include the Pacific offshore area extending north to the Canadian border and south to the Mexican border. Pacific OCS planning areas begin 3 miles offshore and extend seaward to approximately 200 nm seaward of the baseline, with water depths ranging from approximately 30 feet to more than 17,500 feet.

For purposes of the National OCS Program, the Pacific Region is comprised of four planning areas: Washington/Oregon, Northern California, Central California, and Southern California. Lease sales have been held in all four planning areas, the most recent of which was held in the Southern California Planning Area in 1984 (see **Figures 4-7** and **4-8**). As of June 2022, there are 30 existing leases and 23 platforms, with six in the process of being decommissioned; all are in the Southern California Planning Area. See **Chapter 5** for information on the Pacific Region oil and gas resource potential. **Figure 10-3** shows the general positions stated by the governors of the three coastal states, as expressed in their comments on the DPP.

4.5.1 *Washington/Oregon Planning Area*

One lease sale was held in 1964 in the Washington/Oregon Planning Area. Twelve exploratory wells were drilled, with no commercial discoveries. The planning area contains one renewable energy research lease and no existing oil and gas leases. The area was under annual Congressional restrictions from fiscal year (FY) 1991 through FY 2008, and under Presidential withdrawal from 1990 to July 2008. The Olympic Coast NMS overlies parts of the areal extent of three geologic plays containing assessed hydrocarbon resources within the Washington/Oregon Program Area.

4.5.2 *Northern California Planning Area*

One lease sale was held in 1963 in Northern California. Seven exploratory wells were drilled, with no commercial discoveries. The area was under annual Congressional restrictions from FY 1982 through FY 2008 and under Presidential withdrawal from 1990 to July 2008. An NMS overlies parts of the areal extent of nine geologic plays containing assessed hydrocarbon resources within the Northern California Program Area.

Figure 4-7: Washington/Oregon and Northern California Program Areas Leasing History

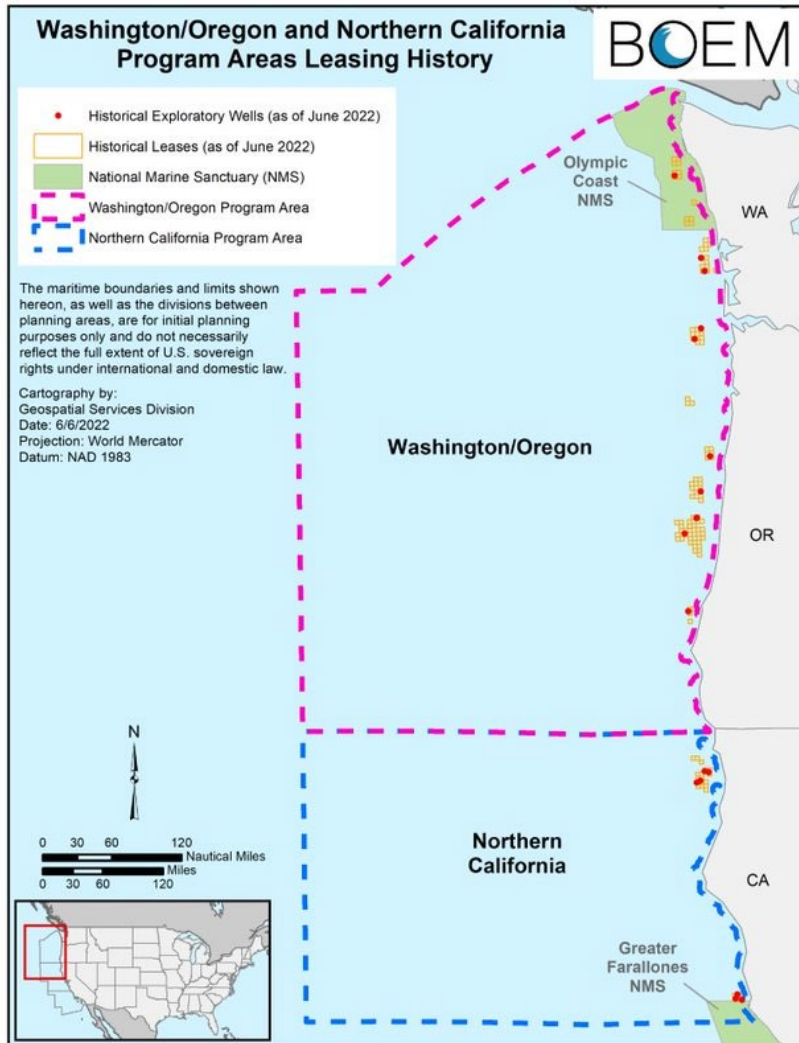
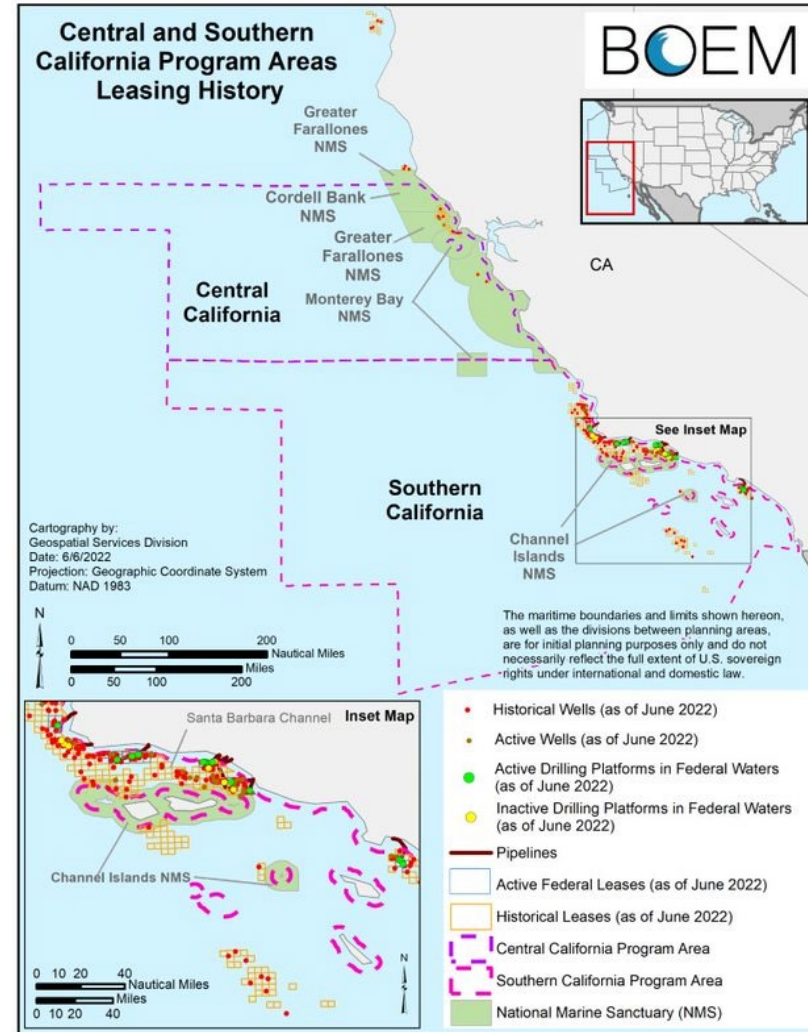


Figure 4-8: Central and Southern California Program Areas Leasing History



4.5.3 *Central California Planning Area*

One lease sale was held in 1963 in Central California. Twelve exploratory wells were drilled, with no commercial discoveries. The area was under annual Congressional restrictions from FY 1991 through FY 2008 and under Presidential withdrawal from 1990 to July 2008. Most of the OCS closest to the coast is designated as NMSs and is under Presidential withdrawal for a period without specific expiration. The NMSs overlie parts of the areal extent of nine geologic plays containing assessed hydrocarbon resources within the Central California Program Area (see **Figure 4-8**). See BOEM’s Draft Economic Analysis Methodology paper (BOEM 2022b) for more information about methods used to assess hydrocarbon resources in this program area for the Proposed Program analyses.

4.5.4 *Southern California Planning Area*

Ten lease sales were held from 1963 through 1984 in Southern California. More than 1,500 exploratory and development wells have been drilled. As of June 2022, there are 30 existing leases. In August 2018, BOEM and BSEE jointly prepared a *Draft Programmatic Environmental Assessment for Federally Regulated Offshore Oil and Gas Activities in the Southern California Planning Area* (BSEE and BOEM 2018). The Draft EA presents the analysis of BSEE’s continued review, and, if appropriate, approval, of activities including new permit applications for well drilling, conductor installation, temporary well abandonment, and other permitted downhole activities at existing oil and gas platforms in the Southern California Planning Area.

Much of the area was under annual Congressional restrictions for new lease sales from FY 1985 through FY 2008 and under Presidential withdrawal from 1990 until July 18, 2008. There are also producing leases in state waters, although no new state leases have been issued since 1969.

4.6 **Gulf of Mexico Region Planning Areas**

The GOM Region is comprised of the Western, Central, and Eastern GOM planning areas (see **Figure 4-9**). The Western and Central GOM planning areas are the most mature and active of all 26 OCS planning areas, with extensive existing infrastructure. The Western and Central GOM planning areas, consisting of the OCS offshore Alabama, Mississippi, Louisiana, and Texas, remain the primary offshore source of oil and gas for the U.S., generating about 99% of all OCS oil and gas production. This high level of production and activity is supported by an oil and gas industry that includes hundreds of large and small companies, and an expansive onshore network of coastal infrastructure.

Figure 4-9: Gulf of Mexico Region Leasing History



Note: GOM Program Area 2 is under GOMESA moratorium until June 30, 2022; however, this area was further excluded from leasing by Presidential withdrawal until June 30, 2032.

The majority of the Eastern GOM Planning Area and a small portion of the Central GOM Planning Area are not available for leasing consideration through June 30, 2022, pursuant to GOMESA, extended by Presidential withdrawal to June 30, 2032. There are existing leases in both the currently available and unavailable portions of the Eastern GOM. Those in the unavailable portion pre-date GOMESA.

The geology of the GOM basin and the complexity and abundance of its salt structures provides the setting that makes the GOM one of the richest oil and natural gas regions in the world. The greatest undiscovered resource potential in the OCS is forecast to exist in the deep and ultra-deep waters of the GOM.

There have been more than 100 lease sales in the GOM Region since 1954. There is commercial production in the Western and Central GOM planning areas, but, as of June 2022, no commercial production has occurred from leases anywhere in the Eastern GOM Planning Area. See **Chapter 5** for geologic play maps and a discussion of estimated oil and gas resources by planning

area. **Figure 10-3** shows the general position on OCS oil and gas production stated by governors in the GOM Region, as expressed in the comments received in response to the DPP.

Internationally, the U.S and Mexico signed the *Agreement between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico* (Agreement) in February 2012. It entered into force in July 2014. The Agreement sets out a framework for cooperating on joint exploration and exploitation of geological hydrocarbon structures and reservoirs that extend across the maritime boundary of the U.S. and Mexico, and the entirety of which are beyond 9 miles from the coastline.

Accordingly, the U.S. and Mexico notify each other of planned activities within 3 statute miles of the delimitation line. Mexico made constitutional amendments in December 2013, followed by legislation in August 2014, which opened oil and natural gas markets to foreign investments, including from entities that are active in the GOM. The first leases in the area covered by this Agreement on the U.S. side were issued from Western GOM Lease Sale 238, held in August 2014. The opening of Mexican waters could provide for long-term expansion of U.S.-Mexico energy trade and opportunities for U.S. companies, but also could result in a short- or longer-term shift in investment focus to the Mexican waters from the OCS.

4.6.1 Western Gulf of Mexico Planning Area

As of June 2022, there were approximately 213 existing leases in the Western GOM Planning Area. More than 7,800 wells have been drilled. Lease Sale 257 was held on November 17, 2021, but was vacated by the U.S District Court for the District of Columbia.²¹ The two remaining GOM region-wide lease sales scheduled in the 2017–2022 National OCS Program, Lease Sales 259 and 261, did not advance as a result of delays due to factors including conflicting court rulings that impacted work on these proposed lease sales. The State of Texas administers an oil and gas program in state submerged lands adjacent to this area.

4.6.2 Central Gulf of Mexico Planning Area

As of June 2022, there were approximately 1,737 existing leases in the Central GOM Planning Area. More than 44,000 wells have been drilled. As described above, Lease Sale 257 was the most recent lease sale but has since been vacated, and Lease Sales 259 and 261 were not held. The states of Louisiana and Alabama administer oil and gas programs in state submerged lands adjacent to this area. There are currently no Mississippi state submerged lands leases. A small portion of the Central GOM is unavailable for leasing consideration pursuant to GOMESA until

²¹ On January 27, 2022, the U.S. District Court for the District of Columbia vacated Sale 257 because the Court found a deficiency in the NEPA documentation for the sale (*Friends of the Earth v. Haaland*, Civ. 21-2317 (RC), 2022 WL 254526 (D.D.C. Jan. 27, 2022)).

June 30, 2022, extended by Presidential withdrawal to June 30, 2032. There are two active sand leases in the Central GOM Planning Area.

4.6.3 Eastern Gulf of Mexico Planning Area

As of June 2022, there were 13 existing leases in this area. Twenty-two lease sales have been held in this planning area as it has been configured over the years and more than 100 wells drilled, with significant discoveries of natural gas. However, there has been no commercial production in the planning area. Most of this planning area is unavailable for leasing consideration through June 30, 2022, pursuant to GOMESA's moratorium, extended by Presidential withdrawal to June 30, 2032. Lease Sale 224 in March 2008, a sale mandated by GOMESA, resulted in leases awarded for 36 OCS blocks with bonuses totaling \$64.7 million.

As described above, Lease Sale 257 was the most recent lease sale but has since been vacated, and Lease Sales 259 and 261 were not held.

4.7 Atlantic Region Planning Areas

The Atlantic OCS encompasses nearly 270 million acres and includes the Atlantic offshore area extending north to Canada, and south to the offshore territorial waters of Cuba. The area begins 3 miles off the Atlantic Coast and extends to the EEZ and beyond, where the continental shelf extends beyond the EEZ. Water depths in the Atlantic OCS range from approximately 12 feet to more than 18,000 feet.

The Atlantic Region is comprised of four planning areas (North Atlantic, Mid-Atlantic, South Atlantic, and the Straits of Florida) that have undergone numerous boundary changes over the years. There have been 10 Federal oil and gas lease sales in all or portions of this region, the most recent of which was held in 1983 (see **Figures 4-10** and **4-11**). A total of 433 leases were issued in the Atlantic, but there have been no active oil and gas leases since the mid-1990s, and although there were 51 wells drilled, there has been no hydrocarbon production from the Atlantic OCS. See **Figure 5-5** for a map of the Atlantic geologic plays and oil and gas resource potential by planning area. **Figure 10-3** shows the general positions stated by the governors of the coastal states, as expressed in comments received in response to the DPP.

Since 1959 in the Atlantic Region, there have been 433 tracts and almost 2.5 million acres leased for oil and gas development, generating more than \$2.8 billion in high bids. As of June 2022, there are no active leases in the Atlantic Region.

Figure 4-10: South Atlantic and Straits of Florida Program Areas Leasing History

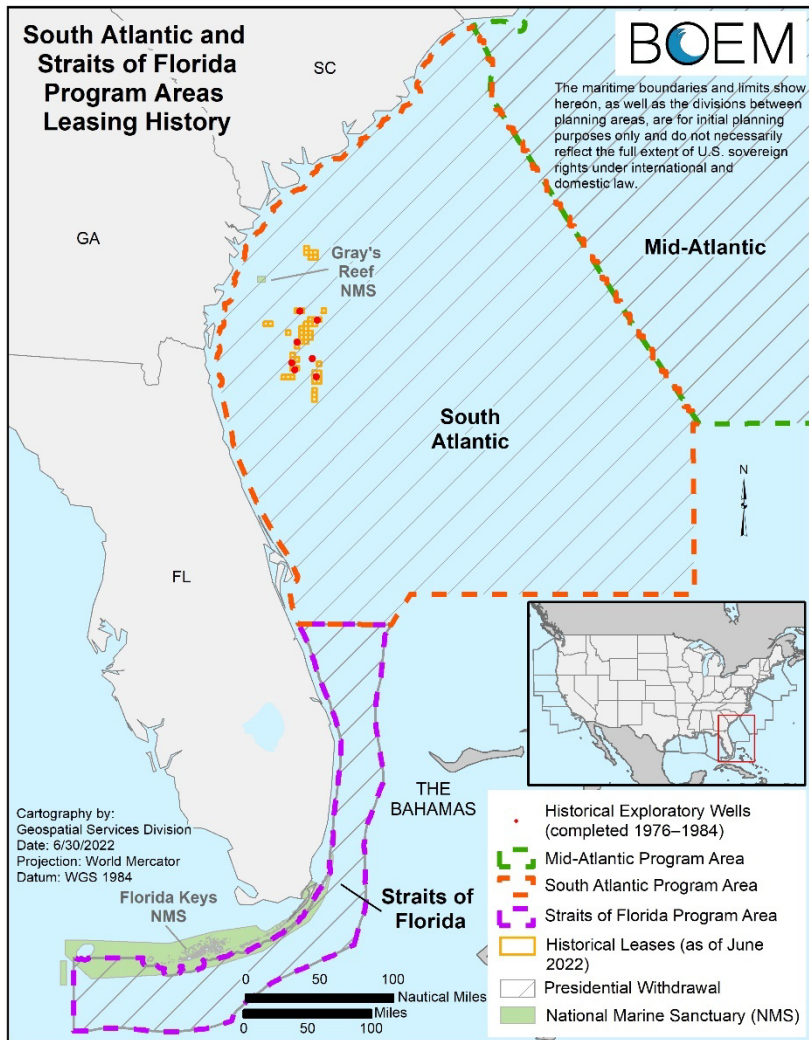
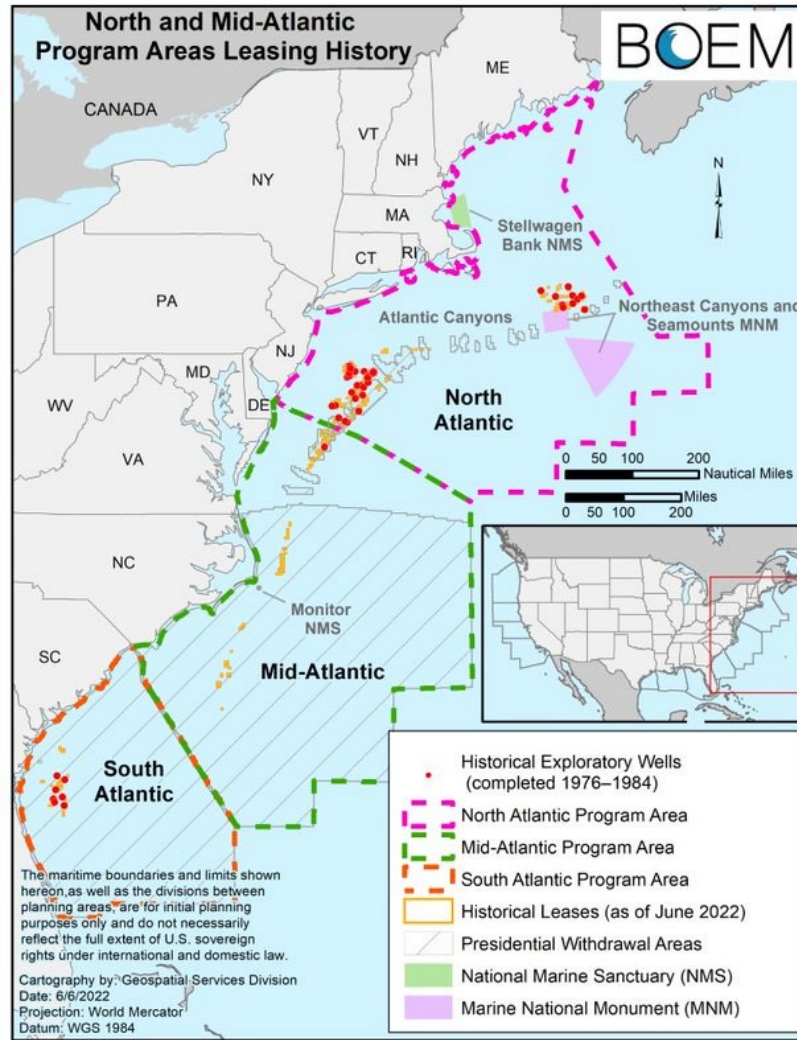


Figure 4-11: North and Mid-Atlantic Program Areas Leasing History



4.7.1 Straits of Florida Planning Area

In 1960–1961, three exploratory wells were drilled, with no commercial discoveries. As of June 2022, there are no existing oil and gas or renewable energy leases and one active sand lease/agreement, and the area has not been included in a National OCS Program since 1987–1992. No Congressional or Presidential restrictions on activity had been in place until September 8, 2020, when the President withdrew this area from consideration for any leasing for purposes of exploration, development, or production during the 10-year period beginning on July 1, 2022, and ending on June 30, 2032.

There are historic wells and existing exploratory licenses offshore Cuba and the Commonwealth of the Bahamas in the waters adjacent to this planning area. While drilling activity has been nearly non-existent for the past 35 years, in 2020 a prospective well was spudded offshore the Bahamas' northern territorial waters. Although highly anticipated, the well failed to show commercially viable volumes of hydrocarbon resources.

Licensing rounds in the Caribbean region have been relatively scarce. Most recently (June 2019), Cuba announced a Licensing Round for Offshore Blocks in the Cuban EEZ of the GOM, calling on oil companies interested in carrying out exploration and exploitation activities in the Cuban EEZ to present offers for one or more blocks under Production Sharing Agreements. Cuba offered 24 blocks in its 2020 License Round, but the round failed to garner interest, and no licenses were issued. The timing of additional leasing and drilling activity in the area remains uncertain.

4.7.2 South Atlantic Planning Area

Between 1979 and 1980, seven exploratory wells were drilled in the current planning area with no commercial discoveries. As of June 2022, there are no existing oil and gas or renewable energy leases, but there are five active sand lease/agreements. The area was subject to Presidential withdrawal from 1998 to July 2008 and to annual Congressional restrictions from FY 1999 through FY 2008. On September 8, 2020, the President withdrew this area from consideration for any leasing for purposes of exploration, development, or production during the 10-year period beginning on July 1, 2022, ending on June 30, 2032.

This planning area was analyzed in the Atlantic G&G Programmatic EIS and the Draft Programmatic EIS for the 2017–2022 Program. A potential lease sale for a portion of this planning area was included in the 2017–2022 DPP decision, but subsequently removed in the 2017–2022 Proposed Program decision.

4.7.3 Mid-Atlantic Planning Area

In 1984, one exploratory well was drilled in the current planning area, with no commercial discoveries. There are no existing oil and gas leases and as of June 2022, there are seven renewable energy leases with one lease straddling both the North and Mid-Atlantic planning

areas. There is one active sand lease/agreement in the Mid-Atlantic Planning Area. The area was subject to Presidential withdrawal from June 1998 to July 2008 and to annual Congressional restrictions from FY 1999 through FY 2008.

A special interest lease sale for an area offshore Virginia was scheduled for 2011 in the 2007–2012 Program; however, the lease sale was cancelled by the Secretary in May 2010. This planning area was analyzed in the Atlantic G&G Programmatic EIS and the Draft Programmatic EIS for the 2017–2022 Program.

A potential lease sale for a portion of this planning area was included in the 2017–2022 DPP decision, but subsequently removed in the 2017–2022 Proposed Program decision. On September 25, 2020, the President withdrew a portion of this area from consideration for any leasing for purposes of exploration, development, or production during the 10-year period beginning on July 1, 2022, ending on June 30, 2032. Also, pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. 1341(a), on December 20, 2016, President Obama withdrew the Atlantic Canyons in the Mid-Atlantic Planning Area from future oil and gas leasing consideration for a period without specific expiration (**Figure 4-11**).

E.O. 13795 rescinded the withdrawal of the canyons, but on May 3, 2017, several environmental groups filed suit in the U.S. District Court for Alaska (*League of Conservation Voters et al. v. Trump*) complaining that the OCS Lands Act does not authorize the President to reverse a prior withdrawal made under Section 12(a). On March 29, 2019, the Alaska District Court issued the decision on this case, vacating Section 5 of E.O. 13795, and effectively leaving in place prior withdrawals of OCS areas that had been revoked by the E.O. The U.S. appealed that decision to the Ninth Circuit Court of Appeals.

On January 20, 2021, President Biden issued E.O. 13990, reinstating the December 20, 2016, withdrawals, thereby restoring the original withdrawal of the Atlantic Canyons. On April 13, 2021, the appeal became moot, and the Ninth Circuit Court of Appeals remanded the case to the District Court for dismissal. The District Court dismissed the case on April 16, 2021.²² Additionally, pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. 1341(a), on September 25, 2020, the President withdrew for 10 years, through June 30, 2032, from leasing consideration the portion of the Mid-Atlantic Planning Area adjacent to North Carolina.²³

4.7.4 North Atlantic Planning Area

Between 1976 and 1984, 43 exploratory wells were drilled in the currently configured planning area with no commercial discoveries. There are no existing oil and gas leases. As of June 2022, there are 20 renewable energy leases and one right-of-way grant. One additional renewable

²² These areas are analyzed in this document as they were included in the Draft Proposal. See discussion in **Chapter 3**.

²³ These areas are analyzed in this document as they were included in the Draft Proposal. See discussion in **Chapter 3**.

energy lease straddles the North and Mid-Atlantic planning areas. There are no active sand lease/agreements in the North Atlantic Planning Area.

The area was under annual Congressional restrictions from FY 1984 through 2008, and under Presidential withdrawal from 1990 through July 18, 2008. Pursuant to Section 12(a) of the OCS Lands Act, 43 U.S.C. 1341(a), on December 20, 2016, President Obama withdrew the Atlantic Canyons in the North Atlantic Planning Area from future oil and gas leasing consideration for a period without specific expiration (**Figure 4-11**). However, E.O. 13795 rescinded this withdrawal, making the entire North Atlantic Planning Area available for leasing consideration at that time.

On May 3, 2017, several environmental groups filed suit in the U.S. District Court for Alaska (*League of Conservation Voters et al. v. Trump*) complaining that the OCS Lands Act does not authorize the President to reverse a prior withdrawal made under Section 12(a). On March 29, 2019, the Alaska District Court issued the decision on this case, vacating Section 5 of E.O. 13795, and effectively leaving in place prior withdrawals of OCS areas that had been revoked by the E.O. The U.S. appealed that decision to the Ninth Circuit Court of Appeals. On April 13, 2021, the appeal became moot, and the Ninth Circuit Court of Appeals remanded the case to the District Court for dismissal. The District Court dismissed the case on April 16, 2021.²⁴

The area surrounding Hudson Canyon, currently withdrawn by President Obama on December 20, 2016, has been proposed as an NMS. Hudson Canyon is the largest submarine canyon along the U.S. Atlantic coast and begins approximately 100 miles southeast of New York City, and extends about 350 miles seaward, reaching depths of 2 to 2.5 miles, and is up to 7.5 miles wide.

The northern section of this planning area is adjacent to the offshore waters of the Canadian province of Nova Scotia, where there are existing exploratory permits. However, those abutting the U.S.-Canada boundary are within the Georges Bank Prohibited Zone, as declared by Canada and Nova Scotia governments, where no activity can occur in Canadian waters through the end of 2022.

4.8 Summary

Many characteristics of OCS program areas inform how these areas may ultimately be included in a Final Program, offered for a lease sale, or be able to produce oil and gas resources. **Figures 4-12** and **4-13** depict the Draft Proposal's 24 program areas and provide three foundational pieces of information that could ultimately impact the likelihood that an area will be offered in a lease sale and, if so, production may ultimately result from the area. These figures show that most coastal state governors have expressed they do not support leasing in most of the program areas (see also **Figure 10-3**). Lack of state-level leasing support can derail the lease sale process if that

²⁴ These areas are analyzed in this document as they were included in the Draft Proposal. See discussion in **Chapter 3**.

opposition is reflected in the state’s CZM program as OCS oil and gas lease sales must be consistent to the maximum extent practicable with the enforceable policies of an affected state’s CZM program (see **Section 1.4**).

Many of the areas included in the Draft Proposal are relatively unexplored, not connected to existing infrastructure, and assessed to have low or negligible resource volumes. For example, only GOM Program Area 1, Cook Inlet, and the Beaufort Sea program areas satisfy these criteria in a way that would likely lead to a successful lease sale and new oil and gas production. The Beaufort Sea Program Area also has a complex stakeholder landscape of some leasing support, including from the State of Alaska, but also strong opposition. A program area’s background, leasing history, and status provide the Secretary important foundational information to inform decisions on the size, timing, and location of potential sales in the 2023–2028 Program.

Figure 4-12: Alaska Region Foundational Information

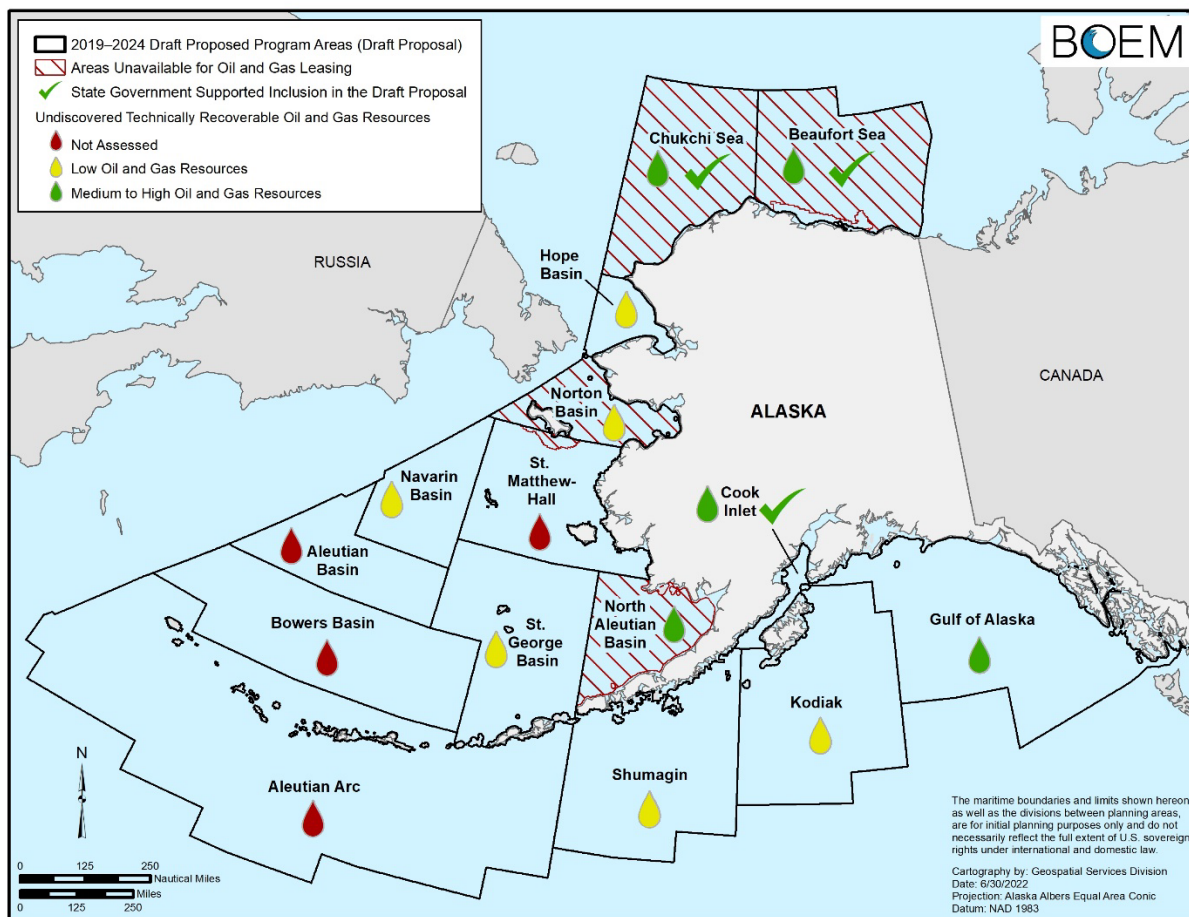
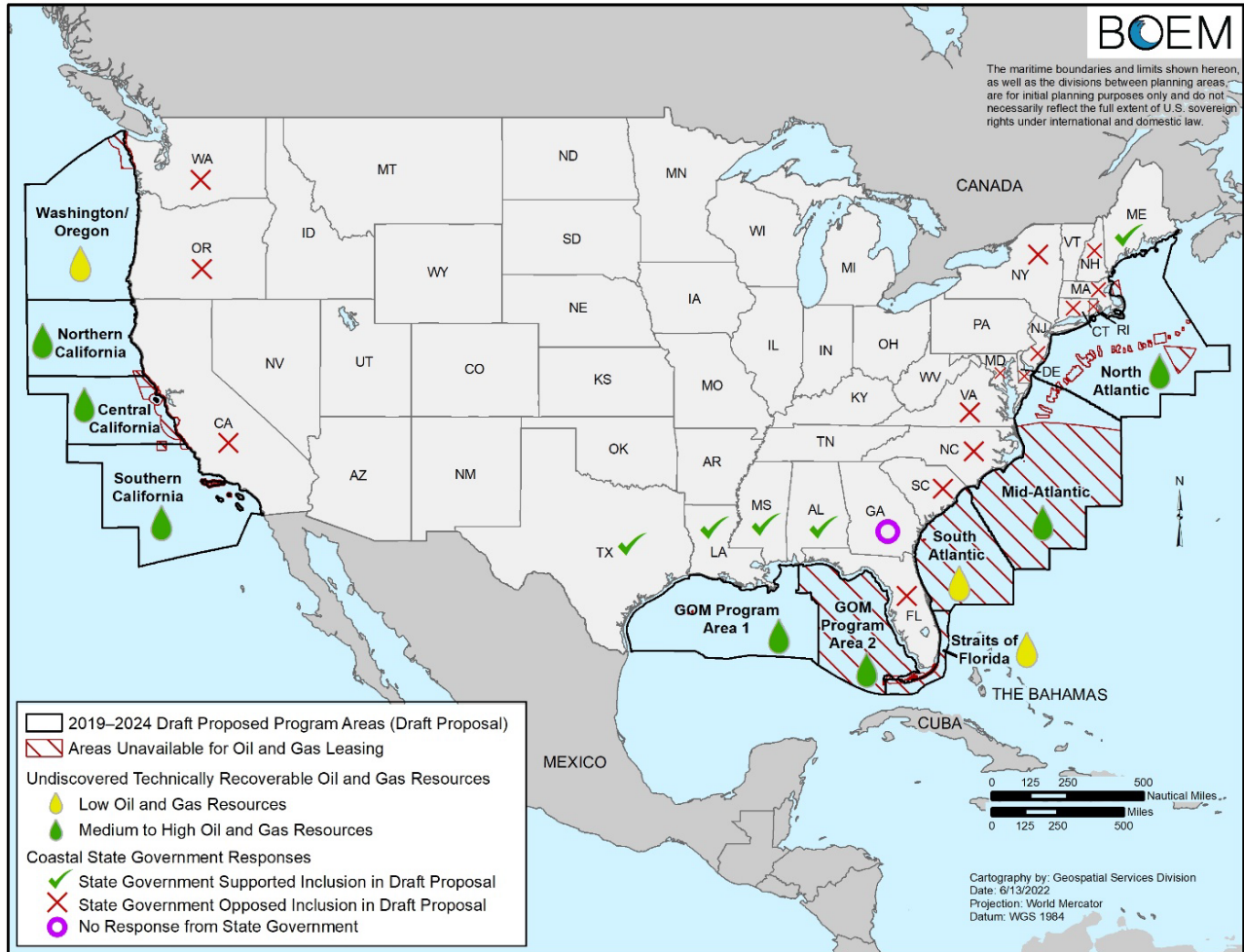


Figure 4-13: Lower 48 Foundational Information



An underwater photograph showing a large school of small fish swimming in a blue, slightly hazy environment. A diver is visible in the center, partially obscured by the fish. The lighting is dim, creating a sense of depth and mystery.

Chapter 5

Valuation of Program Areas

Chapter 5 Valuation of Program Areas

This chapter provides information on the valuation of program areas and considers economic, environmental, and social value, as required by Section 18(a)(1). The analysis provides valuable information for the Secretary to consider when balancing the factors under Section 18(a)(3) of the OCS Lands Act. As a reminder, in the Proposed Program analytical material, BOEM conducts the analysis on the full Draft Proposal, which includes 47 potential lease sales in 24 program areas as well as several Subarea Options (see **Figure 3-2**). The Draft Proposal from the 2019–2024 DPP represents a significant expansion in OCS leasing over previous National OCS Programs and includes several areas otherwise withdrawn through OCS Lands Act Section 12(a) Presidential withdrawals.

In response to the expansive Draft Proposal, BOEM received millions of public comments, the majority of which did not support leasing in all the areas put forth in the Draft Proposal. Further, many coastal state governors have expressed that they do not support leasing in most of the program areas (see **Figure 10-3**). Given these comments and consideration of the Section 18 factors, the Second Proposal is unlikely to be as expansive as the Draft Proposal. Many of the areas included in the Draft Proposal are relatively unexplored, not connected to existing infrastructure, and assessed to have low or negligible resource volumes. Consequently, it is likely that, even if many of these areas were included in the approved Program, industry would not invest the billions of dollars necessary to explore for resources in many of these areas.

Table 5-1 lists the Draft Proposal's 24 program areas and provides three foundational pieces of information that could ultimately impact the likelihood that an area would be offered in a lease sale and, if so, that production could ultimately result from the area.

Table 5-1: Current Leasing Restrictions, Oil and Gas Resources, and State-Level Leasing Support for all Program Areas

	Program Area	Leasing Restrictions	Oil and Gas Resources (UTRR)*	State-Level Support for Leasing?
Alaska Region				
	Beaufort Sea	Mostly restricted, but nearshore areas are not restricted	Medium-High	Yes
	Chukchi Sea	All restricted	High	Yes
	Cook Inlet	None	Medium-Low	Yes
	Gulf of Alaska	None	Medium-Low	No
	Hope Basin	None	Low	No
	Norton Basin	All restricted	Low	No
	St. Matthew-Hall	None	Not Assessed	No
	Navarin Basin	None	Low	No
	Aleutian Basin	None	Not Assessed	No
	Bowers Basin	None	Not Assessed	No
	Aleutian Arc	None	Not Assessed	No
	St. George Basin	None	Low	No
	Shumagin	None	Low	No
	Kodiak	None	Low	No
Pacific Region				
	Washington/Oregon	Mostly unrestricted	Low	No
	Northern California	Mostly unrestricted	Medium-Low	No
	Central California	Mostly restricted in hydrocarbon areas	Medium-Low	No
	Southern California	Mostly unrestricted	Medium-High	No
Gulf of Mexico Region				
	GOM Program Area 1	Mostly unrestricted	High	Yes
	GOM Program Area 2	All restricted	Medium-High	Mixed
Atlantic Region				
	Straits of Florida	All restricted	Low	No
	North Atlantic	Small restriction	Medium-Low	Mixed/No
	Mid-Atlantic	Mostly restricted	Medium-High	No
	South Atlantic	All restricted	Low	No

Notes: UTRR characterization based on mean volume of combined oil and gas resources from 2021 National Assessment and reported here: https://www.boem.gov/sites/default/files/documents/2021_National_Assessment_Map_BOE_COLORS.pdf. Areas can be restricted from oil and gas leasing through several mechanisms, including Section 12(a) Presidential withdrawals, designation as an NMS or Marine National Monument, or an Act of Congress.

Key: * = see **Figure 10-3**, Low = < 1 billion barrels of oil equivalent (BBOE), Medium-Low = between 1 and 6 BBOE, Medium-High = between 6-12 BBOE, High = > 12 BBOE, Not Assessed = program areas that have negligible petroleum potential.

As **Table 5-1** shows, there are relatively few program areas where significant assessed resource volumes align with areas that have state support for leasing and no leasing restrictions. Nevertheless, to meet the Section 18(a)(3) requirements, BOEM conducts a full analysis as if leasing were to occur in many of these areas. This chapter considers the full scenario outlined in the Draft Proposal so the Secretary can consider the value associated with leasing in the areas.²⁵ However, the chapter also considers a more focused analysis in **Section 5.3.4** that provides results specifically on the Cook Inlet and GOM program areas. As described in **Chapter 4**, these areas are the most likely to experience exploration and production activities.

The net benefits analysis in this chapter is predicated on the assumption that leasing would occur in these areas and that anticipated production would result from most of the areas. While the analysis included in this chapter includes anticipated production in many of these areas, given the pre-existing withdrawals in multiple areas, the lack of state support in many areas, and low resource potential in several areas, BOEM finds it highly unlikely that anticipated production or the resulting net benefits would ever be experienced from these areas.

As presented in **Section 5.3**, the net benefits analysis is quantitatively supported and informed by exploration and development scenarios that quantify the range of oil and gas production and associated activities that could conceivably occur if leasing were to take place. These scenarios provide the Secretary with a range of potential activities and impacts, both beneficial and adverse, using modeling at low, mid-, and high activity levels. The E&D scenarios assume that industry will explore for and develop economically recoverable oil and gas resources if they are made available, but explicitly are not predictions, forecasts, or BOEM's view of what will happen.

Further, several of the areas included in the analysis in this chapter are areas that are currently withdrawn under Section 12(a) of the OCS Lands Act. The analysis of withdrawn areas is included to provide information on the potential range of production and economic value that could come from these areas, but the Secretary will not consider areas for future leasing that are currently withdrawn.

The net benefits analysis presented later in this chapter is conditioned on the areas ultimately being offered for leasing, industry's interest and willingness to invest and explore in these areas, exploration success, and ultimate production. Assuming production occurs, the results show the net benefits associated with this potential production. The net benefits analysis is conducted as

²⁵ As the court stated concerning Section 18(a)(3) in *Watt I*, “[i]t is reasonable to conclude that within the section’s ‘proper balance’ there is some notion of ‘costs’ and ‘benefits,’ recognizing that ‘costs’ in this context must be a term of uncertain content to the extent it is meant to stand for environmental and social costs.” The court upheld this methodology in *Watt II* and in *NRDC*, endorsing in the latter case the Secretary’s interpretation of this section to instruct a cost-benefit analysis that begins with a calculation of each planning area’s NSV. NSV is calculated using the NEV (the market value of expected resources less the cost of production and transportation) minus “social costs” (environmental and social costs). The analysis described in this chapter builds on this concept of the NSV analysis and presents an expanded accounting of costs and benefits to society from oil and natural gas production.

an area-by-area analysis so that each row can independently be viewed as the estimate of leasing in that area.

BOEM highlights the anticipated production and expected net benefits of the Cook Inlet and GOM Program Area 1 in a special focused analysis in **Section 5.3.4**. In addition to being included in the 2017–2022 Program, these areas are not withdrawn, have meaningful resource volumes, and have state support. BOEM finds that highlighting these areas as an example is helpful and foreshadows an analysis that could be included in the PFP. BOEM asks for public comments on these results and consideration of how this analysis can be expanded or improved upon for the PFP.

5.1 Estimating Hydrocarbon Resources

Oil and gas resource assessments are critical components of energy policy analysis and provide important information about the relative potential of U.S. offshore areas as sources of oil and natural gas. They provide the Secretary with information on the geological characteristics of OCS Regions, as required by Section 18(a)(2)(A) of the OCS Lands Act. For the DPP analysis, BOEM considered the amount of undiscovered economically recoverable oil and gas resources (UERR) available on unleased blocks in each of the OCS planning areas as part of the valuation and ranking process (see **Section 5.2.6**). The following Proposed Program analyses focus on the volume of oil and gas resources anticipated to be leased, discovered, and produced under the Draft Proposal. BOEM’s approach to resource assessment is designed to account for the uncertainty inherent in estimating undiscovered resources.

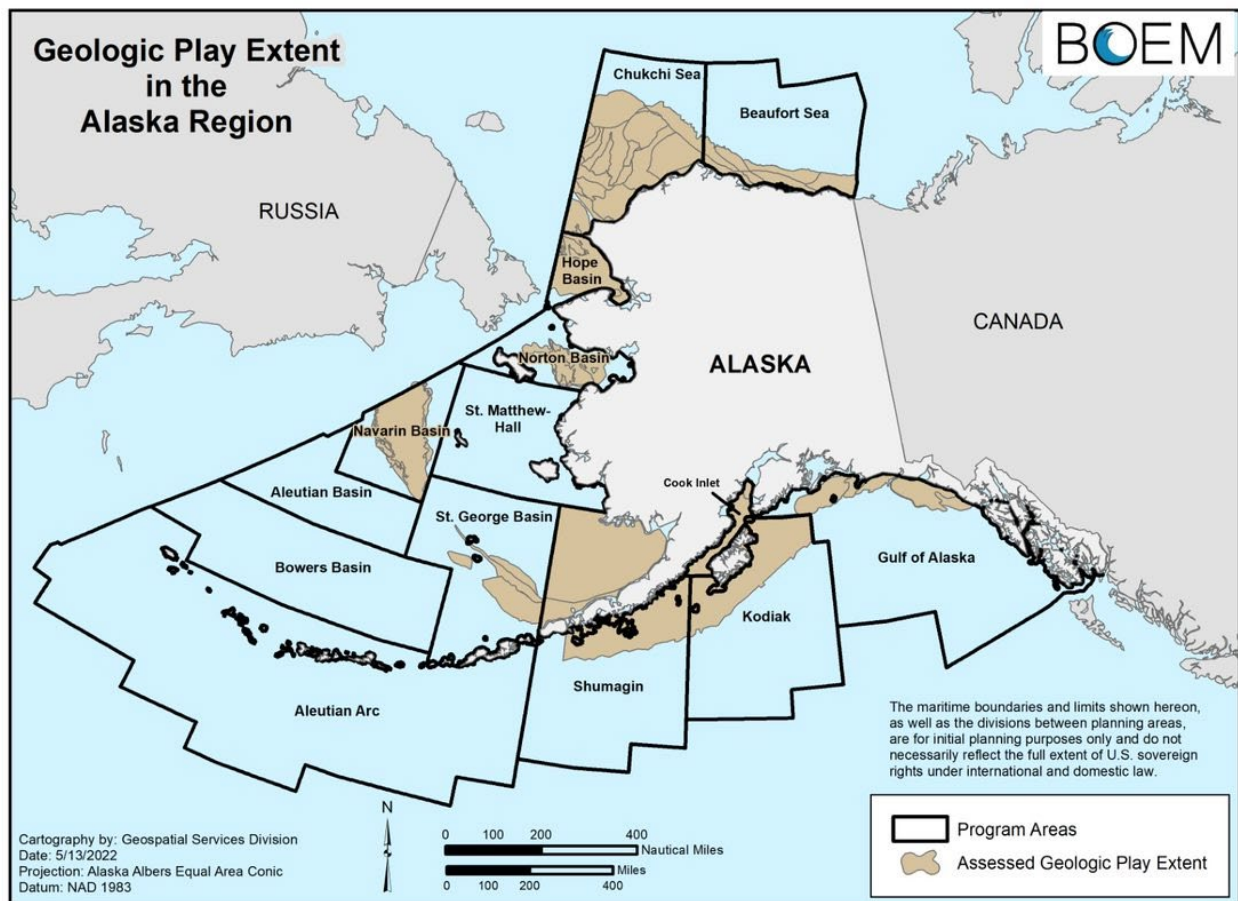
In general, uncertainty in estimates of undiscovered oil and natural gas is greatest for frontier areas that have had little or no past exploratory effort (e.g., the Bering Sea offshore Alaska). For areas that have been extensively explored and are in a mature development stage (e.g., the Central GOM Planning Area), many of the developmental risks have been reduced and the degree of uncertainty reflected in the range of possible outcomes has been narrowed.

In conducting resource assessments, BOEM accounts for this uncertainty by applying risk to geologic plays and assessment units that do not have a proven petroleum system. BOEM subsequently reports estimates of undiscovered technically recoverable resources (UTRR) as “risky.” The information from exploratory wells in frontier areas can provide the empirical evidence necessary to determine the presence of hydrocarbons within the assessment units or geologic plays. If hydrocarbon resources are encountered, these geologic play risks would be eliminated, resulting in an increase in UTRR estimates reported by BOEM. For example, based on the *2021 National Assessment of Undiscovered Oil and Gas Resources of the Nation’s Outer Continental Shelf* (BOEM 2021a) referred to as the “2021 National Assessment,” the elimination of all petroleum system risk from conceptual plays on the Atlantic OCS could increase BOEM’s reported UTRR in that region.

Geologic plays consist of oil and gas pools, where a pool is defined as a discovered or undiscovered accumulation of hydrocarbons. In many instances, a prospect (if undiscovered) or a field (if discovered) will comprise one or more pools. A prospect or field is an area consisting of a single reservoir or multiple reservoirs all grouped on, or related to, a shared geologic structural feature and/or stratigraphic trap.

Figures 5-2 through 5-5 show the established and conceptual geologic plays assessed in the 2021 National Assessment. Most plays are defined based on reservoir rock stratigraphy and are delineated by the extent of the reservoir rocks; however, a few plays are defined based on structural characteristics of prospective traps. Plays could spatially overlap because they exist at different depths below the seafloor and, in many cases, are stacked on top of each other. Therefore, the figures showing geologic play outlines do not represent the full 3-D extent of an individual geologic play.

Figure 5-2: Extent of Geologic Plays in the Alaska Region Program Areas



5.2.1 Resource Commodities Assessed

BOEM assesses crude oil, natural gas liquids (condensate), and natural gas that exist in conventional reservoirs and are producible with conventional recovery techniques. Crude oil and

condensate are reported jointly as billion barrels of oil (BBO); natural gas is reported in aggregate as trillion cubic feet (Tcf) of gas.

Oil-equivalent gas is a volume of gas expressed in terms of its energy equivalence to oil (i.e., 5,620 cubic feet of gas per barrel of oil). The combined volume of oil and oil-equivalent gas resources is referred to as barrel of oil equivalent (BOE) and is reported in units of BBO equivalent.

The technically and economically recoverable resources forecasted by BOEM do not include potentially large quantities of hydrocarbon resources that could be recovered by enhanced recovery techniques. For example, the injection of carbon dioxide into an oil reservoir can increase recoverability significantly, but the technique is not currently in use on the U.S. OCS and the economics have not been evaluated. Furthermore, these assessments do not consider gas in geopressured brines, methane hydrates, or oil and natural gas that could be present in insufficient quantities or quality (low-permeability, “tight” reservoirs) to be economically produced by conventional recovery techniques.

5.2.2 Sources of Data and Information

Estimating undiscovered oil and gas resources on the OCS is a complex process and requires the incorporation of a variety of geological, geophysical, economic, and engineering data and the application of professional judgment. The petroleum geologic characteristics (i.e., volumes and qualities of source rocks, reservoir rocks, and traps) of plays are defined using play-specific information from wells, seismic-reflection profiles, and/or analogous information from geologically similar reservoirs in other parts of the world. In areas where oil and gas production is from mature plays (such as established plays in the GOM), data and information typically are derived from producing reservoirs and fields within the play. In these cases, volumetric estimates of discovered oil and gas pools within the play are used to develop probability distributions for the size and number of undiscovered pools and fields in assessment areas.

Due to sparse data directly associated with BOEM’s conceptual plays in the Alaska and Atlantic regions, analog-based parameters are developed using professional judgment to cover the range of uncertainties associated with these plays. The analog development process includes extensive research into the geological, geophysical, geochemical, and lithological characteristics of productive oil/gas discoveries in analogous plays. Specific information analyzed within analog plays includes the style of oil and/or gas trap, reservoir depositional environment and lithology, reservoir age, and analysis of existing drilling and well bore information. Conceptual play models are developed using regional G&G data and global analogs.

Figure 5-3: Extent of Geologic Plays in the Pacific Region Program Areas

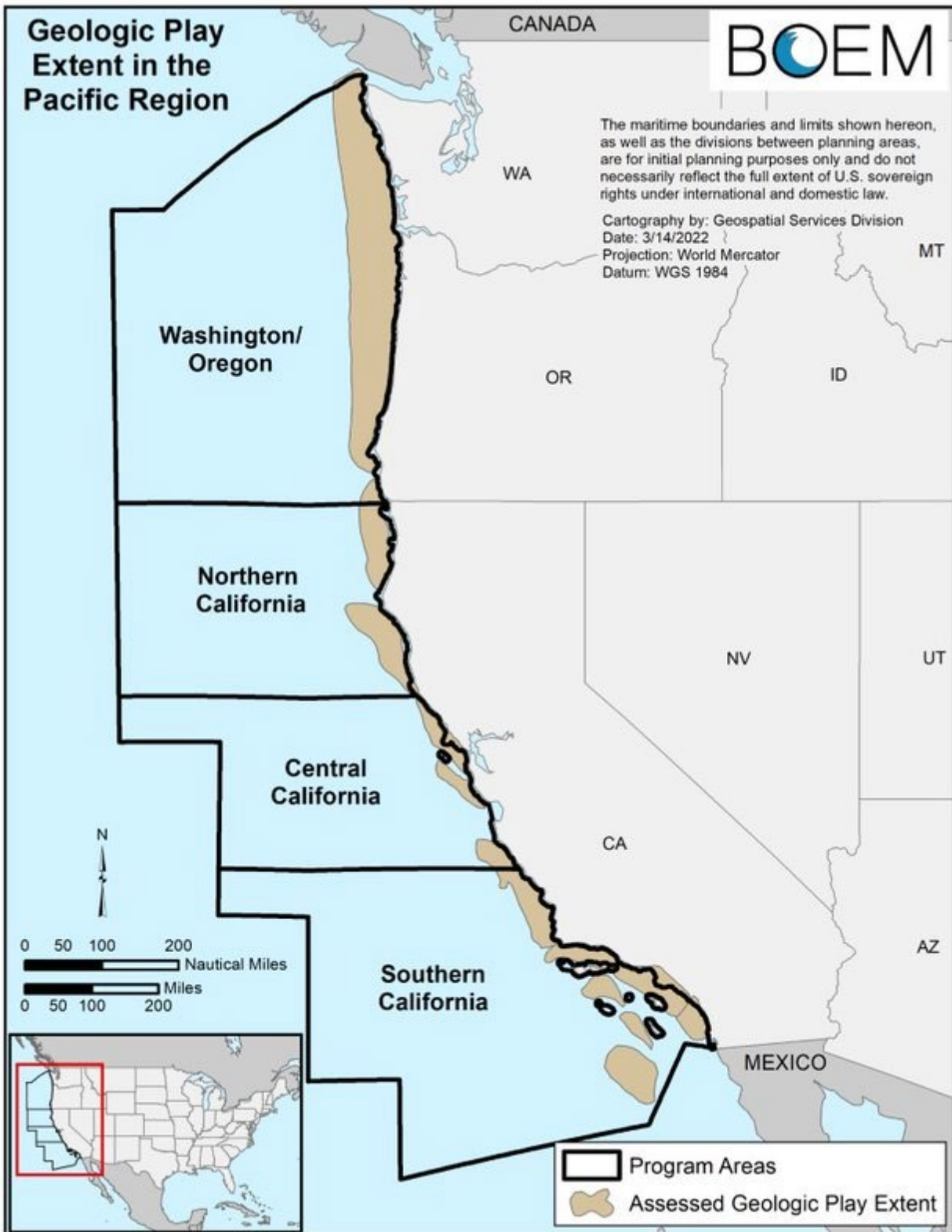
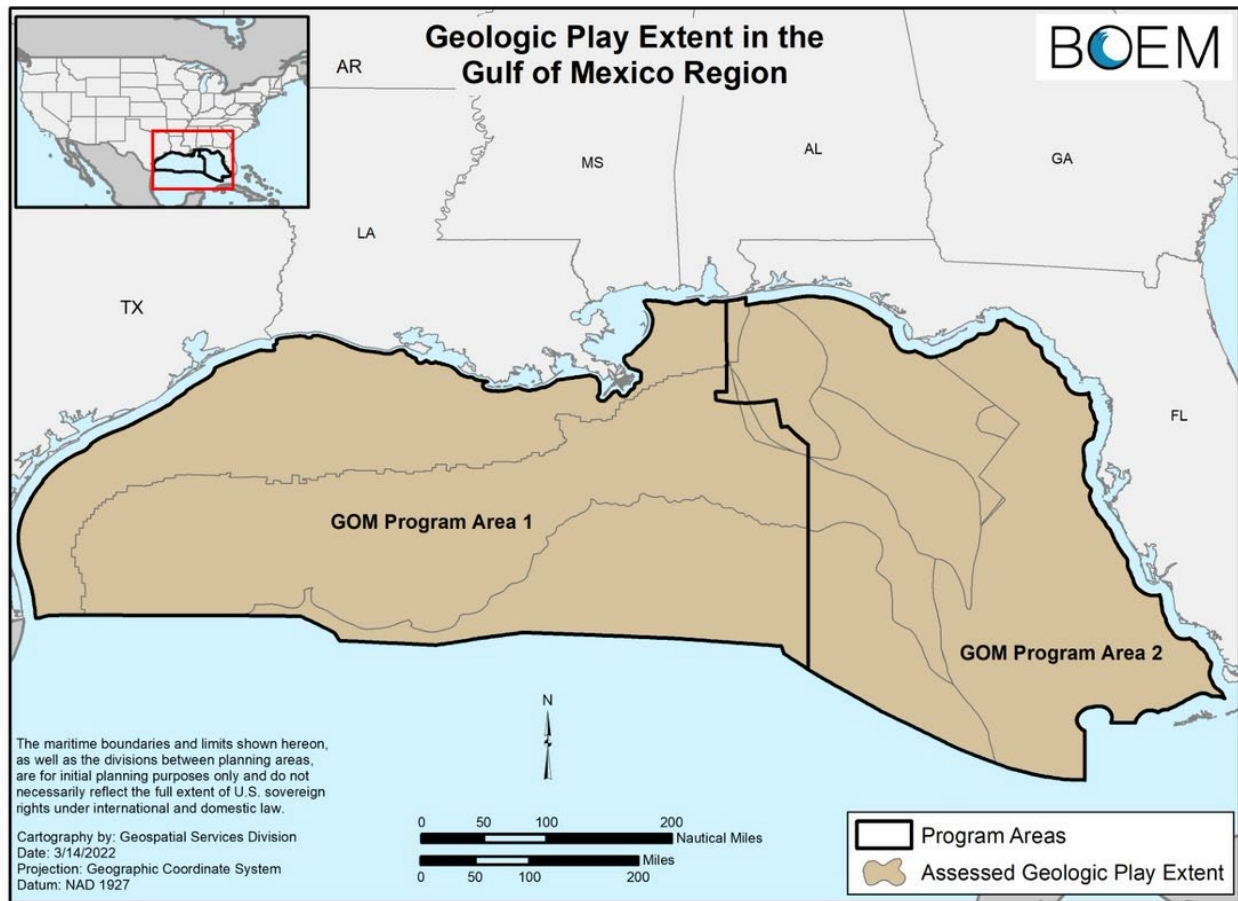


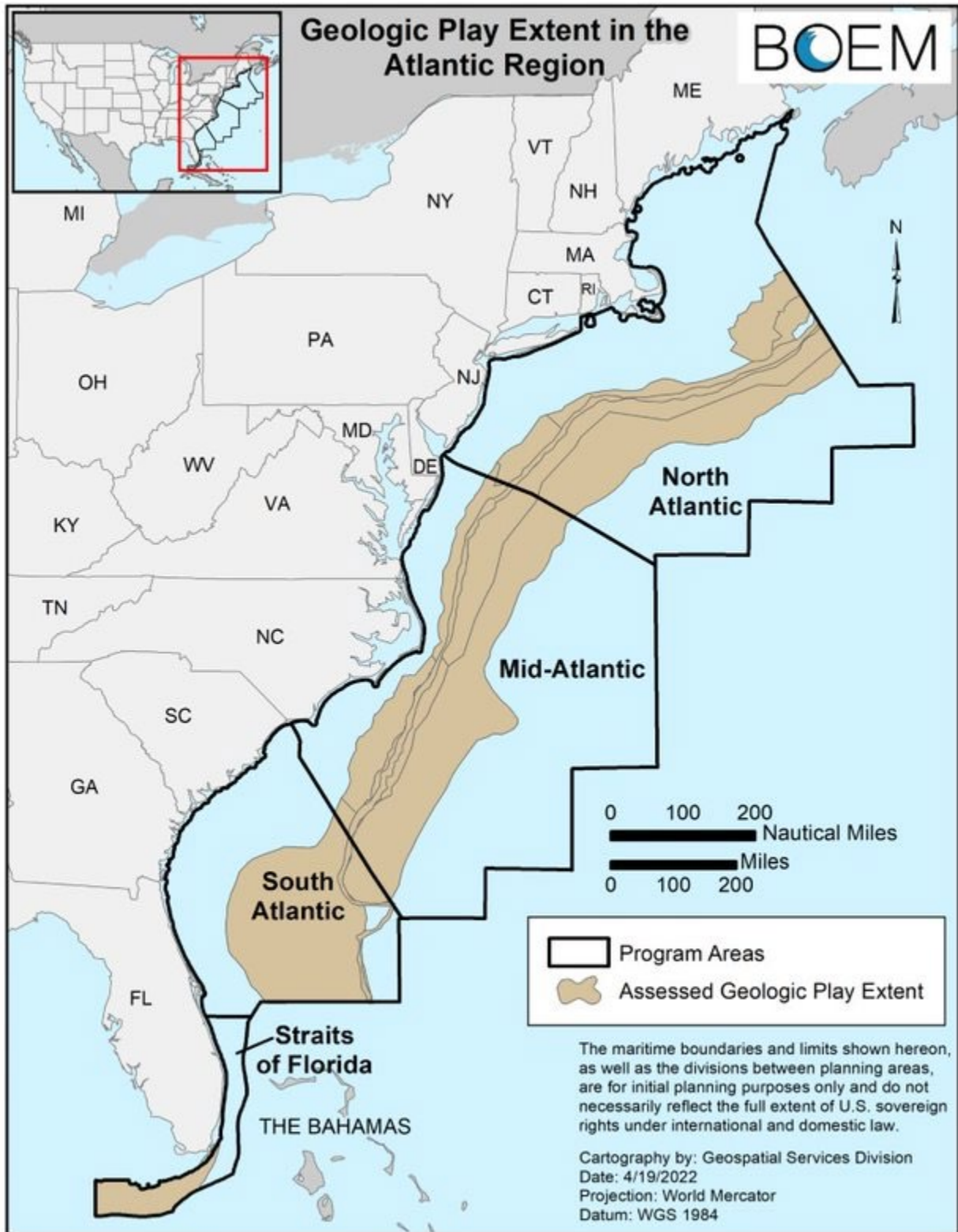
Figure 5-4: Extent of Geologic Plays in the Gulf of Mexico Region Program Areas

5.2.3 Geophysical Data Collection (Seismic Surveys)

Geophysical (seismic) surveying is a method of imaging below the seafloor using sound waves. The sound waves are generated using acoustic energy from air guns that release sound waves. These bursts of compressed air are reflected from rock layers below the seafloor and recorded. Geophysicists use these data to identify areas most suitable for the accumulation of hydrocarbons. Geophysical surveys are conducted with appropriate conditions of approval and monitoring measures to reduce impacts on marine mammals and protected species.

Geophysical data provide important information for oil and gas resource assessments. Two-dimensional (2-D) seismic surveys often are designed to cover thousands of square miles or entire geologic basins to assess large areas for hydrocarbon potential. In contrast, 3-D surveys can focus on a few to several hundred OCS blocks and provide higher resolution to evaluate hydrocarbon potential in structurally complex areas that could be poorly imaged on 2-D seismic surveys. In general, the acquisition and processing of marine seismic data is a complex process that often requires significant time and investment measured in years and millions of dollars.

Figure 5-5: Extent of Geologic Plays in the Atlantic Region Program Areas



BOEM maintains an inventory of industry seismic data that includes more than 346,000 OCS blocks of 3-D coverage and 3.3 million line-miles of 2-D coverage (BOEM 2020a). The distribution of seismic data over OCS Regions is generally coincident with the maturity of existing oil and gas development in the regions. For example, more than 99% of the 3-D seismic data and approximately 70% of the 2-D seismic data on the OCS have been acquired in the GOM.

The 2023–2028 Program does not authorize collection of G&G data on the OCS, and its approval is not a prerequisite to collect G&G data. Existing regulations (30 CFR Part 551) govern the process for approval of G&G exploration for oil, gas, and sulphur resources on unleased OCS lands or OCS lands leased to third parties, including the issuance of permits to acquire 2-D and 3-D seismic data. Seismic data acquisition by lessees or operators on their existing leases may be authorized as part of their lease (i.e., as ancillary activities) or as part of an exploration plan (e.g., for airgun surveys in the GOM).

5.2.4 Uncertainty in Resource Assessment

All methods of assessing potential quantities of technically and economically recoverable resources are efforts in quantifying a value that will not be reliably known until the resource is nearly depleted. Thus, there is considerable uncertainty intrinsic to any estimate, and resource estimates should be used as general indicators and not predictors of absolute volumes. There is uncertainty regarding, among other things, the presence and quality of petroleum source rocks, reservoir rocks, seal rocks, and traps; the timing of hydrocarbon generation, migration, and entrapment; and the location, number, and size of accumulations. The value and uncertainty regarding these petroleum geologic factors are often qualitatively expressed. However, to develop volumetric resource estimates, the value and uncertainty regarding these factors must be quantitatively expressed. Each of these factors, and the volumetric resource estimate derived from them, is expressed as a range of values, with each value having a corresponding probability.

5.2.5 Resource Assessment Methodology and Output

The general methodology that BOEM uses to assess undiscovered OCS oil and natural gas resources is a multi-step process using existing empirical data, professional judgment of geologic play teams, and probability distributions in conjunction with the Geologic Resource Assessment Program (GRASP) model. GRASP is a geologic play-based model that compiles oil and gas play data to generate a range of values of undiscovered resources for each geologic play.

The execution of the GRASP model is comprised of the following steps to assess OCS oil and gas resources:

- Compile play data
- Generate a cumulative probability distribution of pool sizes from probabilistic distributions of reservoir parameters

- Generate a number of pools probability distribution
- Determine the probabilities for individual oil, natural gas, and mixed pool types
- Establish individual pool size estimates and compare to the ranked sizes of discovered pools
- Generate potential resources of the play

Volumetric estimates of UTRR and UERR are based on the geologic and petroleum engineering information developed through petroleum geological analysis and quantified through play analysis. These estimates are developed in two stages. First, UTRR are assessed for each play, where UTRR are defined as oil and gas that could be produced using conventional extraction techniques without any consideration of economic viability. Secondly, following assessment of the UTRR, economic and petroleum engineering factors are included for each assessment area to estimate the portion of the UTRR that is economically recoverable over a broad range of commodity prices. UERR are defined as the portion of the UTRR that are economically recoverable under specified economic and technologic conditions, including prevailing prices and costs. The economic portion of the assessment incorporates a wide range of oil and gas price points²⁶ and uses a relationship between the cost of exploration and development and commodity prices. Estimates of UERR are derived for each designated oil-gas price pair using the following methodology:

- subjecting the distributions to multiple computer iterations simulating the development of the hydrocarbon accumulations associated with the areas
- performing a discounted cash-flow analysis to determine the area's economically recoverable resources using specified economic parameters.

5.2.6 Draft Proposal and Anticipated Production

BOEM prepares the **exploration and development (E&D) scenarios** to provide a framework to describe and analyze a range of potential activities; the E&D scenarios do not constitute predictions or forecasts. Moreover, BOEM does not assign a given likelihood to a particular outcome.

Considerable uncertainty surrounds future production and activity levels given geologic risk, economic risk, and regulatory processes, especially in frontier areas where there is currently limited OCS activity. The scenarios do not reflect BOEM's views of what will happen, but rather are scenarios that encompass all the types of activity that could conceivably occur.

²⁶ Because oil and gas typically are produced together, BOEM estimates UERR at specific combinations of oil and gas prices, or "price pairs."

While the DPP analysis used all the unleased UERR available in each planning area as its resource base, the Proposed Program analysis is based on the volume of oil and gas that is anticipated to be leased, discovered, and produced under a specific leasing proposal. **Figure 5-6** schematically shows this winnowing process.

Figure 5-6: Conceptual Workflow showing Transition from UTRR to Anticipated Production



The specific leasing proposal used to estimate anticipated production estimates in this document is the proposed schedule included in the Draft Proposal. In addition to estimates of anticipated production, BOEM develops E&D scenarios (**Section 5.2.5** and the Draft Economic Analysis Methodology paper), which represent the quantification of the timing and scale of the anticipated exploration, development, and production activities.

BOEM estimates anticipated production for each program area using historical producing leases and field production data to predict what is expected to be produced from the leases sold in this National OCS Program. BOEM does not assume that every lease produces hydrocarbons; instead, the method used is consistent with the reality that only a subset of all leases will be drilled, and a subset of those will have resources that are discovered and ultimately produced, due to the geologic and economic risk of not finding oil and gas. The BOEM E&D scenarios are based on a variety of factors, including estimates of recoverable resources in unleased blocks and historical oil and gas activities. For both mature and frontier areas, these E&D scenarios of future development and activity are generated for analytical purposes only.

The availability of historical data for developing E&D scenarios varies greatly between mature and frontier areas. The GOM, for example, is a mature region where oil and gas leasing and development have been occurring for more than 60 years. Therefore, most E&D scenarios for the GOM program areas are the result of assessing historical patterns of activity that are established for the GOM Region.

In contrast to the abundant oil and gas development on the GOM OCS, there has been no development activity in most other OCS planning areas. See **Chapter 4** for more information. In the Alaska OCS, the only current Federal production extends from the Northstar Field in the Beaufort Sea, a single Federal-state development in Alaska state waters. Accordingly, the E&D scenarios for the Arctic rely on information available based on Arctic operations worldwide, which BOEM believes to be analogous to potential activities in the U.S. Arctic.

Oil and natural gas prices can change greatly during development of a National OCS Program and will also fluctuate during implementation of the 2023–2028 Program. Oil and gas prices are volatile and accurately predicting the magnitude and timing of the change in prices is impossible. Therefore, this analysis is conducted using three representative activity levels and corresponding sets of resource estimates. The E&D scenarios are based on anticipated production expected to result from leasing in a given sale or series of sales in a National OCS Program based on a range of historical exploration and development activities. In areas of little or no viable development value, the activities in the E&D scenarios are often limited to exploration-only activities that do not result in any anticipated oil or gas production.

Table 5-2 shows the anticipated production generated from the E&D scenarios. The anticipated production estimates are shown for three different activity levels to account for uncertainties in market conditions, price volatility, consumer demand, and variable cost conditions. For the Proposed Program analysis, the anticipated production represents what is anticipated to be leased, developed, and produced as a result of leasing in each program area.

However, note that **Table 5-2** summarizes the anticipated production based on the program areas identified in the Draft Proposal and does not consider the Section 12 withdrawals. As described in **Section 3.1**, this Proposed Program analysis is conducted on the full Draft Proposal. Areas subject to Section 12 Presidential withdrawals are included in the analysis as if they were available for leasing. The anticipated production estimates are important in identifying areas with respect to the magnitude of resource development potential (higher versus lower resource development potential). In addition, these estimates form the basis of the calculation for the net benefit analysis (as described in **Section 5.3**). The resulting net benefits analysis is used as a tool to assist the Secretary in balancing the considerations required by Section 18(a)(3) of the OCS Lands Act.

Potentially incorporating the Subarea Options defined in **Chapter 3** from leasing would impact leasing viability of remaining parcels as well as expected levels of exploration, development, production, and decommissioning activities. **Table 5-3** compares the acreage of the Subarea Options with the acreage of the associated program area and the number of geologic plays overlapping the Subarea Options. Potential exclusions in the GOM Program Area 2 are likely to have the largest impact on activity levels given their relative size and location coincident with high hydrocarbon resource potential. For example, in GOM Program Area 2, the 125-mile Coastal

No Leasing Zone would occupy more than 70% of the program area and exclude parts of 13 geologic plays. Comparatively fewer impacts would be expected in the Kaktovic Whaling Area in the Beaufort Sea Program Area as it occupies less than 1% of the total program area and only overlaps two geologic plays.

Table 5-2: Anticipated Production by Program Area

Program Area	Oil (Billion Barrels)			Gas (Tcf)				BOE (Billion Barrels)		
	Low Activity Level	Mid-Activity Level	High Activity Level	Low Activity Level	Mid-Activity Level	High Activity Level	Low Activity Level	Mid-Activity Level	High Activity Level	
Alaska Region										
Beaufort Sea	0.00	0.78	1.48	0.00	0.00	0.00	0.00	0.78	1.48	
Chukchi Sea	0.00	1.80	2.77	0.00	0.00	0.00	0.00	1.80	2.77	
Cook Inlet	0.00	0.30	0.30	0.28	0.11	0.39	0.05	0.32	0.37	
Gulf of Alaska	0.00	0.12	0.22	0.00	0.00	0.00	0.00	0.12	0.22	
TOTAL	0.00	2.99	4.76	0.28	0.11	0.39	0.05	3.01	4.83	
Pacific Region										
Washington/Oregon	0.00	0.03	0.05	0.00	0.18	0.27	0.00	0.06	0.10	
Northern California	0.00	0.14	0.18	0.00	0.24	0.30	0.00	0.18	0.23	
Central California	0.00	0.20	0.28	0.00	0.21	0.29	0.00	0.24	0.33	
Southern California	0.09	0.99	1.17	0.14	0.44	0.50	0.12	1.06	1.26	
TOTAL	0.09	1.36	1.68	0.14	1.06	1.36	0.12	1.55	1.92	
Gulf of Mexico Region										
GOM Program Area 1	0.56	3.22	7.62	0.90	4.16	10.02	0.72	3.96	9.40	
GOM Program Area 2	0.06	0.25	0.72	0.30	0.95	2.83	0.11	0.42	1.22	
TOTAL	0.62	3.46	8.33	1.20	5.11	12.85	0.83	4.37	10.62	
Atlantic Region										
North Atlantic	0.00	0.33	0.50	0.00	3.23	5.58	0.00	0.90	1.49	
Mid-Atlantic	0.00	1.00	1.14	0.00	10.15	11.56	0.00	2.81	3.19	
South Atlantic	0.00	0.33	0.54	0.00	2.54	5.29	0.00	0.78	1.48	
TOTAL	0.00	1.66	2.17	0.00	15.91	22.44	0.00	4.49	6.16	

Note: Program areas anticipated to have exploration-only E&D scenarios are omitted from this table.

5.2.7 Draft Proposal Exploration and Development Scenarios

For this analysis, E&D scenarios are constructed for each of the 24 program areas included in the Draft Proposal. To estimate the social value of program area resources, it is necessary to calculate both the economic value and the social costs of finding and developing hydrocarbon resources. BOEM constructs E&D scenarios, which describe the development and production activities required to explore for, extract, and transport to market the resources estimated within a program area. The E&D activities incorporate historical trends and regional differences. BOEM uses these scenarios for the comprehensive analyses that describe the range of direct and indirect

social, economic, and environmental impacts that could result from lease sales proposed in the National OCS Program.

Table 5-3: Overlap of Subarea Options with Geologic Plays

Subarea Option	Subarea Option Size (Million Acres)	Program Area Acreage (Million Acres)	Percent Program Area Acreage (Size/Program Area Acreage)	Number of Geologic Plays Overlapping Subarea Options
Beaufort Sea Program Area				
Barrow Whaling Area	0.23	65.08	< 1%	5
Kaktovik Whaling Area	0.12	65.08	< 1%	2
Chukchi Sea Program Area				
Hanna Shoal Area Exclusion	1.63	62.59	3%	11
Subsistence Use Area Exclusion	2.44	62.59	4%	7
25-mile Coastal No Leasing Zone	66.4	62.59	11%	12
Gulf of Mexico Program Area 1				
Baldwin County No Leasing Zone	0.12	94.35	< 1%	7
Gulf of Mexico Program Area 2				
Baldwin County No Leasing Zone	0.18	65.24	< 1%	7
50-mile Coastal No Leasing Zone	20.7	65.24	32%	9
75-mile Coastal No Leasing Zone	31.0	65.24	48%	12
100-mile Coastal No Leasing Zone	39.5	65.24	61%	12
125-mile Coastal No Leasing Zone	46.5	65.24	71%	13
North Atlantic Program Area				
25-Nautical Mile No Leasing Zone	13.4	92.32	15%	0
Atlantic Canyons	2.76	92.32	3%	4
Mid-Atlantic Program Area				
25-Nautical Mile No Leasing Zone	8.83	112.88	8%	4
Atlantic Canyons Area Exclusion	1.07	112.88	< 1%	3
South Atlantic Program Area				
25-Nautical Mile No Leasing Zone	8.43	54.31	16%	0
Straits of Florida Program Area				
25-Nautical Mile No Leasing Zone	7.16	9.64	74%	0

Several factors are considered when developing the E&D scenarios and in particular the estimates of anticipated production. Fluctuations in market conditions, volatility in oil and gas prices, and variability in activity levels and activity costs lead to a great deal of uncertainty in analyzing future oil and gas activity. To manage this high level of uncertainty, BOEM develops E&D scenarios for three activity levels—a low, a mid-, and a high level.

Typically, lower activity levels would be associated with lower oil and gas prices, and higher activity levels would be associated with higher oil and gas prices. However, oil and gas prices are just one of many factors that ultimately influence the future activity in each program area. The activity levels are influenced by various economic parameters, including historical oil and gas prices, price trends, oil and gas activity costs, oil and gas supply and demand, and equipment availability. Creating these different activity levels enables BOEM to analyze the different benchmarks of potential industry activities likely to occur from offering lease sales. A detailed description of the E&D scenarios can be found in the Draft Economic Analysis Methodology paper (BOEM 2022b).

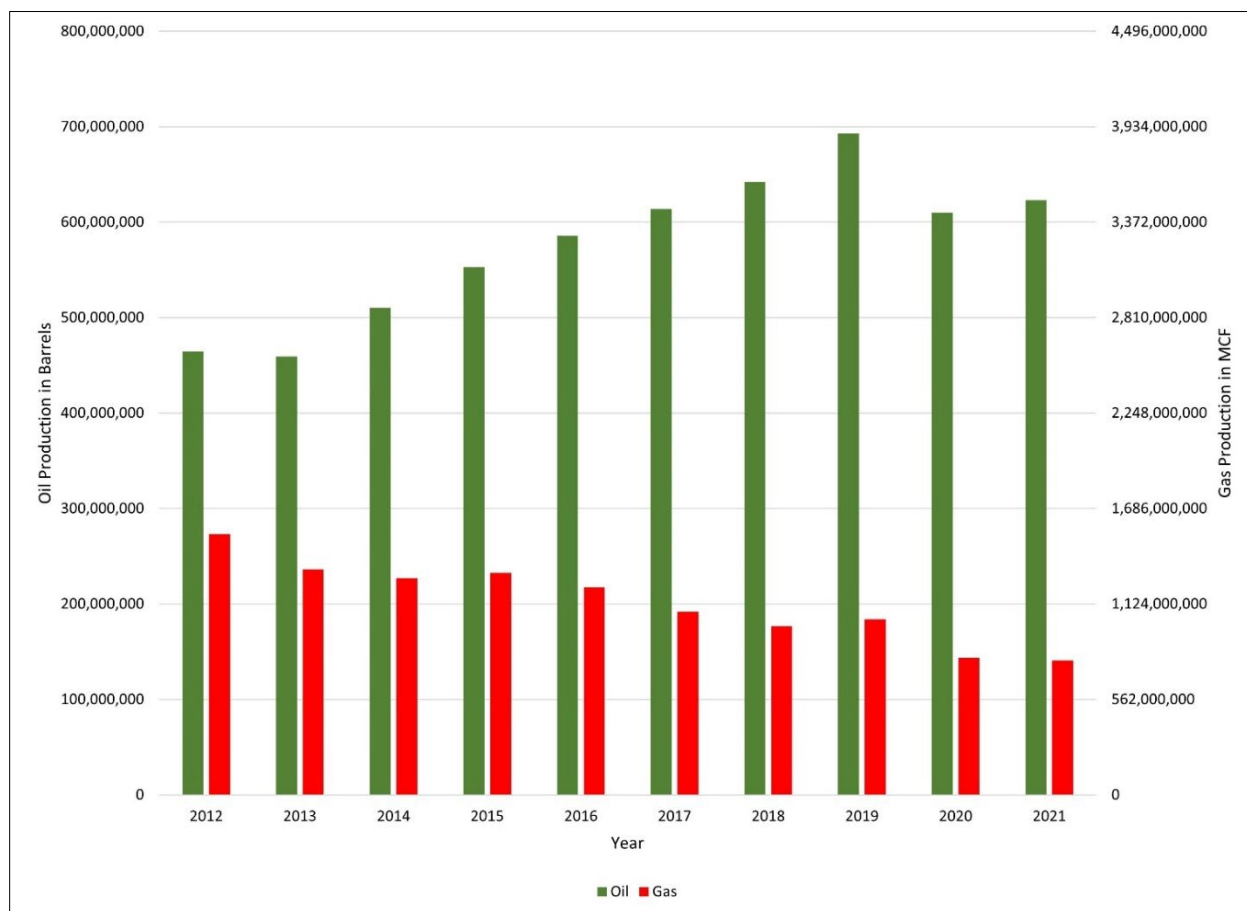
5.2.8 Gulf of Mexico Production Forecast from Existing Leases Only

In addition to the anticipated production analysis resulting from the proposed sale schedule (**Section 5.2.6**), BOEM also considers the existing state of OCS oil and gas production and the impact on future production under a National OCS Program with no new lease sales. Overall, the GOM continues to be the largest contributor of OCS production, accounting for more than 99% of the oil and 99% of the gas produced on the OCS in 2021 (**Table 5-4**). **Figure 5-7** highlights the previous 10 years of oil and gas production in the GOM. Oil volumes show mostly yearly increases (until 2020) due largely to the addition of new projects in the deepwater GOM. Gas volumes have slight variation in year-over-year accounting, but the 10-year trend is decreasing overall, with 2021 gas production volumes at half of the 2012 levels. The decline of gas production in the GOM is a combination of many factors, including competition from onshore producers and the paucity of gas resources in the GOM deepwater province.

Table 5-4: Annual OCS Oil (Barrels) and Gas (MCF) Production by Region (2012–2021)

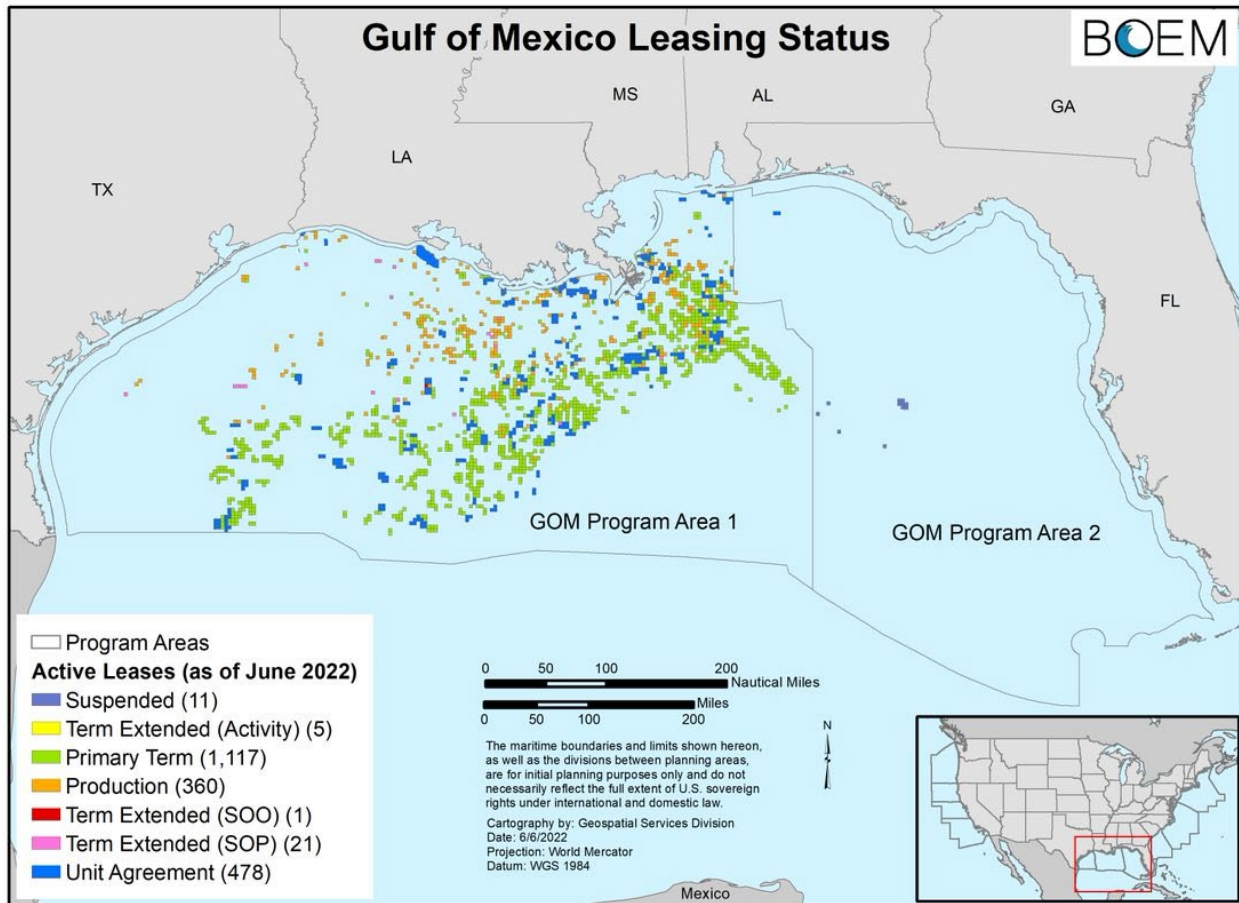
Year	Alaska		Pacific		Gulf of Mexico		Total	
	Oil	Gas	Oil	Gas	Oil	Gas	Oil	Gas
2012	627,108	21,960,989	17,678,493	27,263,741	464,786,485	1,535,897,665	483,092,086	1,585,122,395
2013	669,148	29,293,586	18,565,833	27,505,401	459,046,740	1,328,279,728	478,281,721	1,385,078,715
2014	625,303	31,264,462	18,506,540	28,313,384	510,467,459	1,276,676,600	529,599,302	1,336,254,446
2015	609,912	32,249,585	11,451,040	14,808,085	553,007,049	1,307,390,047	565,068,001	1,354,447,717
2016	548,343	31,705,685	6,142,614	4,501,303	585,712,140	1,220,854,978	592,403,097	1,257,061,966
2017	513,420	2,565,781	5,714,391	3,949,960	613,670,834	1,078,719,104	619,898,645	1,085,234,845
2018	491,616	3,211,259	4,873,812	3,427,708	642,064,616	993,244,891	647,430,044	999,883,858
2019	479,711	2,748,657	4,448,922	2,875,859	692,760,802	1,034,420,387	697,689,435	1,040,044,903
2020	458,067	2,192,840	4,568,527	2,751,797	609,807,096	806,446,734	614,833,690	811,391,371
2021	449,679	2,454,678	3,990,827	2,783,963	622,793,104	791,787,607	627,233,610	797,026,248

Source: (BSEE 2021b)

Figure 5-7: Gulf of Mexico Oil and Gas Production

In the GOM, both existing production and new exploratory efforts are mostly focused in the deepwater areas. **Figure 5-8** provides a June 2022 map view of the GOM highlighting the existing active leases. More than half of the almost 2,000 active leases are in their primary term and have experienced varying levels of exploration and subsurface resource characterization, including geophysical data analysis and drilling activities. BOEM has identified both discovered and undiscovered oil and gas resources on some of these tracts and expects that some fraction of these resources will be produced in the future.

Slightly less than half of the active leases are in a status other than their primary term, including leases that are currently in production or are included in producing units. In the absence of subsequent oil and gas lease sales, future contributions to oil and gas production will only come from existing oil and gas leases, and from discovered and undiscovered resources on leases currently in their primary term. The primary term leases shown in **Figure 5-8** will expire in the next 10 years if the leases do not change to production status (leases that are producing oil or gas in commercial quantities), unit status (leases in an approved unit agreement that may be producing or non-producing), or some other suspension occurs (leases that are extended beyond their primary term).

Figure 5-8: Leases by Status in the Gulf of Mexico

Note: SOO is suspension of operations, SOP is suspension of production. The regulatory authority to grant suspension is listed in 30 CFR 250.168 to 30 CFR 250.177.

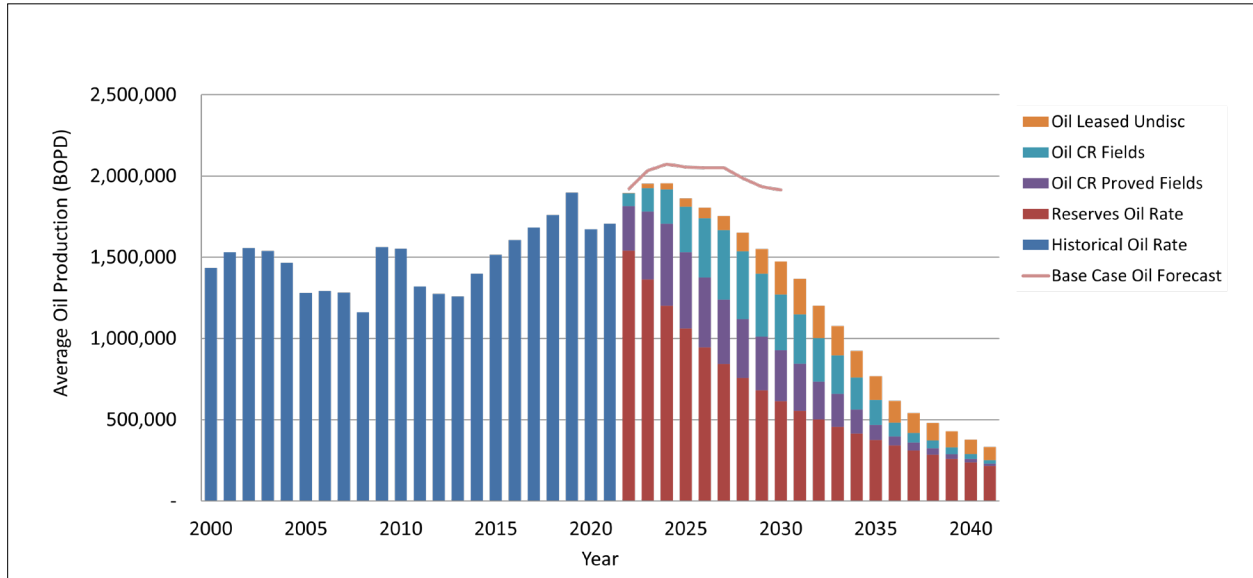
BOEM periodically publishes an internal near-term production forecast for the GOM that quantifies future contributions from existing proved reserves, from discovered resources that are not already developed, and from undiscovered resources. The GOM production forecast (BOEM 2022c) uses information from prospect analysis and field characterization to further segregate the undiscovered resources into subcategories that include leased and unleased undiscovered resources. Historically, this forecast has assumed the continuation of GOM lease sales each year during a given National OCS Program.

To develop the forecast where leasing does not occur in the GOM within the 2023–2028 Program, BOEM made broad expected-case assumptions grounded in petroleum science expertise.

Figures 5-9 and **5-10** show the GOM production forecasts for oil and gas, respectively, for the existing leases only scenario. Under this scenario, oil production in 2034 is approximately half of the forecasted peak of 1.955 million barrels of oil per day in 2024, and oil production in 2038 is approximately 25% of the forecasted peak. For reference, **Figures 5-9** and **5-10** also include a notation showing the base-case forecast (to include new leasing) for the 10-year period covered

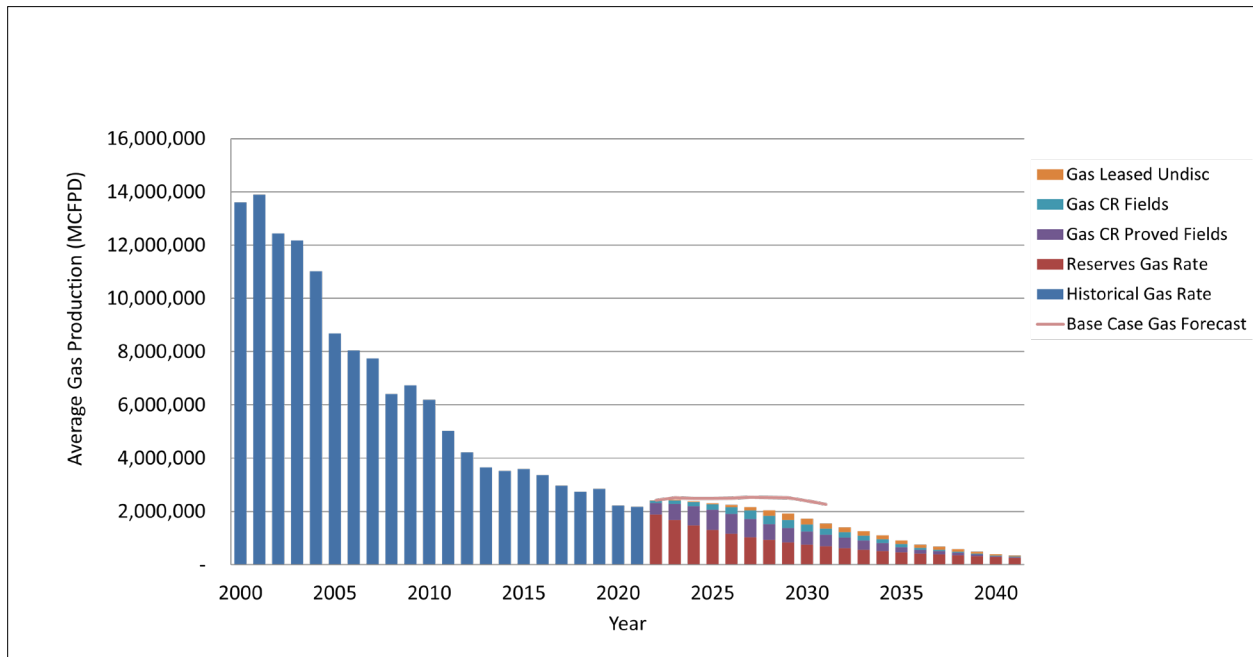
in BOEM’s GOM production forecast; additional details regarding the BOEM forecasting methodology are available in BOEM (2022c).

Figure 5-9: GOM Oil Forecast with No Future Lease Sales



Notes: The vertical axis shows units in barrels of oil per day (BOPD); CR = contingent resources. The base-case forecast is from BOEM (2022c) and assumes continuous leasing.

Figure 5-10: GOM Gas Forecast with No Future Lease Sales



Notes: The vertical axis is units in thousand cubic feet per day (MCFPD) per day; CR = contingent resources. The base-case forecast is from BOEM (2022c) and assumes continuous leasing.

BOEM provides the detailed GOM example in this section because of the significance of current GOM production (greater than 99% of total OCS production) and due to the availability of the rich empirical dataset associated with both discovered and undiscovered resources in the GOM.

5.3 Net Benefits Analysis

The net benefits analysis examines the domestic benefits to society from the potential oil and natural gas production that could result from the proposed lease sales and the domestic ESCs associated with anticipated exploration, development, and production activities. The net benefits analysis includes information designed to help make decisions about the size, timing, and location of future OCS lease sales under consideration by providing a quantitative evaluation of economic, social, and environmental factors as required in Section 18(a)(1). Net benefits estimates are provided as a tool to assist the Secretary in balancing the considerations required by the OCS Lands Act in Section 18(a)(3).²⁷ The net benefits analysis is one of many factors that the Secretary will consider when deciding whether to include an area for sale in the Program.

The DPP analysis, which provided initial information on all 26 OCS planning areas, provided the Secretary with a “relative ranking” of all the planning areas based on aggregate resource potential and NSV associated with finding and extracting the full unleased UERR for each area. That approach ensures there are no premature assumptions as to the size, timing, and location decisions that will constitute the Secretary’s ultimate leasing proposal.²⁸ This analysis considers the benefits and costs that could occur from the lease sales from leasing under this National OCS Program and does not consider any benefits or costs associated with previously leased resources. The forecasted production from current leases shown in **Figures 5-9** and **5-10** continues to bring benefits and costs, but that production is not part of the Secretary’s decision and therefore is not included in the net benefits analysis.

The net benefits analysis is conducted as an area-by-area analysis using the levels of anticipated production discussed in **Section 5.2.6** and shown in **Table 5-2** meaning that the results of including or excluding each program area are shown in the tables below. The analysis is predicated on the assumption that oil and gas demand exists and industry will develop those resources to meet that demand. Given these assumptions, any new OCS production would cause

²⁷ As the court stated concerning Section 18(a)(3) in *Watt I*, “[i]t is reasonable to conclude that within the section’s ‘proper balance’ there is some notion of ‘costs’ and ‘benefits,’ recognizing that ‘costs’ in this context must be a term of uncertain content to the extent it is meant to stand for environmental and social costs.” The court upheld this methodology in *Watt II* and in *NRDC*, endorsing in the latter case the Secretary’s interpretation of this section to instruct a cost-benefit analysis that begins with a calculation of each planning area’s NSV. NSV is calculated using the NEV (the market value of expected resources less the cost of production and transportation) minus “social costs” (environmental and social costs). The analysis described in this chapter builds on this concept of the NSV analysis and presents an expanded accounting of costs and benefits to society from oil and natural gas production.

²⁸ As appropriate to support decisions leading to an initial proposal, analyses in the DPP assume the availability of all planning areas. Therefore, the entire OCS was analyzed, and planning areas were ranked according to value.

markets to adjust and a reduction in alternative energy sources as the OCS production would replace those other sources.

In a world where energy demand shifts in response to climate change and increased development of renewable energy resources, industry would likely to focus its bidding and exploration on resources in areas with currently active leases, areas with a history of recent lease sales, and areas that do not require extensive infrastructure build-outs. BOEM analyzes the anticipated production from each program area but recognizes that production can only occur if industry undertakes billions of dollars of investment risk. The net benefits analysis assumes anticipated production associated with the areas and sale schedule from the Draft Proposal but, as described earlier in this chapter, acknowledges that it is very likely that large portions of this production might not occur regardless of decisions at the National OCS Program stage. As such, BOEM has highlighted the analysis for GOM Program Area 1 and Cook Inlet in **Section 5.3.4**. BOEM highlights the net benefits results of these program areas as they were included in both the 2012–2017 and 2017–2022 Programs and, given their recent leasing history and nearby infrastructure, would be the most likely areas that industry would explore and develop as a result of this National OCS Program.

The OCS Lands Act’s Section 18 requires BOEM to consider the different costs and benefits associated with alternative potential leasing scenarios. To address the Section 18 requirements and provide the Secretary with information on what might happen as the U.S. transitions to a net-zero emissions economy, BOEM conducts two analyses in the remainder of this chapter. BOEM first conducts its traditional net benefits analysis, considering what the impacts would be if leasing occurred consistent with the Draft Proposal (which includes assumptions that oil and gas demand remains strong and that industry remains interested in expanding OCS leasing, exploration, and production) under three activity levels. This Draft Proposal net benefits analysis is explained in **Section 5.3.3**.

BOEM then considers industry’s likely areas of focus given climate considerations and evolving energy substitutes, including pathways to net-zero emissions²⁹ by 2050. Estimating several decades of energy consumption, including changes in U.S. and international energy policy and future technological advancements, is highly uncertain. For purposes of this analysis, BOEM assumes a significant reduction in oil and gas demand, limited exploration and production activities, and increased prevalence of clean energy substitutes. This analysis is the net-zero emissions hypothetical analysis, included in **Section 5.3.5**.

²⁹ Net-zero emissions means zero GHG emissions or an economy that emits no more GHGs into the atmosphere than are permanently removed and stored each year (Larson et al. 2021).

5.3.1 Net Benefits Calculations

BOEM’s net benefits analysis is conducted through four individual components, depicted in **Figure 5-11**, each with its own intermediate calculations. The net benefits calculation is conducted for each program area and the results are shown independently for that area. Instead of considering the Draft Proposal in aggregate, the net benefits analysis considers the Lease Sale Option for a particular program area compared with the No Sale Option for that program area. If half of the areas are excluded, the results for the included areas would not change significantly.³⁰

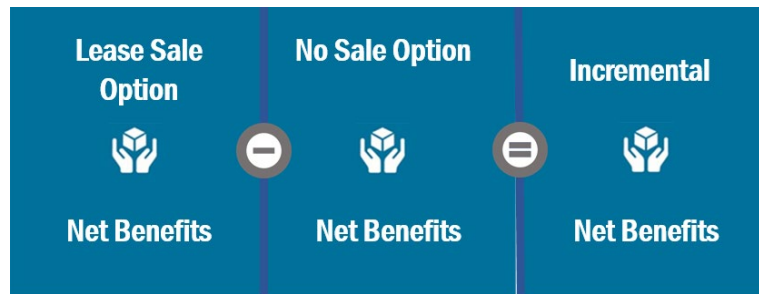
Figure 5-11: Net Benefits Analysis Calculation for Program and No Sale Options



Each of these components is described in **Section 5.3.2**, Net Benefits Analysis Components, and in detail in the Draft Economic Analysis Methodology paper (BOEM 2022b). BOEM’s net benefits analysis first monetizes impacts, shown in **Figure 5-11**, associated with a leasing scenario, and then considers the impacts associated with the energy substitutes that would replace the new OCS production. The change in consumer surplus net of producer transfers is attributed to the leasing scenario. BOEM subtracts the No Sale Option net benefits value from the Lease Sale Option net benefits value in each program area to compute the incremental net benefits.

Figure 5-12 summarizes the incremental calculation that is conducted for each program area. The incremental net benefits are calculated because the Program’s costs and benefits need to be adjusted for the costs and benefits that would occur in the absence of lease sales (or alternatively, are forgone in the presence of lease sales).

³⁰ The calculation of energy substitutions does include a slight aggregate impact of including all of the OCS Regions being considered in the analysis. However, BOEM reviewed these impacts and did not find that it materially impacted the results. The PFP analysis will have specific substitutions results for the areas remaining in the Second Proposal.

Figure 5-12: Traditional Incremental Net Benefits Analysis Calculation

The Draft Proposal incremental analysis in **Section 5.3.3** is calculated assuming current laws and policies remain in place and long-term demand remains strong (i.e., the 2020 AEO). However, to more directly consider the possibility of a net-zero emissions pathway by 2050, the net-zero hypothetical analysis in **Section 5.3.5** qualitatively considers how this goal could change U.S. energy markets. Given significant data limitations, the net-zero hypothetical analysis is qualitatively described as BOEM continues to expand its modeling capabilities and solicits feedback on the methodology, assumptions, and available data sources to conduct a more robust quantitative analysis.

5.3.1.1 *Net Benefits Analysis Scope*

In general, the net benefits analysis limits its scope to consider the economic benefits and costs to the domestic United States and its citizens from upstream activities. The analysis considers the impacts of exploration, development, production, and transport to or from U.S. borders from OCS production and the energy substitutes. The net benefits analysis does include one international component: the GHG emissions from international oil and gas production, discussed in **Section 5.3.2**.

In that case, the Court stated that, at the Program stage, USDOJ lacks the discretion to consider the effects of fossil fuel consumption on either the world at large or the OCS areas. An expanded discussion of these and other possible impacts of fossil fuel consumption is provided in Chapter 2 of the Draft Economic Analysis Methodology paper (BOEM 2022b).

5.3.2 *Net Benefits Analysis Components*

5.3.2.1 *Leasing Scenario*

This section describes the components and analysis for the leasing portion of the net benefits analysis.

Net Economic Value

NEV is the value to society derived from developing hydrocarbon resources in the OCS. Consistent with standard practices in benefit-cost analyses, the NEV equals the discounted gross

revenues from the produced oil and natural gas minus the private costs required to realize the economic value of the resources. These costs include the discounted costs of exploring, developing, producing, and transporting oil and natural gas to the market. The NEV can be considered as the present value of the expected economic rent (also known as “unearned income,” which is distinct from rent collected under the terms of the leases sold) for the anticipated production. A portion of the NEV goes to the U.S. Government as lessor and steward for the public in the form of bonus bids, rents, royalties, and taxes. The lessees, as private firms, retain the remainder of NEV as economic profits that could be distributed to shareholders around the country.³¹

The NEV analysis treats the private expenditures on exploration, development, production, and transportation as costs. In a broader macroeconomic context, this spending is sometimes treated as a benefit. For example, use of labor and capital to search for and extract oil and gas resources contributes to the national income. Also, this spending generates regional economic impacts and multiplier effects arising from the creation of jobs, investment in infrastructure, and other activities, which are discussed in more detail in **Chapter 8**.

Environmental and Social Costs

BOEM uses the Offshore Environmental Cost Model (OECM) to calculate the ESCs associated with OCS oil and gas activity, as well as costs of energy substitutes realized domestically. The OECM was initially developed in 2001 and has undergone continual revisions.³² It is designed to model the impact of typical activities associated with OCS production and oil spills (other than possible catastrophic oil spills, which are separately analyzed) occurring on the OCS. The model uses economic inputs, resource estimates, and E&D scenarios as the basis for calculations. Costs are calculated for six categories: (1) recreation; (2) air quality; (3) property values; (4) subsistence harvests; (5) commercial fishing; and (6) ecological impacts. In this section, only the impacts associated with criteria pollutants are considered. GHG emissions impacts are considered separately in the net benefits analysis.

While the model captures a wide range of ESCs, it is not designed to represent impacts on unique resources. Impacts on unique resources, such as endangered species, are discussed in the Programmatic EIS. Further, impacts on unique resources could be subject to mitigation measures at later lease sale stages. Additional information on unique resources and OECM limitations, including a discussion of non-market values, is available in the Draft Economic Analysis Methodology paper (BOEM 2022b). All the assumptions in the model are historical and do not

³¹ The Draft Economic Analysis Methodology paper discusses the adjustment factor applied to the NEV to account for (remove) profits going to foreign shareholders (BOEM 2022b). This adjustment to NEV means that what remains, and what is considered in the Proposed Program analysis, is only the domestic value.

³² A discussion of the OECM is included in the Draft Economic Analysis Methodology paper (BOEM 2022b). See also Industrial Economics Inc. and SC&A (2018a) and Industrial Economics Inc. and SC&A (2018b).

account for improvements in technology and decreasing rates of emissions and oil spills for both OCS production as well as substitute sources of energy.

The OEEM is also not designed to represent impacts from catastrophic oil spill events. The OEEM only considers a range of oil spills up to 100,000 barrels. Statistically, the number of catastrophic spills has been small, and have occurred under a wide range of conditions with a broad range of impacts. The lack of robust data and the unpredictable nature of catastrophic oil spills, including the many factors that determine their severity, make efforts to quantify their costs much more uncertain than those to quantify other measures considered in the net benefits analysis. In addition to the difficulty in calculating the cost of the potential impacts of a catastrophic spill, there are similar difficulties in calculating the risk. For these reasons, the risks and impacts of catastrophic oil spills are not considered in the net benefits analysis but are included in the Draft Economic Analysis Methodology paper (BOEM 2022b) and the Programmatic EIS. Additional information is also available in the *Economic Inventory of Environmental and Social Resources Potentially Impacted by a Catastrophic Discharge Event within OCS Regions* (BOEM 2014a).

The most recent version of the OEEM reflects improvements and refinements relative to the version used for the analysis in the DPP. These changes, which affect the analysis of both the Proposed Program Options and the No Sale Option, are discussed briefly in the Draft Economic Analysis Methodology paper (BOEM 2022b). More detailed descriptions of the models are included in the OEEM documentation *Forecasting Environmental and Social Externalities Associated with Outer Continental Shelf (OCS) Oil and Gas Development – Volume 1: The 2018 Revised Offshore Environmental Cost Model (OEEM)* (Industrial Economics Inc. and SC&A 2018b) and *Volume 2: Supplemental Information to the 2018 Revised Offshore Environmental Cost Model (OEEM)* (Industrial Economics Inc. and SC&A 2018a)

Social Cost of Upstream Greenhouse Gas Emissions

Consistent with E.O.s 13990 and 14008, BOEM expanded the net benefits analysis to include the social cost of the upstream GHG emissions. This analysis only considers the upstream emissions (i.e., those associated with exploration and production).

BOEM calculates the emissions of the three main GHGs (carbon dioxide [CO₂], methane [CH₄], and nitrous oxide [N₂O]) using the OEEM and the same forecast of exploration and development activities used throughout the net benefits analysis. After estimating upstream GHG emissions for a particular program area, BOEM monetizes the social costs of those GHG emissions. BOEM uses the February 2021 Interagency Working Group's per-unit SC-GHG estimates to monetize the costs of those GHG emissions (IWG 2021).

For the net benefits analysis, BOEM used the 3% discount rate and average level of statistical damages to estimate the social cost of GHG emissions. The social cost estimates increase over

time. For emissions occurring in 2022, the social cost estimates are \$54 per metric ton of CO₂, \$1,615 per metric ton of CH₄, and \$19,722 per metric ton of N₂O (Interagency Working Group 2021). More detailed discussion of the Interagency Working Group's (IWG) estimates of SC-GHG, the assumption of discount rates and statistical level of damages, considerations for uncertainty, and BOEM's application of them can be found in Chapter 1 of the Draft Economic Analysis Methodology document.

While most of BOEM's net benefits analysis is conducted to only consider domestic impacts, BOEM did analyze the GHG emissions from international *production* of substitute energy sources. Because GHG emissions create global impact, the emissions stemming from the production of imported oil under the No Sale Option factor into this analysis (e.g., the GHG emissions from oil production imported under the No Sale Option are included in the calculation as well as the GHG emissions from transport of that oil by tanker to the U.S.).³³

Consumer Surplus Net Producer Transfer

The fourth component of the net benefits analysis is an estimate of the change in domestic consumer surplus net of producer transfer. The change in domestic consumer surplus net of producer transfer is the shift in consumer welfare from a change in energy prices less the loss to domestic energy producers from the same price change. If energy prices decline, U.S. consumers receive a benefit from paying lower prices measured as consumer surplus, whereas U.S. producers incur losses from receiving lower prices measured as a loss in producer surplus (reduced profits).³⁴

New OCS oil and natural gas production increases the supply of oil and natural gas, which lowers the price consumers pay and producers receive. The National OCS Program analysis focuses on gains and losses within the U.S. only, and thus only the domestic portion of this welfare change is included in the net benefits analysis. While consumers benefit from lower prices due to the National OCS Program, whether from oil or gas domestically versus internationally sourced, a portion of the gain in consumer surplus is offset by a loss in domestic producer surplus.³⁵

5.3.2.2 Energy Substitutes

The decision of whether to include a specific area in a leasing program does not result in major changes to U.S. demand. Instead, the decision to have leasing in an area affects prices, which is

³³ While transportation emissions from imports are estimated for tankers, the model assumes pipeline imports come from Canada and does not assume any emissions associated with pipeline transport.

³⁴ In theory, consumer surplus is the difference between the price charged for a service or product and the highest price consumers are willing to pay for a service or product. Similarly, producer surplus is the difference between the actual price producers receive and the minimum price they are willing to accept.

³⁵ Now that the U.S. is expected to be a net exporter of petroleum products and crude oil (when combined) over the productive life of the 2023–2028 Program, the lower prices caused by National OCS Program-related additions to oil supply should result in (net) lower profits on existing production for domestic companies exporting oil. This analysis is confined to estimates of consumer surplus net of producer transfer resulting from domestic consumption. However, BOEM will re-evaluate that scope prior to conducting the Second Proposal analysis for the PFP.

factored through energy markets until prices and production enter equilibrium. For example, adding new OCS oil and gas production would not be met with an equivalent increase in oil and gas demand; rather, this new OCS production would cause a slight decline in prices, which would be met with some increased consumption, but also a reduction in other (likely onshore or imported) oil and gas production resulting from the now-lower prices. Similarly, a reduction in leasing and production activity in the GOM would not be met with an automatic reduction in oil consumption. Instead, absent additional lease sales, additional substitute sources of energy would in part be required to meet energy demand, and therefore the net benefits analysis is adjusted to account for the net benefits of these substitute sources. BOEM first conducts the net benefits analysis on the costs and benefits that could stem from an OCS leasing proposal if exploration and production occurred (described in **Section 5.2.6**), but then also calculates these similar categories of impacts on the energy substitutes.

BOEM uses its Market Simulation Model (*MarketSim*) to estimate the substitutions for OCS oil and gas production that would occur in the absence of lease sales in each of the program areas. *MarketSim* calculates the additional imports, onshore production, fuel switching, and reduced consumption of energy that would occur, replacing the production in each program area, as well as the associated change in net domestic consumer surplus, should the No Sale Options be selected. While *MarketSim* is frequently updated, the current modeling uses baseline EIA data and does not incorporate changes in the worldwide energy structure. BOEM's consideration of energy substitutes is based on an analysis of continued demand for oil and gas.

Recent updates to *MarketSim*, as described in *Consumer Surplus and Energy Substitutes for OCS Oil and Gas Production: The 2021 Revised Market Simulation Model* (Industrial Economics Inc. 2021a), have been made in response to public comments and periodic, ongoing efforts to improve the model. *MarketSim*'s estimations of energy market responses to new OCS supply are used as inputs for each of the four components of the net benefits analysis. The substitution rates that *MarketSim* calculates are a mechanism of summarizing and describing those market responses.

The specific components of these substitutions could vary dramatically based on the future energy scenario and pathway. Because most production from any lease sales held under the 2023–2028 Program will not commence for several years after any leases are issued, changes in future energy scenarios could significantly affect this analysis. As noted in **Chapter 1**, a net-zero or similar pathway would require significant changes to the national and worldwide economies. Under those major energy market shifts, the impact of substitutions in the absence of OCS production could look very different. **Section 5.3.2.2** describes the energy substitutes of the Draft Proposal using the baseline EIA data, whereas **Section 5.3.5** describes the net-zero hypothetical analysis under alternative substitutions assumptions.

Currently, BOEM is unable to perform a quantitative net benefits analysis that assumes specific policies toward a net-zero emissions economy, since BOEM lacks the appropriate data required

for such an analysis. BOEM also lacks sources of peer-reviewed elasticities that represent accepted market responses along the pathway to a net-zero emissions future and lacks the data to derive elasticities on its own. BOEM recognizes that, in the transition to a net-zero emissions future, demand for natural gas and oil would not disappear immediately or completely. There would still be some fuel switching based on the relative prices between oil and natural gas versus other sources like renewable energy or biofuels. BOEM seeks comment on the *MarketSim*, BOEM's approach to modeling a net-zero emissions future, and any feedback to improve the net benefits analysis methodology. BOEM is specifically interested in any potential data sources sufficient for modeling that could help enhance the quantitative analysis and better reflect assumptions associated with a transitioning economy.

5.3.2.3 *No Sale Option Scenario*

Using the estimated energy substitutions, BOEM considers the first three components of the net benefits in the absence of new OCS production and the value of these components from the anticipated substitutes.

First, BOEM calculates the NEV from the substitutes. OCS leasing generates domestic NEV, but any domestic energy source also generates NEV. BOEM assumes that the NEV from energy substitutes is equivalent on a per-BOE basis to OCS NEV and considers the portion of NEV that would be replaced by domestic energy substitutes as the NEV of the No Sale Option.

Second, BOEM calculates the ESCs from the substitutes. The OECM calculates certain upstream ESCs of specific energy substitutes (e.g., air emissions from increased onshore production, additional oil spill risk from increased tankers). These are described in more detail for both the Draft Proposal and the net-zero hypothetical analysis sections. The OECM currently only assigns upstream ESCs to onshore oil, gas, and coal production, as well as oil and gas imports because these are the major categories of energy substitutes and those that have environmental costs similar to those already monetized in the OECM.

The OECM does not assign any ESCs to other potential substitutes such as upstream renewables, biofuels, or nuclear energy. Examples of these costs include emissions from construction and operations, wildlife impacts, and visual disamenity impacts on property values. Costs from these substitutes are not included in the model currently as the rate of substitution for these categories is small. However, as the U.S. progresses on net-zero emissions pathways and consumes significantly more renewable or nuclear energy, the substitution rates could increase and would have a more meaningful impact on the results. These costs are important in the context of BOEM's hypothetical net-zero analysis conducted in **Section 5.3.5**.

Third, BOEM considers the upstream GHG emissions associated with the energy substitutes. Given their global scope, BOEM considers GHG emissions globally (i.e., emissions from imports

produced overseas and transported to the U.S.). Similarly, this analysis only considers impacts from oil, gas, and coal production as well as oil and gas imports.

BOEM calculates the No Sale Option net benefits for each program area under consideration. This calculation provides an estimate of the domestic costs and benefits that would be derived from the energy substitutes in the absence of leasing. To estimate the incremental net benefits, BOEM subtracts these costs from the Leasing Option cost in each program area. As described earlier, the No Sale Option estimates are conditional based on the estimate of energy substitutes that BOEM derives from *MarketSim*. To the extent that future laws and policies change U.S. consumption patterns, it is possible that the energy substitutes could look very different. This qualitative discussion is included in **Section 5.3.5**.

5.3.2.4 Net Benefits Assumptions

The net benefits analysis uses the anticipated production shown in **Table 5-2** at three activity levels. The activity level estimates are designed to provide program area-specific information to the Secretary on the value of OCS resources under three different levels of energy market conditions. To evaluate the impacts of developing these resources, the net benefits analysis applies three different price levels to the three activity levels, as shown in **Table 5-5**. The specific prices remain constant through the life of leases issued under this National OCS Program, but three different price levels are used to demonstrate the range of possible impacts associated with OCS leasing. As discussed, this analysis is not intended to forecast impacts, but rather evaluate the potential outcomes resulting from the three different levels of anticipated production. BOEM recognizes that prices outside those presented in the analysis could occur throughout the life of the 2023–2028 Program, but determined that these prices and activity scenarios represented a realistic range over which to consider the leasing impacts.

Table 5-5: Assumed Prices for each Activity Level

Low Activity Level	Mid-Activity Level	High Activity Level
\$40/barrel of oil	\$100/barrel of oil	\$160/barrel of oil
\$2.14/mcf of gas	\$5.34/mcf of gas	\$8.54/mcf of gas
Key: mcf = thousand cubic feet		

This analysis is not meant to be a forecast of what will occur over the life of the National OCS Program, but rather gauges the magnitude of benefits that might accrue over three different activity levels. Unanticipated market and political events, new technologies, weather, geopolitical unrest, economic changes, or other factors could cause energy price paths to considerably deviate from even the most respected forecasts. Instead of attempting to forecast prices, evaluating the activity levels at three fixed prices provides an overarching framework to demonstrate the

potential impacts that could be expected.³⁶ For these reasons, the Proposed Program analysis includes resource levels and net benefit estimates evaluated at each of the activity levels. The activity levels and corresponding prices do not represent strict upper and lower bounds of potential activity and prices.

Prices below those in the low activity level would likely lead to less anticipated activity and production in each region and fewer total net benefits, or in some cases, greater net costs. Alternatively, prices above those in the high activity level could lead to greater activity and anticipated production, which in turn would generate larger net benefits. More information on the activity levels and price assumptions is included in BOEM’s Draft Economic Analysis Methodology paper (BOEM 2022b).

The modeling in this net benefits analysis is conducted with a 2022 leasing start date. Changing the start date would not meaningfully impact the analysis and conclusions. The start date will be updated for the PFP. All values in the net benefits analysis are discounted using a social discount rate of 3%, consistent with guidance from the U.S. Office of Management and Budget Circular A-4 on the social rate of time preference.

5.3.3 Draft Proposal: Net Benefits Analysis

The analysis included in this section considers the economic, environmental, and social costs associated with the Draft Proposal which includes 47 lease sales in 24 program areas.

Section 5.3.3.1 explains the calculations and results of the analysis specifically for the leasing scenario. **Section 5.3.3.2** describes the estimated energy market substitutes using baseline 2020 AEO data assuming current laws and policies, and **Section 5.3.3.3** estimates the net benefits of these energy market substitutes. The results of the incremental analysis are included in **Section 5.3.3.4**.

5.3.3.1 Draft Proposal Leasing and Net Benefits Components

This net benefits analysis calculates the costs and benefits of the anticipated production in **Table 5-2**. These results are not intended to be a forecast but are meant to be representative of values that would occur should oil and gas production occur.

³⁶ As is standard practice for cost-benefit analyses, estimated proposal benefits are discounted to net present value (e.g., using the 3% social discount rate, \$100 received in the first year is worth the full amount, but the same \$100 received in the second year is only worth \$97). Therefore, if the analysis assumes prices increased over time or fluctuated, the estimated (net present) value of the oil and gas depends not only on anticipated production, but also on BOEM’s assumptions as to when and how much prices rose and/or fell over the analysis period. While there are ways to show how much these assumptions might affect the results, it is analytically simpler to use—and much easier to interpret—flat, inflation-adjusted prices to accompany the activity levels, especially due to the necessarily great uncertainties existing for future resource discoveries, market conditions, and other factors that determine the actual benefits for future decades.

Net Economic Value

Table 5-6 shows the estimate of NEV of the anticipated production in each program area. The results are evaluated for the three activity scenarios and evaluated using the three sets of flat price levels, discounted at 3%. In the low activity level, BOEM assumes that the only activities in most program areas would be exploration with no resulting production. As shown in **Table 5-6**, these program areas include the Beaufort Sea, Chukchi Sea, Gulf of Alaska, Washington/Oregon, Northern California, Central California, and the Atlantic Region. In the absence of anticipated production, there are no estimated revenues, and these areas have negative incremental NEV. Companies could still wish to explore these areas based on their own projections of the future, privately held data, different perceptions of risk, or other business reasons.

Although BOEM assigns anticipated production in the GOM Program Area 2 and Cook Inlet (Alaska Region) in the low activity level, both areas still have a negative NEV. Exploration for hydrocarbon resources carries discovery risk and some of the initial efforts are likely to be unsuccessful. While it is anticipated that exploration would yield economic discoveries in the two program areas, the total costs of *all* exploration activities undertaken (successful and unsuccessful) would likely exceed the value of the resources eventually discovered when evaluated at the \$40 per barrel price that BOEM evaluates for the low activity scenario with the NEV calculation.

Therefore, the net effect of these activities in the E&D scenario is an overall negative NEV, despite the presence of individual prospects with economically viable projects. BOEM does not assume any exploration or other activity would take place in the South Atlantic and Washington/Oregon under the low activity scenario.

Table 5-6: Draft Proposal Net Economic Value

Program Area	Net Economic Value (2022\$, in Billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	-0.97	22.42	69.34
Chukchi Sea	-0.85	44.39	127.52
Cook Inlet	-1.40	5.18	9.95
Gulf of Alaska	-0.18	2.57	10.32
Pacific Region			
Washington/Oregon	*	1.02	2.83
Northern California	-0.30	2.01	7.43
Central California	-0.10	7.73	18.28
Southern California	0.86	43.02	83.91
Gulf of Mexico Region			
GOM Program Area 1	0.73	77.34	359.86
GOM Program Area 2	-0.52	0.92	26.76
Atlantic Region			
South Atlantic	*	4.31	24.08
Mid-Atlantic	-2.22	23.05	56.63
North Atlantic	-1.29	6.00	24.74

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated activity nor production and thus have zero NEV.

Environmental and Social Costs

Table 5-7 shows the monetized ESCs associated with the anticipated production volumes in **Table 5-2**. As described in **Section 5.3.2.**, only certain costs are monetized, while others are considered qualitatively in Chapter 2 of the Draft Economic Analysis Methodology document. The Programmatic EIS also includes a comprehensive review of environmental impacts (BOEM 2022a).

Table 5-7: Draft Proposal Environmental and Social Costs

Program Area	Environmental and Social Costs (2022\$, in Billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	**	0.16	0.30
Chukchi Sea	**	0.50	0.74
Cook Inlet	**	0.02	0.02
Gulf of Alaska	**	0.01	0.01
Pacific Region			
Washington/Oregon	*	0.02	0.04
Northern California	**	0.09	0.12
Central California	**	0.08	0.11
Southern California	0.06	0.25	0.30
Gulf of Mexico Region			
GOM Program Area 1	0.15	0.77	1.82
GOM Program Area 2	0.04	0.15	0.35
Atlantic Region			
South Atlantic	*	0.11	0.17
Mid-Atlantic	0.02	0.33	0.38
North Atlantic	0.01	0.11	0.19

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated activity nor production and thus have zero ESCs.

** = These areas have ESCs between -\$5 million and \$5 million, rounding to \$0.00 billion.

BOEM’s analysis uses established models to estimate the impact of its activities consistently across regions. However, it is important to note that the estimates and resulting impacts will vary depending on the program area and are based on factors and assumptions that are not captured in the modeling analyses. In areas that do not have prior leasing, the impacts will be more pronounced compared with areas that have a history of leasing.

The Programmatic EIS includes more information on how the impacts differ and are potentially more significant in “frontier” planning areas (e.g., Kodiak and Shumagin) than in “intermediate” (e.g., Beaufort Sea and Mid-Atlantic) or “mature” (e.g., Western and Central GOM) planning areas. One important consideration not fully modeled and monetized in the net benefits analysis is the need for onshore infrastructure to support OCS oil and gas exploration and development. The OECM does not currently estimate these costs and benefits because doing so would require information on the precise location of onshore infrastructure development and estimates of the amount of infrastructure that would be needed.

Although this is outside of BOEM’s purview and beyond the scope of the net benefits analysis, onshore infrastructure is an important consideration and, if included, could potentially reduce the

overall net benefits of certain areas. Onshore infrastructure has the potential to be a significant cost in areas without current oil and gas infrastructure and should be qualitatively considered in conjunction with these quantified estimates. BOEM would conduct a more detailed evaluation of these build-outs prior to holding any lease sales included in the PFP. Additional information on the impacts of onshore infrastructure is included in *Volume 2: Supplemental Information to the 2018 Revised Offshore Environmental Cost Model (OECM)* (Industrial Economics Inc. and SC&A 2018a).

Another consideration cited in economic literature is the value individuals place on knowing an area is pristine and available, despite the fact that those individuals might never visit the area. BOEM does not attempt to monetize these “non-use” values but does acknowledge they could be significant and affect the overall societal net benefits calculation in some areas. BOEM’s net benefits analysis monetizes certain private and social benefits and costs to provide a consistent metric across program areas and leasing decisions. Additional information including a qualitative discussion on non-monetized impacts is included in Chapter 2 of the Draft Economic Analysis Methodology document and in the Programmatic EIS.

The cost estimate does not include several conceivable effects, most notably, the impacts associated with final consumption and other non-monetized impacts (e.g., recreational fishing and diving, national energy security, the U.S. trade deficit). Impacts related to final consumption are not included in the monetized net benefits analysis given the D.C. Circuit’s decision in *Center for Biological Diversity et. al. v. Department of the Interior*, which stated that, at the Program stage, the USDOJ lacks the discretion to analyze the effects of consumption of OCS oil and gas. However, an expanded discussion of these emissions as potential impacts is included in Chapter 2 of the Draft Economic Analysis Methodology paper (BOEM 2022b). Chapter 2 of the Draft Economic Analysis Methodology Paper also addresses other non-monetized costs (BOEM 2022b).

Social Cost of Upstream Greenhouse Gas Emissions

Table 5-8 shows the upstream costs associated with the anticipated production.

Table 5-8: Draft Proposal Social Cost of Upstream Greenhouse Gas Emissions

Program Area	Social Costs of Upstream Greenhouse Gas Emissions (2022\$, in Billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	**	0.34	0.81
Chukchi Sea	**	0.64	0.93
Cook Inlet	0.14	0.47	0.61
Gulf of Alaska	**	0.14	0.16
Pacific Region			
Washington/Oregon	*	0.08	0.15
Northern California	**	0.16	0.23
Central California	**	0.15	0.22
Southern California	0.15	0.43	0.53
Gulf of Mexico Region			
GOM Program Area 1	0.25	0.94	2.16
GOM Program Area 2	0.03	0.16	0.38
Atlantic Region			
South Atlantic	*	0.23	0.35
Mid-Atlantic	0.02	0.47	0.56
North Atlantic	0.01	0.20	0.37

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated activity nor production and thus have zero upstream GHG emissions and associated social costs.

** = These areas have social costs of upstream GHG emissions between -\$5 million and \$5 million, rounding to \$0.00 billion.

The GHG intensity of oil production is a volume-weighted ratio of GHGs emitted while producing a given unit of oil. Using independent data sources and BOEM's *Year 2017 Emissions Inventory Study*, BOEM has conducted a comparative analysis of the upstream GHG intensity of OCS oil and gas production to externally verify the results of the OECM analysis shown in

Table 5-8 (BOEM 2019). The available data suggest that deepwater (200 meters or greater) GOM production and the United States onshore tight (also known as shale or unconventional) oil production generally have low GHG intensity profiles relative to oil produced elsewhere. GOM shelf (less than 200 meters) production tends to have higher upstream GHG intensities compared to these two classifications. The data sources indicate that heavy oil production (such as in Canada or Venezuela) has by far the highest GHG intensity, followed by conventional onshore oil production. The key findings of the comparative analysis are as follows:

- Analysis of BOEM's *Year 2017 Emissions Inventory Study* found that there is a strong correlation between GOM facilities that produce the most oil and those that have the lowest GHG intensity.
- The GHG intensity of a project is much lower in the early stages of its life cycle, as the capacity allocation of a facility is correlated with the GHG intensity of the facility.

A comparative analysis of BOEM's *Year 2017 Emissions Inventory Study* and Rystad Energy's data found that, in 2017, 83% of GOM deepwater production was below Rystad Energy's estimated total U.S. average upstream GHG intensity of 12 kg/boe, and that 94% of GOM deepwater production was less than Rystad Energy's estimated global upstream average of 18 kg/boe (Rystad Energy 2020). Deepwater GOM upstream GHG intensity was found to have averaged 11.5 kg/BOE in 2017.

In general, the highest GHG intensity projects are those that seek heavy oil, those that flare or vent substantial amounts of natural gas, those that are late in their life cycle, and those that use inefficient technologies. Oil projects tend to have higher GHG intensities than gas projects, although this seems to be primarily driven by the extent of natural gas flaring and venting. The deepwater GOM's strong competitiveness in terms of GHG intensity is due to a number of factors, including restrictions on venting and flaring of natural gas on the OCS; the medium, less-dense crude oil that is prevalent in the area; and the fact that recent OCS leasing activity has been focused on the deepwater GOM, meaning that leases in that area are earlier in their life cycle.

Domestic Consumer Surplus Net of Producer Transfer

To estimate the change in consumer surplus net of producer transfer, BOEM uses *MarketSim* to calculate the price changes in energy markets because of new OCS production. For example, for the years of anticipated OCS production from the 2023–2028 Program, the average annual price change at the mid-activity level in 2022 dollars was \$0.73 per barrel for oil and \$0.06 per thousand cubic feet (mcf) of natural gas. The estimates for these welfare changes resulting from National OCS Program are provided in **Table 5-9**.

Table 5-9: Domestic Consumer Surplus Net of Producer Transfers by Program Area

Program Area	Domestic Consumer Surplus Net of Producer Transfer (2022\$, in Billions)		
	Low	Mid-	High
(\$ billions)			
Alaska Region			
Beaufort Sea	*	0.08	0.34
Chukchi Sea	*	0.41	0.95
Cook Inlet	0.01	0.03	0.05
Gulf of Alaska	*	**	0.03
Pacific Region			
Washington/Oregon	*	0.01	0.02
Northern California	*	0.03	0.06
Central California	*	0.04	0.07
Southern California	0.04	0.18	0.29
Gulf of Mexico Region			
GOM Program Area 1	0.20	0.68	2.25
GOM Program Area 2	0.02	0.04	0.21
Atlantic Region			
South Atlantic	*	0.13	0.34
Mid-Atlantic	*	0.49	0.65
North Atlantic	*	0.18	0.32

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated activity nor production and thus have zero consumer surplus net of producer transfer.

** = These areas have consumer surplus net of producer transfer between -\$5 million and \$5 million, rounding to \$0.00 billion.

Draft Proposal Leasing: Net Benefits

To calculate the net benefits associated with the lease sales in the Draft Proposal, BOEM takes the NEV, subtracts the ESCs and upstream GHG emissions, and then adds the change in domestic consumer surplus net producer transfers. The results are shown in **Table 5-10**. These results show the value of the anticipated production from the Draft Proposal without accounting for any substitute impacts. These benefits are conditional on industry undertaking the leasing and development in each of these program areas and on the assumption that the anticipated production estimates are realized. In addition to these impacts, there would be other impacts, not monetized here, associated with the development of onshore infrastructure. This and other non-monetized components of this analysis are included in Chapter 2 of the Draft Economic Analysis Methodology paper.

Table 5-10: Draft Proposal Net Benefits

Program Area	Net Benefits (2022\$, in Billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	-0.98	22.00	68.57
Chukchi Sea	-0.85	43.66	126.79
Cook Inlet	-1.53	4.72	9.37
Gulf of Alaska	-0.18	2.42	10.18
Pacific Region			
Washington/Oregon	*	0.93	2.66
Northern California	-0.30	1.79	7.13
Central California	-0.10	7.53	18.03
Southern California	0.69	42.52	83.38
Gulf of Mexico Region			
GOM Program Area 1	0.53	76.31	358.14
GOM Program Area 2	-0.58	0.64	26.24
Atlantic Region			
South Atlantic	*	4.10	23.89
Mid-Atlantic	-2.26	22.74	56.35
North Atlantic	-1.32	5.87	24.50

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated activity nor production and thus have a zero net benefits.

5.3.3.2 Draft Proposal Energy Market Substitutes

BOEM's estimates of the net benefits of the Draft Proposal are presented in **Section 5.3.3.1**. While these costs and benefits could stem from the leasing proposal if exploration and production occurred, the production would also prompt other energy market changes which would also generate other costs and benefits.

The choice of the No Sale Option in any or all the program areas means no new leasing would occur in those area(s) for at least 5 years during the duration of the 2023–2028 Program, and domestic (and world) oil and natural gas supply would eventually be reduced. This supply reduction (typically beginning 5 to 10 years after lease sales for new leases) would cause only a small increase in hydrocarbon prices, so there would be very little decrease in the quantity of oil and natural gas demanded. Instead, increased imports, domestic onshore production, and a switch to other energy sources would meet the continued domestic demand for oil and natural gas products.

In most areas, no OCS production exists, so domestic energy demand that could be met by OCS oil and/or natural gas is currently met with other sources of energy (e.g., imports, domestic onshore production) which incur their own ESCs. If the Lease Sale Option is selected in a program area without current production, the new OCS production would displace a portion of these energy sources currently providing energy. When the Lease Sale Option is selected in a program area with current production, the new leasing would ensure that production continues rather than being replaced by energy substitutes.

While exploration and production from a new National OCS Program generates ESCs, if no oil is available from the OCS in this new National OCS Program, consumers will consume onshore domestic production of oil, gas, and—to a lesser extent—other energy sources such as coal. This substitute production also generates new air emissions. Additionally, to further fulfill demand, replacement oil imports could cause corresponding increases in air emissions and oil spill risks from increased tanker operations along the U.S. coastal areas receiving the oil.

The current modeling uses baseline EIA data and does not incorporate changes in the worldwide energy structure. As noted in **Chapter 1**, meeting U.S. climate goals will require significant changes to the national and worldwide economies. The results presented assume a continuation of current energy consumption patterns. A qualitative discussion of the likely impacts on net benefits assuming net-zero pathways is provided in **Section 5.3.5**.

To estimate these substitute energy sources, BOEM uses *MarketSim* to determine the substitutions for OCS oil and natural gas development if one or more areas are excluded from the National OCS Program. The total amount of production resulting from this National OCS Program depends on many factors including the number of areas selected for leasing. BOEM's *MarketSim* model estimates that given current demand and consumption patterns, in the absence of new OCS production, approximately 10% of the forgone OCS production would not be replaced by other energy sources but instead would represent reduced demand. This reduced demand is calculated using *MarketSim*, which includes adjustment rates to capture the transition of short run changes into long-term impacts. These adjustment rates in large part capture the lifespan of energy producing and consuming capital, so more of this reduced demand would come in later years of the analysis as energy markets make long-term adjustments.

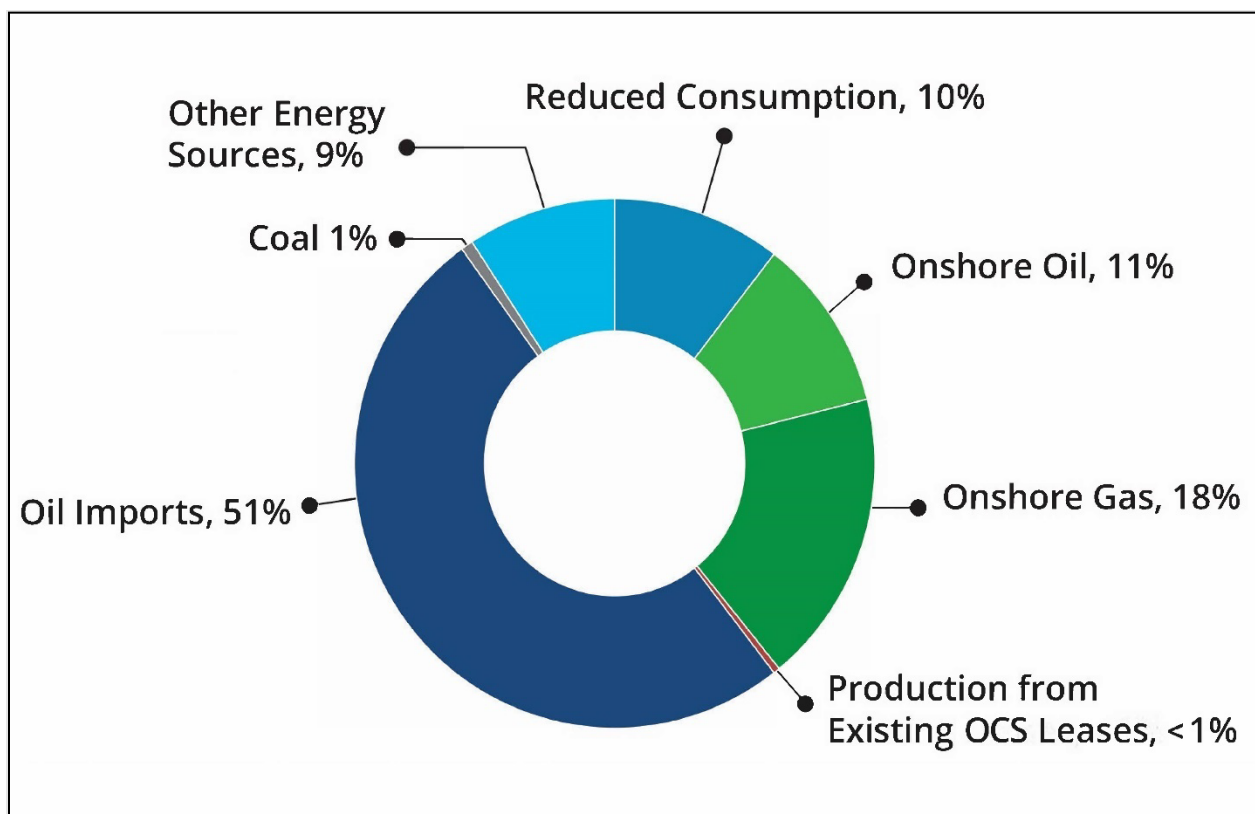
Approximately 38% of the forgone production would be met by domestic substitutes (29% with increased onshore oil and gas production, 1% with fuel switching to coal, 6% other sources [e.g., oil, natural gas, and biofuels not captured elsewhere], 2% electricity, and less than 1% from increased activity on existing offshore leases). Approximately 51% of the forgone production would be met with additional oil and gas imports.³⁷ **Figure 5-13** shows the breakdown of the

³⁷ Independent rounding can result in numbers not summing to 100%.

percentage of forgone OCS oil and gas production estimated to occur in the mid-activity level that would be replaced by energy substitutes under the No Sale Option.

The percentages shown in **Figure 5-13** represent the estimated substitutions from the Draft Proposal. The energy substitutions are estimated as percentages and they could be applied to any amount of production that is forgone. Consideration of only one program area or region would generate slightly different substitution rates compared to the entire set of areas in aggregate. The focused analysis in **Section 5.3.4** has estimated energy substitute percentages for only the Cook Inlet and GOM Program Area.

Figure 5-13: Estimated Substitution of Other Energy Sources under the No Sale Option under Baseline Policies (Mid-Activity Level)



Notes: The substitution rates are based on the anticipated production of oil and gas from all program areas. The substitution rates would be different for an individual program area depending on the specific volume of anticipated oil and gas production in the program area that is excluded from leasing. These substitution rates are estimates based on current assumptions and baseline policies. Substantial changes in policies, technological advancements, or energy demand shifts could alter these substitution rates.

5.3.3.3 Draft Proposal No Sale Option: Net Benefits Analysis

The Program's costs and benefits are described in **Section 5.3.3.1**. However, as described in **Section 5.3.3.2**, without production from the OCS, under baseline conditions, substitute energy sources would be required to fulfill energy demand. This section calculates the benefits and costs associated with those substitutes.

No Sale Option: Net Economic Value

Rather than attempt to calculate the NEV from the increased production associated with onshore natural gas, oil, and other domestic production that would occur in the absence of OCS lease sales, BOEM instead employs a simplifying assumption that the NEV of the energy substitutes is equivalent to that of OCS production on a per-BOE basis.³⁸ All domestic substitutes would provide NEV under the No Sale Option and only the Draft Proposal NEV over and above this amount is an incremental benefit to the Nation.

Based on *MarketSim* simulations for the leasing scenario (in contrast with the No Sale Option), BOEM estimates that 38% of the Draft Proposal's anticipated OCS production alternatives are domestic sources of energy. BOEM then estimates that No Sale Option NEV is 38% of the Draft Proposal's NEV. **Table 5-11** shows the No Sale Option NEV for each program area.

Table 5-11: No Sale Option: Net Economic Value

Program Area	No Sale Option Net Economic Value (2022\$, in billions)		
	Low	Mid-	High
(\$ billions)			
Alaska Region			
Beaufort Sea	*	8.97	27.74
Chukchi Sea	*	17.76	51.01
Cook Inlet	-0.56	2.07	3.98
Gulf of Alaska	*	1.03	4.13
Pacific Region			
Washington/Oregon	*	0.41	1.13
Northern California	*	0.80	2.97
Central California	*	3.09	7.31
Southern California	0.34	17.21	33.57
Gulf of Mexico Region			
GOM Program Area 1	0.29	30.94	143.95
GOM Program Area 2	-0.21	0.37	10.70
Atlantic Region			
South Atlantic	*	1.72	9.63
Mid-Atlantic	*	9.22	22.65
North Atlantic	*	2.40	9.90

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated production. Thus, there are no substitutes to assign NEV under the No Sale Option.

³⁸ BOEM realizes this is likely an overestimate of the NEV of these sources because they are replacements for OCS production and only extracted because of non-price decisionmaking (i.e., the decision not to offer OCS acreage is a policy decision not directly influenced by profitability), and thus would be less valuable than production that would occur instead if not for the non-market constraints.

No Sale Option: Environmental and Social Costs

Table 5-12 shows the ESCs associated with the energy market substitutions calculated in **Section 5.3.2.2**. Under this Draft Proposal Analysis those substitutions assume continuation of current laws and policies and the replacement of approximately 90% of the forgone OCS production with other energy production. These ESCs include impacts from increased tankering and onshore gas production. BOEM models the dispersion of offshore and onshore emissions to estimate the magnitude of potential effects on air quality and downstream, monetizable effects, including respiratory and other human health effects. BOEM model results indicate that emissions from the alternative energy sources that could replace OCS production have a greater detrimental effect on human health than air emissions generated by OCS production often many miles offshore.

Table 5-12: No Sale Option: Environmental and Social Costs

Program Area	No Sale Option Environmental and Social Costs (2022\$, in billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	*	0.76	1.39
Chukchi Sea	*	1.71	2.46
Cook Inlet	0.06	0.31	0.35
Gulf of Alaska	*	0.11	0.20
Pacific Region			
Washington/Oregon	*	0.06	0.09
Northern California	*	0.17	0.21
Central California	*	0.23	0.31
Southern California	0.12	1.09	1.30
Gulf of Mexico Region			
GOM Program Area 1	0.60	3.91	8.73
GOM Program Area 2	0.13	0.41	1.16
Atlantic Region			
South Atlantic	*	0.56	0.98
Mid-Atlantic	*	2.05	2.04
North Atlantic	*	0.68	0.97

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated production and thus have no substitute energy production assigned and zero ESCs under the No Sale Option.

The OEMC calculates the domestic ESCs from the No Sale Option for each program area based on the areas in which those costs are expected to occur. For example, if the Beaufort Sea were to have significant oil production, it would reduce the production of other substitute energy sources by the approximate percentages shown in **Figure 5-13**. OCS production in the Beaufort Sea would generate impacts in the Beaufort Sea, but the production that it replaced would generate

environmental and social cost impacts in other places like port cities from imports and onshore in areas near onshore natural gas production.

Although the amount of these ESCs is estimated in those locations, they are all attributed to the No Sale Option costs for the Beaufort Sea decision. Since the net benefits analysis is a national analysis, this approach allows for a transparent assessment of the national tradeoffs in decisions regarding timing, size, and location of sales.³⁹ Additional information on this approach is included in the Draft Economic Analysis Methodology paper (BOEM 2022b). Further, estimates of these No Sale Option costs in and adjacent to the areas where they are likely to occur are provided in **Chapter 8**.

No Sale Option: Social Cost of Upstream Greenhouse Gas Emissions

For upstream emissions, BOEM models the global emissions of the increased imports (including the emissions occurring overseas and in transport to the U.S.) as well as the production of domestic onshore oil and gas, fuel switching, etc. Again, these emissions assume that approximately 90% of the forgone production from a Program would be replaced with some alternative fuel source.

The increase in social cost of upstream GHG emissions associated with the No Sale Option represents the increase in per-barrel GHG emissions from substitute sources. The fossil fuel energy sources that substitute for OCS oil and gas have higher GHG intensities. Imports result in additional emissions during transport to the U.S. and because there are less restrictive emissions standards in the producing countries. See **Table 5-13**.

³⁹ This approach allows the Secretary to see, in a single table, the effect on net benefits from a decision whether to offer lease sales for each program area. It was upheld by the D.C. Circuit Court in *Center for Sustainable Economy v. Jewell* 779 F.3d 588 (D.C. Cir. 2015). The court noted that the national perspective of the net benefits analysis and distribution of the No Sale Option costs to the program area in the absence of leasing are both reasonable and consistent with Section 18(a) of the OCS Lands Act.

Table 5-13: No Sale Option: Social Costs of Upstream GHG Emissions

Program Area	No Sale Option Social Costs of Upstream Greenhouse Gas Emissions (2022\$, in billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	*	1.54	2.88
Chukchi Sea	*	3.44	5.15
Cook Inlet	0.10	0.63	0.73
Gulf of Alaska	*	0.24	0.42
Pacific Region			
Washington/Oregon	*	0.12	0.18
Northern California	*	0.35	0.44
Central California	*	0.46	0.63
Southern California	0.24	2.13	2.53
Gulf of Mexico Region			
GOM Program Area 1	1.33	7.63	17.54
GOM Program Area 2	0.23	0.83	2.36
Atlantic Region			
South Atlantic	*	1.17	2.26
Mid-Atlantic	*	4.27	4.77
North Atlantic	*	1.41	2.24

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated production and thus have no substitute energy production assigned and zero upstream GHG emissions and associated social costs under the No Sale Option.

The GHG emissions associated with the No Sale Option would vary greatly if there were different assumptions regarding future energy substitutions and future energy demand regardless of decisions on the Program.

No Sale Option: Net Benefits

In the absence of the anticipated production from the leasing analysis, substitute energy sources would be needed, which would generate economic benefits and environmental costs. The net benefits of these substitute energy sources are shown in **Table 5-14**.

Table 5-14: No Sale Option: Net Benefits

Program Area	No Sale Option Net Benefits, including SC-GHG (2022\$, in billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	*	6.67	23.47
Chukchi Sea	*	12.61	43.40
Cook Inlet	-0.72	1.13	2.90
Gulf of Alaska	*	0.67	3.50
Pacific Region			
Washington/Oregon	*	0.22	0.86
Northern California	*	0.28	2.32
Central California	*	2.40	6.38
Southern California	-0.01	13.99	29.73
Gulf of Mexico Region			
GOM Program Area 1	-1.64	19.40	117.67
GOM Program Area 2	-0.57	-0.87	7.19
Atlantic Region			
South Atlantic	*	**	6.39
Mid-Atlantic	*	2.90	15.83
North Atlantic	*	0.31	6.69

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated production and, thus have no substitute energy production assigned and zero net benefits under the No Sale Option.

** = These areas' net benefits (inclusive of the social cost of upstream GHG emissions) are between -\$5 million and \$5 million, rounding to \$0.00 billion.

5.3.3.4 Incremental Net Benefits Analysis

Section 5.3.3.1 described the net benefits of Draft Proposal's leasing scenario and **Section 5.3.3.2** estimated the net benefits assuming energy substitutes are required to replace the OCS production. The difference of those is an estimate of the incremental net benefits. That is, the costs and benefits of OCS leasing above those that would be experienced in the absence of that leasing. This analysis assumes that current policies and trends continue and does not account for any major shift in energy consumption patterns. Absent major policy changes, the decision of whether to lease on the OCS will not play a major role in changing energy consumption patterns and environmental impacts would result from either leasing or not leasing. However, as the U.S. adapts to meet its climate goals, major changes could greatly alter demand for oil and gas and, thus, any forgone OCS oil would likely not be replaced to the same extent that it is currently.

Estimates of the incremental net benefits inclusive of the social cost of upstream GHG emissions are included **Table 5-15**.

Table 5-15: Incremental Net Benefits by Program Area (Inclusive of Social Cost of GHGs)

Program Area	Incremental Net Benefits, inclusive of SC-GHG (2022\$, in billions)		
	Low	Mid-	High
	(\$ billions)		
Alaska Region			
Beaufort Sea	-0.98	15.33	45.10
Chukchi Sea	-0.85	31.05	83.39
Cook Inlet	-0.81	3.58	6.47
Gulf of Alaska	-0.18	1.75	6.68
Pacific Region			
Washington/Oregon	*	0.70	1.80
Northern California	-0.30	1.51	4.81
Central California	-0.10	5.12	11.65
Southern California	0.70	28.53	53.64
Gulf of Mexico Region			
GOM Program Area 1	2.17	56.91	240.47
GOM Program Area 2	-0.01	1.51	19.05
Atlantic Region			
South Atlantic	*	4.10	17.50
Mid-Atlantic	-2.26	19.85	40.52
North Atlantic	-1.32	5.56	17.82

Notes: The following program areas without anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Key: * = Under the low activity level, these areas have no anticipated activity nor production and, thus have zero incremental net benefits.

The net benefits results are calculated based on the lease sales included in the Draft Proposal and do not consider the Section 12 withdrawals (see **Section 4.3** for a description of the withdrawals). For several of the withdrawals, the entire program area is removed, which is equivalent to the No Sale Option. Due to differences in regional energy markets within different program areas as well as economic modeling assumptions, the net benefits could change slightly in other areas because of these withdrawals, yet the main conclusions in these other areas remain the same.

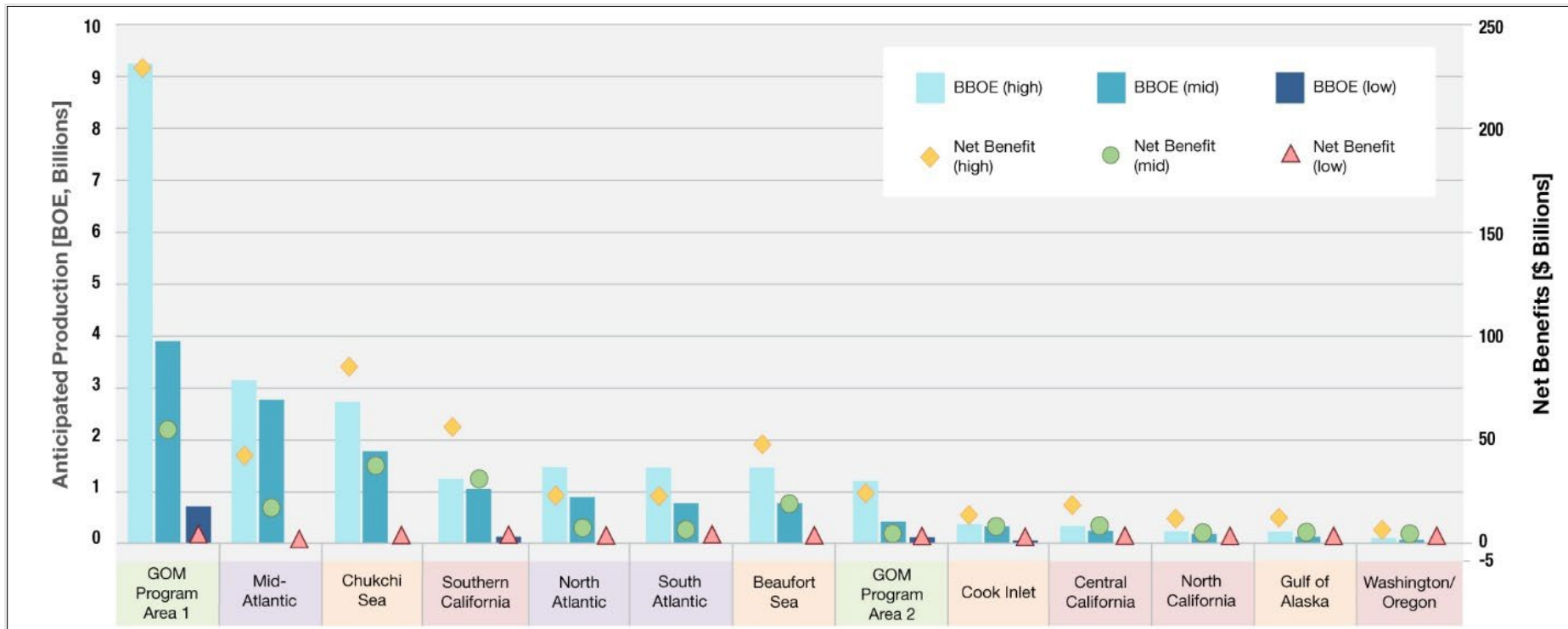
For those areas where only a portion of the program area is withdrawn, the net benefits would be reduced. To the extent that the removed area represents a large overlap with the oil and gas resource base, the net benefits would likely be drastically reduced and could even be equivalent to the No Sale Option, should enough of the resource base be removed that the program area could no longer receive significant interest. Because this analysis is designed to evaluate the full Draft Proposal, it includes analysis of withdrawn areas. The Secretary is not considering inclusion of any withdrawn area.

Anticipated production and net benefits are shown together in **Figure 5-14**. Program areas are sorted in the figure from highest anticipated production to lowest under the mid-activity level. Note that, for several reasons, the relationship between anticipated production and net benefits

is not linear. Differences in production costs between regions lead to different NEV per-barrel results in each program area. Also, incremental ESCs are not uniform with production, since some areas see greater environmental impact per barrel produced because specific characteristics of each program area are included in the environmental cost calculation (e.g., miles of coastline, value of a beach day, area-specific species).

The net benefits estimates are based on many assumptions used in the models. The values are entirely dependent on the estimate of anticipated production shown in **Table 5-2**. Although the estimates are shown under three different activity levels and calculated using three different price assumptions, many factors beyond price can affect the level of industry interest, activity, and ultimate production from these areas. This analysis is designed to show, under a specific set of conditions, the benefits and costs that could result from holding the indicated OCS lease sales and those possible from the energy substitutes that would be consumed in the absence of leasing in a particular program area. **Chapter 9** provides information on some of the uncertainties surrounding oil and gas production and consumption, all of which could affect the production and net benefits that are realized because of this National OCS Program.

Figure 5-14: Draft Proposal Analysis: Anticipated Production and Net Benefits



Notes: The following program areas with no anticipated production in any of the three activity levels are not displayed in this table: Hope Basin, Norton Basin, Navarin Basin, St. George Basin, Shumagin, Kodiak, Aleutian Basin, Bowers Basin, Aleutian Arc, St. Matthew-Hall, and Straits of Florida.

Under the E&D scenario low activity level, there is no anticipated production for these program areas: Mid-Atlantic, Chukchi Sea, North Atlantic, South Atlantic, Beaufort Sea, Central California, Northern California, Gulf of Alaska, Washington/Oregon.

While there is anticipated production for these areas in the low activity level, they have negative NEV and net benefits: GOM Program Area 2 and Cook Inlet Program Area.

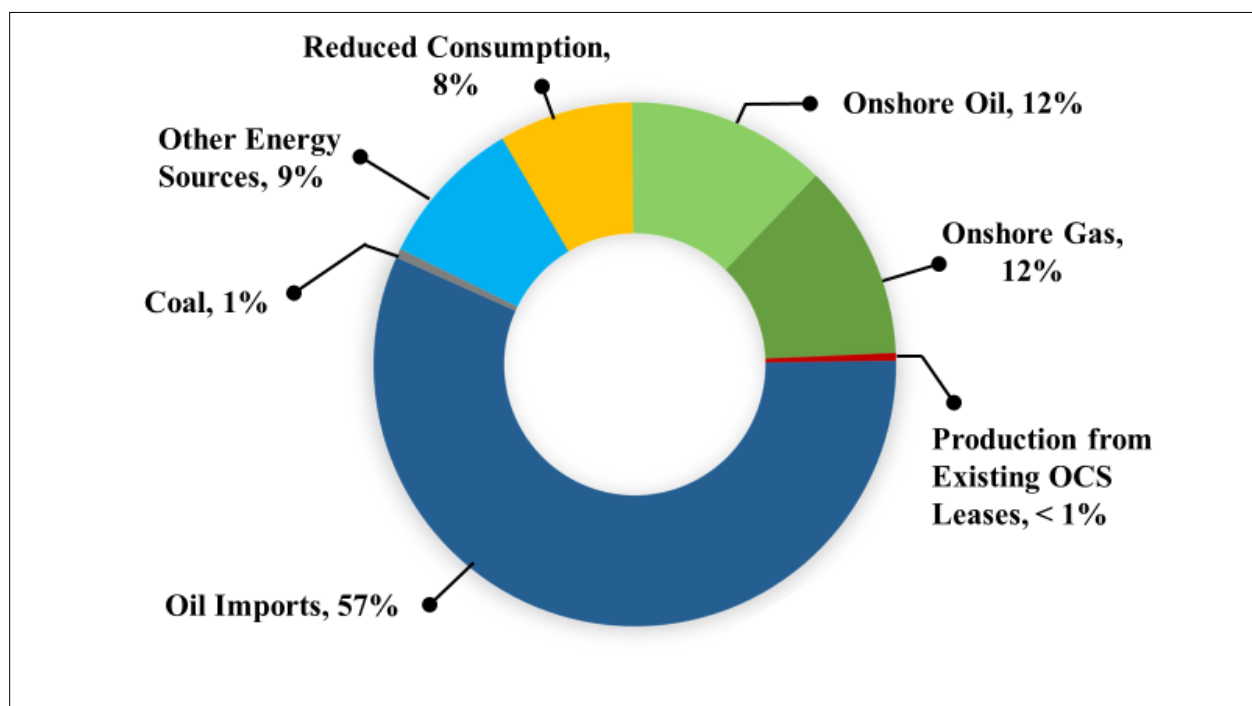
5.3.4 Focused Analysis: GOM Program Area 1 and Cook Inlet

The net benefits analysis is conducted as an area-by-area analysis and the results from each program area represent the tradeoffs between leasing and no leasing in each area. However, as described, the Draft Proposal includes an expansive leasing program, but one where ultimately leasing and production in every area is unlikely especially given Presidential withdrawals and a lack of state support.

To provide the Secretary and potential commenters a more streamlined set of information, this section considers, and provides an example analysis of, the net benefits from those areas that were included in both the 2012–2017 and 2017–2022 Programs: GOM Program Area 1 and the Cook Inlet.

First, as described, limiting the analysis to only these two program areas slightly impacts the energy market substitution rates. **Figure 5-15** shows the updated energy substitutes when only considering these two areas. Energy substitutes can differ by program area or region given specific energy market characteristics and the portion of the forgone production that is oil versus natural gas (e.g., in the Atlantic, a larger portion of the BOE is natural gas and a higher percentage of the substitutions will be onshore natural gas). The substitutes for the GOM Program Area 1 and the Cook Inlet show an increase in substitution of oil imports and a slightly smaller volume of reduced consumption than the comparable analysis showed when performed for all the areas in the Draft Proposal.

Figure 5-15: Energy Market Substitutions for the Cook Inlet and Gulf of Mexico



The Cook Inlet and GOM Program Area 1 net benefits results from this focused analysis (**Table 5-16**) are not significantly different from their results shown in the tables earlier in this chapter.

Again, the estimates of energy substitutes in this focused analysis are using baseline data from EIA, which assumes continuation of current laws and policies. If energy markets change substantially over the next few years, the energy substitutes could change and ultimately impact the net benefits. BOEM continues to review the net benefits analysis methodology and assumptions and will continue to revise the analysis in the PFP.

Table 5-16: Focused Analysis Results: GOM Program Area 1 and Cook Inlet Net Benefits Components

Program Area	Cook Inlet (2022\$, in billions)			Gulf of Mexico Program Area 1 (2022\$, in billions)		
	Low Activity	Mid-Activity	High Activity	Low Activity	Mid-Activity	High Activity
Anticipated Production						
Oil (Bbbl)	0.00	0.30	0.30	0.56	3.22	7.62
Natural Gas (Tcf)	0.28	0.11	0.39	0.90	4.16	10.02
BOE (Bboe)	0.05	0.32	0.37	0.72	3.96	9.40
Program (\$ billions)						
NEV	-1.40	5.18	9.95	0.73	77.34	359.86
Environmental and Social Costs	*	0.02	0.02	0.15	0.77	1.81
Social Cost of Upstream GHG	0.14	0.47	0.61	0.25	0.91	2.11
Domestic Consumer Surplus Net Producer Transfer	0.01	0.03	0.05	0.24	0.65	2.59
Program Net Benefits	-1.53	4.72	9.37	0.57	76.32	358.53
No Sale Option (\$ billions) (Current Substitutions)						
NEV	-0.56	2.07	3.98	0.29	30.94	143.95
Environmental and Social Costs	0.05	0.21	0.25	0.61	2.63	5.99
Social Cost of Upstream GHG	0.10	0.60	0.70	1.35	7.28	16.94
No Sale Option Net Benefits	-0.72	1.27	3.03	-1.66	21.03	121.02
Incremental (\$ billions)						
NEV	-0.84	3.11	5.97	0.44	46.41	215.92
Environmental and Social Costs	-0.05	-0.19	-0.23	-0.46	-1.89	-4.18
Social Cost of Upstream GHG	0.04	-0.13	-0.09	-1.10	-6.38	-14.83
Incremental Net Benefits	-0.82	3.45	6.34	2.23	55.29	237.52

Key: *= These values are between -\$5 million and \$5 million, rounding to \$0.00 billion.

5.3.5 *Net-Zero Hypothetical Analysis*

The analysis presented in **Section 5.3.3** is conducted assuming a baseline supply and demand and continuation of current policies. Should the U.S. and other nations move towards a net-zero future (**Section 1.2.1**), the incremental net benefits would likely be significantly different.

Currently, BOEM is unable to perform a quantitative net benefits analysis that assumes progress towards a net-zero pathway, since BOEM lacks the appropriate data required for such an analysis. Instead, this section provides a qualitative discussion on the components of the net benefits analysis, starting with anticipated production, to identify how the analysis would differ with net-zero assumptions. The section considers anticipated production, substitutions, and how those substitutes would impact other components of the net benefits analysis, namely NEV, ESCs, and upstream GHG emissions.⁴⁰

5.3.5.1 *Anticipated Production*

As the U.S. transitions to meet its net-zero goals and demand for oil and gas declines, the anticipated production would likely be very different from what is included in **Table 5-2**. First, any areas no longer included in the National OCS Program would not experience leasing and activity, and, for areas that are included, many other factors would influence where industry would focus its activity. As net-zero policies are put into place to reduce oil and gas demand, BOEM expects that industry would focus on areas with current infrastructure and existing leasing and development activity.

For this qualitative, hypothetical net-zero analysis, BOEM assumes that industry would focus its actual leasing and development in the GOM Program Area 1. Given certain production challenges in frontier areas, coupled with the net-zero policies, industry would likely produce in the most cost effective, developed areas and avoid investing capital in new, undeveloped areas and those subject to greater degrees of developmental risk and political uncertainty. BOEM recognizes that other areas may be of interest and could see activity but has adopted this analytical assumption as the most reasonable for purposes of this analysis.

While BOEM has not quantified what OCS production from new lease sales might look like under a net-zero emissions future, one potential guideline and proxy is the low activity scenario. Along a pathway to net-zero emissions, there are many potential constraints to production, such as taxes or fees on GHGs, added costs for GHG abatement technology and protocols, as well as a

⁴⁰ Consumer surplus net of producer transfer is a small component of the net benefits calculation due to the amount of the consumer surplus that is mitigated by producer transfer. To the extent the U.S. increases the amount of energy it imports, the amount of producer transfer could decrease and in turn consumer surplus net of production transfer would increase. Additionally, if new OCS production had a higher impact on prices, it could increase the amount of consumer surplus net of producer transfer along a pathway to net-zero emissions. However, the relative weight of this component in the net benefits estimate could remain small and not significantly impact the net result. Thus, BOEM has chosen not to include consumer surplus net of producer transfer as part of this net-zero case study.

recognition that demand for fossil fuels would be expected to decline, even if not to zero in all cases.

5.3.5.2 *Substitutions and Net Benefits Impacts*

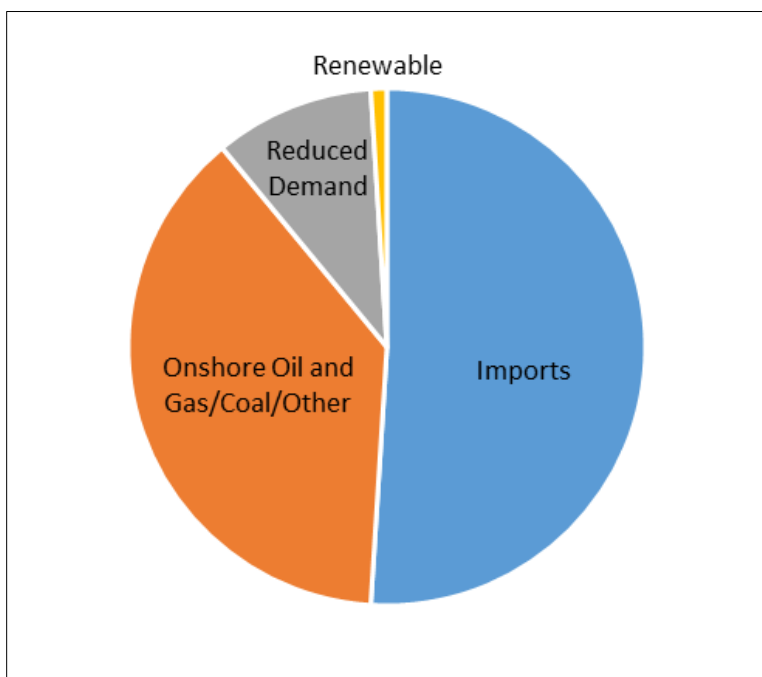
In the transition to a net-zero emissions future, consumption of natural gas and oil would not entirely disappear. Princeton’s *Net-Zero America* analysis included five pathways to net-zero emissions that the researchers believe to be achievable. Four of the five pathways Princeton outlines predict continued oil and natural gas consumption beyond 2050, the emissions from which are balanced using CCS. The fifth scenario that achieves zero oil consumption by 2050 also includes roughly 20% baseline oil consumption in 2045 (Larson et al. 2021). These scenarios indicate that, even under a net-zero emissions pathway, there could still be a role for oil and gas into the net-zero emissions future and for the OCS in particular. However, technology advances, policies, and other drivers will significantly change the composition of energy markets and alter the way in which OCS oil could be substituted in the future. The changes in substitutions would have an impact on the incremental net benefits associated with OCS leasing.

The Draft Proposal analysis includes estimates of the energy market substitutes that could replace OCS production in its absence. These substitutions rates, presented in **Figure 5-13**, are derived using baseline data, assuming current laws and policies, and historical measures of elasticities, measuring historical energy market responses to changes in demand, supply, and/or prices.

While these substitutions represent the current energy markets, the way in which OCS oil is replaced in the future could look significantly different. As the U.S. progresses towards net-zero and has more abundant electrification and development of renewable energy resources (including biofuels and nuclear energy) and reduced demand and consumption, the substitutions would, in general, rely less heavily on imports and domestic onshore oil and gas. BOEM does not currently have specific data on how these rates might differ in the future. However, for this hypothetical net-zero analysis, BOEM does consider different permutations of substitutions and how those permutations would impact the incremental net benefits of OCS leasing.

For this qualitative analysis, BOEM reduces the number of substitutions to four main categories. **Figure 5-16** shows the baseline four major substitutions, where about half of the forgone production is replaced with imports.

Figure 5-16: Baseline Energy Market Substitutes in the Absence of OCS Leasing



BOEM then identified four permutations to consider how changes in the substitutes would impact the incremental OCS leasing net benefits. The four permutations are outlined in **Table 5-17**. In reality, the actual substitutions would probably be a combination of all of these permutations, featuring increases in the substitution rate of domestic renewable energy and reduced demand with decreases in the substitution rates of imports and onshore oil and gas substitutions. For this hypothetical analysis, BOEM considered them independently to illustrate the different ways in which the OCS leasing incremental net benefits would differ.

Table 5-17: Permutations for Hypothetical Net-Zero Emissions Net Benefits Analysis

Permutation	Change in Energy Substitutes		
Permutation 1:	Increased Domestic Renewable Energy Substitution Rate	and	Decreased Oil and Gas Imports Substitution Rate
Permutation 2:	Increased Domestic Renewable Energy Substitution Rate	and	Decreased Onshore Oil and Gas Substitution Rate
Permutation 3:	Increased 'Reduced Demand' Rate	and	Decreased Oil and Gas Imports Substitution Rate
Permutation 4:	Increased 'Reduced Demand' Rate	and	Decreased Onshore Oil and Gas Substitution Rate

Using these four permutations, BOEM describes how changes in the substitutions rates could impact the No Sale Option net benefits and its components as well as the ultimate impact on the OCS leasing incremental net benefits calculation. For simplicity, BOEM considers the ESCs together with the GHG emissions in this section and refers to them as ESC (ESCs).

Permutation 1: In the first permutation, BOEM considers impacts if there is a substantial increase in the amount of domestic renewable energy substitutes and major decreases in the rate of oil and gas import substitutes. For domestic renewable energy to substitute for imported oil and gas, substantial electrification would have to occur, especially in the transportation sector. With these assumptions, the No Sale Option NEV would likely increase from the additional domestic NEV gained from the domestic renewable production (as opposed to the imports, which do not generate domestic NEV). Currently, the OECM does not calculate or monetize any of the associated costs of upstream renewable energy or nuclear construction. To the extent large, new renewable projects or new nuclear power plants would be required to replace OCS production, these would result in ESCs as well as GHG emissions.

At this stage, upstream renewable ESC are not quantified,⁴¹ but Section 2.3 of the 2015 OECM Documentation Volume 2 provides a qualitative analysis of some of these impacts. Although not quantified at this time, BOEM expects these impacts would likely be less than those associated with imports and would result in a reduction in the No Sale Option ESC. Because ESC is subtracted from the net benefits calculations, the increased NEV and decreased ESC impacts would lead to a higher No Sale Option net benefits and correspondingly likely result in a decrease in incremental net benefits.

Permutation 2: The second permutation considers the impacts of a substantial increase in domestic renewable energy substitutions alongside major decreases in the rate of onshore oil and gas substitutes. Here, the No Sale Option NEV would be unchanged, since both substitutes generate NEV and BOEM does not perform a full analysis on the NEV of substitutes, but instead assumes it is equivalent to the NEV of OCS oil and gas production. As with Permutation 1, the ESC of renewable development is not quantified or monetized, but the change would likely result in a reduction in No Sale Option ESC. Because ESC are subtracted from the net benefits calculations, the reduced ESC impacts would lead to a higher No Sale Option net benefits and correspondingly likely result in a decrease in OCS leasing incremental net benefits.

Permutation 3: The third permutation considers a substantial increase in the portion of forgone OCS leasing replaced by reduced demand and a decrease in oil and gas imports. Here, the No Sale Option NEV would remain unchanged, as neither imports nor reduced demand would result in domestic NEV. The incremental ESC would decline as reduced demand would not have any resulting ESC. The reduction in ESC would increase the No Sale Option net benefits and correspondingly decrease the OCS leasing incremental net benefits.

⁴¹ The OECM is designed to capture the largest costs and focuses on those that have meaningful impact on the total estimate of environmental and social cost. Using EIA data, *MarketSim* does not estimate a significant substitution with renewable energy. Given the small way in which these cost estimates would factor into the results, they are not quantified in the analysis. However, under a net-zero emissions future where renewable energy could be a larger substitute source, their impacts would be more meaningful. BOEM will consider how it can expand its analysis in the future and welcomes comments and potential data sources on such an expansion.

Permutation 4: The fourth permutation considers the increase in reduced demand, but with a corresponding decrease in onshore oil and gas production. Here, the No Sale Option NEV would decrease as there would be lower domestic NEV generated from the onshore oil and gas production. The reduced demand would not generate any ESC, thereby reducing incremental ESC. However, the relative magnitude of the decreased NEV and the decreased ESC would determine the ultimate impact on the incremental net benefits. Similarly, the impact on OCS leasing incremental net benefits is uncertain.

Table 5-18 summarizes the net benefits components impacts of the different permutations.

Table 5-18: Likely Impacts on Net Benefits Analysis Components from Alternative Energy Substitutes Permutations

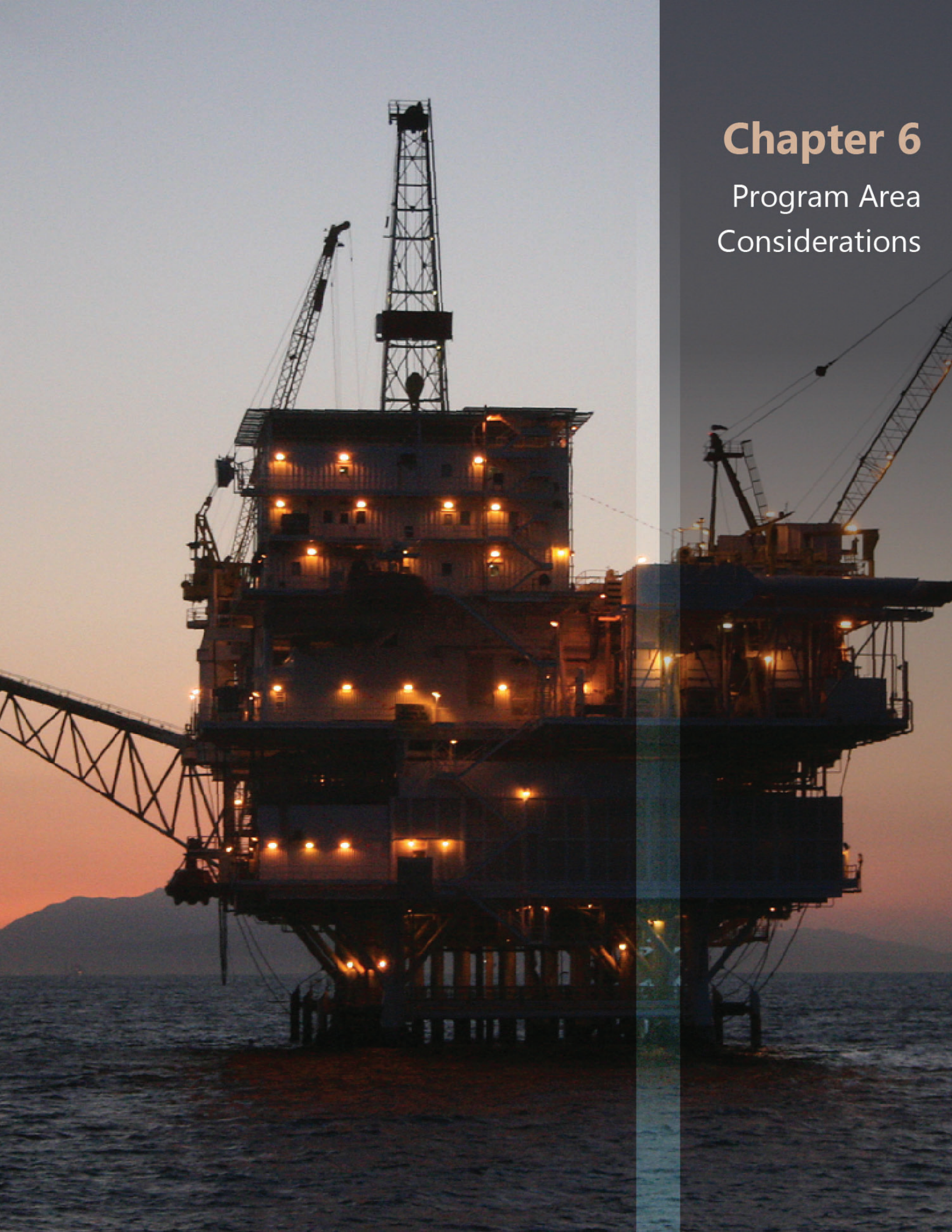
Permutation	Impact on No Sale Option Components			Impact on Incremental Net Benefits
	NEV	ESC	Net Benefits	
Permutation 1 Increased Renewable Decreased Imports	Increase	Likely Decrease, though currently unmonetized	Likely Increase	Likely Decrease
Permutation 2 Increased Renewable Decreased Onshore	Unchanged	Likely Decrease, though currently unmonetized	Likely Increase	Likely Decrease
Permutation 3 Increased 'Reduced Demand' Decreased Imports	Unchanged	Decrease	Likely Increase	Likely Decrease
Permutation 4 Increased 'Reduced Demand' Decreased Onshore	Decrease	Decrease	Uncertain	Uncertain

Note: No Sale Option net benefits = No Sale Option NEV – No Sale Option ESCs, thus a decrease in ESC results in an increase in No Sale Option net benefit.

There is tremendous uncertainty as the U.S. formulates and adopts policies to meet a net-zero emissions future. Given the permutations analyzed here, it is likely that the incremental net benefits associated with OCS leasing would decrease given these alternative substitution assumptions. However, there is, as of this analysis, too much uncertainty to determine the ultimate value of the net benefits. At present, the qualitative analysis presented here is the best available, and BOEM welcomes feedback and input on the methodology and assumptions for refining its analysis at the PFP stage. In the PFP stage, BOEM will review possible energy pathways to develop a range of substitutes and examine how those pathways could impact the net benefits under that scenario.

Chapter 6

Program Area Considerations



Chapter 6 Program Area Location Considerations

Chapter 6 includes a discussion of several different Section 18(a)(2) factors that the Secretary must consider when determining the size, timing, and location of lease sales. Specifically, this chapter focuses on those factors associated with regional and national energy markets and other uses of the OCS.

6.1 National Energy Markets

Chapter 1 describes the U.S. climate goal of reaching net-zero GHG emissions by 2050. As the U.S. implements policies to help achieve this goal over the next few years, the energy structure of the nation will likely change, impacting all energy markets including the market for OCS oil and gas. The following sections discuss recent developments in national energy markets and the location of OCS program areas relative to the needs of national energy markets, a factor the Secretary must consider under Section 18(a)(2)(C).

6.1.1 Recent Developments

Over the past 3 years, the markets for oil, petroleum products, and natural gas have experienced extreme uncertainty and price fluctuations. In 2020, due to the COVID-19 pandemic, production and demand decreased drastically leading to low prices, but as the economic recovery occurred over the next 2 years, both demand and prices increased. Prior to 2020, larger changes impacted U.S. markets as U.S. oil and natural gas production significantly increased. To assist the Secretary in decisions about the size, timing, and location of lease sales, this chapter includes an analysis of the markets for crude oil, natural gas, and refined petroleum products.⁴²

6.1.1.1 Recent Development in Oil Markets

Chapter 1 highlights many of the major changes to energy markets in the past decade. Larger structural changes, such as the significant increase in onshore U.S. oil and natural gas production, as well as the elimination of the U.S. ban on crude oil exports, have resulted in the U.S. becoming a net exporter when considering crude and petroleum products. In 2019, the U.S. produced a record high of 12.3 million barrels of crude oil per day, up from 5.4 million barrels per day in 2009 (EIA 2021o). Although U.S. crude oil production fell in 2020 due to the COVID-19 pandemic, the U.S. continues to see a significant decline in dependence on imported crude oil (EIA 2021l). In

⁴² Petroleum products (e.g., gasoline, diesel fuel, jet fuel, kerosene) are the output of refineries and made from crude oil. The OCS Lands Act focuses on crude oil and natural gas; nevertheless, petroleum, or “refined” products, are included in this analysis primarily because they represent the form in which end users consume oil that, in its crude form, is used only by refineries.

2020, U.S. crude oil and petroleum products imports were at the lowest level since 1992, down more than 42% since peaking in 2005 (EIA 2021l).

The COVID-19 pandemic substantially impacted crude oil markets during 2020 and 2021. The pandemic caused a significant decline in crude oil demand, causing West Texas Intermediate crude oil spot prices to fall to an average of \$16.55 per barrel in April 2020; crude oil prices gradually increased to an average of \$79.15 per barrel in November 2021 (EIA 2021ar). U.S. crude oil production fell to a low of 9.7 million barrels per day in May 2020, gradually recovered to 11.3 million barrels per day in July 2021, and then fell back to 10.8 million barrels per day in September 2021 due to temporary disruptions to GOM production caused by Hurricane Ida (EIA 2021x).

Subsequent to the onset of the pandemic, the OPEC+ countries⁴³ initially substantially decreased crude oil output, but have gradually increased crude oil production since August 2021 (New York Times 2021). In late 2021 and early 2022, strong crude oil demand, along with geopolitical events, caused crude oil prices to rise noticeably; crude oil prices averaged more than \$108 per barrel in March 2022 (EIA 2022b). In April 2022, President Biden announced the release of 1 million barrels of crude oil per day for 6 months from the Strategic Petroleum Reserve (SPR) (The White House 2022a). The revenue from the release will be used to refill the SPR in future years. Along with the release, President Biden also stressed the importance of expanding clean energy.

6.1.1.2 Developments in Domestic Petroleum Markets

Petroleum refineries are the primary market for crude oil, which generally is not used in its raw state. Refineries use crude oil as feedstock to create an array of petroleum products that are transported to various markets around the country and the world. The refined petroleum products market has changed significantly over the past several years as well due to the abundance of domestic oil production which in turn has changed the supply and consumption patterns in domestic crude oil markets.

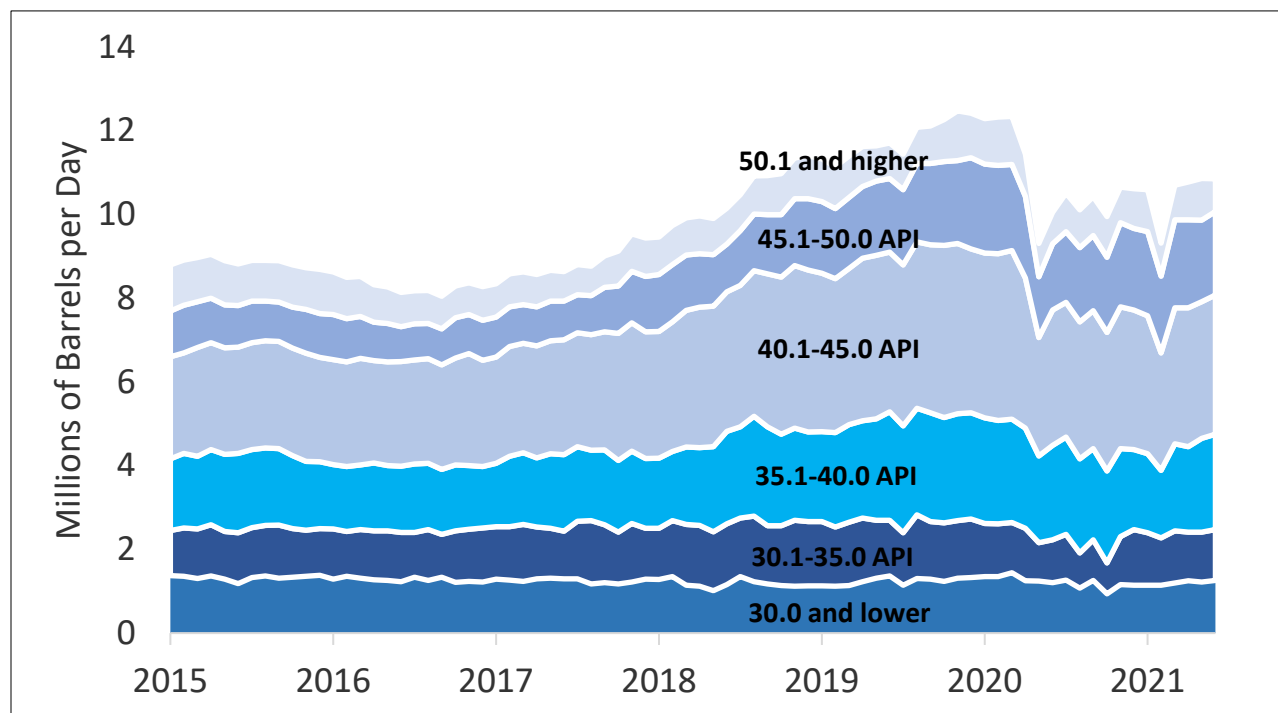
Onshore tight oil production accounted for 63% of total U.S. production in 2019 (EIA 2020c). **Figure 6-1** shows crude oil production in the contiguous U.S. (excluding Alaska) by American Petroleum Institute (API) gravity (a measure of crude oil density) since 2015. Most of the oil produced from tight formations is light, sweet crude, in contrast to the heavier, sour crudes that generally come from other domestic production, including offshore, and imported sources. Refining the lighter oils to obtain higher value products, such as gasoline, requires less processing and is a less expensive endeavor than refining heavy crudes. For this reason, lighter crude is usually more valuable and obtains higher prices in the commodity markets.

⁴³ OPEC+ consists of the 14 OPEC countries and 10 other countries (Russia, Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, South Sudan, and Sudan) that coordinate regarding oil production.

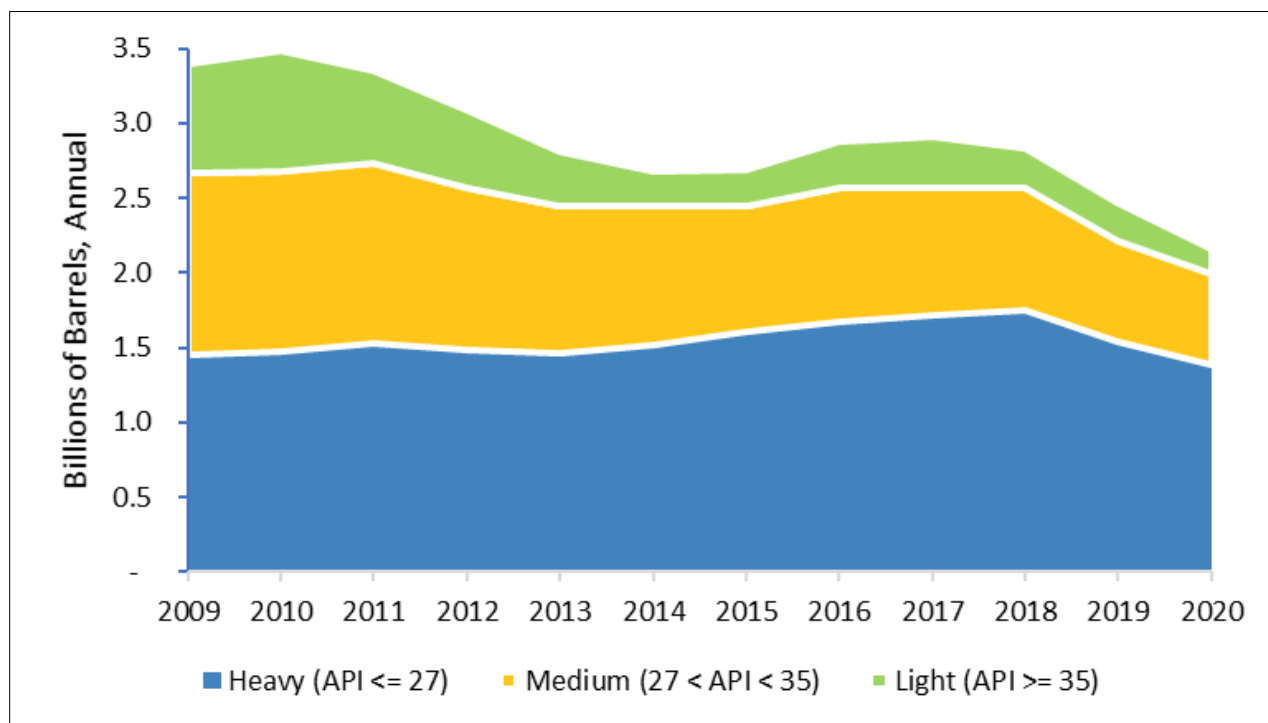
Refineries typically are designed to use specific grades and qualities of oil, and the expensive investments required to change that refining capacity usually prompt refineries to mix crude oil of different grades to achieve the cheapest blends suited to their facilities. However, the average API gravity of U.S. refinery inputs has gradually increased from 30.18° in 2004 to 33.03° in 2020 (EIA 2021am).

Refineries along the Gulf Coast typically process heavy crude oil while East Coast refineries are tailored for light, sweet crude. Because of the differences in crude qualities and capacities of regional refineries, one type of oil could be exported as crude while another type could be imported for refining. **Figure 6-2** shows U.S. imports of light, medium, and heavy crude oil since 2009. U.S. imports of light and medium crude oil have substantially decreased since 2009, while imports of heavy crude oil have not substantially changed. The SPR separates its reserves into sour and sweet crudes. As of January 2022, about 60% of oil in the SPR was sour crude to meet the needs of the Gulf Coast refineries (Department of Energy 2020).

Figure 6-1: Crude Oil Production in the Contiguous U.S. by API Gravity



Source: (EIA 2021j)

Figure 6-2: U.S. Crude Oil Imports by API Gravity

Source: EIA (2021u)

6.1.1.3 Recent Developments in Domestic Natural Gas Markets

The surge in use of new technology to develop large onshore tight formation geologic plays initially focused on natural gas. This early success led to significant downward pressure on natural gas prices, to the point that producers began to target projects that yielded the more valuable liquids associated with natural gas. Less expensive natural gas reduced manufacturing energy and feedstock costs and enabled manufacturing companies to increase U.S. operations or return manufacturing to the U.S. from overseas.

In 2019, the U.S. produced a record 33.66 Tcf of natural gas (EIA 2020a); natural gas production fell slightly to 33.49 Tcf in 2020 due to the COVID-19 pandemic (EIA 2021an). Given the plentiful supply of natural gas and the differences between world prices and domestic prices, exports of natural gas have increased in recent years. In 2020, the U.S. exported 5.28 Tcf of natural gas (EIA 2021ao). Of those exports, 2.89 Tcf (54%) were exported by pipeline (to Canada and Mexico), while 2.39 Tcf of natural gas was exported as liquified natural gas (LNG) (EIA 2021ap). LNG exports have grown rapidly during the past few years as new LNG export facilities have come online.

The COVID-19 pandemic has had various effects on natural gas markets. Natural gas prices initially fell due to the decline in natural gas demand. However, natural gas prices then increased to levels similar to those that prevailed prior to the pandemic (EIA 2020d). Natural gas prices surged to an average of \$5.51 per MMBtu in October 2021 due to low inventories and strong LNG

demand, although prices subsequently moderated and were below \$4 per MMBtu during December 2021 (EIA 2021t). In early 2022, geopolitical events precipitated a substantial increase in natural gas prices mainly due to increased demand for LNG exports; domestic (Henry Hub) natural gas prices averaged \$6.60/MMBtu in April 2022 (EIA 2022e). There is significant uncertainty regarding how natural gas markets, and the economy overall, will evolve going forward.

The increase in domestic natural gas production has significantly reduced coal demand within the U.S. Coal-fired electricity generation peaked in 2007, and much of that capacity has been converted to or replaced by natural gas (EIA 2021ac). Although coal fell to the third top electricity source in 2020 (after natural gas and renewable energy), higher natural gas prices in 2021 improved the economics of coal and led to an increase in coal consumption in 2021 (EIA 2021ac, 2022i).

6.1.2 Future Energy Market Changes

Many factors influence oil and gas production, prices, and consumption. These factors include domestic and foreign GDP growth rates; technology development (affecting the supply and/or demand side); geopolitical events; access to oil and gas resources; and laws, regulations, and policies. **Section 1.2** highlights expectations of future oil and natural gas demand for two proposed scenarios, those in which current policies are considered (the AEO baseline) and those in which energy markets are transformed in response to the threat of climate change damages.

EIA's 2021 AEO reference case forecast finds that absent major policy changes, the U.S. will continue to rely heavily on oil and natural gas to meet its energy needs. The forecast shows the level of oil consumption remaining relatively stable on an absolute basis, but that the percentage of oil to total energy consumption will decline slightly.

There are several studies that consider potential pathways the U.S. could implement to transform the energy sector in response to climate change. In each of the pathways considered by Princeton's *Net-Zero America Project*, the consumption of oil and natural gas declines over time but remains a component of U.S. energy consumption through 2045 (Larson et al. 2021). There is considerable uncertainty regarding how the supply and demand for crude oil will evolve in the future. The outlook for long-term energy markets will likely be different as the U.S. embarks on one of the potential pathways to net-zero emissions.

The Secretary has flexibility to re-evaluate the Nation's energy needs and current market developments and can revise lease sale offerings in accordance with the Section 18 process. **Section 10.5** describes some of the climate change policies adopted in states that are intended to reduce dependence on fossil fuels.

6.1.3 The Contribution of OCS Oil and Natural Gas

An important factor when considering national energy markets in the context of the Section 18 factors is how the National OCS Program fits in with the future climate policies to aid in transitioning to a clean energy future. Of particular importance is the timeline of when any production from areas included in the Second Proposal might occur and how this relates to energy markets and needs at that future time. As described, the U.S. still consumes significant volumes of oil and natural gas and is anticipated to do so in the future absent further policy changes, but as the U.S. adapts to the threat of climate change and the necessity of net-zero emissions, there could be reductions in the U.S.'s consumption of oil and gas.

As discussed earlier, the OCS is a major long-term supplier of conventional crude oil, and, to a lesser extent, natural gas. OCS production is not as responsive to price changes as is production from onshore tight formations because a longer lead time commitment is required for OCS production. Both from a government planning perspective and an engineering perspective, it would take several years, and in some cases, more than a decade, before industry could begin production on new OCS leases.

The OCS cannot quickly provide resources (i.e., increased oil and gas supply) to mitigate the effects of an unforeseen national energy emergency, such as a large portion of the world's oil supply being taken offline, as successful production requires several steps, years to complete, and can be delayed by uncertainties such as rig availability or engineering challenges. The statutory and regulatory processes for OCS planning, leasing, exploration, and development are lengthy and robust, making it difficult to quickly increase production from undiscovered resources in response to rapidly changing energy needs.

Absent new legislation, adding areas that were excluded from a National OCS Program would require a multi-year process. Implementing new production would similarly take time, even in mature areas like the GOM Program Area 1. Frontier areas would face additional challenges, as there would likely be further delays to devise exploration strategies, obtain and transport needed exploration rigs, and build the infrastructure and facilities needed to support development and production. **Figure 5-1** illustrates the timeline for oil and gas development for frontier and deepwater areas.

The National OCS Program planning process is designed to support long-term energy needs. To the extent energy consumption remains relatively constant or future demand increases, National OCS Program advanced planning is necessary to start the time-intensive process of including areas for proposed leasing, especially when considering frontier areas where production would require significant infrastructure build-out.

Alternatively, to the extent future demand will decrease as the U.S. transitions to a renewable energy economy, less OCS oil and gas production would be necessary. If new policies are

implemented or demand for OCS resources substantially falls, the Secretary can respond accordingly by cancelling or limiting any scheduled lease sales. Continued progress towards achieving net-zero emissions targets via the different pathways, coupled with revised energy policies and new regulations, could also prompt companies to bid on fewer leases, develop fewer projects, or abandon fields sooner, regardless of the decisions made on this National OCS Program.

6.1.3.1 *Importance of OCS Production*

Although overall net petroleum import levels have been decreasing, OCS production is still important to U.S. energy markets. There are several factors influencing why the U.S. might export oil to some countries while importing oil from others, including logistics (e.g., lack of pipelines to transport oil to certain U.S. regions, Jones Act restrictions⁴⁴), crude oil quality (e.g., refinery feedstock needs), international market pressures, and others. As mentioned previously, the medium-to-heavy sour crudes produced from the OCS are mainly processed in GOM refineries, which are primarily equipped for those types of crudes rather than the light, sweet crude being produced onshore.

OCS crude oil production also allows the U.S. to better manage any sudden declines in onshore production (due to price changes or other developments). As discussed, the very long development and production timelines makes OCS production less sensitive to short-term oil price fluctuations. For example, in response to the COVID-19 pandemic and the resultant decline in crude oil prices, EIA noticeably decreased its short-term forecast of onshore crude oil production but did not forecast a major change in OCS crude oil production (EIA 2020b). While this inelasticity of production can have some downsides (for example, to companies if they are forced to temporarily produce at a loss), the U.S. benefits from maintaining diverse sources of crude oil supplies and lowering the volatility of crude oil production.

Any increase in OCS crude oil production due to the National OCS Program would likely lead to an increase in exports of U.S. crude oil and refined petroleum products. BOEM uses the *MarketSim* model to estimate the increase in exports due to the anticipated OCS production from the Proposed Program. In the mid-activity level, the model estimates that crude oil exports would increase over baseline forecasted exports by roughly 0.5% of anticipated production, while refined petroleum product exports would increase by roughly 2.1% of the anticipated OCS oil production. More information about the assumptions and calculations in the model is included in the Draft Economic Analysis Methodology paper (BOEM 2022b) and the *MarketSim* model documentation (Industrial Economics Inc. 2021b).

⁴⁴ The Merchant Marine Act of 1920, also known as the Jones Act, requires that all goods transported by water between U.S. ports be carried on ships that are U.S.-flagged, are constructed in the U.S., and are owned and crewed by U.S. citizens (and/or U.S. permanent residents).

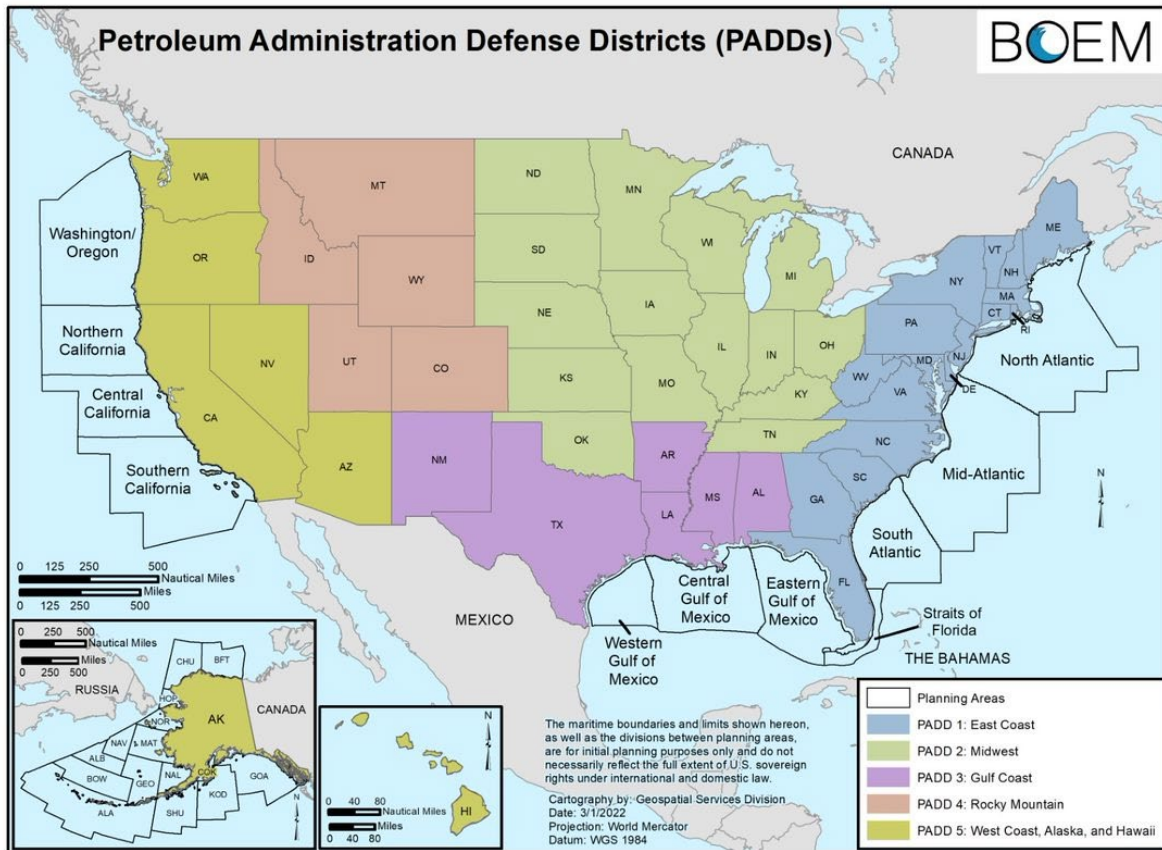
6.2 Regional Energy Markets and the Location of OCS Regions

In making decisions about the size, timing, and location of OCS oil and gas leasing for the National OCS Program, the Secretary must consider “...the location of [OCS] regions with respect to, and the relative needs of, regional and national energy markets” (Section 18(a)(2)(C) of the OCS Lands Act). The following regional energy considerations provide information on the markets for crude oil and natural gas as well as overall energy production and consumption.

To analyze energy markets regionally, BOEM uses Petroleum Administration for Defense Districts (PADDs) from the EIA to group all 50 states into five separate districts.⁴⁵ The PADDs, shown in **Figure 6-3**, allow users to analyze regional movements of natural gas and petroleum. As described in **Chapter 5**, this analysis is conducted on the full Draft Proposal, but several fundamental characteristics could limit the potential for all these areas to be offered in a lease sale or developed by industry. However, to fulfill the Section 18 requirement, BOEM analyzes the Draft Proposal as if there would be investment and development in each area but recognizes production in most areas is unlikely to occur. This analysis considers energy markets broadly and how, if production occurred, it would impact regional energy markets. Any discussion about production from those sales is conditional on lease sales occurring and companies choosing to lease, explore, and develop any resources.

⁴⁵ Alaska is separated from other states in the West Coast PADD in **Figures 6-4** through **6-7** because it has its own OCS region, and its large oil production and low consumption masks a very different production-consumption relationship than in the other West Coast PADD states. Based on data availability, Alaska is grouped with the remaining West Coast PADD states for the other tables and figures.

Figure 6-3: Petroleum Administration Defense Districts



Source: EIA (Undated)

6.2.1 Regional Production and Consumption

Regional energy markets are defined by the amount of crude production, refining, and consumption that occurs in each region. **Figures 6-4** and **6-5** show proportional petroleum production and consumption by region in the U.S. in 2020. **Figures 6-6** and **6-7** similarly show production and consumption by PADD for natural gas. To show the differences between Alaska and the rest of the West Coast PADD, Alaska is shown separately in **Figures 6-4** through **6-7**. One noticeable theme is that the Gulf Coast PADD, which includes the GOM OCS, has the highest percentages of both domestic oil and natural gas production but consumes a much smaller share. The East Coast, West Coast, and Midwest PADDs consume close to 64% of the domestic oil and 67% of natural gas used in the U.S. but supply only about 21% of domestic oil and 40% of natural gas.

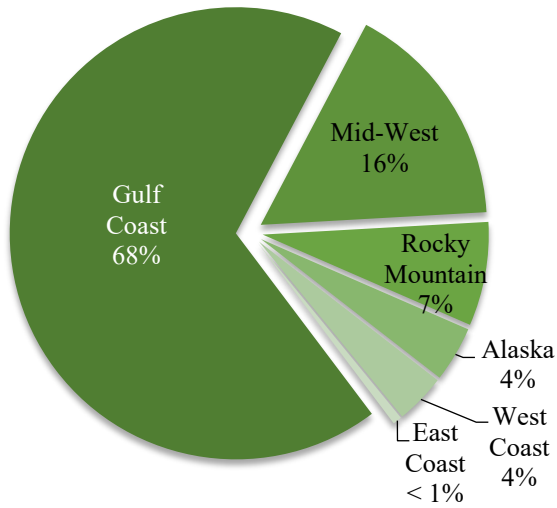
6.2.2 Regional Transportation

Since there are differences between the production and consumption levels of every PADD, resources must be transported between regions to ensure that each PADD is able to meet its consumption needs. Because crude oil and natural gas are rarely suitable for consumption

without going through a refining/processing stage during which various final products are extracted, refineries and gas processing facilities are the primary oil and gas markets. Oil and natural gas are fungible or interchangeable commodities, even more so once refined and processed, making location less relevant at later stages. Therefore, refinery capacity within a region is a key component of each region's ability to support not only its own demand but national energy demand as well. **Figure 6-8** shows the percent of U.S. refining capacity in each PADD.

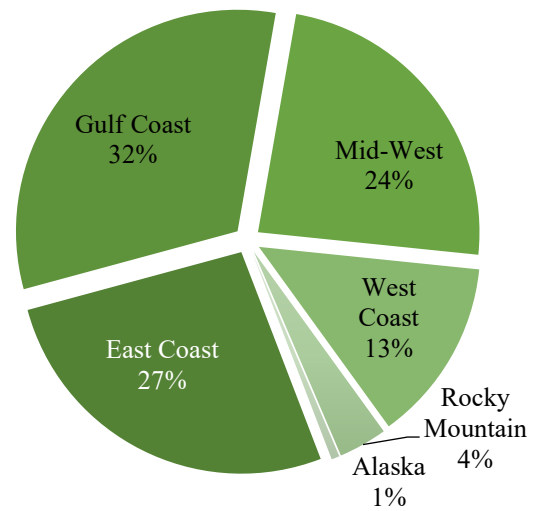
To fulfill regional energy demand, a network of pipelines, trains, trucks, and barges is required to transport resources to refineries and then ultimately to the consumer. For example, even though the East Coast accounts for 29% of total U.S. oil consumption, it only contains 5% of the U.S. refining capacity. Each of the PADD regions receives crude oil and petroleum products in three different ways: production, regional imports, and foreign imports. Similarly, most of the regions have at least some regional and foreign exports. **Figure 6-9** shows the production, regional imports/exports, and foreign imports/exports for each PADD region. The Gulf Coast PADD has the most throughput of oil and petroleum products because it has the most production and refining capacity.

Figure 6-4: Oil Production by PADD, 2020



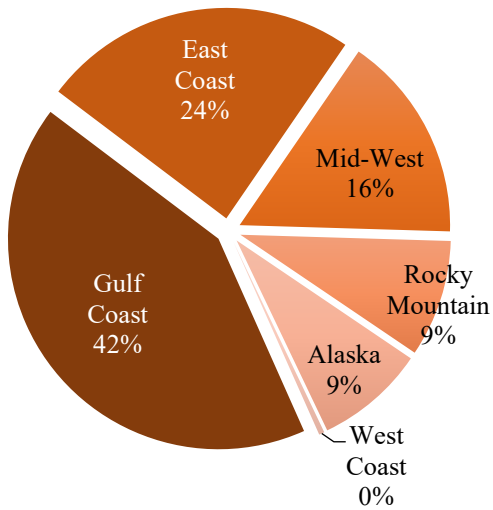
Source: EIA (2022a)

Figure 6-5: Oil Consumption by PADD, 2020



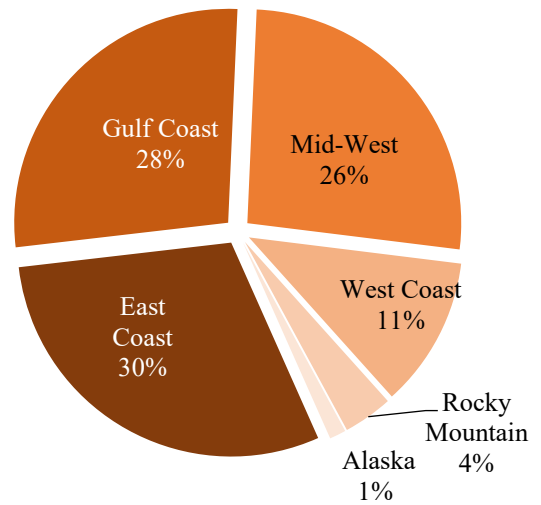
Source: EIA (2022h)

Figure 6-6: Natural Gas Production by PADD, 2020



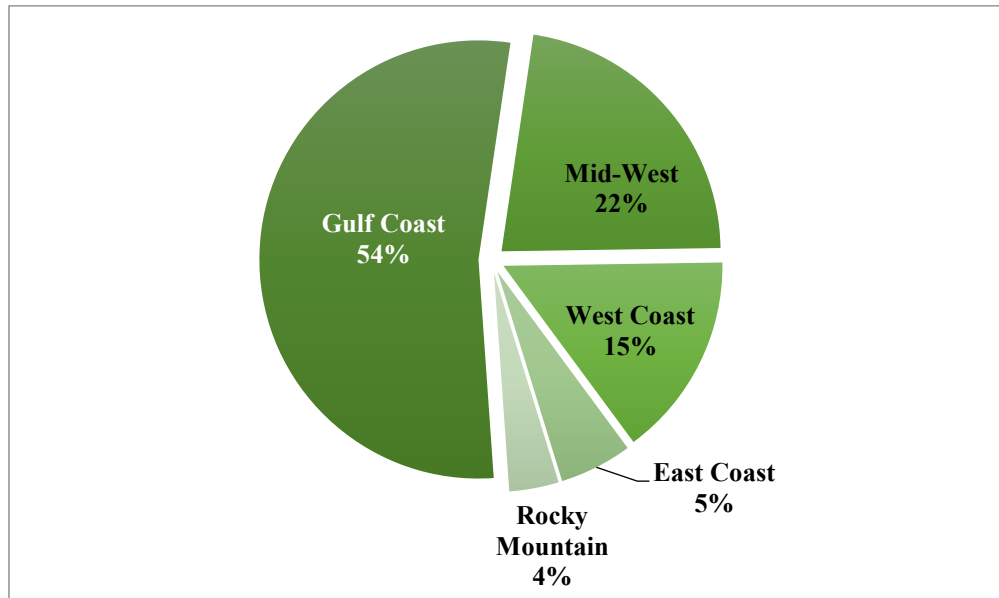
Source: EIA (2022g, 2022f)

Figure 6-7: Natural Gas Consumption by PADD, 2020



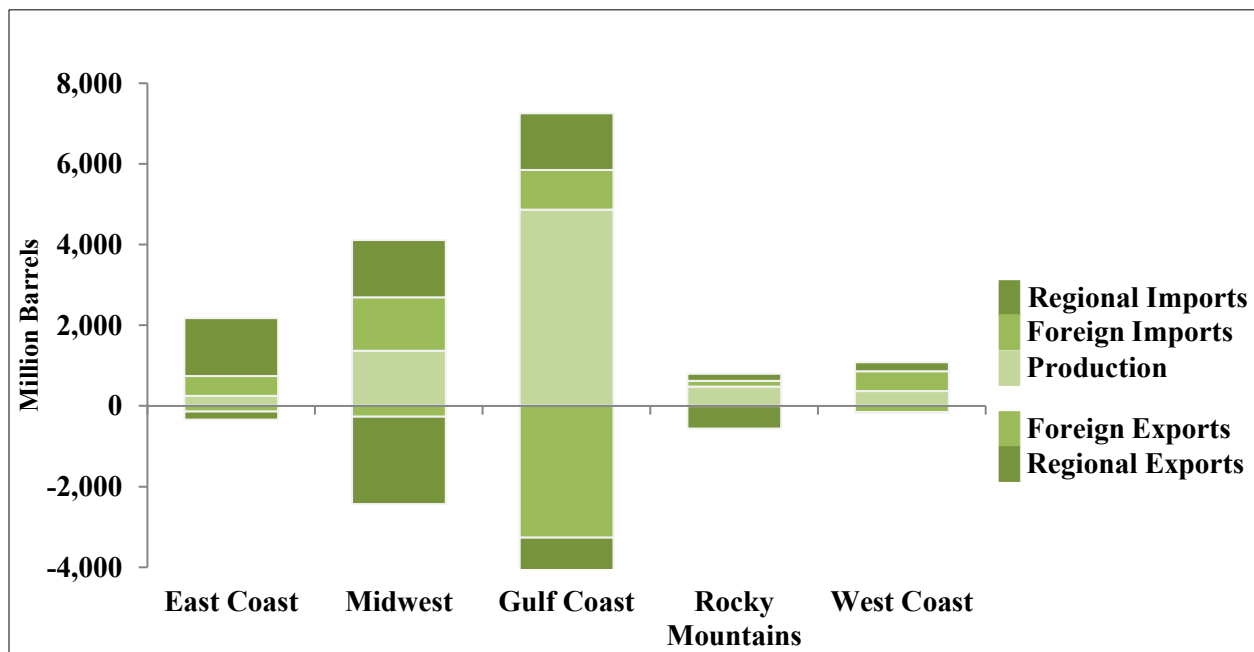
Source: EIA (2022f)

Figure 6-8: U.S. Refining Capacity by PADD, 2020



Source: EIA (2021ab)

Figure 6-9: U.S. Crude Oil and Petroleum Products Production and Import/Export by Region, 2020



Note: This reflects crude oil and petroleum products production and movement by pipeline, tanker, barge, and rail for each PADD region.

Sources: EIA (2021ae, 2021k)

Examining regional trade patterns, **Table 6-1** shows the 2020 inter-PADD movement of petroleum products by tanker, pipeline, barge, and rail.⁴⁶ **Table 6-2** shows the 2020 inter-PADD movements of crude oil. Approximately 51% of the petroleum product movements by tanker, pipeline, barge, and rail originated in the Gulf Coast PADD, which includes the GOM OCS. Approximately 82% of these shipments from the Gulf Coast PADD went to the East Coast PADD.

Table 6-1: 2020 Petroleum Product Shipments by Tanker, Pipeline, Barge and Rail (million barrels)

PADD	From PADD 1	From PADD 2	From PADD 3	From PADD 4	From PADD 5	Total Receipts
To PADD 1 (East Coast)	–	243	1,142	0	0	1,386
To PADD 2 (Midwest)	193	–	196	205	0	594
To PADD 3 (Gulf Coast)	2	472	–	42	1	517
To PADD 4 (Rocky Mountain)	0	108	0	–	0	108
To PADD 5 (West Coast)	0	55	60	29	–	144
Total Shipments	196	878	1,399	275	2	2,750

Source: EIA (2021aa)

Table 6-2: 2020 Crude Oil Shipments by Tanker, Pipeline, Barge and Rail (million barrels)

PADD	From PADD 1	From PADD 2	From PADD 3	From PADD 4	From PADD 5	Total Receipts
To PADD 1 (East Coast)	–	40	28	0	0	68
To PADD 2 (Midwest)	6	–	195	289	0	491
To PADD 3 (Gulf Coast)	1	606	–	4	0	611
To PADD 4 (Rocky Mountain)	0	72	0	–	0	72
To PADD 5 (West Coast)	0	54	2	0	–	55
Total Shipments	6	771	225	294	0	1,296

Source: EIA (2021m)

⁴⁶ EIA does not track petroleum products transport by truck.

While **Tables 6-1** and **6-2** show the inter-PADD movements, the U.S. also exports petroleum products internationally, as shown in **Figure 6-9**. In some instances, it is more feasible from an economic perspective to export refined petroleum products to other countries than to transfer them between regions given logistical, regulatory, and quality considerations (EIA 2018d). Given the interconnectedness of national and international markets, domestically produced fuel has a direct impact on U.S. energy markets, even if it is consumed abroad. BOEM does not track what portion of OCS-derived fuels is consumed domestically, but instead considers the impact of OCS production on national and international markets. This approach was upheld in *Center for Sustainable Economy v. Jewell*, 779 F.3d 588 (D.C. Circuit 2015). The court found that “what matters in determining whether OCS-derived fuel meets national needs is not whether the additional OCS fuel is consumed domestically, but whether it helps to satisfy domestic needs for fuel security and net supply, both in aggregate and over time” (CSE at 609).

6.2.3 Regional Energy Prices

Regional consumption proximity to production areas and existing transportation constraints can affect regional prices for petroleum and natural gas products. For gasoline prices, the largest factor affecting prices is the cost of crude oil. The EIA estimates that from 2011 through 2020, on average, approximately 56% of the price of a gallon of gasoline was the cost of crude oil, 16% was from Federal and state taxes, 14% was from refining costs and profits, and 14% was distribution and marketing (EIA 2021p). Regionally, gasoline prices can vary based on taxes from both the state and local governments. Another regional factor affecting the gasoline price is the costs and profits of refineries. Because the crude oil inputs vary by region and the gasoline characteristics of output⁴⁷ also differ by region, prices can greatly vary. After refining, gasoline is usually sent from the refinery by pipeline to terminals and then distributed to gasoline stations by tanker truck. Thus, the distance from refinery to consumption point can greatly affect the cost of gasoline (EIA 2017b).

6.2.4 Alaska Regional Energy Markets

In 2019, Alaska consumed the fourth-most energy per capita of all the states (EIA 2021af). Alaska’s crude oil production steadily declined from its peak of 2 million barrels per day in 1988 to 448,000 barrels per day in 2020 (EIA 2021o). Alaska has five operating refineries, and imports and exports petroleum products (EIA 2021z). In 2020, Alaska produced 0.32 Tcf of natural gas; Alaska natural gas production has been relatively stable during the past few years (EIA 2021c). A large portion of natural gas produced within the state is not sold. Some of the gas produced from the North Slope is used in the region, but a large portion is reinjected back into the field to increase oil production. There is no pipeline to transport natural gas production from the North Slope to

⁴⁷ States and some local jurisdictions have responded to air quality requirements with varying standards for gasoline composition, creating the need for refineries to modify their output for specific markets. Specific refineries produce only a subset of gasoline varieties required for different markets.

the rest of the state or for export. Natural gas produced elsewhere in Alaska is used within the state or exported as LNG (EIA 2018a).

As shown previously in **Tables 5-1** and **5-2**, some of the Alaska program areas appear to have huge, if uncertain, oil and gas resource endowments whereas other areas are not expected to have significant resources and would likely not support the production of oil and gas needed for the use of Alaska or other energy markets. Arctic areas (Beaufort and Chukchi seas) have oil and gas potential but primarily at the higher activity level and under high price assumptions, but development and production of those resources would involve costly new infrastructure. Prior to undertaking any investment, industry would likely consider the long-term nature of any investment, future climate policies, and future demand for the production.

If there were lease sales and production occurred, Arctic OCS oil could feed into the TAPS. Declining onshore production from Prudhoe Bay is affecting the viability of TAPS, which requires a certain level of throughput to operate without posing major technological challenges. Depending on circumstances such as timing and oil prices, new OCS production could help provide the additional throughput needed to extend the life of TAPS, allowing it to continue to carry oil from northern Alaska for many years into the future. Further, since some fixed pipeline costs are passed on to pipeline users, additional production using TAPS would reduce the transportation cost of barrels transported through TAPS, which in turn could potentially lead to other production becoming economic.

The State of Alaska and others raised the issue of the long-term viability of the TAPS pipeline and the role that OCS production could play in extending its life in comments on the development of this National OCS Program. However, new infrastructure investments could be required. Development on the Chukchi Sea OCS requires infrastructure to transport hydrocarbon resources to TAPS. In the Beaufort Sea, an existing network of onshore and nearshore infrastructure based out of Prudhoe Bay serves to improve the economic viability of OCS development relative to the Chukchi Sea.

The Cook Inlet is close to commercial markets and infrastructure in the Anchorage area. Federal production along with current state production could help fulfill the region's energy needs, particularly since the region's ability to import energy from outside the region is limited. In particular, 86% of Anchorage's electrical generation is fueled by natural gas from state leases in Cook Inlet (Deerstone Consulting 2017). A 2018 State of Alaska study estimated that due to a shrinking resource base, Cook Inlet gas production from state lands can meet the estimated south-central Alaska demand of around 80 billion cubic feet per year until 2030 (Redlinger 2018).

While there is not currently any oil or gas production from existing Cook Inlet OCS leases, new OCS natural gas production would primarily be consumed locally and could modestly ease the high natural gas prices in the Anchorage area. OCS oil production would support local economic activity and the oil could be refined in Alaska or moved by tanker to other West Coast refineries.

If leasing and production occurred in the Gulf of Alaska Program Area, significant new pipeline and infrastructure development would be required to connect the resources to potential markets.

According to the EIA, the amount of Alaskan oil that will be processed and consumed domestically will be heavily dependent on several market factors. In 2017, 15% of Alaskan oil stayed in Alaska to be refined, and 80% was refined in Washington and California. The small remainder went to Hawaii or was internationally exported. California refineries are generally designed to process heavy crude oil. Depending on the quality of new Alaskan oil, refinery profitability could be affected if that Alaskan oil was substituted for imported oil at those California refineries. Instead, it is likely that some of the additional volumes would be exported to Asia (EIA 2018b). The remaining Alaska program areas (Hope Basin, Norton Basin, St. Matthew-Hall, Navarin Basin, Aleutian Basin, St. George Basin, Bowers Basin, Aleutian Arc, Shumagin, and Kodiak) are not anticipated to have significant development potential and would likely not support the production of oil and gas to supply Alaska or other energy markets.

Although the State of Alaska currently does not have renewable energy standards, the city of Anchorage adopted a Climate Action Plan in 2019 to reduce carbon emissions within the city to 40% of 2008 levels by 2030 and 80% of 2008 levels by 2050 (Municipality of Anchorage 2019). These goals as well as other climate policies adopted over the coming years will impact Alaska's energy markets.

6.2.5 Pacific Regional Energy Markets

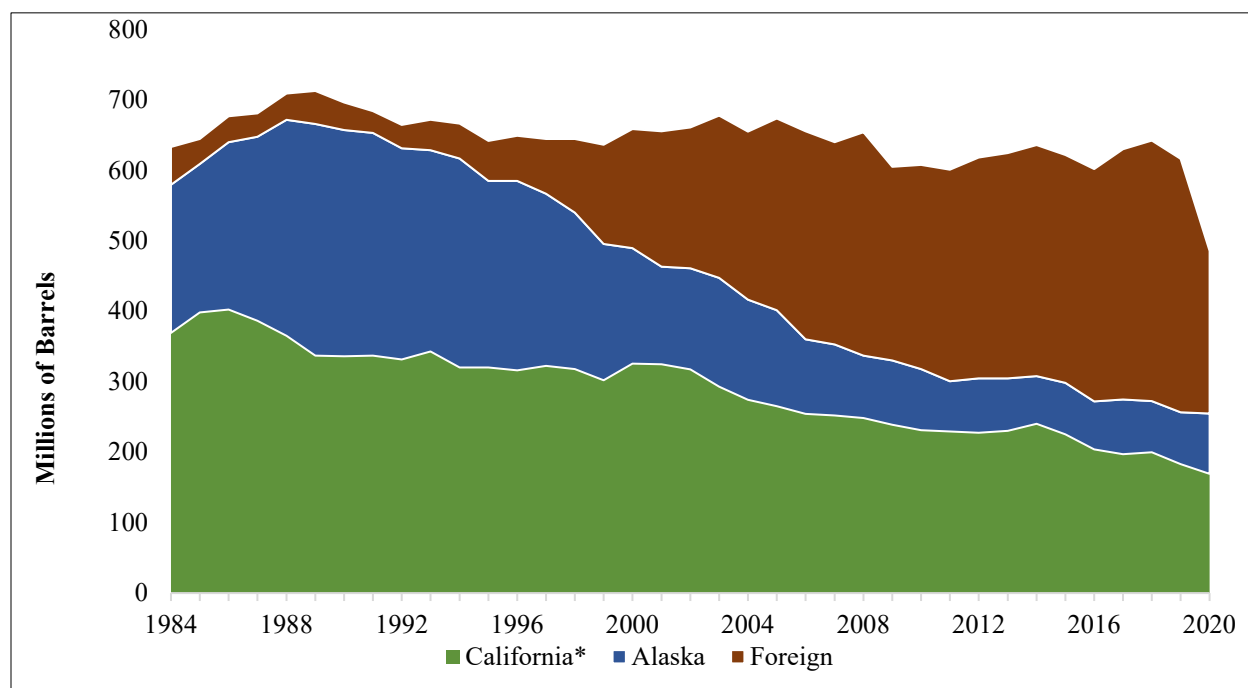
The Pacific OCS is adjacent to Washington, Oregon, and California. These states rank 34th, 38th, and 50th in energy consumption per capita, respectively (EIA 2021af). **Table 5-1** shows the Pacific OCS's oil and natural gas resources.

Washington does not have any oil or natural gas production, either onshore or offshore. Washington has five refineries and is fifth in the U.S. for refining capacity. The refineries receive production from Alaska, North Dakota (by rail), and Canada, as well as some additional import sources. Natural gas, largely supplied from Canada, as well as from additional sources in the Rocky Mountain region (EIA 2021o), is transported by pipeline.

Oregon does not have any onshore or offshore crude oil production, reserves, or refineries. It relies on refineries in Washington to provide most of the petroleum products it consumes. Oregon has one onshore natural gas field but relies on natural gas imports from other regions.

California is the Nation's seventh largest crude oil producing state and has 14 refineries in operation (EIA 2021z). One recent notable change with respect to California's refineries is the source of oil supply. As shown in **Figure 6-10**, with declining Alaskan production, California has relied more heavily on imported sources of crude oil for its refineries (California Energy Commission 2021). California has a small amount of natural gas production but relies on natural gas imports from the Rocky Mountains to fulfill demand (EIA 2017a).

Figure 6-10: Historical Crude Oil Supply Sources to California Refineries



Source: California Energy Commission (2021)

Key: * = California totals could also include minor amounts from North Dakota and Gulf Coast states.

In the long-term, it is possible that additional renewable energy generation will replace oil imports and state production. In fact, despite California’s high aggregate energy consumption, per capita it is one of the lowest states given its relatively stringent energy efficiency standards and climate policies. **Table 6-3** shows the clean energy targets for the Pacific states. In addition to these targets, California has an executive order requiring all new passenger vehicles sold in the state to be zero-emissions by 2035 (Office of Governor Gavin Newsom 2020). This and other state policies, in conjunction with Federal policies on net-zero emissions, will likely impact the region’s energy consumption before any leases issued in these areas could be producing.

Table 6-3: Pacific Renewable or Clean Energy Targets

State	Percentage Renewable	Target Year
Washington	100%	2030/2045*
Oregon	100%	2040
California	100%	2045

Source: NCSL (2021)

Key: * GHG-neutral by 2030, renewable or zero-emitting by 2045

6.2.6 Gulf of Mexico Regional Energy Markets

The GOM Region has by far the greatest ability to use its resource potential to supply oil and gas to the United States. Given the different qualities of crude discussed earlier, production from the OCS is critically important to U.S. energy markets to fulfill the demand at the Gulf Coast refineries for medium/heavy and sour crudes.

Texas produces (onshore and in state waters) the crudest oil and natural gas compared to any state. Texas has 31 refineries that provide valuable petroleum products domestically and internationally (EIA 2021z), including the refineries in the Houston-Galveston port district, which became a net exporter of crude oil in April 2018. Texas ranks first in energy consumption and sixth in per capita energy usage due to the energy-intensive refining process and other industrial processes (EIA 2021af). Texas also has an extensive natural gas pipeline system for distributing natural gas throughout the Nation, and abroad via LNG terminals. Texas also consumes more natural gas than any other state, driven by the industrial sector.

Louisiana ranks second in energy use per capita, largely due to its industrial uses related to the chemical, petroleum, and natural gas industries (EIA 2021af). With 16 oil refineries, the state has extensive pipeline networks that ship refined petroleum products throughout the U.S (EIA 2021z). Similarly, the state has significant natural gas storage facilities and pipeline networks, which provide natural gas to other states. Excluding the oil and gas production that flows to Louisiana from the OCS, the state ranks third in natural gas production and ninth in crude oil production. Louisiana is one of the top three states receiving imports. The Louisiana Offshore Oil Port (LOOP) is the only deepwater port in the U.S. that can accept some of the largest tankers in the world (EIA 2018c).

Although it has relatively small crude oil and natural gas production onshore and in state waters, Mississippi has extensive energy infrastructure that helps support the Nation's energy markets. Mississippi has an extensive pipeline network that transports oil, natural gas, and refined petroleum products to other states and internationally (EIA 2018d). Similarly, Alabama has small onshore and state oil and gas production, but also receives petroleum products and natural gas from other states. Alabama has three petroleum refineries (EIA 2021z).

The GOM states are a major centralized location for the Nation's energy production and transportation. Not only do these states produce energy and have the infrastructure to transfer energy throughout the U.S., both for imports and exports, these states are heavily reliant upon energy for processing, refining, and transporting oil and natural gas.

Texas is the only GOM coast state that has a renewable energy standard, requiring 10,000 MW of renewable energy capacity by 2025, and has already met that goal. Individual cities throughout the region have adopted goals (e.g., New Orleans has a goal of reducing emissions to 50% of 2014

levels by 2030 (City of New Orleans 2021)). Continued new policies at the local, state, and Federal level have the potential to change energy markets in the region.

6.2.7 Atlantic Regional Energy Markets

Of the Atlantic states, South Carolina ranks the highest for energy consumption per capita (22nd in the U.S.), and Rhode Island ranks the lowest (51st in the U.S). **Table 6-4** shows the ranking of states in the Atlantic region for energy consumption per capita.

Table 6-4: Energy Consumption per Capita of Atlantic States and Washington, D.C., 2019

Program Area	State	National Rank of Energy Consumption per Capita	Energy Consumption per Capita (Million BTU)
North Atlantic	Maine	30	285
	New Jersey	40	236
	New Hampshire	41	235
	Massachusetts	45	213
	Vermont	43	219
	Connecticut	47	206
	New York	49	198
	Rhode Island	51	180
Mid-Atlantic	Delaware	26	304
	Virginia	31	283
	D.C.	39	237
	North Carolina	36	253
	Maryland	42	223
South Atlantic and Straits of Florida	South Carolina	22	316
	Georgia	32	279
	Florida	48	204

Source: (EIA 2021af)

The Atlantic region heavily relies on both regional movements and foreign imports to fulfill current energy demand because very little oil and natural gas are produced in the Atlantic region, and heavily populated population centers. There are seven refineries in the Atlantic region and nearby states: Delaware (1), New Jersey (2), Pennsylvania (3), and West Virginia (1) (EIA 2021z). Refinery capacity is geographically concentrated in some areas (such as the northern part of the Mid-Atlantic Planning Area), but other areas have less. Most of the Atlantic regional markets are entirely dependent on pipeline or water transit for regional or foreign imports. Approximately 65% of the petroleum products entering the region are from domestic production (**Figure 6-9**). The vast majority of these transported petroleum products come through pipeline or water transit from the GOM (PADD 3) to the East Coast.

The New England region relies entirely on the delivery of petroleum products from outside the region. Petroleum products are primarily delivered to coastal ports in New England by marine tanker and barge and, to a lesser extent, by rail and truck from New York and Canada. In addition, LNG terminals in New England provide gas to the region. In the Mid-Atlantic, refinery production

of transportation fuels generally meets more than half of the current in-region consumption. Most of the remaining transportation fuels needed are supplied by pipeline movements, primarily from the Gulf Coast, and via foreign waterborne imports. In the South Atlantic, most of the energy supply is from Gulf Coast pipeline systems, with smaller volumes from foreign and domestic marine vessels. Florida's transportation fuel supply is reliant upon domestic- and foreign-sourced waterborne deliveries to the state's Atlantic and GOM ports (EIA 2016).

The concentration of all transit through two major pipelines and from the Gulf Coast leaves the Atlantic region vulnerable to supply disruptions should anything happen to the pipelines, inclement weather, or other events hindering the transport of oil (EIA 2016). LNG terminals in New England were found to help reduce price spikes during the winter months for 2018–2019 (EIA 2019). New England is forced to rely on LNG imports, largely from Russia, as there is limited pipeline capacity available to link the ample supply of domestic natural gas to the Northeast (Miller 2020).

The energy use in this section describes the current usage of oil and gas in the Atlantic region. Given the lengthy time horizon that would be necessary to lease, explore, and develop these resources, as well as the renewable or clean energy standards that states along the Atlantic have adopted, it is unclear whether these resources would be relevant in the region's energy future. Furthermore, the number and location of the refineries in the Atlantic region are limited and could affect project economics given issues with transportation, crude oil quality, and market conditions (Dismukes 2014). **Table 6-5** shows the renewable or clean energy targets set by states in the Atlantic region.

6.3 Possible OCS Production Substitutes

OCS production is one of many sources of energy supply for the U.S. that fits into the complicated energy market landscape described in this chapter. Changes in OCS production do not directly lead to changes in demand. Rather, a change in OCS production would likely lead to changes in oil prices, which could prompt responses by other suppliers (producers or importers), and eventually consumers.

Section 5.3.3.2 discusses the energy substitutes that could be expected in the absence of new OCS leasing. These numbers are calculated using current laws, regulations, and technology assumptions inherent in the AEO's 2020 reference case. In a world without future OCS production, demand would be met by energy production from other sources, which would incrementally increase production in response to small market changes. While this could, in some instances, result in increased production from the more mature renewable energy technologies, the reality of many renewable energy sources is that their growth is primarily predicated on policy initiatives rather than small relative changes in price.

Table 6-5: Atlantic States Renewable or Clean Energy Targets

Program Area	State	Percentage Renewable	Target Year
North Atlantic	Maine	100%	2050
	New Jersey	50%	2030
	New Hampshire	25.2%	2025
	Massachusetts	35%*	2030
	Vermont	75%	2032
	Connecticut	44%	2030
	New York	100%	2040
	Rhode Island	38.5%	2035
Mid-Atlantic	Delaware	40%	2035
	Virginia	100%	2045/2050
	D.C.	100%	2032
	North Carolina	12.5%	2021
	Maryland	50%	2030
South Atlantic and Straits of Florida	South Carolina	2%	2021
	Georgia	NA	
	Florida	NA	

Source: NCSL (2021)

Key: *Additional 1% each year after

Additional renewable energy production is likely throughout the life of the leases issued under this National OCS Program as domestic and global markets adjust to potential future policies and the technologies mature. For example, BOEM has approved the construction and operations plans for two commercial-scale offshore wind projects (Vineyard Wind and South Fork) in the North Atlantic. There are many additional proposed wind energy projects in the pipeline, and the Biden Administration has set a goal of having 30 gigawatts (GWs) of domestic offshore wind power operational by 2030 (The White House 2021a).

Further, the Bipartisan Infrastructure Law provided the largest investments ever in electric vehicle charging stations, clean school buses, and public transit. These policies are encouraging renewable energy and, together with technological change, could substantially increase the use of renewable energy sources and decrease the need for oil and natural gas during the life of this National OCS Program.

6.4 Energy Markets Conclusion

The U.S. has complex energy markets designed to efficiently supply the Nation with energy. Additional OCS leasing has the potential to provide domestic production to regions that heavily rely on imports from other regions or abroad. However, any production in areas without current infrastructure and production would likely not occur for more than a decade at which point the U.S. will likely have adopted additional renewable energy and climate-related policies on the path to achieving its net-zero climate goals.

The OCS Lands Act requires long-term planning for OCS oil and gas lease sales in the form of a National OCS Program. The National OCS Program development process allows the Secretary to

consider the current and likely future energy needs of the U.S. This market analysis, consistent with the 2021 AEO, is focused in large part on assumptions reflecting current laws and policies. In addition, the analysis provides consideration of energy trends at the current programmatic stage and allows the Secretary to understand potential impacts of decisions.

At any point during the 5-year span of the National OCS Program, the Secretary has the authority to limit the number of lease sales or areas available for lease for many reasons, thereby allowing reevaluation of specific lease sale schedule proposals once new information is available (e.g., prices, industry interest, future policies). Although domestic energy markets have undergone major changes in recent years with an abundance of new onshore production and low oil prices, the OCS remains a vital source of stable energy production.

6.5 Other Uses of the OCS

Section 18 (a)(2)(D) requires the Secretary to consider OCS Regions “with respect to other uses of the sea and seabed, including fisheries, navigation, existing or proposed sea lanes, potential sites of deepwater ports, and other anticipated uses of the resources and space of the outer Continental Shelf.” This section provides a summary discussion about other uses of the OCS, including commercial, recreational, and subsistence uses; ports, marine navigation, sea lanes, and submarine cables; military and National Aeronautics and Space Administration (NASA) activities; renewable energy; and non-energy marine minerals.

Unless otherwise noted, the principal source of information on the economic and public uses of the OCS and the surrounding coastal region for the different program areas is BOEM’s report entitled *Economic Inventory of Environmental and Social Resources Potentially Impacted by a Catastrophic Discharge Event within OCS Regions* (BOEM 2014a); hereafter referred to as the Economic Inventory Report. See the full Economic Inventory Report for detailed information and data on the economic and public use categories for each of the program areas.

Additionally, this discussion provides information on the status of BOEM’s renewable energy leasing and non-energy marine minerals leasing in the program areas. In 2009, USDOJ announced the final regulations for the OCS Renewable Energy Program, which was authorized by the Energy Policy Act of 2005. These regulations provide a framework for issuing leases, easements, and rights-of-way for OCS activities that support production and transmission of energy from sources other than oil and natural gas. BOEM is responsible for overseeing OCS renewable energy development in Federal waters. Since the regulations were enacted, BOEM has diligently worked to oversee responsible renewable energy development on the OCS.

The OCS Lands Act assigns USDOJ (which then delegated the authority to BOEM) responsibility for leasing non-energy minerals on the OCS, such as sand for shore protection, beach restoration, and coastal wetland restoration. Section 8(k) of the OCS Lands Act sets forth requirements for this activity. To date, leases issued by BOEM’s Marine Minerals Program (MMP) have been

negotiated, those leases being noncompetitive agreements for sand for beach nourishment and coastal restoration projects. OCS resources dredged for these projects are typically in water depths of less than 100 feet. Section 11 of the OCS Lands Act also allows BOEM to oversee G&G exploration to identify new potential mineral resources.

The MMP is also responsible for competitive leasing for other non-energy minerals, such as cobalt, copper, lead, manganese, zinc, gold, platinum, and rare earth minerals. While there is no active leasing for these minerals on the OCS, the MMP is gathering more information about mineral locations, characteristics, and the associated ecosystems. BOEM is working with other agencies and academia to increase the scientific information it has in areas with the highest potential for resources. For more information, see <https://www.boem.gov/marine-minerals/offshore-critical-mineral-resources>.

Appendix A contains a summary of the individual comments that BOEM received in response to the DPP related to other uses of the OCS and potential conflicts between these other uses and oil and gas leasing activities. Many of the comments received from Federal agencies, state agencies, governor’s offices, and environmental advocacy groups highlight the critical importance of other existing, diverse coastal and ocean uses to both regional and statewide economies and requested that BOEM fully consider any potential use conflicts.

6.5.1 Alaska Region

For purposes of this discussion, the 14 program areas being analyzed in the Alaska Region are grouped into three subregions: (1) the Arctic subregion (Beaufort Sea, Chukchi Sea, and Hope Basin); (2) the Bering Shelf subregion (Navarin Basin, St. George Basin, Norton Basin, St. Matthew-Hall, Aleutian Basin, and Bowers Basin); and (3) the Pacific Margin subregion (Cook Inlet, Gulf of Alaska, Shumagin, Kodiak, and Aleutian Arc). **Figure 6-11** and **Table 6-6** show the other uses of the OCS for the Alaska Region.

Commercial activity in the Arctic subregion is limited but becoming a more viable option due to decreased presence and duration of sea ice. Oil and gas production occurs in state waters adjacent to the Beaufort Sea Program Area (see **Chapter 4**). Commercial fishing is prohibited in U.S. waters north of the Bering Strait; fishing activity is limited to subsistence and recreational fishing (NPFMC 2009).

Most recreational activity in the Arctic is limited by the harsh Arctic climate, difficulty of physically accessing the area, and logistics costs. Recreation and tourism activities in the Arctic involve wildlife viewing, wilderness adventure, hiking, sport hunting, and fishing (BOEM 2017a). Cruise ships are also increasingly becoming available and popular, and the tourism economy in coastal Alaska is dependent, in part, on cruise ship visits along the state’s coastline. In 2019, leisure and tourism industries in the North Slope accounted for 25 establishments, 659 jobs, and contributed approximately \$31 million in income (NOEP 2020). Furthermore, scientific research

is conducted in the Beaufort and Chukchi seas. These activities involve vessel, air, and over-ice support (BOEM 2017a).

In addition to commercial and recreational activities, subsistence fishing and hunting also have an important impact in Alaska. Among Alaska Native communities such as the Iñupiat along the Beaufort and Chukchi seas, subsistence fishing and hunting practices hold a high cultural value and provide a substantial portion of many communities' annual diets. Coastal and marine food resources include whales, seals, walrus, waterfowl, and fish. The subsistence pursuit of bowhead whales is of major importance to the communities of Utqiagvik, Nuiqsut, and Kaktovik (BOEM 2017a).

6.5.1.1 Commercial, Recreational, and Subsistence Uses

Arctic Subregion: Beaufort Sea, Chukchi Sea, and Hope Basin

A survey conducted by the Alaska Department of Fish and Game found that more than 90% of households sampled in the Arctic used fish and game for subsistence, and that subsistence foods are widely shared throughout the year (AD&FG 2018). Subsistence sharing and cooperation was further studied for three Arctic communities (Kaktovik, Wainwright, and Venetie). This study found that 30% of the households in these communities contributed between 76 and 93% of harvested food to be shared and distributed among the community (Kofinas et al. 2016).

As typical Arctic conditions, such as prevalence of sea ice, begin to change in response to warmer temperatures, subsistence hunting and fishing are accordingly changing. For example, it is becoming more challenging to access whales and other marine mammals because limited sea ice presence and thickness impact the ability and safety of travel to hunting areas and the duration of the hunting period (Huntington et al. 2017).

Subsistence studies conducted between 2009 and 2012 for the communities of Barrow, Wainwright, and Point Lay indicate that hunting and fishing within the Chukchi Sea primarily occurs within 20 to 30 miles of the coast, but can extend out to more than 90 miles (Stephen R. Braund & Associates 2012, 2013). Subsistence activities tracked by NOAA in 2008 indicated that the Arctic subregion was an important source of beluga whales and polar bears (Chukchi Sea and Hope Basin) and coho salmon (Hope Basin) (NOAA Fisheries 2014).

Bering Shelf Subregion: Navarin Basin, St. George Basin, Norton Basin, St. Matthew-Hall, Aleutian Basin, and Bowers Basin

The Navarin Basin, Aleutian Basin, and Bowers Basin program areas are surrounded by open ocean, so commercial activity and public use of marine resources in the program area are both negligible. Therefore, the discussion of the economic and public use of resources in and along the Bering Shelf subregion focuses on the remaining three program areas (St. George Basin, St. Matthew-Hall, and Norton Basin).

Commercial fishing is the most important other use of the OCS in terms of economic significance in these program areas (BOEM 2014a). The Bristol Bay area is one of the largest Alaska fisheries regarding total fish harvested and processed. Bristol Bay and Kuskokwim Bay in the St. Matthew-Hall region compose part of the largest sockeye salmon fishery in the world.

Although tourism and commercial shipping are less economically significant than commercial fishing, they are important to many local economies. Recreation and tourism revolve almost exclusively around outdoor recreation, including recreational fishing, sport hunting, hiking, and wildlife viewing in the Norton Basin (concentrated in the City of Nome). The St. Matthew-Hall area is one of the great birding areas of North America, and recreational angling represents the most economically significant public use of natural resources in and near the Bristol Bay area. Recreational activity in and near the St. George Basin Program Area is limited due to its remoteness.

In 2019, leisure and tourism industries in the Bethel Census Area (adjacent to the St. Matthew-Hall Basin Program Area) accounted for 25 establishments, 102 jobs, and contributed approximately \$2 million in income (NOEP 2020). Such industries in the Nome Census Area (adjacent to the Norton Basin Program Area) had 26 establishments, 160 jobs, and contributed almost \$4 million in income.

Pacific Margin Subregion: Cook Inlet, Gulf of Alaska, Shumagin, Kodiak, and Aleutian Arc

Commercial fishing, seafood harvesting and processing, tourism and recreation, and commercial shipping are all important industries in and adjacent to the Pacific Margin subregion. Other commercial activities include oil and gas production in state waters adjacent to the Pacific Margin subregion, which is currently limited to the Cook Inlet Program Area.

Figure 6-11: General Areas of Other Uses of the Alaska OCS

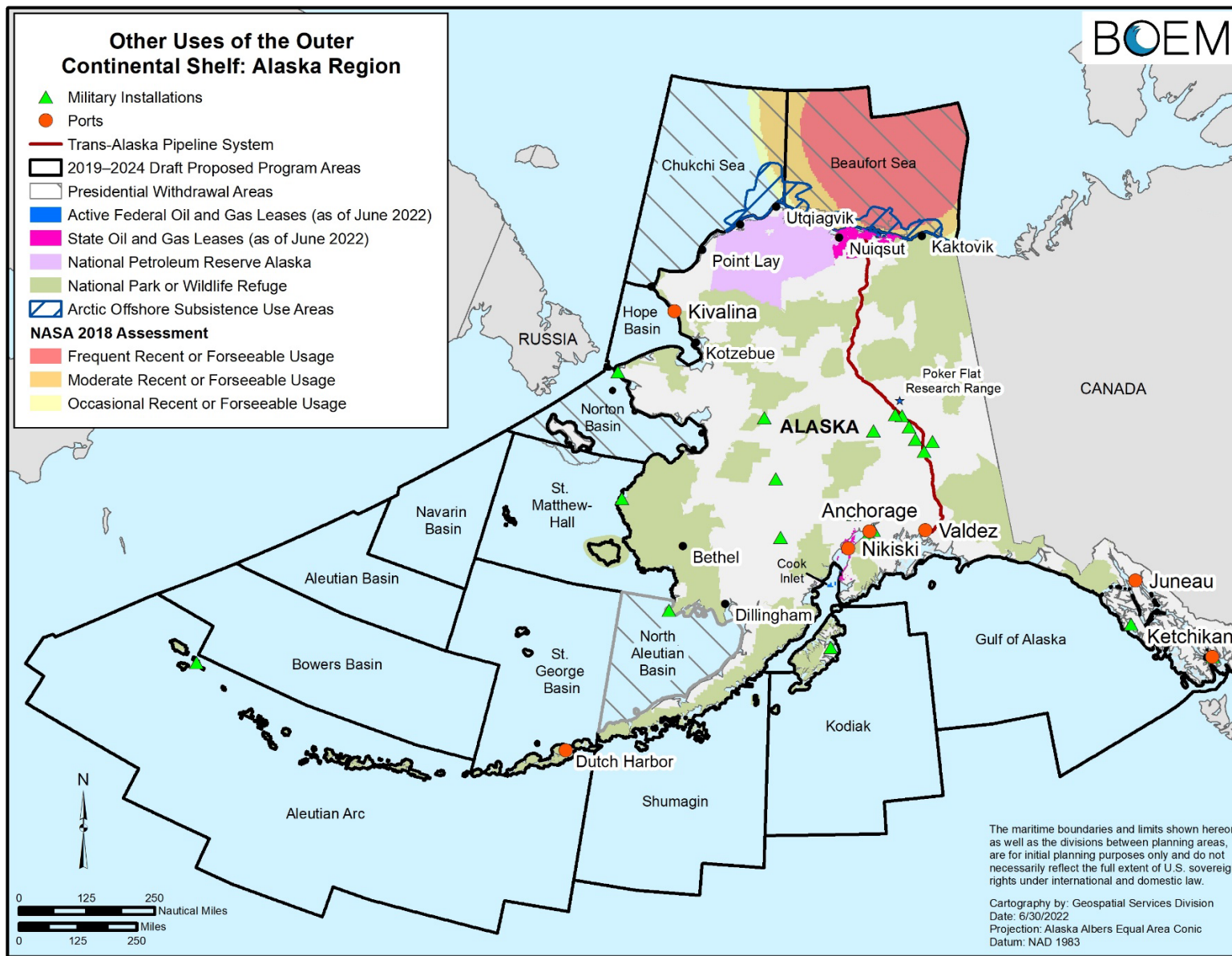


Table 6-6: Other Uses of the OCS within the Alaska Region

Activity	Alaska Program Area										
	Beaufort Sea	Chukchi Sea	Hope Basin	Norton Basin	St. Matthew-Hall	St. George Basin	Cook Inlet	Shumagin	Kodiak	Aleutian Arc	Gulf of Alaska
Commercial Fishing					✓	✓	✓	✓	✓	✓	✓
Recreational Fishing	✓	✓			✓	✓	✓		✓	✓	✓
Subsistence	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Tourism	✓			✓	✓		✓		✓	✓	✓
Ports/ Shipping Routes	✓	✓		✓		✓	✓	✓	✓		✓
Federal Agency Activity	✓ NASA								✓ DOD		✓ DOD
State Oil and Gas Activity	✓						✓				
Current OCS Oil and Gas Activity	✓						✓				
OCS Renewable Energy											
Potential OCS Marine Minerals Activity	✓	✓		✓							

Note: The Navarin Basin, Aleutian Basin, and Bowers Basin program areas are surrounded by open ocean, with negligible commercial activity or public uses.

Both commercial fishing and seafood harvesting and processing are economically important industries along the Gulf of Alaska, Aleutian Arc, Kodiak, and Shumagin program areas, and while somewhat less important along Cook Inlet, they are still economically important. Commercial fishing in the Gulf of Alaska and near the Aleutian Arc Program Area is vital to the regional and state economy (BOEM 2014a). Fish harvesting and processing also represent the largest source of jobs and earnings on Kodiak Island (particularly processing) and are the most important commercial industries in the Shumagin Program Area. For commercial fishing activities, the Aleutian Arc and Kodiak program areas ranked highest in Alaska for net pounds landed and value in 2014 (NOAA Fisheries 2014).

A commercial activity that could impact use of the OCS adjacent to the Cook Inlet area is the development of the Donlin Gold Mine, about 10 miles from Crooked Creek Village near the Kuskokwim River. This mine uses both marine and air transport, and a new dock and pipeline are planned adjacent to upper Cook Inlet. Drilling at the mine commenced in February 2020 (Barrick Novagold 2020).

For recreational fishing, the program area in Alaska with the most activity is also in the Pacific Margin subregion, with the most sportfish licenses sold, charter guide licenses held, and charter fishing businesses in the community found in the Cook Inlet Program Area. Kodiak also has a high number of sportfish licenses sold in the community (NOAA Fisheries 2014).

Tourism is a key component of the Cook Inlet and Gulf of Alaska program areas' economies, but is fairly limited in and near the Kodiak, Shumagin, and Aleutian Arc program areas. The area surrounding the Cook Inlet Program Area is popular for outdoor recreational activities, particularly fishing, hiking, boating, hunting, and wildlife viewing. In the Gulf of Alaska area, visitor industry-related employment accounts for 13% of all employment in Juneau and roughly 20% of all sales tax revenue collected by the city (JC&VB 2015).

Subsistence fishing and hunting are critically important public uses of coastal and marine resources in the Cook Inlet Program Area. While species of salmon are the primary subsistence source in and near the Cook Inlet Program Area, halibut and shellfish (particularly crab) are also important. Subsistence fishing and hunting make up a substantial portion of many communities' annual diets. As described in the Final EIS for Cook Inlet Lease Sale 244, data indicate that large amounts of subsistence foods are harvested in the geographic areas adjacent to the Cook Inlet Program Area (BOEM 2016).

6.5.1.2 Ports, Marine Navigation, Sea Lanes, and Submarine Cables

Arctic Subregion: Beaufort Sea, Chukchi Sea, and Hope Basin

Ports exist in Prudhoe Bay (Beaufort Sea) and Utqiagvik and (Chukchi Sea). Marine vessel traffic in the Beaufort and Chukchi seas has been associated with subsistence hunting, oil exploration, research, and military activities, which are typically limited in these areas to July through

September due to ice and inclement weather (BOEM 2017a). Every September, sea ice coverage is at its minimum, and the highest levels of shipping activity can occur (Eguiluz et al. 2016, USCG 2016). Arctic-wide ice loss is expected to continue with nearly ice-free seas in the late summer months by the 2040s (Taylor et al. 2017). Future marine traffic patterns are anticipated to change due to decreased ice cover and longer ice-free periods, potentially increasing the number of vessels associated with industrial transportation, tourism, and non-subsistence fishing.

Marine vessel traffic in the Beaufort and Chukchi seas has been associated with subsistence hunting, oil exploration, research, and military activities, which are typically limited in these areas to July through September due to ice and inclement weather (BOEM 2017a). Every September, sea ice coverage is at its minimum, and the highest levels of shipping activity can occur (Eguiluz et al. 2016, USCG 2016). Arctic-wide ice loss is expected to continue with nearly ice-free seas in the late summer months by the 2040s. Future marine traffic patterns are anticipated to change due to decreased ice cover and longer ice-free periods, potentially increasing the number of vessels associated with industrial transportation, m, and non-subsistence fishing.

Although diminished sea ice could result in an expanded timeframe for unaided navigation in the Arctic, constraints to increased vessel traffic include limited and/or outdated nautical charts, environmental factors such as weather conditions, and the lack of support infrastructure (ICCT 2015). Marine infrastructure is generally lacking in most of the area north of the Aleutian Islands; the water transportation during ice-free months remains an important means of transporting fuel and supplies for area residents (USCG 2016). In 2012, more than one million tons of cargo transited the Northern Sea Route, an Arctic passage connecting the Atlantic and Pacific oceans through the Bering Strait and Chukchi Sea (Sulmasy and Wood 2014). This route significantly reduces travel times and is transforming maritime trade as its accessibility increases.

As part of the U.S. National Strategy for the Arctic Region, the Federal Government is preparing studies to understand baseline conditions and prepare for increased marine activity (ICCT 2015). The United States Coast Guard (USCG) completed a preliminary Port Access Route Study in 2016 to determine how to increase the efficiency of vessel traffic in the Chukchi Sea, Bering Strait, and Bering Sea. Most vessels engaging in OCS activity in the Beaufort and Chukchi seas would follow these shipping lanes to transit through the Bering Strait unless weather conditions render it impracticable to follow these routes (BOEM 2017a).

On December 22, 2017, Congress passed a measure to open a 1.6-million-acre coastal area of the Arctic National Wildlife Refuge (ANWR) to oil and gas drilling. This measure requires the Federal Government to hold two lease sales within 7 years (by 2024). Accordingly, an EIS was prepared, and a ROD finalized in August 2020, with the first lease sale held on January 6, 2021. However, in June 2021, a Secretarial Order was issued to cease all leasing activities until a supplemental EIS was completed. The EIS scoping comment period was completed in October 2021. As of June 2022, approximately 414,358 acres remain under lease in the ANWR, and any activities related to

possible future drilling could have implications on the use of the OCS, primarily through increased marine vessel traffic.

Bering Shelf Subregion: Navarin Basin, St. George Basin, Norton Basin, St. Matthew-Hall, Aleutian Basin, and Bowers Basin

The St. George Basin and the St. Matthew-Hall areas do not have any major commercial ports; however, the “Great Circle” shipping route between the Pacific Northwest and Asia passes through the St. George Basin Program Area. The Port of Nome (Norton Basin) services nearby villages and communities. In June 2020, the U.S. Army Corps of Engineers finalized a feasibility study for the Port of Nome after the port had been tentatively selected to be converted to the only deep draft port in U.S. Arctic waters (USACE 2020). The project secured Congressional approval and funding through the 2021 Consolidated Appropriations Act and is in the design phase (Alaska Public Media 2021).

Pacific Margin Subregion: Cook Inlet, Gulf of Alaska, Shumagin, Kodiak, and Aleutian Arc

Cook Inlet has six deep draft ports, including Anchorage, Port MacKenzie, Nikiski Industrial Facilities, Port of Homer, City of Seldovia, and Drift River Oil Terminal. The Port of Alaska (formerly the Port of Anchorage) on the eastern end of Cook Inlet is the third largest port in Alaska. This port is essential for many Alaska residents since it provides approximately 90% of fuel and freight to Alaska’s population (Port of Anchorage 2016). Vessel types include cargo ships, tankers, tugs, cruise ships, commercial fishing boats, and research vessels.

In 2006, the Port of Alaska was designated a DOD National Strategic Seaport, and can provide deployment and staging areas to respond to war or national emergencies (Port of Anchorage 2011). The Port of Alaska also made the 2018 list of the top 25 U.S. ports for container capacity (20-foot equivalent units) (BTS 2019).

Activities and vessel calls at ports, harbors, and terminals in Cook Inlet are likely to increase over the next 40 to 50 years once several port expansion projects are completed and economic activity increases (BOEM 2016).

The Port of Valdez in the Gulf of Alaska is the largest port in Alaska. Thousands of commercial vessels pass through the Gulf of Alaska, Kodiak, Shumagin, and Aleutian Arc annually along the “Great Circle” shipping route from the Pacific Northwest to Asia. The ports at Akutan and Dutch Harbor are important to the local economy in the western reaches of the Aleutian Islands. The Port of Dutch Harbor, adjacent to the Aleutian Arc Program Area, ranked number one for the highest volume of seafood landed for the 22nd consecutive year, with 763 million pounds. The Port of the Aleutian Islands and Port of Kodiak ranked third and fourth, respectively (NOAA 2020).

Globally important infrastructure is present in ocean waters, including in the Cook Inlet and Gulf of Alaska program areas, connecting the U.S. and other countries. More than 95% of submarine cables carry international voice, data, and internet traffic of the U.S., and have been deemed critical infrastructure (Carter et al. 2009). Coordination between ocean users and submarine cable operators is an important aspect to consider prior to conducting OCS operations. For more information on submarine cables, refer to Carter et al. (2009) and the North American Submarine Cable Association (NASCA) at <https://www.n-a-s-c-a.org/>, including January 2022 cable maps. There could be other existing cables not identified on NASCA maps from non-NASCA Association members.

6.5.1.3 *Military and NASA Uses*

In Alaska, DOD activities consist of transit of military vessels through OCS waters, submarine activities, aircraft overflights, and related maneuvers. DOD activity is important in the Gulf of Alaska and Kodiak planning areas, which are major military exercise areas. The U.S. Navy uses the airspace, sea surface, subsurface, and seafloor of the OCS for events ranging from instrumented equipment testing to live-fire exercises. The U.S. Air Force conducts flight training and systems testing over extensive areas on the OCS. The U.S. Marine Corps amphibious warfare training extends from the OCS to the beach and inland. The U.S. Coast Guard conducts search and rescue missions and coordinates with the U.S. Navy to conduct ice thickness and acoustic surveys.

The U.S. Coast Guard received funding in February 2019 to construct a new heavy icebreaker, which is needed as ice melts, sea lanes open up, and countries vie to tap into the resources and shipping potential in the Arctic (McGarry 2018). Currently, six new polar ice breakers are authorized for the Coast Guard (DOD 2022). This first icebreaker is anticipated to be delivered by 2024. These icebreakers help to (1) conduct and support scientific research; (2) maintain a U.S. presence in U.S. territorial waters in the region; (3) defend other U.S. interests in polar regions; (4) monitor sea traffic, including U.S.-bound ships; and (5) conduct typical USCG missions, such as search and rescue (CRS 2020).

DOD and USDOJ will continue to coordinate extensively under a 1983 Memorandum of Agreement, which states that the two parties shall reach mutually acceptable solutions when the requirements for mineral exploration and development and defense-related activities conflict. DOD commented in response to the DPP that a detailed assessment regarding compatibility of military activities and OCS oil and gas development will be submitted. Analysis of DOD uses of the OCS will be incorporated into the PFP.

Additionally, NASA provided comments on the DPP, along with a Mission Impact Statement. The Mission Impact Statement indicated concern that future oil and gas development in the Beaufort Sea would result in the need to protect additional persons and property when conducting operations at the Poker Flat Research Range, a University of Alaska Fairbanks-owned

facility outside of Fairbanks, Alaska. BOEM is committed to working with NASA to discuss and address potential mission conflicts.

6.5.1.4 Renewable Energy

BOEM has not received applications for renewable energy or marine mineral leasing in any of the Alaska program areas and is not aware of any specific plans or proposals to develop OCS renewable energy resources in these areas at this time. Therefore, BOEM does not expect that commercial leasing for OCS renewable energy resources would occur in the Alaska program areas during the 2023–2028 timeframe. Any renewable energy leasing that could occur during the approximate 40- to 70-year lifespan of any producing leases issued during the 2023–2028 Program will need to be coordinated during the later stages of BOEM’s oil and gas leasing process (e.g., lease sale, exploration plan, and development and production plan stages).

6.5.1.5 Non-energy Marine Minerals

Although BOEM has not issued any leases for non-energy minerals in the Alaska program areas, there have historically been inquiries regarding potential prospecting and competitive leasing of strategic mineral resources (e.g., gold) offshore Nome in the Norton Basin Program Area. It is unlikely that competitive leasing for gold would be further developed within the timeframe of the 2023–2028 Program. In the interim, BOEM is working to partner with several NOAA line offices and the U.S. Geological Survey (USGS) to understand active and extinct seafloor hydrothermal systems, including the geological framework, the endemic environment, and associated biological communities along the Aleutian Islands volcanic seamounts.

6.5.2 Pacific Region

The Pacific OCS Region comprises four program areas: Washington/Oregon, Northern California, Central California, and Southern California. **Table 6-7** and **Figure 6-12** show the other uses of the OCS within the Pacific Region.

6.5.2.1 Commercial, Recreational, and Subsistence Uses

Although important throughout the region for many reasons, commercial fisheries in and near the Washington/Oregon Program Area (especially near Washington) are particularly essential from an economic perspective. **Figure 6-13** shows the comparison between the Pacific program areas for commercial fishing landings and value for 2019.

Aquaculture, or the farming of seafood species, is thriving in the Pacific region, accounting for approximately 35% of all U.S. aquaculture for volume and 39% for value in 2017 (NOAA 2020).

Table 6-7: Other Uses of the OCS within the Pacific Region

Activity	Program Area			
	Washington/ Oregon	Northern California	Central California	Southern California
Commercial Fishing	✓	✓	✓	✓
Recreational Fishing	✓	✓	✓	✓
Subsistence	✓	✓	✓	✓
Tourism	✓	✓	✓	✓
Ports/Shipping Routes	✓		✓	✓
Federal Agency Activity	✓ DOD	✓ DOD	✓ DOD	✓ DOD
Current OCS Oil and Gas Activity				✓
Potential OCS Renewable Energy	✓	✓	✓	✓
Potential OCS Marine Minerals Activity			✓	✓

Recreational fishing represents one of the most significant public uses of coastal resources in and near the Pacific Region, particularly in Washington and Southern California in terms of economic impacts, with the largest sales impacts in 2016 of approximately \$542 million for Washington and \$2.1 billion for California. California also had the highest number of recorded fishing trips in the Pacific Region, with almost 80% of the total recreational fishing trips (NOAA 2018).

Outdoor coastal recreation is an important use of coastal resources along the Washington, Oregon, and California coasts. Washington and Oregon have almost a dozen national wildlife refuges (NWRs) and a few large national parks (NPs) along their coasts that support coastal recreational activities such as beach visitation, bird watching, and wildlife and scenery viewing. Washington is one of the top five states in the U.S. for scuba diving in terms of the number of participants.

The coast of California is also home to a variety of NWRs and NPs that help support a range of outdoor recreational activities, particularly hiking, boating, and wildlife viewing in the northern region, as well as beach visitation, swimming, and surfing in the central and southern regions. Of the top 10 most visited NPs in 2021, Golden Gate National Recreation Area in coastal California ranked number three (National Geographic 2017).

In 2019, the coastal leisure and tourism industry accounted for more than 20,000 establishments, 366,000 jobs, and more than \$10 billion in wages in Washington, and approximately 14,000 establishments, 224,000 jobs, and \$5 billion in wages in Oregon. California had approximately 117,000 establishments, 2.1 million jobs, and \$69 billion in wages. The areas adjacent to the Southern California Program Area account for almost 50% of such establishments, jobs, and coastal leisure and tourism wages for the three California program areas (NOEP 2020).

Data on subsistence fishing and shellfish harvesting in the Pacific region is generally limited and primarily anecdotal. Washington and Oregon are home to a variety of indigenous, Asian, and

Pacific Islander communities who rely on subsistence fishing as both a cultural tradition and for important dietary staples.

The Northwest Indian Fisheries Commission is a natural resources management support service organization for 20 Indian Tribes in western Washington. Four of these Tribes, the Makah, Quileute, Hoh, and Quinault, have treaty rights to fish for groundfish on the OCS. These Tribes harvest native littleneck, manila, razor, and geoduck clams; Pacific oysters; Dungeness crabs; shrimp; and other shellfish along the Pacific coast and in Puget Sound. In 2015, treaty Tribes in western Washington commercially harvested approximately 800,000 pounds of littleneck and manila clams, 2.3 million pounds of geoduck clams, 2.3 million oysters, 7.7 million pounds of Dungeness crab, 226,000 pounds of shrimp, and 370,000 pounds of sea cucumbers. As part of Tribal culture, shellfish harvested in ceremonial and subsistence fisheries provide a traditional diet (NWIFC 2017).

In California, official information on subsistence fishing is included within recreational fishing data. Subsistence fishing could be most prevalent in those areas designated as “fishing communities” by NOAA, defined as cities and towns with strong ties to commercial and/or recreational fishing. As detailed in NOAA’s *2006 Fishing Communities of the United States*, 40 fishing communities have been identified in Washington, 32 in Oregon, and 53 in California (NOAA 2006).

Figure 6-12: General Areas of Other Uses of the Pacific OCS

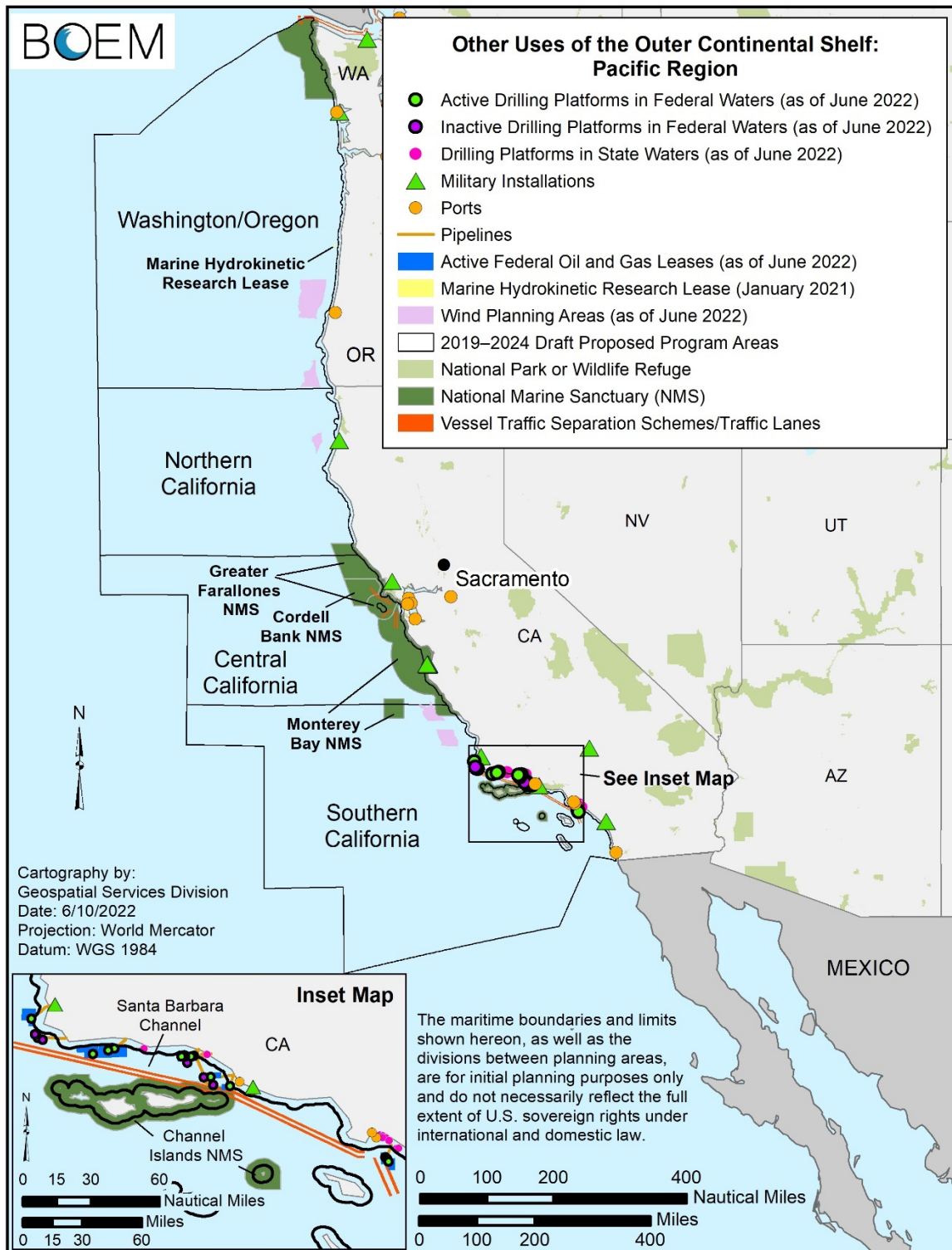
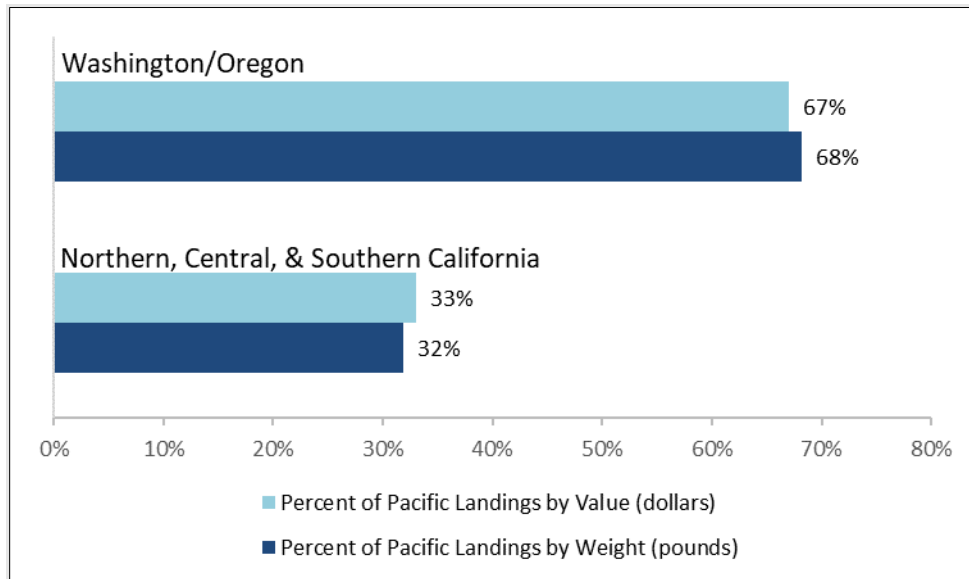


Figure 6-13: Commercial Fishing Value and Landings for Pacific Program Areas, 2019



Source: NMFS (2020)

6.5.2.2 Ports, Marine Navigation, Sea Lanes, and Submarine Cables

Seattle is the largest port near the Washington/Oregon Program Area. Within California, commercial shipping activity is concentrated in ports near the Central California Program Area (San Francisco) and the Southern California Program Area (Los Angeles and Long Beach).

Table 6-8 shows the top ports in the Pacific Region in 2018 by tonnage.

Table 6-8: Top Ports in the Pacific Region by Tonnage, 2018

Port Location
Washington/Oregon Program Area
Kalama, Washington
Longview, Washington
Portland, Oregon
Seattle Washington
Tacoma, Washington
Central California
Oakland, California
Richmond, California
Southern California
Long Beach, California
Los Angeles, California

Note: Ports are listed in alphabetical order and not by rank.

Other critical infrastructure includes submarine cables, which are present in all Pacific Region program areas. Submarine cables carry vital voice, data, and internet traffic. Coordination between ocean users and submarine cable operators is an important aspect to consider prior to conducting OCS operations. For more information on submarine cables, refer to Carter et al.

(2009) and <https://www.n-a-s-c-a.org/>, including January 2022 cable maps. There could be other existing cables not identified on NASCA maps from non-NASCA Association members.

6.5.2.3 *Military Uses*

DOD conducts training, testing, and operations in offshore operating and warning areas, undersea warfare training ranges, and special use or restricted airspace on the OCS. These activities are critical to military readiness and to national security. The U.S. Navy uses the airspace, sea surface, subsurface, and seafloor of the OCS for events ranging from instrumented equipment testing to live-fire exercises. The U.S. Air Force conducts flight training and systems testing over extensive areas on the OCS. The U.S. Marine Corps' amphibious warfare training extends from offshore waters to the beach and inland. The U.S. Coast Guard conducts search and rescue missions.

Some of the most extensive offshore areas used by DOD include U.S. Navy at-sea Operational Areas (OPAREAs). An OPAREA is an area where training exercises and system qualification tests are routinely conducted. Testing and training do not occur on all days of the year but could occur during any season. These activities vary depending on where in the OPAREA they occur (e.g., open versus nearshore water) and could be concentrated within a smaller geographic area than the OPAREA footprint.

The Pacific Northwest OPAREA is off the Washington and Oregon coasts, and the Southern California-Point Mugu OPAREA is off the central and Southern California coasts and extends into waters south of the U.S.-Mexico border. Vandenberg Air Force Base is on the coast in the Southern California Program Area and has an active launch program that has been considered via lease sale stipulations in the past.

DOD and USDOJ will continue to coordinate extensively under a 1983 Memorandum of Agreement, which states that the two parties shall reach mutually acceptable solutions when the requirements for mineral exploration and development and defense-related activities conflict. DOD commented in response to the DPP that a detailed assessment regarding compatibility of military and OCS oil and gas development will be submitted. BOEM will consider and present any analysis provided by DOD in the PFP.

NASA provided a Mission Impact Statement outlining potential conflicts with NASA operations and OCS oil and gas development. Based on this and other comments provided by NASA to BOEM in response to the DPP, no conflicts are projected to occur in the Pacific between potential oil and gas activity and NASA operations.

6.5.2.4 Renewable Energy

BOEM works closely with states and other stakeholders to facilitate OCS renewable energy development off Oregon and California.⁴⁸ Oregon State University (OSU) applied for a research lease offshore Newport, Oregon, to demonstrate the viability of wave energy. In February 2021, BOEM issued a research lease to OSU for the PacWave South project. Lease issuance by BOEM was a prerequisite for a license from the Federal Energy Regulatory Commission (FERC). On March 1, 2021, FERC issued a license order for PacWave South under its authority pursuant to the Federal Power Act, authorizing the construction and operation of the project. BOEM is also identifying areas offshore Oregon for potential leasing for wind energy development and, on April 29, 2022, published a Call for Information and Nominations (87 FR 25529) for two areas offshore Oregon (Coos Bay and Brookings) comprising approximately 1.2 million acres (1,811 square miles).

In California, BOEM received an unsolicited request for a commercial OCS wind lease in January 2016 and initiated the competitive planning and leasing process with the State of California for future OCS wind development leasing. BOEM, in conjunction with the BOEM California Intergovernmental Renewable Energy Task Force, has finalized WEAs offshore the northern and central coasts of California, and plans to conduct a lease sale in fall 2022.

In November 2021, BOEM announced its designation of the Morro Bay Wind Energy Area (WEA) offshore California. The WEA is approximately 20 miles off the central California coastline and contains approximately 240,898 acres (376 square miles). In January 2022, BOEM issued a draft EA on the potential impacts from future commercial leasing and related site characterization and assessment activities within the Humboldt WEA, which is approximately 20 miles off the northern coast of California.

On May 26, 2022, USDOJ announced proposed auction details and lease terms for OCS wind energy development in the Morro Bay WEA and Humboldt WEA, offshore central and northern California, respectively. This California Proposed Sale Notice provides detailed information about potential areas that could be available for leasing, proposed lease provisions and conditions, auction details, and lease execution. The proposal includes up to five lease areas within the two WEAs for potential commercial wind energy development. These areas consist of approximately 373,268 acres (583 square miles) and are estimated to have the potential for more than 4.5 GWs of OCS wind energy.

⁴⁸ BOEM is also working to develop renewable energy offshore Hawaii; however, there are negligible oil and gas resources offshore Hawaii, so this area is not analyzed for the National OCS Program. See **Chapter 1** for a brief discussion.

6.5.2.5 Non-Energy Marine Minerals

BOEM has not issued any leases for non-energy minerals in the Pacific Region program areas; however, the State of California has expressed interest in identifying OCS sand resources for remedial nourishment of severely eroded coastal beaches. The management of coastal sand resources is under consideration by the Coastal Sediment Management Workgroup.⁴⁹ BOEM continues to collaborate with the USGS under an Interagency Agreement to identify potential sand resource areas offshore San Francisco and Southern California. Data are available through USGS data release, and the Open File Report is under final review for public release. BOEM is also contributing to a multi-agency research mission led by the USGS to understand the hydrothermal mineralization on the Gorda Ridge offshore Northern California.

6.5.3 Gulf of Mexico Region

The most notable other uses of the GOM OCS in terms of economic contribution are coastal tourism and recreation, commercial fishing and seafood harvesting, and commercial shipping.

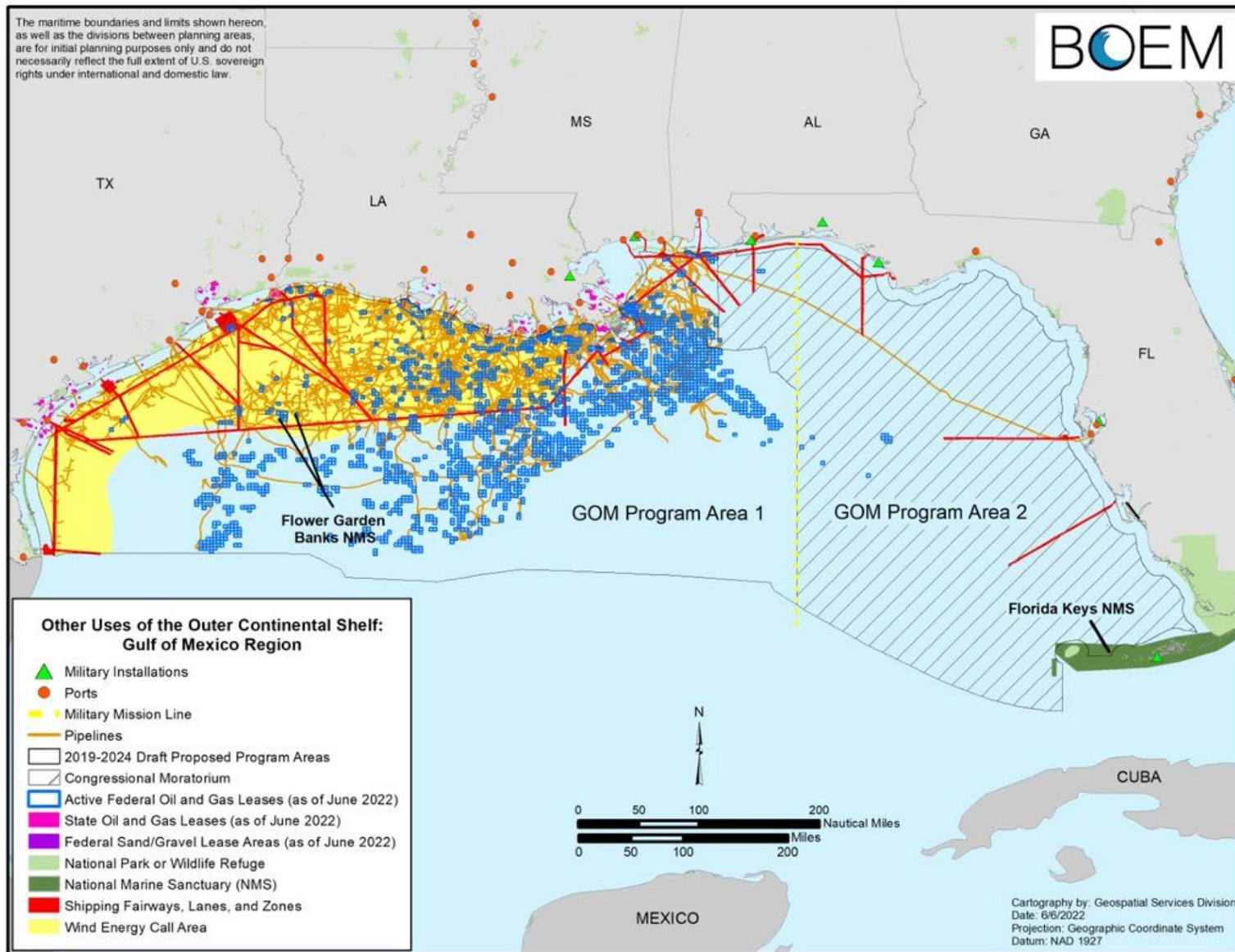
Table 6-9 and **Figure 6-14** show the other uses of the OCS within the GOM Region.

Table 6-9: Other Uses of the OCS within the Gulf of Mexico Region

Activity	Program Area	
	GOM Program Area 1	GOM Program Area 2
Commercial Fishing	✓	✓
Recreational Fishing	✓	✓
Subsistence	✓	
Tourism	✓	✓
Ports/Shipping Routes	✓	✓
Federal Agency Activity	✓ DOD	✓ DOD
State Oil and Gas Activity	✓	✓
Current OCS Oil and Gas Activity	✓	✓
OCS Renewable Energy	✓	
OCS Marine Minerals Activity	✓	✓

⁴⁹ The Coastal Sediment Management Workgroup is a taskforce of state, Federal, regional, and local entities chaired by the U.S. Army Corps of Engineers South Pacific Division and the California Natural Resources agency. BOEM is a part of the Workgroup.

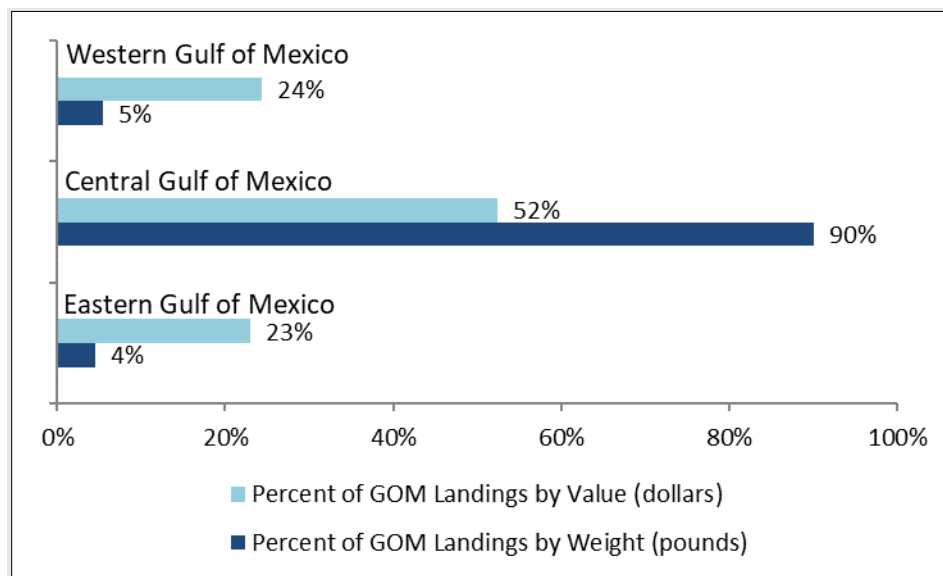
Figure 6-14: General Areas of Other Uses of the Gulf of Mexico OCS



6.5.3.1 Commercial, Recreational, and Subsistence Uses

The GOM commercial fishery sector is largest in Louisiana, followed by Texas and then Florida. However, Florida's seafood industry contributes most to GDP because of its contributions further along the seafood supply chain (e.g., processors, retailers). In 2018, the Port of Empire-Venice in Louisiana ranked second in the U.S. for seafood landing weight, with 569 million pounds. The GOM Region contributed 16% of landings and 16% of value for U.S. commercial fisheries (NOAA 2020). **Figure 6-15** shows the comparison between the GOM program areas for commercial fishing landings and value for 2018.

Figure 6-15: Commercial Fishing Value and Landings for the Gulf of Mexico Region, 2019



Source: NMFS (2020)

Aquaculture, or the farming of seafood species, is becoming more common along the Gulf Coast. In 2018, the GOM region produced approximately 22% of the U.S. volume of marine aquaculture (NOAA 2020). In 2016, a final rule was established to implement a Fishery Management Plan to regulate aquaculture in the GOM (81 FR 1762). BOEM and NMFS will work together to address and resolve any multiple use issues regarding use of the OCS for aquaculture and energy programs.

Three of the five Gulf Coast states—Alabama, Louisiana, and Texas—have had some historical oil and gas exploration activity and currently produce oil and gas in state submerged lands.⁵⁰ Additionally, millions of individuals participate in a variety of recreational activities in the region's coastal environment each year, including recreational fishing, beach visitation, swimming, boating, and wildlife viewing. The GOM encompasses 2,625 km (1,631 miles) of coastline. Texas,

⁵⁰ For additional information on state oil and gas leasing programs in the GOM, see Chapter 3 of BOEM's Final Multisale Environmental Impact Statement for Gulf of Mexico Lease Sales 249, 250, 251, 252, 253, 254, 256, 257, 259, and 261 (BOEM 2017b).

Louisiana, and Florida have significantly more coastline and more coastal population centers than Alabama or Mississippi. However, the tourism and recreation industries in Alabama and Mississippi still compose sizable portions of GDP as a percent of each state's total employment. Of the top 10 most visited NPs in 2021, Gulf Islands Seashore, which covers parts of coastal Mississippi, Alabama, and Florida, ranked number nine (NPS 2022).

On an annual basis, coastal tourism and recreation industries contribute more than \$1 billion in GDP to the states adjacent to the Western and Central GOM planning areas, and more than \$6 billion in GDP for the Eastern GOM Planning Area, generated from the counties in western Florida (BOEM 2014a).

In 2019, the coastal leisure and tourism industry accounted for almost 16,000 establishments, 345,000 jobs, and more than \$8 billion in wages in shoreline-adjacent areas to the Western GOM Planning Area, and approximately 7,000 establishments, 140,000 jobs, and almost \$4 billion in wages in areas adjacent to the Central GOM Planning Area. Eastern GOM Planning Area shoreline-adjacent counties had approximately 20,000 establishments, 400,000 jobs, and \$10 billion in wages. Areas adjacent to the Eastern GOM Planning Area account for approximately 45% of such establishments, jobs, and coastal leisure and tourism wages for the GOM program areas (NOEP 2020).

From the best available data on their economic contributions, subsistence fishing and seafood harvesting are also important public uses of coastal and marine resources within the GOM Region, particularly to rural communities. Traditional subsistence harvesting, including fishing and hunting, continues among some ethnic and low-income groups (MMS 2003). Several groups living along the Louisiana coast are central to the culture of the region and rely on fisheries and related marine resources. The Cajun population fishes and recreationally harvests fish and shellfish from the bayous as part of its subsistence activities (Henry and Bankston 2002). The United Houma Nation and the Chitmachia Tribe in southeastern Louisiana depend on subsistence diets, recovering foods from coastal areas. Vietnamese anglers, who fish in the near offshore, retain up to 25% of their catch for their families and for bartering (Alexander-Bloch 2010).

6.5.3.2 Ports, Marine Navigation, Sea Lanes, and Submarine Cables

Total port calls in the U.S. are increasing, as are total port calls within the GOM. GOM port calls represent approximately 33% of all U.S. port calls (BOEM 2017b). The USCG designates shipping fairways and establishes traffic separation schemes that control the movement of vessels as they approach ports. Of the top 25 ports by total tonnage for 2017, 14 are in the GOM (**Table 6-10**). The U.S. has three currently operating deepwater ports, one of which is in the GOM region, approximately 16 miles southeast of Port Fourchon, Louisiana.

The LOOP began operations in 1981 to serve as an oil import facility for unloading and distribution for incoming supertankers to the GOM region. This port has a throughput capacity of up to 1.2 million barrels per day and is the only deepwater port petroleum terminal in the U.S.

Table 6-10: Top Ports in the GOM Program Areas by Tonnage, 2017

Program Area	Port
GOM Program Area 1	Houston, TX
	South Louisiana, LA
	Corpus Christi, TX
	New Orleans, LA
	Baton Rouge, LA
	Beaumont, TX
	Mobile, AL
	Plaquemines, LA
	Lake Charles, LA
	Port Arthur, TX
	Freeport, TX
	Texas City, TX
	Jackson County Port, MS
GOM Program Area 2	Tampa, FL

Notes: Ports are shown in order from greatest to smallest tonnage for each program area. All ports in this table are included in the top 25 ports in the U.S. for tonnage.

Source: BTS (2019)

Additionally, a new floating LNG export project, Port Delfin, is anticipating investment decisions resulting in operations commencing in 2026. Port Delfin would be located in Federal waters offshore Cameron Parish, Louisiana, and consists of a deepwater port and four floating LNG vessels handling a total of approximately 13 million tonnes per annum of LNG (Wright 2022).

An extensive network of pipelines in the GOM carries all gas production and almost all OCS oil production from the OCS to onshore refineries and terminals. Several submarine power cables and related umbilicals are associated with oil and gas platforms and field development within the GOM (BOEM 2017b). For more information on submarine cables, refer to Carter et al. (2009) and <https://www.n-a-s-c-a.org/>, including January 2022 cable maps. There could be other existing cables not identified on NASCA maps from non-NASCA Association members.

6.5.3.3 Military Uses

DOD conducts training, testing, and operations in offshore operating and warning areas, undersea warfare training ranges, and special use or restricted airspace on the OCS. These activities are critical to military readiness and to national security. The U.S. Navy uses the airspace, sea surface, subsurface, and seafloor of the OCS for events ranging from instrumented equipment testing to live-fire exercises. The U.S. Air Force conducts flight training and systems testing over extensive areas on the OCS. The U.S. Marine Corps amphibious warfare training extends from

offshore waters to the beach and inland. The U.S. Coast Guard conducts search and rescue missions.

Some of the most extensive offshore areas used by DOD include U.S. Navy at-sea training areas. Training and testing could occur throughout the GOM OCS waters but will be concentrated in OPAREAs and testing ranges. These activities could vary depending on where they occur (e.g., open versus nearshore water). Major testing and training areas in the GOM include the Gulf of Mexico Range Complex, the Naval Surface Warfare Center, Panama City Division, and the Key West Complex off the southwestern tip of Florida.

Military Warning Areas (MWAs) are established to allow military forces to conduct training and testing activities. The GOM includes 12 MWAs and six Eglin Air Force Base Water Test Areas. Military operations and oil and gas exploration and production have coexisted for many years in the GOM (BOEM 2017b).

DOD and USDOJ will continue to coordinate extensively under a 1983 Memorandum of Agreement, which states that the two parties shall reach mutually acceptable solutions when the requirements for mineral exploration and development and defense-related activities conflict. DOD commented in response to the DPP that a detailed assessment regarding compatibility of military and OCS oil and gas development will be submitted. Analysis of DOD uses of the OCS will be presented in the PFP.

NASA provided a Mission Impact Statement outlining potential conflicts with NASA operations and OCS oil and gas development. Based on this and other comments provided by NASA to BOEM in response to the DPP, no conflicts are projected to occur in the GOM between potential oil and gas activity and NASA operations.

6.5.3.4 Renewable Energy

BOEM is in the planning phase for defining wind energy areas in the GOM. On November 1, 2021, BOEM published a Call for Information and Nominations (86 FR 60283) to further assess commercial interest in, and invite public comment on, possible commercial wind energy leasing in a proposed area in the GOM. In January 2022, BOEM announced it is preparing a Draft EA to consider the impacts of potential offshore wind leasing in Federal waters of the GOM.

In addition, BOEM has received an unsolicited application for renewable wind energy leasing in the GOM Region. The unsolicited application is within the Call Area and BOEM has determined that there is competitive interest in the application area.

6.5.3.5 Non-Energy Marine Minerals

Through June 2022, BOEM had issued 16 agreements for approximately 87.1 million cubic yards for OCS sediment for coastal restoration projects along the GOM, specifically, offshore the

western coast of Florida, and the coasts of Mississippi and Louisiana (see **Figure 6-14**). BOEM expects that several major restoration projects will require the use of OCS sand resources to restore coastal wetlands and barrier islands along the Gulf Coast (Dartez 2016). BOEM also expects new requests for OCS sand related to the Texas Coastal Resiliency Master Plan and the Coastal Texas Study. The construction identified in the final report would be built over 12 to 20 years, depending on Congressional authorization and partnerships. Construction cannot begin until a final proposal is approved and fully funded by Congress. At the earliest, funding is not likely before 2023.

Mixed sediment is essential to coastal restoration initiatives in the GOM Region, such as the construction of wetlands. OCS sediment includes clay-, silt-, sand-, and gravel-size particles, and shell, found on or below the surface of the seabed on the OCS.

Offshore sand resources in the GOM are limited in coastal areas where sand is needed for nourishment and restoration projects. Compounding this scarcity of sand is the fact that vast areas of these offshore sand resources are not extractable because of the presence of oil and gas infrastructure and archaeologically sensitive areas. BOEM's MMP is implementing several measures to help safeguard availability of the most significant OCS sediment resources, to reduce multiple use conflicts, and to minimize interference with oil and gas operations under existing leases and rights-of-way (BOEM 2017b). BOEM has issued a Notice to Lessees and Operators and Pipeline Right-of-Way Holders to provide guidance for the avoidance and protection of significant sediment resources.

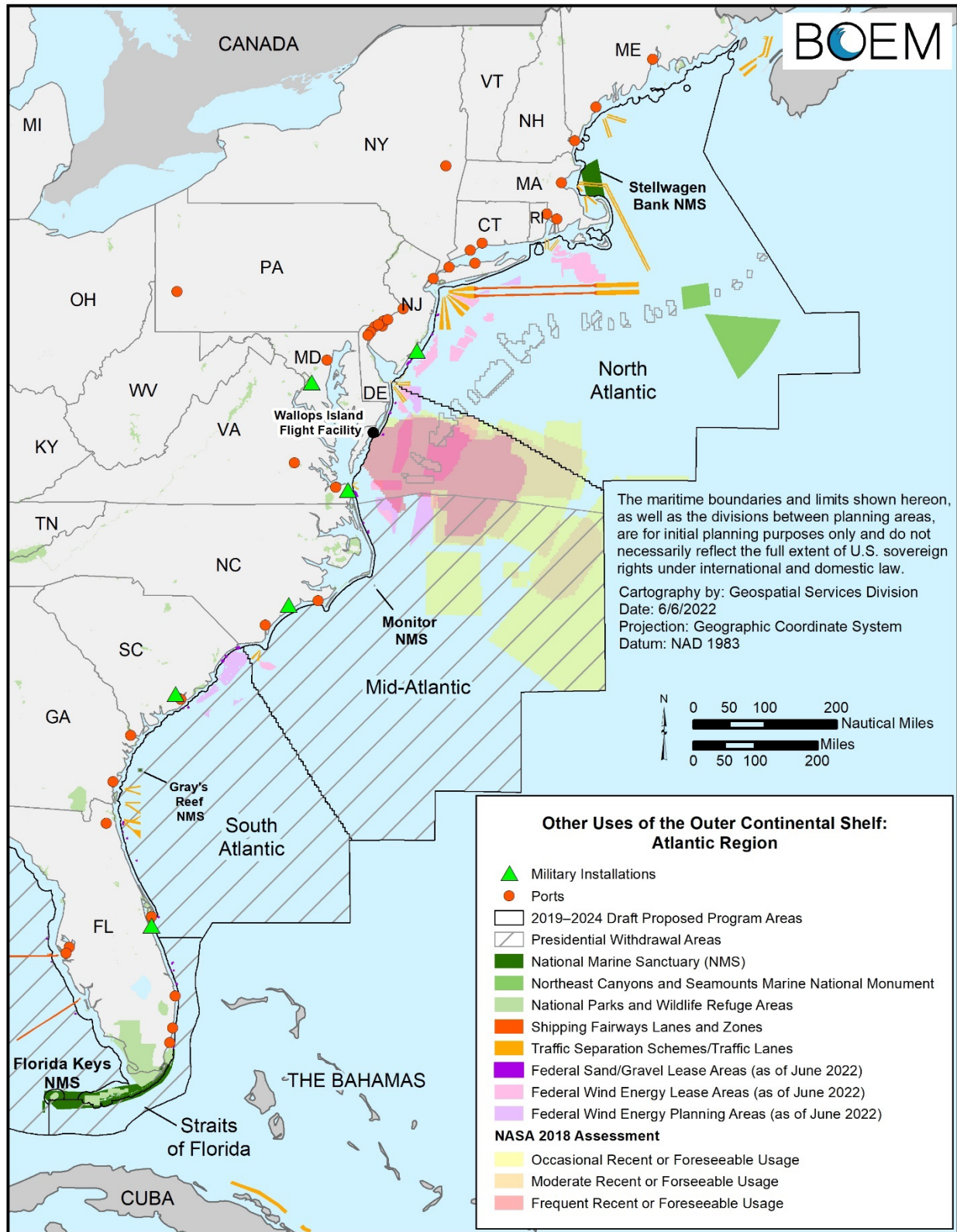
6.5.4 Atlantic Region

The Atlantic OCS Region comprises four program areas: North Atlantic, Mid-Atlantic, South Atlantic, and Straits of Florida. **Table 6-11** and **Figure 6-16** show the other uses of the OCS within the Atlantic Region.

Table 6-11: Other Uses of the OCS within the Atlantic Region

Activity	Program Area			
	North Atlantic	Mid-Atlantic	South Atlantic	Straits of Florida
Commercial Fishing	✓	✓	✓	✓
Recreational Fishing	✓	✓	✓	✓
Subsistence	✓	✓	✓	✓
Tourism	✓	✓	✓	✓
Ports/ Shipping Routes	✓	✓	✓	✓
Federal Agency Activity	✓ DOD	✓ DOD, NASA	✓ DOD	✓ NASA
Potential OCS Renewable Energy	✓	✓	✓	
OCS Marine Minerals Activity	✓	✓	✓	✓

Figure 6-16: General Areas of Other Uses of the Atlantic OCS

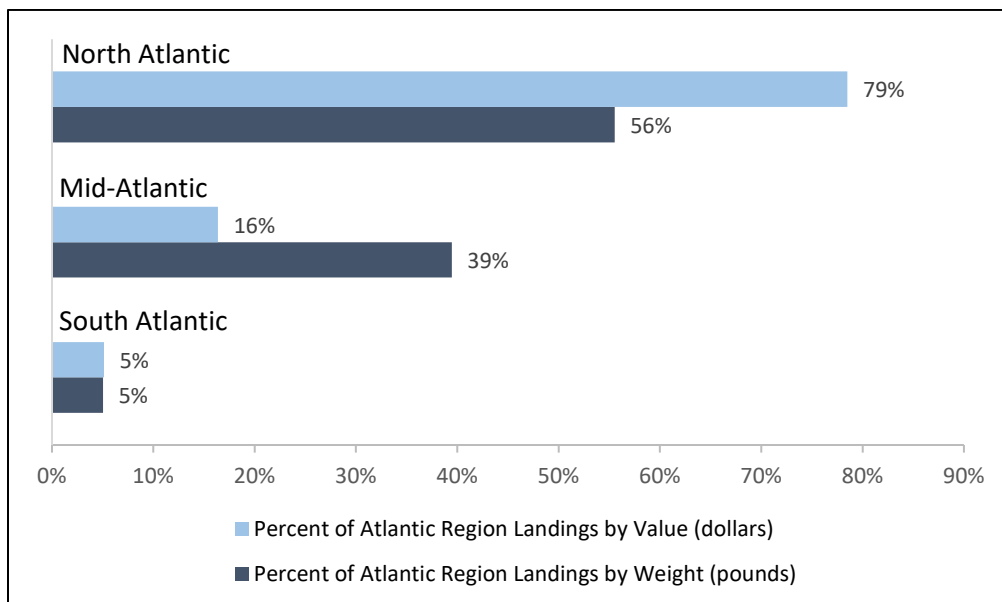


6.5.4.1 Commercial, Recreational, and Subsistence Uses

The North Atlantic supplies much of the fish and shellfish consumed in the U.S., with Massachusetts having the highest landings value (more than \$473 million) for 2020 (NOAA 2020). In the Atlantic Region, the Mid-Atlantic provides the second highest landings value, with Virginia contributing the highest value (more than \$180 million). In the South Atlantic, the eastern coast of Florida had the highest landings value for 2018 with \$83 million (NOAA 2018).

The Port of New Bedford, Massachusetts, ranked number one for the 19th consecutive year for the greatest value of seafood landed in the U.S. in 2020, bringing in \$376.6 million. In 2020, the Atlantic region produced approximately 40% of the estimated value of U.S. aquaculture production (NOAA 2020). **Figure 6-17** shows the comparison between the North, Mid-, and South Atlantic program areas for commercial landings and value for 2016.

Figure 6-17: Percent of Total Commercial Fisheries Value and Landings by Atlantic Program Area, 2016



Note: Data for the Straits of Florida is grouped with the western coast of Florida and presented in **Table 6-9**.

Source: NMFS (2020)

In 2016, recreational fishing expenditures resulted in total value added in the combined Straits of Florida and South Atlantic program areas of more than \$5 million, with Eastern Florida contributing more than 80% of that value added. For the Mid-Atlantic Program Area, recreational fishing expenditures resulted in total value added of \$1.2 million, with Maryland contributing a little more than 40% of the value added in 2016. For the North Atlantic Program Area, total value added for recreational fishing expenditure was more than \$3 million, with Maine and Massachusetts contributing almost 40% each of that total in 2016 (NOAA 2018).

Table 6-12 shows the coastal leisure and hospitality establishments, jobs, and wages for each Atlantic Program Area.

Table 6-12: Atlantic Region Coastal Leisure and Hospitality Establishments, Jobs, and Wages, 2019

Program Area	Establishments	Jobs	Wages
North Atlantic	87,073	1,376,456	\$47,011,865,914
Mid-Atlantic	24,662	507,502	\$13,354,300,903
South Atlantic	26,194	500,095	\$13,780,796,556

Note: Values for the Straits of Florida Planning Area are incorporated into the South Atlantic Planning Area.

Source: NOEP (2020)

The Atlantic coastal region contains numerous NWRs (roughly 70), NPs, and national seashores (NSs), as well as many state parks and recreational areas where the public engages in various recreational activities. Of the top 10 most visited NPs in 2021, Gateway National Recreation Area in coastal New York ranked number four (NPS 2022). Beach visitation, swimming, wildlife viewing, boating, and fishing are the most popular coastal activities across the Atlantic states.

Little data exist on subsistence fishing and shellfish harvesting in and along the Atlantic program areas, and what information is available is largely informal or speculative. It could be most prevalent in those areas designated as “fishing communities” by NOAA, which are defined as such due to their strong ties to commercial and recreational fishing. According to NOAA’s profiles of fishing communities in the Northeast, the limited information available on subsistence fishing and harvesting is for the urban communities and suggests a relative importance to immigrant populations in these areas. Overall, NOAA has identified 139 fishing communities in the North Atlantic Program Area, 50 in the Mid-Atlantic Program Area, and 56 in the South Atlantic Program Area (NOAA 2006).

6.5.4.2 Ports, Marine Navigation, Sea Lanes, and Submarine Cables

North Atlantic Program Area ports handle roughly 10% of the U.S. total imports and exports, and the Port of New York is one of the five largest ports in the U.S. The USCG designates shipping fairways and establishes traffic separation schemes that control the movement of vessels as they approach ports. Mid-Atlantic commercial vessel activity is concentrated around the ports of Philadelphia, Baltimore, and the Virginia port complex area. Norfolk Harbor is one of the 20 largest ports in the U.S. While the South Atlantic Program Area does not have as many adjacent ports as the other planning areas, three are in the top 40 ports in the U.S. in terms of traffic. Ports in Georgia and the Port of Miami were some of the fastest growing ports in terms of increased cargo for 2015 (FMC 2016). The Straits of Florida is one of the most heavily trafficked shipping areas in the world, with more than 40% of the world’s marine commerce passing through the region every year. Of the top 25 ports in the U.S. by tonnage, four are in the Atlantic region (see **Table 6-13**).

Table 6-13: Top Ports by Total Tonnage in the Atlantic Region in 2020

Program Area	Port
North Atlantic	New York/ New Jersey
Mid-Atlantic	Port Virginia, VA
	Baltimore, MD
South Atlantic	Savannah, GA

Notes: Ports are shown in order from greatest to smallest tonnage for each program area. All ports in this table are included in the top 25 ports in the U.S. for tonnage.

Source: BTS (2019)

There are 13 commercial ports designated as DOD National Strategic Ports, and seven are in the Atlantic Region. DOD National Strategic Ports in the South Atlantic are: Jacksonville, Florida; Savannah, Georgia; and Charleston, South Carolina; in the Mid-Atlantic: Morehead City, North Carolina; Wilmington, North Carolina, and Hampton Roads, Virginia; and in the North Atlantic: New York/New Jersey (U.S. Army 2010, Global Security 2011).

Two of the four deepwater ports in the U.S. are in Massachusetts: Neptune LNG and Northeast Gateway. Neptune LNG is an LNG import facility 10 miles south of Gloucester, Massachusetts. However, a 5-year suspension of operations was granted in 2013, and in 2017, Neptune requested a permit to work in Federal waters to decommission the facility (USACE 2017, MARAD Undated). On December 2017, Neptune requested, and the U.S. Maritime Administration (MARAD) authorized, an additional 4-year suspension of port operations, to expire in 2022 (83 FR 45013).

Northeast Gateway is also an LNG import facility, sited approximately 13 miles south-southeast of Gloucester, Massachusetts in Federal waters. The peak throughput capacity for this facility is 800 million standard cubic feet per day (MARAD Undated).

Submarine cables carrying critical voice, data, and internet traffic are present in the Atlantic Region, particularly in the North Atlantic Program Area (offshore New Jersey, New York, and Rhode Island) and the South Atlantic Program Area (Florida). Coordination between ocean users and submarine cable operators is an important aspect to consider when conducting operations on the OCS. For more information on submarine cables, refer to (Carter et al. 2009) and <https://www.n-a-s-c-a.org/>. There could be other existing cables not identified on NASCA maps from non-NASCA Association members.

6.5.4.3 Military and NASA Uses

DOD conducts training, testing, and operations in offshore operating and warning areas, undersea warfare training ranges, and special use or restricted airspace on the OCS. These activities are critical to military readiness and to national security. The U.S. Navy uses the airspace, sea surface, subsurface, and seafloor of the OCS for events ranging from instrumented equipment testing to live-fire exercises. The U.S. Air Force conducts flight training and systems testing over extensive areas on the OCS. The U.S. Marine Corps amphibious warfare training extends from

offshore waters to the beach and inland. The U.S. Coast Guard conducts search and rescue missions.

Some of the most extensive offshore areas used by DOD include U.S. Navy at-sea training areas. Training and testing could occur throughout the U.S. East Coast OCS waters but will be concentrated in OPAREAs and testing ranges. On the East Coast, one major testing range is the Naval Undersea Warfare Center, Division Newport. In the North Atlantic, U.S. Navy range complexes include Atlantic City, Narragansett Bay, and Boston; in the Mid-Atlantic, range complexes include Virginia Capes, Cherry Point, and portions of Chesapeake Bay; in the South Atlantic, range complexes include the Jacksonville Range Complex.

DOD and USDOJ will continue to coordinate extensively under a 1983 Memorandum of Agreement, which states that the two parties shall reach mutually acceptable solutions when the requirements for mineral exploration and development and defense-related activities conflict. DOD commented in response to the DPP that a detailed assessment regarding compatibility of military and OCS oil and gas development will be submitted. These comments and additional information are anticipated in preparation for the PFP stage, once BOEM makes available to DOD the anticipated geographic scope of areas recommended for inclusion in the approved Program. Analysis of DOD uses of the OCS and potential conflicts with oil and gas activities will be presented in the PFP.

In addition to military installations, there are several facilities along the U.S. Atlantic Coast operated by NASA that incorporate marine components. Wallops Flight Facility on Wallops Island, Virginia, is a key location for operational test, integration, and certification of NASA and commercial orbital launch technologies. The facility has an offshore launch hazard area in adjacent waters. It also supports many Federal agency activities, including U.S. Navy activities in the Virginia Capes OPAREA. Farther south in the Straits of Florida Program Area, NASA operates the Kennedy Space Center, which is on Cape Canaveral and most well-known for its function as a former launch site for the U.S. space shuttles. The waters around the Kennedy Space Center are recognized as a *de facto* marine reserve since human entry is prohibited there.

NASA provided comments on the DPP and a Mission Impact Statement. The Mission Impact Statement indicated concern that future oil and gas development in the Mid-Atlantic Program Area would result in the need to protect additional persons and property when conducting operations at the Wallops Island Flight Facility. BOEM is committed to working with NASA to discuss and address potential mission conflicts.

6.5.4.4 *Renewable Energy*

North, Mid-, and South Atlantic Program Areas

BOEM has issued 27 commercial wind energy leases off the Atlantic Coast within the North and Mid-Atlantic program areas, with site characterization surveys, site assessment activities, and

construction and operations, (including transmission), expected to occur during the 2023–2028 timeframe. Two projects have been approved on these leases, and BOEM plans to complete review of at least 16 additional Construction and Operations Plans by 2025. This commitment is anticipated to unlock development potential representing more than 19 GWs of offshore wind.

Table 6-14 shows the OCS renewable energy commercial wind leases in the Atlantic Region.

In March 2021, the Administration announced a goal of deploying 30 GWs of offshore wind by 2030. A portion of those 30 GWs would come from leases that were already issued at the time of the announcement. As described in the *Vineyard Wind 1 Offshore Wind Energy Project, Supplement to the Draft Environmental Impact Statement* (BOEM 2020b), BOEM conducted an analysis to determine the reasonably foreseeable offshore wind development on the Atlantic OCS. BOEM concluded approximately 22 GWs of Atlantic offshore wind development is reasonably foreseeable along the East Coast.

Reasonably foreseeable development includes development on the 19 active wind energy leases (18 commercial and 1 research) existing at the time of that analysis, which include named projects and assumed future development within a portion of the remainder of lease areas outside of named project boundaries. Levels of assumed future development are based on state commitments to renewable energy development, available turbine technology, and the size of potential development areas. Please see the Supplemental EIS for the detailed analysis.

Straits of Florida Program Area

Currently, there is no known interest in wind energy development offshore Florida. The marine hydrokinetic industry has expressed interest in these locations because they are within one of the prime areas for ocean current power development due to the large volume and steady flow of the Gulf Stream ocean current.

6.5.4.5 Non-Energy Marine Minerals

Through June 2022, BOEM has issued 48 agreements for approximately 91.1 million cubic yards of OCS sand for beach nourishment and coastal restoration projects along the Atlantic Coast from New Jersey south to Florida. Atlantic coastal states that have used OCS sand include New Jersey, Maryland, Virginia, North Carolina, South Carolina, and Florida. Typically, the borrow areas are in less than 100 feet of water and within 10 miles of the coast. Some recent interest has been expressed in the potential future use of OCS sand offshore New York and Delaware. BOEM has also been working closely with the states and other Federal partners to identify new potential OCS sand resource areas. Additionally, BOEM is collaborating with USGS on scientific studies focused on the geology and environment of the Blake Plateau seabed, including polymetallic nodules, corals, and benthic fauna offshore Georgia.

Table 6-14: OCS Renewable Energy Commercial Wind Leases in the Atlantic Region

Program Area	Offshore Project Location	Company	Acres (Leases)	Lease Date	Lease Number
South Atlantic	North Carolina	Kitty Hawk Wind, LLC	122,405	2017	OCS-A-0508
	North Carolina	TotalEnergies Renewables USA, LLC	54,937	2022	OCS-A-0545
	North Carolina	Duke Energy Renewables Wind, LLC	55,154	2022	OCS-A-0546
Mid-Atlantic	Maryland	U.S. Wind, Inc.	79,707	2014	OCS-A-0490
	Virginia	Virginia Electric and Power Company	112,799	2013	OCS-A-0483
North Atlantic	Rhode Island/Massachusetts	Revolution Wind, LLC	83,798	2013	OCS-A-0486
	Rhode Island/Massachusetts	South Fork Wind, LLC	13,700	2013	OCS-A-0517
	Rhode Island/Massachusetts	Sunrise Wind, LLC	109,952	2013	OCS-A-0487
	New Jersey	Ocean Wind, LLC	75,526	2016	OCS-A-0498
	New Jersey	Ørsted North America, Inc.	84,955	2016	OCS-A 0532
	New Jersey	Atlantic Shores Offshore Wind, LLC	183,353	2016	OCS-A-0499
	Massachusetts	Bay State Wind, LLC	144,823	2015	OCS-A-0500
	Massachusetts	Vineyard Wind 1, LLC	65,296	2015	OCS-A-0501
	Massachusetts	Park City Wind, LLC	101,590	2015	OCS-A-0534
	Massachusetts	Mayflower Wind Energy, LLC	127,388	2019	OCS-A-0521
	Massachusetts	Vineyard Wind, LLC	132,370	2019	OCS-A-0522
	Massachusetts	Beacon Wind, LLC	128,811	2019	OCS-A-0520
	New York	Empire Offshore Wind, LLC	79,350	2017	OCS-A-0512
	New York	OW Ocean Winds East, LLC	71,522	2022	OCS-A-0537
	New York	Attentive Energy LLC	84,332	2022	OCS-A-0538
	New York	Bight Wind Holdings, LLC	125,964	2022	OCS-A-0539
	New York	Atlantic Shores Offshore Wind Bight, LLC	79,351	2022	OCS-A-0541
	New York	Invenergy Wind Offshore LLC	83,976	2022	OCS-A-0542
	New York	Vineyard Mid-Atlantic LLC	43,056	2022	OCS-A-0544
	Delaware	Skipjack Offshore Energy, LLC	26,332	2012	OCS-A-0519
Delaware	GSOE I, LLC	70,098	2012	OCS-A-0482	

An underwater photograph showing a diver in silhouette swimming towards a bright light source at the surface. A large school of fish is visible in the background. The scene is set in clear blue water.

Chapter 7

Environmental Consideration Factors and Concerns

Chapter 7 Environmental Consideration Factors and Concerns

7.1 Environmental Setting and Ecological Characteristics

As discussed in **Section 2.2**, the environmental setting, ecological characteristics, and potential impacts on environmental resources are presented in the Draft Programmatic EIS.

7.2 Relative Environmental Sensitivity and Marine Productivity

7.2.1 *Summary of Methodology*

BOEM is required under Section 18(a)(2)(G) of the OCS Lands Act to consider the relative environmental sensitivity and marine productivity of the OCS when making decisions regarding the schedule of lease sales for the National OCS Program. For the 2017–2022 Program, BOEM built upon previous assessments of these two environmental considerations using an improved model to analyze relative environmental sensitivity and taking advantage of technological advancements to estimate marine primary productivity.

The environmental sensitivity and marine productivity analyses are intended to be used by the Secretary as one of many considerations when developing the National OCS Program. The current approach to determining relative environmental sensitivity considers both the vulnerability and resilience of an OCS region's ecological components to the potential impacts of OCS oil and gas activities within the context of existing conditions (e.g., ecosystem change).

For this Proposed Program analysis, 25 of the 26 BOEM planning areas were included in the sensitivity analysis. The same methods that were used in the DPP analysis were employed for the Proposed Program analysis and are briefly described below.

The methodology applied to analyze the relative environmental sensitivity for the 2023–2028 Program is identical to that used in the 2017–2022 Program, but incorporates some updates and improvements based on input from public comments, updated scientific information, and changes in regulations. For example, the de-listing of the Eastern distinct population segment of Steller sea lion and changes in commercial fishery landings caused some adjustments to the species selections in some of the BOEM ecoregions. Details can be found later in this chapter.

Primary productivity estimates for the program areas were generated using satellite-based measurements of chlorophyll-*a*, available light, and photosynthetic efficiency (Balcom et al. 2011). These parameters were input into the Vertically Generalized Production Model (VGPM) to provide estimates of net primary productivity (NPP). These methods are identical to the

methods used in the 2017–2022 Program and reflect the updated approach used for the 2012–2017 Program.

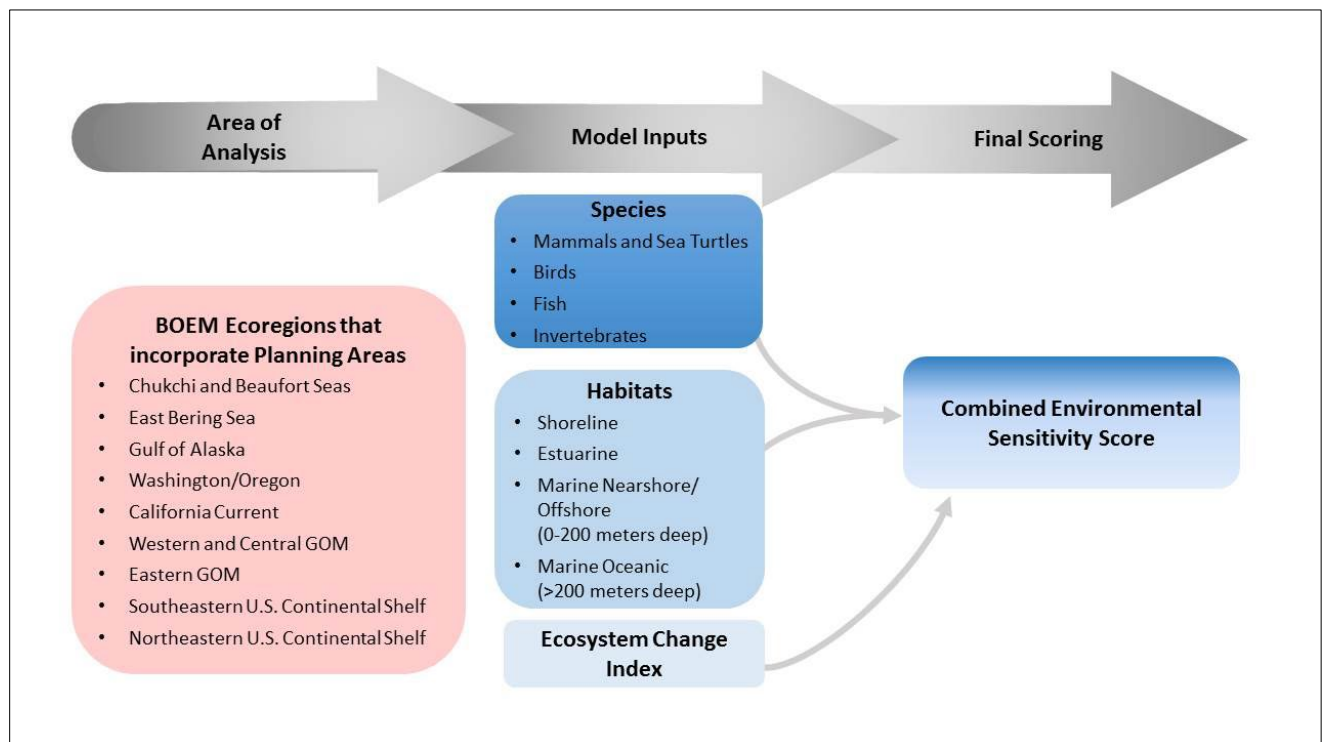
7.2.2 *Relative Environmental Sensitivity*

7.2.2.1 *Methods*

BOEM’s current approach to relative environmental sensitivity builds upon earlier methods. This method was developed through a BOEM-funded contract with the objectives of repeatability and scientific rigor. Several alternative methods were evaluated and considered; however, none of these alternative methods met BOEM’s mission needs. The chosen approach treats all regions of analysis equally without bias to area, presence of existing BOEM activities, or differences in species composition. This current method is not biased by spatial inequalities of data availability and weighs all species and habitats equally. It also allows unbiased comparison of geographic areas of differing size.

Figure 7-1 outlines the complete process for determining the sensitivity scores. The following sections provide some details of the environmental sensitivity method and a full description is available in BOEM (2014b). Since its development, this method has been adopted in a simplified form for use by NOAA for oil spill planning and response in Alaska (NOAA 2015).

Figure 7-1: Environmental Sensitivity Score Methodology



7.2.2.2 Geographic Scope

For the analysis of environmental sensitivity, an ecosystem-based approach was used. BOEM's program areas are administratively constructed designations that do not necessarily correspond to ecosystem boundaries. For this Proposed Program analysis of the program areas, the OCS was divided into nine regions, referred to here as BOEM ecoregions (see **Figures 7-2 and 7-3**).

The boundary designations for these BOEM ecoregions were informed by the original ecoregion concept (Spalding et al. 2007), and were based primarily on Large Marine Ecosystem (LME) boundaries (Sherman and Duda 1999). Marine ecoregions are areas that are differentiated by species composition and oceanographic features (Spalding et al. 2007, Wilkinson et al. 2009). LME boundaries are based on bathymetry, hydrography, productivity, species composition, and trophic relationships. BOEM ecoregions account for the distinct physical and ecological characteristics of the various OCS Regions, while simultaneously meeting BOEM's mission needs.

In addition to the numerical scores provided for the program areas in **Figures 7-2 and 7-3**, the intensity of the shading corresponds to the magnitude of these scores. The outlines of the BOEM ecoregions, which are the geographic units of analysis, are also shown. Due to their relatively small and variable size, it is not practical to analyze the environmental sensitivity of the Subarea Options separately.

Figure 7-2: Relative Environmental Sensitivity for the Alaska Region Program Areas

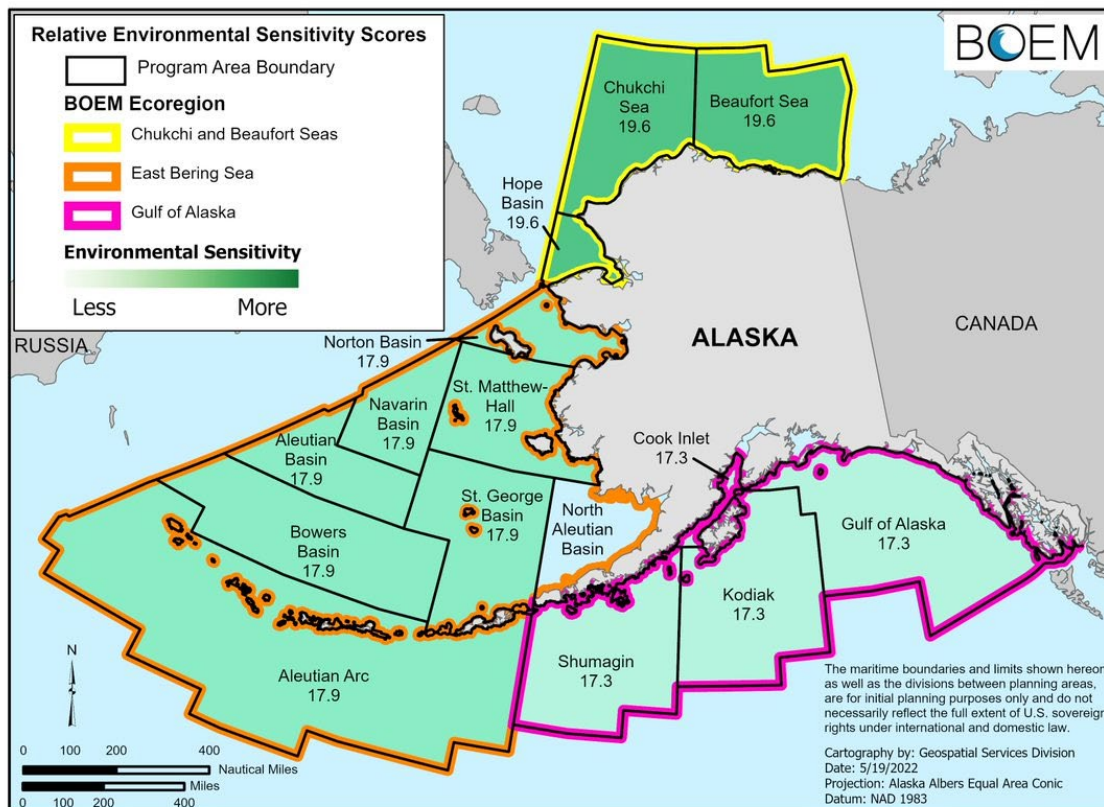
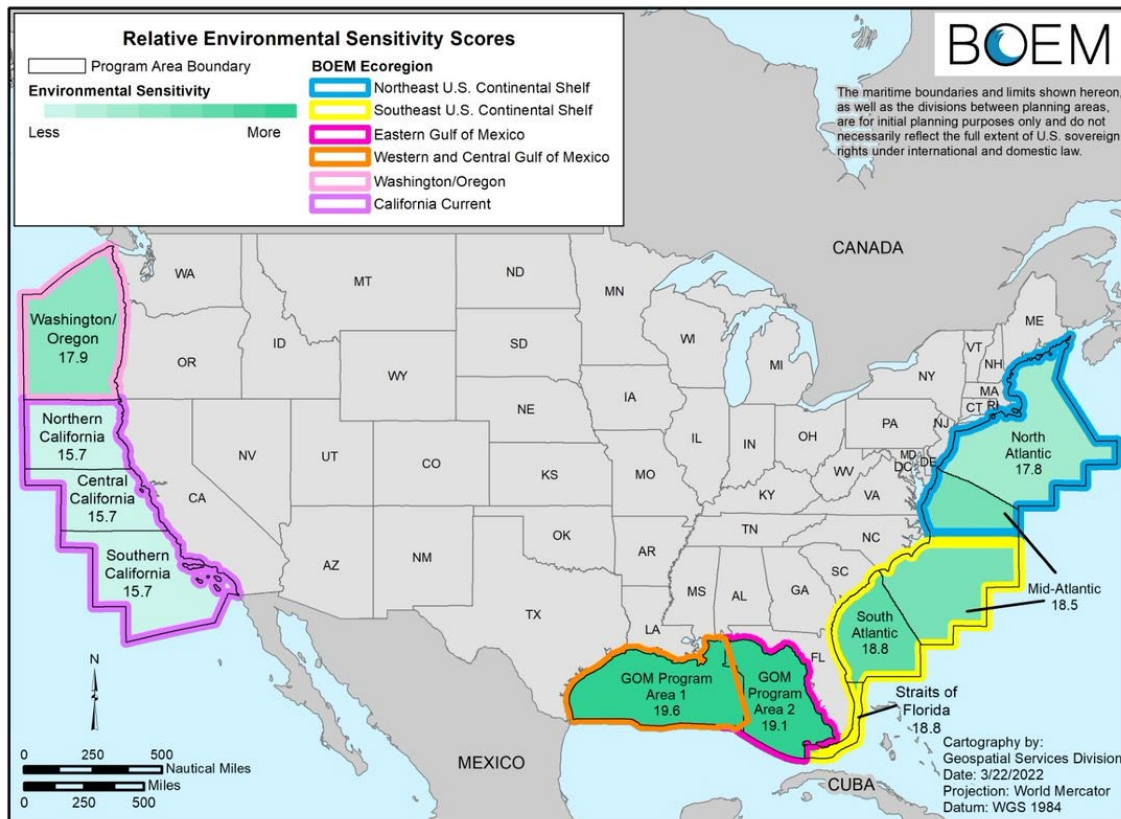


Figure 7-3: Relative Environmental Sensitivity of Lower 48 States Program Areas

Note: The Mid-Atlantic Program Area is split between two BOEM ecoregions: the Southeastern and Northeastern U.S. Continental Shelf Ecoregions.

The seaward extent of the BOEM ecoregions used in this analysis is largely governed by the U.S. EEZ and BOEM program areas' seaward boundaries (see **Figure 1-1**). The use of BOEM ecoregions allowed for the analysis of geographic regions that are ecologically similar and contain similar habitat types and faunal assemblages. The initial method description (BOEM 2014b) used the terms “broad OCS region” and “ecoregion” somewhat interchangeably. However, the boundaries of the broad OCS Regions used in this analysis do not fully align with North America’s ecoregions, as traditionally defined (Wilkinson et al. 2009). Thus, to avoid confusion or inaccuracies, the spatial unit of analysis for environmental sensitivity will only be referred to as a “BOEM ecoregion” in this document.

The bulk of the scientific information available for this analysis was ecosystem-based or focused on individual faunal groups and their ecologies. To treat all regions of the OCS equally and not bias the analysis through uneven data availability, the BOEM ecoregions were created with boundaries that were ecologically meaningful and for which sufficient data were available for model input. The majority of the BOEM ecoregions encompass more than one program area (see **Figures 7-2 and 7-3**).

Because the unit of analysis is a BOEM ecoregion, program areas within that region share the same environmental vulnerability and resilience to potential impacts from oil and gas exploration and development. Thus, the same sensitivity score was assigned to all program areas within each BOEM ecoregion. The one exception was the Mid-Atlantic Program Area, which was divided across two BOEM ecoregions (the Southeastern U.S. Continental Shelf and Northeastern U.S. Continental Shelf). The Mid-Atlantic Program Area score was calculated as the area-weighted average of these two BOEM ecoregions (see below for details). **Table 7-1** provides a crosswalk of the program areas being analyzed and the nine corresponding BOEM ecoregions in which they are located.

Table 7-1: Crosswalk of BOEM Ecoregions and Program Areas

BOEM Ecoregion	Program Area
Beaufort and Chukchi Seas	Beaufort Sea
	Chukchi Sea
	Hope Basin
Eastern Bering Sea	Norton Basin
	St. Matthew-Hall
	Navarin Basin
	St. George Basin
	Bowers Basin
Gulf of Alaska	Aleutian Arc
	Shumagin
	Cook Inlet
	Kodiak
	Gulf of Alaska
Washington and Oregon	Washington/Oregon
California Current	Northern California
	Central California
	Southern California
Gulf of Mexico Program Area 1	Western Gulf of Mexico
	Central Gulf of Mexico
Gulf of Mexico Program Area 2	Eastern Gulf of Mexico
Northeastern U.S. Continental Shelf	North Atlantic
	Mid-Atlantic*
Southeastern U.S. Continental Shelf	Mid-Atlantic*
	South Atlantic

Key: * = The Mid-Atlantic Program Area is split between two BOEM ecoregions: the Southeastern and Northeastern U.S. Continental Shelf Ecoregions.

The sensitivity scores from this Proposed Program analysis are based on the vulnerability and sensitivity of the species and habitats within each unit of analysis—the BOEM ecoregions. Thus, program areas within the same BOEM ecoregion have the same sensitivity score. An analysis using program areas as geographic units would use the same data and support multiple program areas with similar ecologies. Therefore, such an analysis would be redundant, and the result would be identical to an analysis conducted by BOEM ecoregion. The Draft Programmatic EIS provides additional information about each BOEM ecoregion, including geographical area,

physical oceanography, ecological features, and human use. Some additional distinguishing characteristics and explanations for the creation of these BOEM ecoregions are outlined in the following paragraphs.

The Alaska Region contains three BOEM ecoregions: the Chukchi and Beaufort Seas, the East Bering Sea, and the Gulf of Alaska. The Chukchi and Beaufort Seas Ecoregion is characterized by an Arctic climate and considerable ice cover throughout most of the year. This BOEM ecoregion spans two LMEs: the Chukchi Sea and the Beaufort Sea LMEs. The Chukchi Sea LME covers a broad shelf and water depths are primarily less than 165 feet and incorporates the Chukchi Sea and Hope Basin program areas. In contrast, the Beaufort Sea LME is much deeper and includes the Beaufort Sea Program Area.

Although these two LMEs have different oceanographic characteristics, they share similar habitat and species assemblages (Wilkinson et al. 2009). Due to these shared similarities in ecosystem function, the two LMEs are roughly equivalent for the model's purposes and were therefore analyzed together as the Chukchi and Beaufort Seas Ecoregion. Thus, the Chukchi Sea, Beaufort Sea, and Hope Basin program areas have identical scores.

The East Bering Sea BOEM ecoregion comprises the portion of the East Bering Sea LME that lies within the U.S. This BOEM ecoregion has a broad shelf and seasonal ice cover. This region is nourished by nutrient-rich deep bottom water that originates in the Antarctic Ocean and flows along the seafloor the length of the Pacific Ocean to the continental shelf seaward of the Aleutian Island chain. From there, it flows up onto the Bering Sea continental shelf via a series of submarine canyons, making it a very productive benthic marine ecosystem.

The Gulf of Alaska BOEM ecoregion lies entirely within the U.S. waters of the Gulf of Alaska LME. The Alaska Peninsula bisects the East Bering Sea LME and the Gulf of Alaska Ecoregion. The Alaska Current flows from east to west along this portion of the OCS. This subarctic LME typically has little to no ice cover because the Alaskan Peninsula separates the Gulf of Alaska from the influence of the cold Arctic currents.

The U.S. West Coast is divided into two BOEM ecoregions: the California Current and the Washington/Oregon Ecoregions. These two BOEM ecoregions constitute the California Current LME, a temperate LME characterized by coastal upwelling. This LME is named after the current of the same name that moves southward along the western coast of North America from British Columbia, Canada, to Baja, California.

The Washington/Oregon Ecoregion was considered separately from the rest of the California Current Ecoregion due to biological and physical differences. The Washington/Oregon Ecoregion lies on the Juan de Fuca tectonic plate. This Mendocino Escarpment (also known as the Mendocino Fracture Zone) and areas north include a shallower bathymetric profile than the Pacific plate to its south. The seafloor has multiple seamounts that support many unique species

and habitats, such as hydrothermal vents. Submarine canyons in this ecoregion establish upwelling conditions that drive high levels of biologic productivity. The Washington/Oregon Ecoregion is part of the Columbian Pacific ecosystem, which houses the greatest oyster and clam production in North America, as well as resident populations of the endangered killer whale (Wilkinson et al. 2009).

The GOM comprises a single LME, encompassing more than 1.5 million square kilometers (km²) (NOAA 2017). However, for this Proposed Program analysis, the GOM was divided into two BOEM ecoregions—the Eastern GOM and the Western and Central GOM—along the boundary between the Eastern and Central GOM program areas. This boundary is not only administrative; there are several physical and biological justifications for this division. The line between these two BOEM ecoregions follows the De Soto Canyon off the coast of Alabama and traces the eastern edge of the Loop Current, which effectively divides the GOM. The northern edge of the boundary marks the westward edge of the West Florida Escarpment (part of the wide continental shelf along the eastern boundary of the GOM). Although both GOM ecoregions share similar habitat and species assemblages, there are some key differences, which are discussed in the Draft Programmatic EIS (see Figure 2-4 of the Draft Programmatic EIS).

The Atlantic program areas are divided into two BOEM ecoregions, the Northeastern U.S. Continental Shelf and the Southeastern U.S. Continental Shelf. These two BOEM ecoregions are based primarily on the two LMEs of the same name. The location of this division is based on physical oceanographic distinctions, with the primary feature being the two major surface currents of the western Atlantic Ocean: the Gulf Stream and the Labrador Current. The warm Gulf Stream flows along the East Coast of the U.S. from Florida to North Carolina, where it bends northeastward towards deeper water until Newfoundland, Canada. The colder Labrador Current flows southward from the Labrador Sea along the Canadian coast and terminates off the coast of North Carolina (Wilkinson et al. 2009).

Both LMEs are productive and support multiple commercial fisheries. The Mid-Atlantic Program Area straddles the two BOEM ecoregions; the sensitivity score for this area was calculated by averaging the scores of the Northeastern and Southeastern U.S. Continental Shelf Ecoregions and weighted by the percentage of the Mid-Atlantic Program Area in each BOEM ecoregion. Using geographic information system (GIS) software, this percentage was calculated as 68.7% within the Southeastern U.S. Continental Shelf Ecoregion and 31.3% within the Northeastern U.S. Continental Shelf Ecoregion.

7.2.2.3 *Selection of Impacts, Species, and Habitats*

The vulnerability and resilience of selected species and habitats to impact-producing factors (IPFs) were determined for each BOEM ecoregion. A comprehensive list of impacts and IPFs from BOEM-regulated activities was generated from recent EISs, notices to lessees and operators, and regulatory documents. These IPFs are also used in the Draft Programmatic EIS.

Each specific IPF was assessed for its comparative relevance and overall potential impact on species and habitats on the OCS. Only IPFs with the greatest potential impacts were included in the analysis (see BOEM (2014b)).

These potential impacts were then grouped into the following categories of IPFs: oil spills, artificial light, collisions with above-surface structures, habitat disturbance, sound/noise, accidental spills, and vessel strikes. In the original method, a temporal overlap of these activities with the presence of the species was incorporated into the model. However, this led to an inadvertent bias in lower sensitivity scores for those species that were not present year-round in their BOEM ecoregions. For the analysis in this document, it was therefore assumed that all impacts and all species could occur year-round. BOEM is considering options on how to best include this temporal variability in future versions of this model.

The environmental resources that could be vulnerable to impacts from BOEM-regulated activities include not only individual fauna, but also their habitats. Thus, both habitats and species were chosen as parameters in the environmental sensitivity analysis. The species component was organized into four groups: (1) mammals and sea turtles; (2) birds; (3) fish; and (4) invertebrates. These groups were selected to ensure broad representation across the diversity of organisms that inhabit marine and coastal waters. Species were chosen using the criteria of conservation importance, ecological role, and fisheries importance (for fish and invertebrates only).

The primary measure to determine conservation importance is Federal listing status under the ESA (NMFS 2017b). The ecological role for fish and invertebrates was based on abundance and importance as a prey or keystone species.⁵¹ Fisheries importance was prioritized based on commercial landings weight data reported by NMFS. Species could be scored only once for each BOEM ecoregion. Four species each for the fish, birds, and invertebrate categories and five species for the marine mammal and turtle category were selected for each BOEM ecoregion. The number of species in each of the categories was determined to achieve a balance between providing adequate representation while maintaining a practical level of effort in sensitivity assessments and impact scoring. For details on the selection process for species and the data supporting these selections, see BOEM (2014a).

The habitat parameters are comprised of the physical or biological features that support organisms or communities and have ecologically distinct properties. Habitat parameters were selected to ensure broad and diverse representation in coastal and marine areas within the BOEM ecoregion. The habitat categories were shoreline, estuarine, marine—nearshore/offshore, and

⁵¹ Keystone species are defined as a species on which other species in an ecosystem largely depend, such that if it were removed, the ecosystem would change drastically.

marine—oceanic. Within the estuarine and marine habitats both pelagic/water column and benthic habitats were selected.

The determination of shoreline parameters, using NOAA’s ESI shoreline classification scheme (NOAA 1995, 2002), was based on all digital ESI shoreline data available as of 2017 (NMFS 2017b). Only oil spills were assumed to potentially impact coastal habitats. Although the bulk of BOEM-regulated activities occur in Federal waters miles from shore, shoreline habitats are at risk during spills due to the likelihood of being directly oiled when floating slicks impact the shoreline. Shoreline habitat scores were derived with methods set forth in BOEM (2014b) using current NOAA ESI data (NOAA 2017e). The estuarine and marine habitats were selected based on their ecological role or importance in terms of their contribution to regional biodiversity and overall productivity. For a full description of the habitat selection process, see BOEM (2014b).

BOEM has reevaluated the initial species and habitat selection in the original model since its adoption and application in the development of the 2017–2022 Program. All species and habitats were examined for this Proposed Program analysis to ensure that their selections were still valid based on the criteria prescribed in the methodology. BOEM relied upon public comments, updates to Federal regulations (such as ESA listings), and best available science to inform this review, and determined that some changes in selected species were warranted. Some of these “new” species were included in the 2017–2022 Proposed Program analysis, but some were included in the 2019–2024 DPP for the first time. A list of all changes in species and their selection rationale is shown in **Table 7-2**. All other species and all habitat selections remain the same as provided in BOEM (2014b).

The environmental sensitivity of the selected species and habitats was scored with respect to potential impacts of oil and gas activities occurring on the OCS. This assessment was based on the quantification of the species’ and habitats’ vulnerability and resilience to potential oil and gas impacts.

Vulnerability was evaluated as the probability that a species/habitat would be exposed to an impact, and it was based on the spatial overlap between a given species/habitat and an impact. The resilience was based on the intolerance of a habitat or species to a given impact and that species’ or habitat’s recovery potential. Resilience was not predicated on previous exposure of a species or habitat to oil and gas impacts, but rather on best available data relating to ecological characteristics, tendencies, and trends, such as species’ reproductive rates and habitat recovery potential. Likewise, sensitivity analysis is intended to assess the significance of effects that IPF will have if those factors occur but does not consider the likelihood of their occurrence.

Table 7-2: Species Selected that Differ from the 2014 Environmental Sensitivity Analysis

Species Selected	Replaces	Selection Criteria	Selection Rationale	Reference
Chukchi/Beaufort Sea Ecoregion				
chum salmon	dolly varden	fisheries importance	The annual (weight) catch of chum salmon is higher than dolly varden. Dolly varden is not an important commercial fishery in the Arctic.	Menard et al. (2017)
red king crab	blue king crab	fisheries importance	No commercial fishing occurs in the Arctic except for several small state-managed fish species. King crabs (<i>Paralithodes</i> spp.) are fished for subsistence purposes in the southeastern Chukchi Sea, but the species is not specified. The red king crab was chosen to replace the blue king crab as a representative species because red king crabs are becoming increasingly common in Arctic waters, including the Beaufort Sea, and they are a more important fishery in Alaskan waters than blue king crab.	ADF&G (2017a), NMFS (2017d, 2017b)
Eastern Bering Sea Ecoregion				
black-legged kittiwake	pigeon guillemot	ecological role	The black-legged kittiwake is more abundant than the pigeon guillemot in the Eastern Bering Sea.	Denlinger (2006), eBird (2017)
Gulf of Alaska Ecoregion				
beluga whale	sperm whale	conservation importance	The Cook Inlet beluga whale stock is endangered and has designated critical habitat in the BOEM ecoregion. Additionally, public input on the previous National OCS Program suggested including the beluga whale. The sperm whale is endangered but does not have critical habitat designated.	Muto et al. (2017)
harbor seal	northern fur seal	ecological role	The harbor seal is highly abundant, and its range is more focused within the Gulf of Alaska than the northern fur seal. The harbor seal is an important predator species in the program area. Northern fur seals are rarely found within the Cook Inlet, the part of the ecoregion where BOEM-regulated activities are most likely to occur.	ADF&G (2017c, 2017d), Muto et al. (2017)
hooligan/eulachon	Pacific herring	conservation importance	The Pacific herring is no longer under consideration for ESA listing. Although only the southern distinct population segment of eulachon is listed, the Alaskan population is also in steady decline.	MMS (2003), ADF&G (2017e, 2017b), NMFS (2017c)
Pacific cod	pink salmon	fisheries importance	The Pacific cod is a more appropriate choice for fisheries importance than the pink salmon due to its higher landings by weight.	NMFS (2017b)
black-legged kittiwake	glaucous-winged gull	ecological role	The black-legged kittiwake is more abundant than the glaucous-winged gull in the Gulf of Alaska Ecoregion.	Denlinger (2006), eBird (2017)

Species Selected	Replaces	Selection Criteria	Selection Rationale	Reference
Washington/Oregon Ecoregion				
harbor porpoise	Dall's porpoise	ecological role	The harbor porpoise is the most abundant marine mammal in the BOEM ecoregion (minimum population estimate of about 48,000 animals). The Dall's porpoise's current minimum population estimate is just under 18,000 animals.	Carretta et al. (2017)
California Current Ecoregion				
sperm whale	Steller sea lion	conservation importance	The eastern distinct population segment Steller sea lion was de-listed in 2013. The sperm whale is federally endangered with a very low potential for biological removal* (2.5 animals).	Carretta et al. (2019), NMFS (2017b)
Western/Central Gulf of Mexico Ecoregion				
laughing gull	double-crested cormorant	ecological role	The laughing gull is highly abundant along the Gulf Coast. The double-crested cormorant is very abundant but has a wide inland distribution, making it a less appropriate choice for OCS sensitivity.	eBird (2017), O'Connell et al. (2011)
brown pelican	magnificent frigatebird	ecological role	The brown pelican is highly abundant along the Gulf Coast. The magnificent frigatebird is less abundant in the BOEM ecoregion.	eBird (2017)
Eastern Gulf of Mexico Ecoregion				
laughing gull	double-crested cormorant	ecological role	The laughing gull is highly abundant along the Gulf Coast. The double-crested cormorant is very abundant but has a wide inland distribution, making it a less appropriate choice for OCS sensitivity.	eBird (2017)
brown pelican	magnificent frigatebird	ecological role	The brown pelican is highly abundant along the Gulf Coast; the magnificent frigatebird is less abundant.	eBird (2017)
Southeastern U.S. Continental Shelf Ecoregion				
striped mullet	vermillion Snapper	fisheries importance	The striped mullet is the second highest landed fishery by weight in the BOEM ecoregion.	NMFS (2017a)
sanderling	Wilson's storm-petrel	ecological role	The sanderling is abundant in the BOEM ecoregion, migrates along the coast, and is a species of concern. The Wilson's storm-petrel is less abundant in the BOEM ecoregion.	eBird (2017), O'Connell et al. (2011)
laughing gull	double-crested cormorant	ecological role	The laughing gull is highly abundant along the southeastern Atlantic Coast. The double-crested cormorant is very abundant but has a wide inland distribution, making it a less appropriate choice for OCS sensitivity.	eBird (2017), O'Connell et al. (2011)
Northeastern U.S. Continental Shelf Ecoregion				
northern gannet	double-crested cormorant	ecological role	The northern gannet has a very high density in the ecoregion. The double-crested cormorant is very abundant but has a wide inland distribution, making it a less appropriate choice for OCS sensitivity.	Winship et al. (2016)

Key: * = Potential biological removal is the maximum number of animals, not including natural mortalities, that could be removed annually from a marine mammal stock while allowing that stock to reach or maintain its optimal sustainable population level.

7.2.2.4 *Impact-independent Modifiers*

The model was designed to accommodate the consideration of impact-independent modifiers (e.g., climate change, productivity, and unregulated impacts). An ecosystem change vulnerability score was included as a scaling factor, which was added to the base sensitivity scores for each BOEM ecoregion. Using the same approach used in the 2017–2022 Program analysis, the anticipated effects of climate change, including changes in temperature, sea ice melt and freshwater influx, permafrost thaw, ocean acidification and upwelling effects, sea level rise and saltwater intrusion, increased storm activity, and changes in species composition, were assessed for each BOEM ecoregion.

A magnitude for each expected impact due to climate change was assigned to each BOEM ecoregion using a relative scale (0–2, depending on intensity of effects; see **Table 7-3**). These sub-scores were summed for a total ecosystem change score. This score was then converted to an ecosystem change index with a scale of 0 to 4. This scale was chosen to allow an appropriate weight for impact-independent factors in the final environmental sensitivity score.

Relative environmental sensitivity scores were calculated for each habitat and species selected for each of the nine BOEM ecoregions (see **Table 7-4**). These scores (which also include the shoreline ESI) form the foundation of the total environmental sensitivity score. The species and habitat scores were normalized before combining them.⁵² The ecosystem change index was then added to this base score for a final sensitivity score.

No theoretical maximum sensitivity score is possible for a BOEM ecoregion. Such a maximum is dependent upon the number of parameters included in the model (such as the number of species and habitats) and would therefore be mathematically impossible to achieve given the mechanics of the model. For the purposes of the OCS Lands Act, however, such a maximum is not necessary because that Act requires an analysis to determine “relative” environmental sensitivity (i.e., a comparison of all the regions). BOEM’s methodology achieves that comparison.

7.2.2.5 *Results and Discussion*

The environmental sensitivity scores for the program areas range from 15.7 to 19.6 with an average score of 18.2 ± 1.2 (see **Table 7-4** and **Figure 7-4**). These scores are unitless and serve as an index of environmental sensitivity. The small range in sensitivity scoring demonstrates that all program areas are sensitive to oil and gas activities—some more so than others. Further, what drives this sensitivity differs from BOEM ecoregion to BOEM ecoregion based on varying species and habitat sensitivities, as well as anticipated impacts of ecosystem change to these ecoregions.

⁵² Normalization of species and habitat scores was accomplished by converting the scores to percentages of the total score.

The BOEM ecoregion with the highest sensitivity score was GOM Program Area 1 (19.6). This high score results from the ecoregion having the highest species and habitat component scores. Interestingly, the high total species score is not due to any single species with a high sensitivity score, but rather a collection of species with relatively high scores, especially for some of the birds (laughing gull and brown pelican), fish (red snapper and endangered Gulf sturgeon), and invertebrates (American oyster). The high habitat score for GOM Program Area 1 is primarily driven by the ESI and benthic marine habitat scores.

The Southeastern U.S. Continental Shelf and Eastern GOM ecoregions had the highest ESI scores, and the Western GOM had a fairly high shoreline index. These high ESI scores are due to a predominance of saltwater marshes, swamps, and other vegetated wetlands along the shores of those ecoregions (NOAA 2017). GOM Program Area 1 also had the highest marine benthic habitat score. Its benthic habitat is comprised of fine, unconsolidated substrate, seeps, and deepwater coral.

The Chukchi/Beaufort Sea and the Southeastern U.S. Continental Shelf Ecoregions had the second highest sensitivity score (19.2). For the Arctic Region, this higher score is largely due to the ecoregion receiving the highest ecosystem change index (3 out of 4) and a relatively high species score. The high species score was driven by the high bird sensitivity scores, especially for the endangered spectacled eider.

In the Southeastern U.S. Continental Shelf Ecoregion, the score was driven by a moderately high species score, which included the highest marine mammals and sea turtles sub-score of all BOEM ecoregions. This high species score is a result of some high-scoring species with low reproductive potential and high ages of maturity, such as the Florida manatee and Atlantic sturgeon.

For similar reasons, the beluga whale and Atlantic sturgeon led to relatively high species scores for the Gulf of Alaska, and Northeastern U.S. Continental Shelf Ecoregions, respectively.

Table 7-3: Scoring of Anticipated Ecosystem Change Impacts for BOEM Ecoregions

BOEM Ecoregion	Anticipated Ecosystem Change Impacts								Ecosystem Change Index
	Temperature Change	Sea Ice Melt & Freshwater Influx	Permafrost Thaw	Ocean Acidification/ Upwelling Effects	Sea Level Rise & Saltwater Intrusion	Increased Storm Activity	Changes in Species Composition	Total	
Chukchi/Beaufort Sea	2	2	2	2	0.5	1	1	8.5	2.4
East Bering Sea	2	2	1.5	2	0.5	1	1	8	2.3
Gulf of Alaska	2	1	1	1	0	1	1	5	1.4
Washington/Oregon	1	0	0	1.5	1	0	1	3.5	1.0
California Current	1	0	0	0.5	0	0	1	1.5	0.4
Western GOM	0.5	0	0	0.5	2	1	1	4.5	1.3
Eastern GOM	0.5	0	0	0.5	1	1	1	3.5	1.0
Southeastern U.S. Continental Shelf	1	0	0	0.5	1.5	1	1	4	1.1
Northeastern U.S. Continental Shelf	1.5	0	0	1.5	2	1	1	5.5	1.6

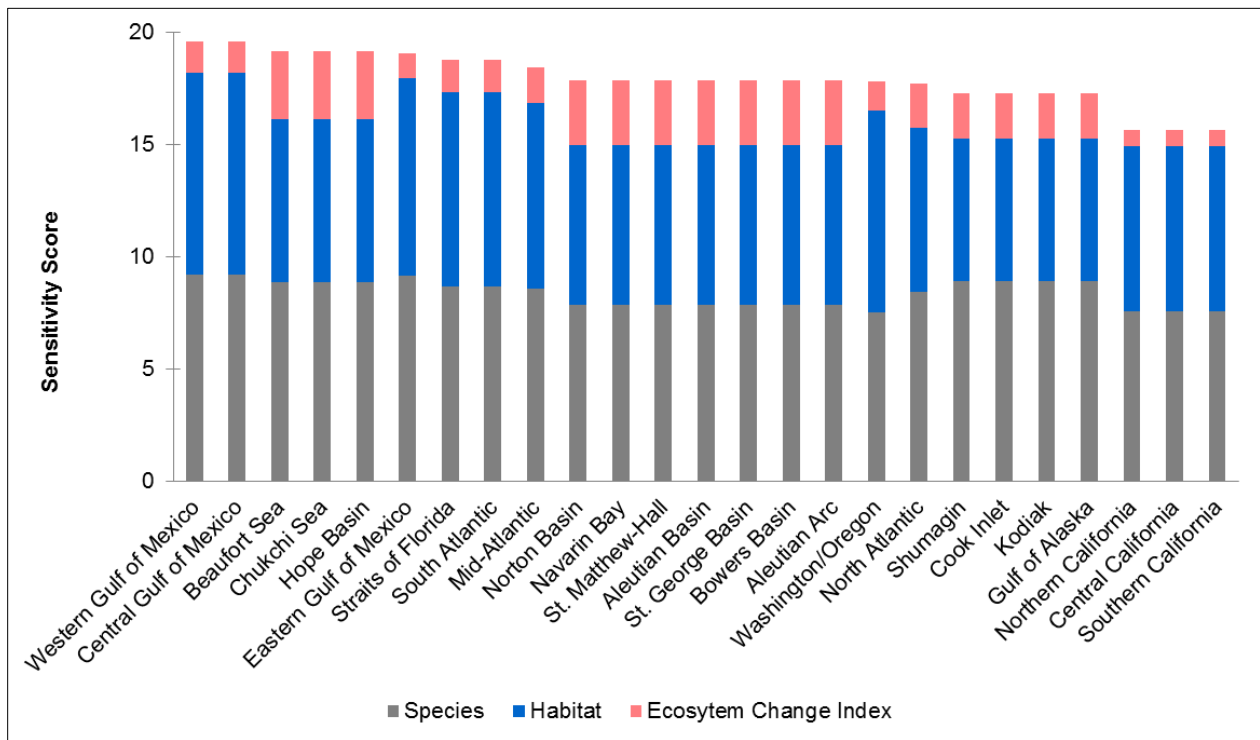
Notes: Total score reflects the climate change score prior to the conversion to an ecosystem change index with a maximum score of four. Scores were assigned based on a scale of 0–2 and then summed for all anticipated effects. A score of 0 was given to BOEM ecoregions in which little to no effect was expected; a score of 1 assigned to BOEM ecoregions in which a low to intermediate effect was expected; and a score of 2 assigned for intermediate to high anticipated effects. Before summing the climate change index with the habitat and species sensitivity scores, the total ecosystem change scores in the table were converted to a scale of 0–4.

Sources: Fabry et al. (2009), Jones et al. (2009), Haufler et al. (2010), Smith et al. (2010), Doney et al. (2012), USEPA (2013), IPCC (2014), Melillo et al. (2014), Ekstrom et al. (2015), NMFS (2017b), USGCRP (2017), USDA (2017).

Table 7-4: Environmental Sensitivity Score by BOEM Ecoregion

BOEM Ecoregion	Environmental Sensitivity Score
GOM Program Area 1	19.6
Chukchi and Beaufort Sea	19.2
Southeastern U.S. Continental Shelf	19.2
GOM Program Area 2	19.1
East Bering Sea	17.9
Washington/Oregon	17.9
Northeastern U.S. Continental Shelf	17.8
Gulf of Alaska	17.3
California Current	15.7

Figure 7-4: Aggregated Sensitivity Scores for Habitats, Species, and Ecosystem Change by Program Area



Prior to the addition of the impact-independent modifier of ecosystem change, the California Current and East Bering Sea ecoregions were tied for the lowest sensitivity score (15.0). The relatively higher ecosystem change score in the East Bering Sea (2.9 out of 4) resulted in the California Current Ecoregion being the lowest scoring BOEM ecoregion. The low scores for these two ecoregions are the result of low habitat and species scores. Both BOEM ecoregions had relatively low ESI scores and no high-scoring species.

The relatively small differences among the environmental sensitivity scores suggest that differentiation among the BOEM ecoregions based on the total score alone would be difficult. Rather, the environmental sensitivity is one tool of many that BOEM uses to make decisions regarding the exploration for, and development of, oil and gas resources on the OCS. This model is driven by the best available scientific information at the geographic scale of analysis, and BOEM strives to incorporate empirical data, where available. Similar approaches can be taken to evaluate proposed activities on particular areas of the OCS on a case-by-case basis. OCS Regions should be individually considered with a full understanding of the species present, their distributions, and habitat needs, and therefore, the individual sensitivity to potential oil and gas activities.

7.2.3 Marine Productivity

7.2.3.1 Background

Productivity is a term used to indicate the amount of biomass produced over a period of time. Primary productivity is the production of biomass using carbon dioxide and water through photosynthesis. The primary productivity of the marine community is its capacity to produce energy for its component species, which sets limits on the overall biological production in marine ecosystems.

Primary production in the marine environment is conducted primarily by phytoplankton; macroalgae, such as *Sargassum* or kelp; and submerged aquatic vegetation like seagrasses. The rate at which this occurs is based largely on the organisms' ability to photosynthesize. The methods of measuring phytoplankton productivity are relatively standard and results normally are expressed with reference to chlorophyll-*a* and measured as the amount of carbon fixed during photosynthesis per square meter of ocean surface per unit of time.

Phytoplankton can occupy all surface waters of a program area and fix carbon if sufficient light and nutrients are available. Farther from shore, nutrient availability could limit productivity. Additionally, surface mixing due to wave action, down-welling, fronts, and convergence carry phytoplankton to depths in the water column where light is insufficient for photosynthesis to occur.

The difference between the energy produced during photosynthesis and the amount of energy expended during this process is known as net primary production or NPP. The rate of NPP

determines the amount of energy that is available for transfer to higher trophic levels (i.e., position in the food chain) (Ware and Thomson 2005, Chassot et al. 2010). Thus, the most critical aspect of marine productivity is NPP, which is the focus of this analysis.

The productivity of higher trophic levels (e.g., secondary and tertiary production) is more difficult to constrain than primary productivity. Although some models of secondary and tertiary productivity exist for OCS Regions, estimates are not available for all program areas (Balcom et al. 2011). Unlike primary production, secondary production is difficult to validate with empirical measures. Due to the limitations of existing data and inequalities in data availability among all program areas and habitat types (Balcom et al. 2011), secondary and tertiary production estimates are not robust and will not be presented for decision support.

7.2.3.2 *Methods*

In 1991, BOEM (then the Minerals Management Service) completed a primary productivity review (CSA 1991a, b). The 1991 study produced estimates by tabulating the results of individual studies conducted in each program area. These estimates relied on studies that used different methodologies, spatial scales, and/or sampling frequencies. Since that time, BOEM has improved and refined its methodology and the approach used in this Proposed Program analysis is identical to the methods and results presented in the 2017–2022 Program. This current method greatly improves on these previous productivity estimates using new tools and technology that have become available since the 1991 report.

The current primary productivity study uses satellite-based observations to provide input parameters for the VGPM to estimate NPP in each program area as a function of chlorophyll-*a*, available light, and photosynthetic efficiency. The satellite-based measurements, which feed the VGPM, are available at a resolution of 1 km, allowing BOEM to analyze the primary productivity of the OCS at the program area spatial scale.

The years of analysis, 1998–2009, were constrained by the earliest availability of the satellite data and the conclusion of the BOEM-funded study (Balcom et al. 2011). Productivity determinations were depth-integrated, extending from the ocean surface to the euphotic depth (i.e., the depth where 1% of the surface light, or photosynthetically available radiation, is available). This depth ranged from a maximum of 100 meters (i.e., within ocean gyres) to a minimum of several meters (e.g., within eutrophic coastal waters). For a more detailed discussion of methods, see Balcom et al. (2011).

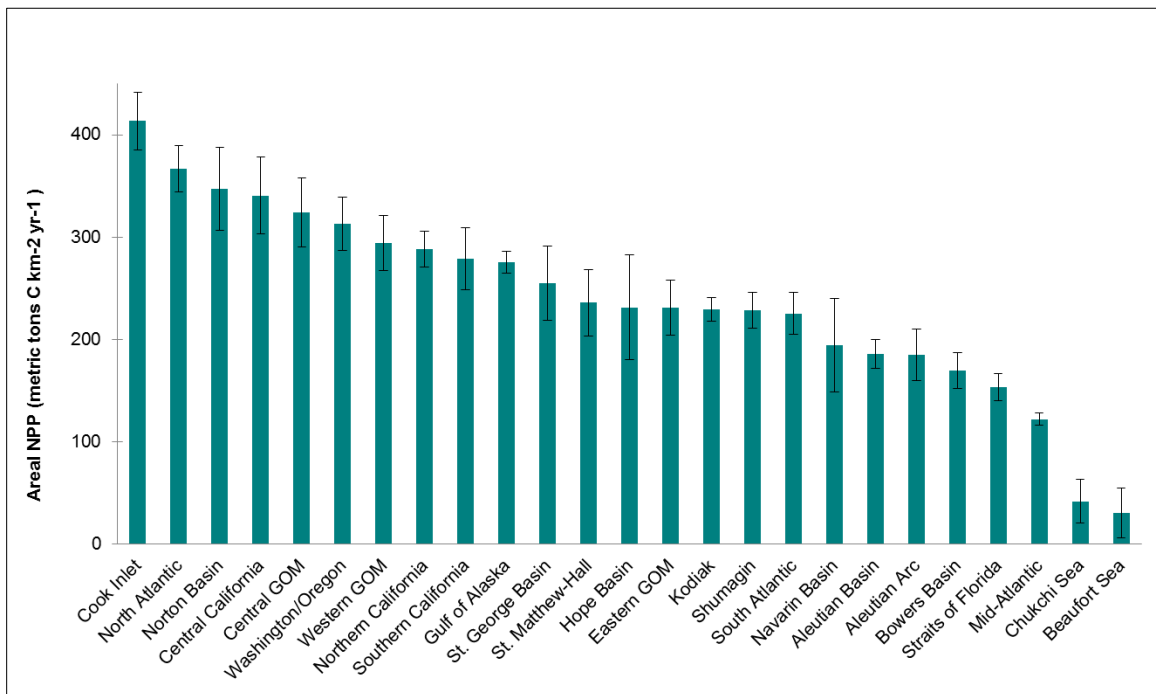
Due to their relatively small and variable size, it is not practical to analyze the marine productivity of the Subarea Options separately.

7.2.3.3 Results and Discussion

In this Proposed Program analysis, the program areas are characterized in terms of areal coverage, mean annual NPP, annual and monthly variance, and trend (i.e., increasing or decreasing productivity) over a 12-year period (1998–2009). Productivity ranged from 30.5 (Beaufort Sea) to 413.5 metric tons of carbon per square kilometer per year ($t\ C\ km^{-2}\ yr^{-1}$) (Cook Inlet) (see **Figure 7-5** and **Table 7-5**). Regional results are detailed as follows:

- Alaska Region:** High NPP variability existed in the Alaska Region, which housed both the highest and the lowest rates of NPP on the OCS. It should be noted that the accuracy of primary productivity estimates for the Alaska Region could be substantially lower than other regions for several reasons. For example, the presence of turbid coastal waters could adversely affect remote sensing measurements (i.e., chlorophyll-a concentrations can be significantly overestimated [$> 100\%$] from satellite measurements due to algorithm artifacts in the atmospheric correction and bio-optical inversion). Variations in seasonal solar insolation effects also could result in reduced primary productivity (e.g., most of the areas in the Alaska Region have limited sunlight for at least certain periods of the year).
- Pacific Region:** In general, the Pacific Region exhibited the highest annual primary productivity per square kilometer: $> 300\ t\ C\ km^{-2}\ yr^{-1}$ for all four program areas. Within the region, the highest annual NPP was evident in the Central California Program Area; the lowest NPP was found in the Southern California Program Area.

Figure 7-5: Marine Annual Net Primary Productivity



Note: Values represent the mean and the standard deviation of 12 annual values for 1998 to 2009, standardized per unit area.

Table 7-5: Net Primary Productivity Rates

Program Area	Areal NPP (t C km⁻² yr⁻¹)
Cook Inlet	413.5 ± 28.1
North Atlantic	366.7 ± 22.8
Norton Basin	347.2 ± 40.8
Central California	340.7 ± 37.9
Central GOM Planning Area	324.2 ± 34.0
Washington/Oregon	312.8 ± 25.9
Western GOM Planning Area	294.4 ± 27.1
Northern California	288.3 ± 17.3
Southern California	279.0 ± 30.4
Gulf of Alaska	275.5 ± 10.6
St. George Basin	254.7 ± 36.3
St. Matthew-Hall	235.9 ± 32.6
Hope Basin	231.5 ± 51.5
Eastern GOM Planning Area	231.3 ± 26.7
Kodiak	229.7 ± 11.6
Shumagin	228.2 ± 17.6
South Atlantic	225.5 ± 20.2
Navarin Basin	194.3 ± 45.5
Aleutian Arc	185.1 ± 24.9
Bowers Basin	169.5 ± 17.5
Straits of Florida	153.5 ± 13.1
Mid-Atlantic	122.2 ± 5.7
Chukchi Sea	42.0 ± 21.4
Beaufort Sea	30.5 ± 24.1

Key: t C km⁻² yr⁻¹ = metric tons of carbon per square kilometer per year, NPP = net primary productivity.

- **GOM Region:** The GOM Region exhibited high annual primary productivity: 314.4 t C km⁻² yr⁻¹ for the entire basin. On a regional basis, the Central and Eastern GOM region had a higher rate of NPP than the Western GOM.
- **Atlantic Region:** The NPP within the Atlantic Region was highly variable, with an average NPP of 217 t C km⁻² yr⁻¹. The North Atlantic Program Area housed the highest annual NPP, while the Mid-Atlantic, South Atlantic, and Straits of Florida program areas' NPPs were much lower.

Although calculations are based on the VGPM model, and there are various studies showing the validity of this model in assessing primary productivity in marginal seas and upwelling systems, some degree of uncertainty is expected from the model as applied to the 25 OCS planning areas.

Substantial interannual variability in primary productivity is found in several of the program areas, with the highest interannual variability evident in the Alaska Region. Ten of the 14 Alaska program areas exhibited interannual variability greater than 10%, all of which are in high latitudes (i.e., variability due to light limitation). In contrast, most of the remaining program areas from the

other three regions show low interannual variability (< 10%). Low-latitude areas are less sensitive to cloudiness, provided the cloud cover is not persistent.

Marine ecosystems can be affected significantly by the rates and magnitude of primary production within their boundaries. Alterations in primary production in an ecosystem will have wide-ranging effects on all dependent species and chemical processes occurring within the affected system. Having sufficient knowledge of the magnitude and rates of primary production within an ecosystem allows for an accurate understanding of the overall potential productivity within that system. This knowledge could help elucidate the potential effects that altering the base of the food chain could have on dependent species and processes.

Besides any direct effects of an oil spill on higher trophic levels, any anthropogenic alteration of the base of the food chain, such as spilled oil on the surface of the ocean resulting in decreased light penetration, and thus decreased rates of photosynthesis of a system, would necessarily affect the functioning of the system as a whole. However, these effects on primary production most likely would be very short-term and of low magnitude.

Comparison of 1990 and 2010 primary productivity determinations indicates that the model-derived estimates in the present analysis are in good agreement with literature-based determinations; 22 of the 25 OCS planning areas exhibited similar productivity estimates, based on minimal-maximal ranges. Given the completely different assessment and, therefore, independent methods used between the two periods, this similarity provides strong support for the argument that model results (based on satellite data) provide excellent estimates of primary productivity.

Within the 1998–2009 primary productivity dataset, significant variability in primary productivity determinations was evident, particularly in the Alaska Region. Although some of this variability could be attributed to program area-specific oceanographic features and/or local processes, some variability could be reflective of the data acquisition method. The accuracy of satellite-derived productivity estimates could be affected by one or more factors, including the overestimation of chlorophyll-*a* concentration from satellite measurements (particularly in the Alaska Region) due to algorithm artifacts in the atmospheric correction and bio-optical inversion; seasonal solar insolation effects are evident (i.e., predominantly in the Alaska Region where sunlight is limited during the winter months); and uniform application of the NPP model could be slightly problematic for marginal seas and areas of upwelling.

Despite these challenges, BOEM required an approach that could be consistently applied and compared across broad areas. Field-based methods suffer from variations in analysis, geographic coverage, temporal coverage, and other standardization issues. BOEM has determined that the current methodology (i.e., satellite-based measurements) is the best method available to measure NPP for the purposes of BOEM decisionmaking. Additionally, it should be highlighted that these are annual averages taken over a 12-year period. The Arctic is known to house high rates of NPP

(Shakhaug 2004); however, these rates are measured during seasonal blooms (Springer and McRoy 1993, Hill and Cota 2005). The low light availability in the Arctic contributes to low annual averages of NPP.

In conclusion, NPP is highly variable on the OCS, with a nearly 14-fold difference between the lowest rates (found in the Beaufort Sea and Chukchi Sea program areas) and the highest rates (found in the Cook Inlet Program Area). These rates of NPP allow a ranking of the planning areas; areas with high rates of primary production would have the greatest amount of energy available to higher trophic levels in that area (i.e., the amount of biomass that area could potentially support). The low productivity in the Beaufort Sea and Chukchi Sea program areas is largely due to the long periods of low light availability in the region.

Chapter 8

Equitable Sharing Considerations



Chapter 8 Equitable Sharing Considerations

8.1 Definition and Introduction

Section 18(a)(2)(B) of the OCS Lands Act requires that the Secretary base the size, timing, and location of proposed lease sales in part on a consideration of “an equitable sharing of developmental benefits and environmental risks among the various regions.” BOEM’s equitable sharing analysis goes beyond the strict requirements of the OCS Lands Act and considers the sharing of developmental benefits and environmental risks (including socioeconomic risks) experienced in the coastal areas near the OCS Regions.

The OCS Regions are submerged lands off the U.S. coast; however, most developmental benefits and environmental risks to society occur onshore or along the coast. BOEM uses PADDs (see **Section 6.2**), as well as planning areas (as proxies for offshore and adjacent onshore areas), to provide information on the sharing of benefits and risks among these broader geographical areas in a straightforward manner (see **Section 8.3**).

The equitable sharing analysis follows a regional economic impact approach. This approach is different from the benefit-cost approach and national perspective used to estimate net benefits, as described in **Chapter 5**. Regional economic impact analysis and benefit-cost analysis offer two complementary means of describing potential benefits and costs/risks. Each approach reflects different aspects of economic activity.

The effects measured in a benefit-cost analysis represent direct, first-order real resource market outcomes, such as increased production and the accompanying increase in economic surplus, as well as the costs that could result from a National OCS Program, including the development of leases sold in the proposed lease sale schedule. Some factors, such as employment, which benefit society, are treated in a benefit-cost analysis as costs paid by society to conduct the activities that result in economic value.

When the NEV of the proposed lease sales is estimated, the costs of exploration, development, and transportation are subtracted from the gross value of anticipated oil and gas production to estimate the net value of the extracted resources in each program area. However, in an economic impact analysis, such as that used in this equitable sharing analysis, these same costs generate income, employment, and revenues; state and local governments and residents generally consider these as benefits, and they are therefore analyzed as benefits in this chapter. The regional economic impact analysis focuses on these broad macroeconomic measures (e.g., income, employment, wages, and revenue transfers) as they relate to specific industries and geographic locations.

An additional distinction between the benefit-cost analysis and the regional economic impact analysis is the geographic perspective, or point-of-view. The net benefits analysis evaluates leasing in each program area independently but does not outline the costs and benefits that would occur within a particular area. Instead, the analysis focuses on costs and benefits that accrue to the Nation as a whole from leasing in a particular area. In contrast, the consideration of equitable sharing focuses on the relative geographical distribution of benefits and risks and on the regional context in which these benefits and risks occur.

The equitable sharing analysis published in the DPP document assessed the relative value of all UERR in all 26 OCS planning areas.⁵³ This and other Proposed Program analyses are focused on the program areas and sales that constituted the Draft Proposal (see **Chapter 3**). As described in **Section 3.1**, this Proposed Program analysis is conducted on the full Draft Proposal. **Section 4.3** describes the areas that are not available for OCS oil and gas leasing due to withdrawals pursuant to Section 12(a) of the OCS Lands Act.

This chapter provides brief equitable sharing analyses for the withdrawn areas, but also appropriately acknowledges the Section 12(a) withdrawals. **Chapter 5** explains some of the fundamental characteristics of the program areas that limit the potential for them to be developed by industry. However, to fulfill the Section 18 requirement, BOEM analyzes the Draft Proposal as if there would be investment and development in each area but recognizes production in most areas is unlikely to occur.

8.1.1 Assumptions and Limitations

This chapter describes the types and distributions of benefits and risks that could occur should production result from the lease sales proposed within each region. The analysis in this chapter considers the development associated with the Draft Proposal's leasing and anticipated production outlined in **Chapter 5**. It does not explicitly consider any major technological breakthroughs or policy changes that fundamentally change energy supply and/or consumption patterns.

If substantial changes were to occur, such as a large reduction in oil and gas consumption arising from efforts to combat climate change, there would likely be important changes in the benefits and risks resulting from OCS oil and gas development and from the No Sale Option for each program area. This is a particularly important issue because there would be many years between the time this National OCS Program is finalized and when the resulting oil and gas production would occur. Many governmental and non-governmental entities have introduced policies and strategies to enhance the development of cleaner energy sources; **Section 1.2**, **Chapter 5**, and **Chapter 6** provide more information regarding these developments. These efforts could

⁵³ In *California II*, the Court affirmed as “reasonable” the methodology used for the DPP analyses to compare the relative value of all resources in all planning areas, rather than to assume, prior to the Secretary’s initial decision, the timing and location of sales and base the quantitative analyses on options reflecting those assumptions.

substantially affect energy market dynamics and thus alter the substitution rates that would arise in the absence of OCS development. The more that clean energy sources would substitute for forgone OCS oil and gas, the more likely that the sharing of benefits and costs arising from the No Sale Option for each program area would change.

8.1.2 Deciding on Offering Areas to Lease: Benefits and Risks

In recent decades, Gulf Coast states have received most of the developmental benefits and borne most of the environmental risks associated with developing OCS resources because most OCS oil and gas activities occur in the GOM. However, other areas in the United States receive a relatively large portion of the economic benefits of OCS oil and gas activities without the same environmental risks. OCS production reduces consumption of energy from other sources around the Nation (and the world), so GOM production has reduced both benefits and risks that would have accrued to other areas from the production of energy substitutes.

If OCS production were reduced, and under the assumption that there are no major changes significantly impacting supply or consumption patterns, most of this production would be replaced by substitute energy sources. These substitute energy sources can have very different levels of developmental benefits and environmental risks, along with different geographic distributions. A large proportion of forgone OCS oil and gas would be replaced by increased production of onshore oil and gas. **Section 5.3.2.2** discusses the energy market substitutes that would be expected in the absence of new OCS leasing. Much of this production would occur in the Midwest and the Northeast (natural gas), as well as in the Gulf Coast states, where environmental risks associated with energy substitutes would increase and communities that are already engaged in related activities would tend to experience the benefits.

A full assessment of the environmental risks and developmental benefits considers both the risks and benefits that would occur with the inclusion of certain areas in the National OCS Program and those that would occur under the No Sale Option. Many of the developmental benefits from OCS production (and from the energy substitutes assuming current laws and policies) are described below. Chapter 4 of the Draft Programmatic EIS (BOEM 2022a) broadly describes the potential environmental impacts of OCS production and of energy market substitutions that could occur on the OCS. **Section 6.5** and **Chapter 7** of this document describe the environmental and other resources at risk of adverse impacts in the regions, as well as uses of those resources that could be affected by the proposed lease sales and the No Sale Option.

The current level of oil and gas activities in and near a program area influences the effects that would result from the No Sale Option. Because OCS oil and gas has been produced for decades from the Western and Central GOM planning areas, the No Sale Option could change the status quo, resulting in increased use of energy substitutes (and associated benefits and risks) to replace the forgone OCS production. Within and adjacent to the GOM, the consequences of selecting

the No Sale Option would include losses of employment and business opportunities for communities that have been providing goods, services, and labor to support OCS activities.

Conversely, for any of the other regions, having OCS production could change the status quo and displace a corresponding quantity of “energy substitutes” that are currently supplying energy markets. The main result of the No Sale Option for states adjacent to such areas is likely to be forgone financial and fiscal opportunities associated with oil and gas development, and a decision not to hold lease sales would mean that other (geographically dispersed) energy sources would continue to be used to fulfill domestic demand, extending existing benefits and risks near the related activities.

Perhaps the greatest difference between the effects of OCS activities and the absence thereof is in the level and distribution of environmental risk. As discussed in **Chapters 5** and **6**, BOEM uses *MarketSim* to estimate the energy substitutions most likely to occur, and the Offshore Environmental Cost Model (OECM) to estimate the ESCs anticipated to result from those substitutions under the No Sale Option. Industrial Economics Inc. and SC&A (2018a) provide information regarding the impacts of OCS activities that are not monetized in the OECM. Section 4.2.1.1 of the Draft Programmatic EIS also provides broad, qualitative descriptions of some of the potential environmental impacts of energy market substitutions on the OCS.

Estimating where the benefits and risks of producing and transporting the energy substitutes (discussed in **Chapter 5**) would be experienced is difficult given the many uncertainties associated with estimating the substitutes as well as estimating the associated risks. Increased (or reduced) oil and gas production in one OCS region can reduce (or increase) benefits and risks for various (potentially distant) other areas. Therefore, this chapter provides a general geographical distribution of where developmental benefits and environmental risks occur when the No Sale Option is selected for any given program area.

The upstream benefits and associated risks of increased onshore oil and natural gas (those resulting from production and pre-production activities) accrue to communities in the U.S., as do the benefits of other substitute energy production. The upstream developmental benefits of increased oil imports generally accrue outside the U.S., but many of the environmental risks remain, especially to the extent that imported oil is brought to the U.S. by tanker.

However, future technological changes, such as methods being pursued to decarbonize the shipping industry, could change these environmental risks (Fahnestock 2021). Changes in levels of activities associated with energy substitutes are driven by numerous individual energy market decisions and not by centralized decisions, so increased production of domestic energy substitutes is likely to incrementally occur in areas with existing production, and not because of major shifts to new areas. These different effects are described in greater detail in the region-specific discussions below.

8.1.3 Overview of Equitable Sharing

The OCS Lands Act gives the Secretary wide latitude to assess the importance of a variety of factors when deciding the size, timing, and location of lease sales that best meet the Nation’s energy needs. No established legal criteria specify how benefits and risks must be shared or distributed in a new National OCS Program.

There are dynamics that can greatly affect the equitable sharing implications of the National OCS Program that are not under the direct control of the Secretary. Among these are the unequal geographical distribution of oil and gas resources, environmental factors—such as inclement weather or ice cover—specific to one region or another, and laws that restrict or prohibit oil and gas exploration in certain areas. Congress has the authority to pass laws that can provide financial compensation for those communities that bear disproportionate risks due to OCS-related activities, and individual state laws or policies can increase or decrease the opportunity for equitable sharing.

Consideration of the sharing of benefits and risks requires some understanding of the many activities necessary to explore for, develop, and produce OCS oil and gas, and to get the resources to markets. Most of the benefits and risks tend to be experienced by communities that are relatively close to production activities,⁵⁴ but some—chiefly economic or financial—affect people in distant areas. This analysis describes both regionalized and widespread sharing of the benefits and risks, focusing on the former. The remainder of this section provides an overview of the phases typical of OCS oil and gas projects and broadly identifies factors that might influence relative levels of benefits and risks among the regions and the onshore areas that provide goods, services, and labor for the activities.

Additional information is also provided about the most important benefits and environmental risks experienced by regions with OCS oil and gas activities, as well as by the onshore areas that support those activities. Region-specific discussions can be found in **Section 8.2**. The Draft Programmatic EIS contains information about the nature of the environmental risks (the potential impacts of OCS oil and gas activities), and this analysis provides references to the appropriate sections in that accompanying document rather than repeating information.

Potentially significant impacts from IPFs (such as noise and bottom/land disturbance) on each resource area (such as marine mammals and water quality) are identified and discussed for each OCS region in Section 4.5 of the Draft Programmatic EIS. For example, in the Alaska OCS region,

⁵⁴ In this case, “relatively close” does not necessarily mean along the coast. For example, the “Economic Impact Areas” identified by BOEM’s GOM regional office include several inland counties/parishes. Although communities on Alaska’s North Slope are greatly affected by tax revenues associated with the oil and gas activities there, the effects of spending by companies and employee households are more heavily felt in southcentral Alaska and in other states, where most of the workers live while not on duty.

the impacts from noise, traffic, routine discharges, and bottom/land disturbance on marine mammals have been determined to be potentially significant.

8.1.3.1 Phases of an OCS Oil and Gas Project

Offshore oil and gas operations are very capital intensive in nature. Industry spending on OCS oil and gas projects starts at a relatively low level and begins to noticeably increase during acquisition of G&G data. It ramps up considerably when exploration wells are drilled, and peaks during the development phase, when drilling and completion of development wells, fabrication and installation of production platforms, and construction and installation of pipelines (often merely extensions of existing pipelines in mature areas) occur. The exploration and development phases usually take up to several years, after which spending drops to a stable level during the production phase, when spending on operations and maintenance occurs.

At the end of life, there is additional spending during production platform decommissioning and well plugging and abandonment. Of course, activity in an area is dependent on USDOT's decision to include an area in a National OCS Program and hold lease sales, as well as industry's decision to invest in that area and, if hydrocarbons are found, to produce oil and natural gas.

All phases require project management, engineering, planning and, from the collection of G&G data and subsequent activities, permitting and regulatory compliance. See the "Human Environment" discussion in Section 4.14 of the Draft Programmatic EIS for a description and graph showing general levels of project-related employment over time for a sample OCS oil and gas project. Major factors in the distribution (and the per capita experience) of benefits depend on the extent to which a region already hosts oil and gas activity, has nearby population centers with suitable housing stock, has an economy suitable for providing the goods and services that operators and contractors need, and has a workforce with appropriate skills.

Specialized contractors often perform much of the work for all phases of oil and gas development, especially for large and complex projects, so relevant spending and jobs (other than for construction of onshore infrastructure, such as roads) would likely remain concentrated primarily near areas of established activity unless leases offered in new areas lead to major and sustained industry activity. The opportunities for economic activity and employment benefitting communities near new OCS activities in frontier areas tend to be greatest during construction (or expansion) of infrastructure during the development phase and during the much longer operations and maintenance, or production, phase.

The extended duty periods (e.g., one or 2 weeks on the job followed by the same period off-duty) common to offshore work allow OCS workers to live far from their job locations. However, when work becomes somewhat "permanent" after production starts, many offshore or specialized support workers move closer to their job location or points of departure (e.g., heliports) if nearby population centers or other communities are sufficiently attractive to them and have sufficient

housing. In addition, there could be new employment opportunities in specialized offshore work and/or supporting businesses for residents of adjacent states to the extent they have suitable economies and workforces.⁵⁵

8.1.3.2 *Jobs and Increased Wages*

Jobs and associated labor income are among the most important benefits to many local communities if industry activity occurs in a region. Employees are needed for all phases of OCS activity. Numerous companies in a wide range of sectors that provide goods and services to support direct activities create additional “indirect” employment. Spending by employee households also generates (“induced”) multiplier effects in local economies.

Many of the jobs in the oil and gas industry earn a significant wage premium. Oil and gas extraction jobs⁵⁶ earn more than 150% of the average hourly wage of other employees (BLS 2017). These employees have more purchasing power and can consume more goods and services, benefitting them by increasing their standard of living while contributing relatively more to the economy.

New lease sales, even outside the GOM, have the potential to support existing employment in areas with significant existing oil and gas employment, as well as companies that provide goods and services to oil and gas operations. Additionally, new lease sales can support emerging oil and gas industries near frontier areas and could result in some local economic effects for nearby communities that might be perceived as beneficial. Employment and income would be generated during exploration, development, and production phases, but most local spending near frontier areas likely would result from construction of any necessary onshore support infrastructure (e.g., service bases, air support bases, pipelines, roads, onshore processing facilities, oil spill response bases).

Employment and other estimates in **Section 8.3.1** support the expectation that both the states with significant current levels of OCS-related employment and those states near the new activity would very likely benefit. Although there has been relatively little OCS exploration, development, and production occurring outside the GOM, BOEM estimates that approximately 30% of all

⁵⁵ Depending on the local economy, there could be opportunities for new or existing local businesses to supply goods and services not requiring skills specific to the oil and gas industry (e.g., food services) or to provide specialized services requiring more familiarity with industry needs. Some states would have new opportunities for workers with existing onshore oil and gas activities experience and/or with the general skills to be trained for OCS jobs (e.g., engineers, mechanics, logistics workers, managers).

⁵⁶ There are not publicly available, regularly collected statistics specific to OCS-related employment and income. The best verifiable statistics available were used to illustrate the overall premium in OCS-related labor income. They do not reflect two influences that could have opposing effects on actual income levels: 1) the overall extraction industry statistics dilute the wage premium by averaging higher OCS-worker incomes with those of onshore workers, which can be much lower; 2) the incomes of some OCS-related workers who are in jobs that are classified under other sectors (e.g., water transportation, shipbuilding) could be lower.

domestic OCS-related jobs are held outside the five states adjacent to the region (USDOJ 2020).⁵⁷ As discussed in **Section 8.3.1**, OCS oil and gas employment has declined in recent years (USDOJ 2020) in part due to lower oil and gas prices and industry adaptations to cut costs and streamline activities.

8.1.3.3 *State and Local Government Revenues*

States and local governments hosting high-value onshore infrastructure to support OCS oil and gas activities, companies that provide goods and services to operators and contractors, and employees working onshore and offshore can increase government revenues through property taxes, (business and personal) income taxes, and sales taxes.

The importance of tax revenue depends on several factors, including taxing authority of relevant jurisdictions, the permanence of OCS activities (e.g., resulting from success or failure of exploration, which eventually determines production activities), the level of nearby activity, and the location of support infrastructure. Should long-term development and production occur in frontier areas, tax revenues could provide important new contributions to state and local economies and could be the primary benefit for some areas. New activities related to development of frontier areas could extend the economic life of existing onshore infrastructure supporting nearby onshore oil and gas activities.

Currently, there are two statutes with provisions that provide OCS oil and gas revenues directly to coastal producing states and political subdivisions: the OCS Lands Act and Gulf of Mexico Energy Sharing Act (GOMESA). Section 8(g) of the OCS Lands Act applies to all coastal states adjacent to current or potential areas of OCS development and requires the Federal Government to provide each adjacent state with 27% of the bonus, rent, and royalty revenues earned from OCS leases between the state's submerged lands boundary and 3 nm seaward. This 3-mile-wide area adjacent to the state's submerged lands boundary is known as the "8(g) zone." The 8(g) revenues are intended to compensate the states for any drainage of resources in state waters by Federal lessees. Accordingly, for the National OCS Program, it would apply only where program areas extend into the 8(g) zone.

GOMESA became law in 2006 and provides substantial revenues for Alabama, Louisiana, Mississippi, Texas, and their coastal political subdivisions (i.e., counties or parishes). The GOMESA revenue sharing program was designed to compensate for potential negative impacts of, and the additional demand for, services and infrastructure due to OCS activities. GOMESA funds are reserved for uses specified in the Act, including coastal conservation, restoration, and hurricane protection. **Table 8-1** shows the 8(g) and GOMESA revenue dispersed in FY 2021; the

⁵⁷ BOEM's economic impact calculations use regional economic impact models to estimate the OCS oil and gas activities' employment and income. BOEM has economic impact models for Alaska (Northern Economics Inc. et al. 2012), the GOM (Price et al. 2020), and the Atlantic (Kaplan et al. 2017).

GOMESA distributions in Table 8-1 include distributions to states and counties/parishes within those states.⁵⁸

Table 8-1: FY 2021 8(g) and GOMESA State Disbursement Summary

State	8(g)	GOMESA
Alabama	\$140,351	\$35,054,281
Alaska	\$1,035,726	N/A
California	\$1,147,142	N/A
Louisiana	\$989,954	\$109,948,762
Mississippi	\$879,231	\$36,521,022
Texas	\$2,367,809	\$67,384,044
Total	\$6,560,213	\$248,908,108

Key: N/A=Not applicable.

Notes: Alaska and California do not receive revenues under GOMESA. Rows may not sum to totals due to independent rounding.

Source: ONRR (2021a)

8.1.3.4 Proximity of Energy Production to Refineries and Consumers

Another developmental benefit of OCS production is the production of oil and natural gas that is close to oil and gas consumers. The transportation of energy products is expensive, especially if new transportation infrastructure is needed, and it introduces environmental and other risks along the routes. Producing energy close to where it is refined, processed, and consumed reduces costs and can improve economic efficiency, reduce environmental impacts from transportation, and decrease potential impacts due to disruptions from events such as natural disasters.

8.1.3.5 Environmental Risks

In general, this equitable sharing analysis focuses on how environmental risks and impacts would likely be distributed, rather than on the nature and levels of potential impacts. The Draft Programmatic EIS broadly describes potential physical, biological, and sociocultural impacts that could result from implementation of the proposed lease sales (BOEM 2022a). Extensive data on resources near each program area is contained in *Economic Inventory of Environmental and Social Resources Potentially Impacted by a Catastrophic Discharge Event within OCS Regions* (BOEM 2014a). **Section 6.5** describes other uses of the OCS.

However, even in realistic worst-cases (based on actual conditions related to potential outcomes), risks to social and natural resources described in **Section 6.5** and BOEM (2014a) would be in the form of reduction or degradation, not of total loss.⁵⁹ This applies to both the risks that might be increased by introducing new OCS oil and gas activities and from an increased

⁵⁸ The GOMESA disbursements in FY 2021 are based on revenues received in FY 2020 because GOMESA distributions to states and counties/parishes occur in the year after the activities on which the distributions are based.

⁵⁹ This may not be true for localized sociocultural resources and lifestyles.

reliance on the likely energy substitutes. Industrial Economics Inc. and SC&A (2018a) discuss the risks of catastrophic oil spills which, while very unlikely, would have more substantial impacts than typical, more reasonably foreseeable oil spills, should one occur. Chapter 3 of the Draft Economic Analysis Methodology document provides further analysis of the impacts of a highly unlikely catastrophic oil spill (BOEM 2022b).

The burden of environmental risk resulting from OCS oil and gas activities is borne primarily by the marine and coastal areas adjacent to and within areas where oil and gas activities occur—near drilling and production sites and transportation routes. This is because potential environmental impacts from oil and gas activities (and associated ramifications to the human population) are usually linked to the proximity of the actions causing an impact. Risks associated with non-routine or accidental events such as oil spills could be higher in areas with the greatest activity, in areas where the oceanography or other characteristics of the environment such as topography or meteorological conditions could lead to more oil reaching the shoreline, and in sensitive areas such as marine sanctuaries.

In areas with new oil and gas development it is often necessary to construct or modify supporting onshore infrastructure. While construction of onshore infrastructure can bring employment and other benefits, it also poses environmental, socioeconomic, sociocultural, and/or fiscal risks, especially if the oil and gas activity is short-lived and does not provide local communities with the revenues to compensate for upfront expenditures or under-used facilities. Especially in non-industrialized areas, some of the socioeconomic benefits could be associated with needs for additional general infrastructure development, such as higher-capacity roads and more housing, which can impose costs to the natural and human environments.

The construction or development of onshore infrastructure could cause changes in air quality, impacts from reductions in coastal marshland, a reduction in the value of certain ecosystem services (e.g., flood protection), or impacts on water quality, depending on the location and nature of construction or development activity. Destruction or alteration of existing habitat like wetlands or nesting areas for turtles and birds, permanent or temporary displacement of species that rely on those habitats, and behavioral disruption could have acute and long-term impacts on individuals and populations. The specific impacts would vary depending on the proposed construction and development activities.

Vulnerable coastal communities are often near onshore infrastructure and could be disproportionately impacted by new construction or the increased use of existing onshore infrastructure. These communities can experience disproportionate and adverse human health or environmental effects due to impacts on culture, air quality, water quality, biological resources (e.g., marine mammals, fishes, habitat), archaeological and cultural resources, land use (e.g., agriculture, residential, recreation, and tourism) and access to resources (e.g., recreation, tourism, fisheries). IPFs include noise, traffic, routine discharges, bottom and land disturbance,

emissions, lighting, visible infrastructure, and space-use conflicts. The IPFs' effects on vulnerable coastal communities' resources are qualitatively discussed in the 2023–2028 Draft Programmatic EIS (BOEM 2022a). The analysis therein (Figure 4-3) concludes that there is potential for impacts from the IPFs in at least one, but not all, program areas for each resource analyzed.

Climate change is also affecting vulnerable communities. BOEM continues to study ongoing and potential impacts and make attempts to better include these effects in future analyses. BOEM is currently conducting a study to inform best practices for methodologies to analyze environmental justice (EJ) issues in relation to the National OCS Program, including climate effects. The study will also provide an EJ literature database and set of data tools and resources to facilitate EJ analysis and inform the Bureau's understanding of the cumulative effects of climate change on EJ communities. Lastly, the study will generate communications materials to be used to educate BOEM staff and decisionmakers as well as external stakeholders about these effects.

Oil spills are another possible risk borne in OCS Regions and the coastal areas adjacent to OCS activities (as well as by coastal areas along tanker routes and near the ports receiving imported oil as a substitute for forgone OCS production). Different OCS Regions have different risk factors affecting the probability of oil spills, volume spilled, and impact of spills that could occur, as well as the ability to contain and remove spilled oil quickly and effectively. Distance from shore, discharge duration, climate-related conditions, and even time of year in the same location could have substantial effects on the distribution of risks and impacts. While most of these factors apply in all regions, specific regional conditions and the characteristics of adjacent coasts can have major effects on the risk of harm to the human and natural environment.

For the purposes of this analysis (as discussed in **Section 8.1.1**), it is assumed that various energy substitutes would replace the forgone OCS oil and gas, with different relative geographical distributions of environmental risk, to the extent leasing is restricted or relocated (or otherwise does not occur) under a new National OCS Program (see region-specific analyses in **Section 8.2** and the analysis of widely distributed benefits and risks in **Section 8.3**). In general, environmental risk from OCS industry activities would be greater in areas where oil and gas activity is already prevalent, while locations experiencing increased environmental risk from the No Sale Option depend largely on the mix of energy substitutes and where they are produced or where/how they enter the area where they are needed.

8.1.3.6 Domestically Produced Oil Exports

Congress removed restrictions on domestically produced crude oil exports in December 2015. This policy has provided additional markets for domestic oil; oil is a fungible commodity that can be sold wherever it brings the best price in a constantly changing world market. Therefore, while the limited data on the patterns of domestically produced crude oil exports can provide some insights regarding future export trends, there remains a significant amount of uncertainty regarding these future trends.

8.2 Regional Benefits and Risks

Section 8.1.2 describes benefits from the development and production of oil and gas resources that accrue primarily to producing regions and nearby onshore populations. Exploration, development, and production—and many of the industries that support such activities—generally result in additional jobs and employment at higher-than-average pay, and spending on these activities reverberates throughout the economy. Additional benefits to communities proximate to OCS oil and gas activities come from revenue sharing programs, increased tax collections, and lower energy prices arising from lower transportation costs.

The risks of OCS development include the risk of oil spills, as well as other potential adverse environmental effects. High densities of low-income communities and minority populations have historically lived near ports and other industrialized areas and could be disproportionately impacted by onshore activities associated with oil and gas development (J 2010, USEPA 2018). These adverse impacts are discussed in detail in the Draft Programmatic EIS. The benefits and risks described herein assume current policies. If the U.S. were to substantially decrease oil and gas usage to achieve its climate goals, the benefits and risks presented here would be different.

In general, as explained in **Section 8.1.2**, if leasing and activity were to occur in frontier areas, most of the work in the early phases of OCS activity would be conducted by experienced companies, which tend to be located near areas having existing, mature operations. Therefore, despite opportunities for nearby communities, a high proportion of benefits would be expected to accrue to industries and communities near the GOM during those early phases because experienced oil and gas workers would be brought from the GOM Region to perform necessary activities. The most visible changes anticipated to occur near OCS activities in frontier areas are likely to occur in coastal communities nearest to the location of prospective OCS blocks where supporting infrastructure would be constructed.

Commercial discoveries could lead to a much stronger local presence of both operator and support activities. Depending on local geography and demographics, and level of new activity, some of the benefits (especially from early construction of infrastructure) could be accompanied by negative socioeconomic impacts (e.g., rapid population increases in areas with lower initial populations could lead to subsequent strains to existing public and private infrastructure).

To the extent that OCS production replaces other energy sources, or that other energy sources are required to replace OCS production, there are benefits and risks from activities related to energy substitutes for OCS oil and gas under the No Sale Option. **Chapter 5** shows the anticipated energy substitutes under existing laws and policies that suggest that under the No Sale Option, OCS production would largely be replaced by additional imports and onshore oil and gas production, with a portion of the production not being replaced but representing reduced demand. Production (and sale) of domestically based energy substitutes contributes to the Nation's GDP and would provide development benefits.

However, there are related risks such as increased emissions and accident risks near onshore production and/or near ports receiving tankers carrying imported oil. Within the analysis of the No Sale Option for each OCS region, BOEM provides information regarding potential substitutions for OCS oil and gas and their benefits and risks. These substitution sources are estimates based on current assumptions and baseline policies. As the U.S. continues to develop new policies to reduce carbon emissions and technological advances reduce demand for oil and gas, these substitution rates would likely change, as would the resulting benefits and risks of OCS oil and gas activities and the No Sale Option.

Chapter 5 includes a hypothetical analysis considering how the substitutions might change under a net-zero emissions economy and the resulting economic costs and benefits by considering greater reductions in demand and increased renewable energy substitutions. To the extent that reductions in OCS production are not replaced and there are greater reductions in demand, there would be no developmental benefits, but also no environmental risks from the reduced consumption. Additionally, depending on the extent to which domestic renewable energy or nuclear sources increase as a substitute for OCS oil and gas production through electricity generation, there would be developmental benefits and risks accruing to the areas where that generation occurs. This analysis does not get into those types of benefits and risks, but BOEM recognizes that a different set of energy market substitutes would have different impacts and will continue to develop analysis on these substitutes for the PFP.

8.2.1 Alaska Region

Although the only history of Federal production on the Alaska OCS is from a single Federal-state project in the Beaufort Sea, Alaska has a mature oil and gas industry onshore and on state submerged lands. An established support network exists in the Prudhoe Bay area on the North Slope and in southcentral Alaska, which includes Anchorage and communities along Cook Inlet. Long duty periods have contributed to the longstanding Arctic oil and gas employment pattern of a commuter workforce residing in worker enclaves during duty periods, with many employees performing support functions there as well. A large percentage of these workers commute from out of the state. Those working on projects in the state waters of Cook Inlet typically live in the larger population centers nearby or commute from outside the state.

Most of the oil and gas employment and state and local treasuries in Alaska depend on revenues from oil production on the North Slope and the taxes on infrastructure related to that production. Although new North Slope discoveries have been announced in the past few years, Alaska's crude oil production in 2020 declined to 22% of its peak in 1988, and employment opportunities are accordingly declining (EIA 2021a). TAPS was designed to carry oil south from Prudhoe Bay at the area's peak production rate. If new non-OCS discoveries do not provide a sufficient boost to oil production, declining North Slope oil production could cause TAPS to fail to attain its minimum

operating rate, threatening the status of production from both existing and new projects in the Arctic.

Development in the Beaufort Sea, Chukchi Sea, and Hope Basin program areas would all theoretically help extend the economic life of TAPS. However, BOEM does not include an estimate of anticipated production from the Hope Basin given uncertainty in its resources, and the Chukchi Sea program area is withdrawn and not available for leasing through a Section 12(a) withdrawal.

Depending on circumstances, such as timing, oil prices, and production from other projects in the vicinity, the development of the non-withdrawn portions for the Beaufort Sea program areas could help extend the economic life of TAPS. If any of the areas outside the near shore Beaufort Sea were included, they would require the expense of building pipeline extensions which would be considerable. OCS development in most of the other program areas (excluding Cook Inlet and possibly the Gulf of Alaska) likely would also require significant pipeline construction.

Annual 8(g) revenues disbursed to Alaska have been declining, from more than \$17.8 million in FY 2008 (including sharing from bonus bids in Beaufort Sea Lease Sale 202) to \$1 million in FY 2021 (ONRR 2021b). More recent 8(g) revenues to Alaska are from rental payments collected on active leases and royalties on the joint Federal-state production in the Beaufort Sea, but several lessees have relinquished their leases early or have let them expire.

8.2.1.1 Lease Sale Options

Developmental Benefits

Existing leases from the 2017 OCS Cook Inlet lease sale have not gone into production and, as of June 2022, BOEM is not in receipt of a completed exploration plan. Should new development occur, and because Alaska's existing oil and gas production and employment opportunities are declining, benefits to the state and local communities from activities resulting from proposed Alaska sales could be in the form of further job loss, income, and government revenues, rather than new opportunities and increases in overall income. Sustained high prices and demand for oil and gas during the life of the new National OCS Program could lead to higher activity levels overall and result in new opportunities.

Employment, income, and revenues. Alaska's direct and indirect employment patterns would be unlikely to change significantly because of the proposed lease sales, although sales and successful subsequent exploration could help stem losses of higher-paying oil and gas jobs in the state—and perhaps even increase levels of employment if significant employment results from the development of recent North Slope discoveries. The traditional pattern of commuter labor would likely hold for new oil and gas activities in the Beaufort Sea, Chukchi Sea, and even Gulf of Alaska program areas. A large proportion of Cook Inlet workers and their families would likely reside in nearby communities, and employment benefits would be locally shared.

However, a significant percentage of workers could commute longer distances, especially if sustained high oil and natural gas prices drive more aggressive OCS development than anticipated. Jobs from new OCS projects would be open to local and Alaska Native residents, but BOEM does not expect employment patterns to significantly change with new Alaska OCS development.

Similarly, given Alaska’s relatively small population and lack of industrialization, a large percentage of the (indirect) goods and services needed for development is likely to continue to be imported from other parts of the country and world markets. The high wages paid to (direct) oil and gas workers relative to other workers should preserve higher-than-normal incomes for those Alaskan workers in oil-and-gas-related jobs who remain employed due to new OCS projects. Results from BOEM’s model MAG-PLAN Alaska⁶⁰, which models the impacts of oil and gas activities in the Alaska OCS, show much higher income per job for workers in Alaska than for workers in the “Rest of the U.S.”⁶¹ See **Section 8.1.3.2** for a brief discussion of the ripple effects of higher worker incomes.

Construction of new onshore infrastructure could increase job creation. Given existing infrastructure in and adjacent to the Beaufort Sea and Cook Inlet areas, the greatest need for new infrastructure would likely be associated with successful Chukchi Sea and Gulf of Alaska operations. Among the kinds of onshore support infrastructure needed would be service bases, air support bases, pipelines, roads, onshore processing facilities, and oil spill response bases. In the less developed, less populated areas of the North Slope and Bering Sea coasts, construction work would likely be short-term and performed with non-local labor.

Due to the lack of a history of oil and gas development in or near the other 10 program areas, and the likelihood that a company envisioning profitable operations in those unique frontier areas would pursue an unconventional strategy, the likely distribution of benefits that could result is all but impossible to identify before a company obtains one or more leases and submits its Exploration Plan and Development and Production Plans for BOEM approval.

However, if those areas are offered for lease and one or more projects followed existing patterns for oil and gas activities in Alaska, it appears likely that the project(s) would use existing support networks and rely on current worker commuting patterns to the extent possible. New facilities close to project location(s) could be needed, probably in or near ports or harbors already in use.

⁶⁰ See brief explanation of BOEM’s regional economic impact models in **Section 8.3.1**.

⁶¹ Due to several variable factors (such as technology assumptions and the costs of various exploration and development activities), the average wage premium indicated by model results differs considerably for different program areas under different scenarios.

Depending on project location and logistical strategy of the lessee(s), communities near the location and near new facilities could supply some of the labor (primarily for construction), and some local businesses could provide goods and services for the project and/or employees.

However, the existing pattern for projects away from large population centers in Alaska (e.g., on the North Slope) is generally to establish separate enclaves for project-related work and on-duty employee housing. Absent any information on likely locations and how lessees might proceed with projects in one or more of those areas, BOEM anticipates that the major benefit most likely for local communities would be new revenues from property taxes on infrastructure and corporate income resulting from such activities.

For North Slope Borough residents, oil-related revenues would likely drive the primary benefits from new OCS activities. While most workers directly employed for new OCS projects would likely commute from elsewhere, the North Slope Borough and the State of Alaska heavily rely on Arctic oil-related revenues, and OCS oil and gas production would provide a meaningful contribution to those revenues. Since the North Slope Borough funds most of its government operations from these revenues and is itself the largest employer of North Slope Borough residents, tax collections are a significant driver of indirect employment and the economic well-being of residents.

Revenue sharing. The Federal Government would share with Alaska 27% of the bonus, rent, and royalty revenues from OCS oil and gas leases within the 8(g) zone, as described in **Section 8.1.3.3**. The GOMESA revenue sharing provisions do not apply in Alaska.

Proximity of supply and consumers of energy. Although the Alaska Region is not in close proximity to most end consumers of petroleum products, the state has five refineries (EIA 2018a), and production of OCS oil would increase the throughput of TAPS, potentially helping to extend the life of that pipeline. Natural gas produced in Cook Inlet is likely to be consumed in southcentral Alaska, which is facing uncertainties in future supply due to declining production on state leases.

There is insufficient infrastructure to get Arctic natural gas production to consuming markets. Therefore, natural gas produced on the Arctic OCS would be reinjected to increase oil production and could later be reproduced and transported to Alaskan communities or elsewhere if improved market conditions prompt construction of a new natural gas pipeline. More information regarding national and regional energy markets is provided in **Chapter 6**.

Environmental Risks

The location of new OCS projects and the nature of fields being developed could change the type, degree, and distribution of environmental risks. Subsistence hunting is a central part of the culture of many Alaska Native peoples, especially those who live in villages along the Arctic coast. To the extent that lease stipulations and any agreements with local communities do not reduce or mitigate possible interference with subsistence activities, or that residents' work and lifestyles

change due to increased employment and/or income opportunities, there is a risk to preserving traditional lifestyles and culture.

If exploration, development, and production were to occur in one or more of the 10 Alaska program areas estimated to have negligible economically recoverable resources, lessees would use existing support networks and worker commuting patterns to the extent possible, and therefore these communities would avoid most of the negative socioeconomic risks associated with related economic benefits.

Section 4.1 of the Draft Programmatic EIS identifies and discusses potentially significant impacts on several environmental resources from various IPFs. Water quality, all biological resources, and all sociocultural resources could experience significant impacts from several IPFs in the Alaska OCS region, if leases were issued and developed. **Chapter 7** presents the analysis of the environmental sensitivity of resources in the Alaska program areas. The Economic Inventory Report (BOEM 2014a) describes resources in and near those areas that could be affected by an oil spill, and **Section 6.5** describes other uses of the OCS.

Benefits and Risks to other Areas from Alaska OCS Activities

Many of the jobs created by Alaska OCS activities would be filled by workers elsewhere in the U.S. or other countries. These include long-distance workers, but also a large proportion of those who would provide goods and services to support those activities, especially workers in manufacturing industries. It is likely that the effects of spending by, and employment in, the primary industries involved in any exploration and development activities in program areas not near current industry infrastructure (i.e., most of the Alaska Region) would be felt in communities along the GOM, whose workers would be brought to Alaska, and which has an extensive existing support and supply network.

This would especially be true if the decline in Alaska's oil and gas industry were to be halted and the trend reversed, providing new work for existing workers and companies doing business in Alaska. Under normal circumstances, projects leading to production would bring more spending and employment to Alaska, but it is likely that much would continue to be supplied from outside Alaska even for operations and maintenance activities in and adjacent to those program areas not near existing onshore production and infrastructure.

Although it is likely that most of the environmental risks from exploration, development, and production activities on the Alaska OCS would manifest inside of or adjacent to the Alaska Region, some would occur outside the region. To the extent that Alaska OCS production is transported by tanker to West Coast refineries, environmental risk could be experienced in these regions from the risk of oil spills, and air emissions would occur along tanker routes. Further, some of the transportation of drilling supplies, which provide economic benefits along with environmental risks, also would likely occur outside of Alaska and its waters.

8.2.1.2 Subarea Options

Developmental Benefits

In 2016, President Obama, through Section 12(a) withdrawals, withdrew the entire Chukchi Sea and most (except some nearshore blocks) of the Beaufort Sea from consideration for oil and gas leasing. These withdrawals substantially reduced the available resources that could have been developed and the resultant benefits and costs that would arise. However, this document retains analyses of the Subarea Options identified in the DPP.

Because this analysis broadly considers the potential impacts of leasing in all areas included in the Draft Proposal, the analysis also considers the five potential exclusion zones in the Chukchi Sea and the Beaufort Sea identified in the Draft Proposal. In general, developmental benefits likely to result from the proposed lease sales would occur even if the identified subareas were excluded from the Chukchi Sea and Beaufort Sea program areas. However, if several subareas that substantially overlap geologic plays were excluded (see **Table 5-3**), the available hydrocarbon resources could be reduced below profitability thresholds, possibly reducing oil and gas activities and the resulting developmental benefits.

For example, Chukchi Sea development depends on access to resources for industry to begin an exploration program that could lead to the discovery, and subsequent development, of at least one economically viable oil and gas field. For that field—or combination of fields—to be economically viable, total production would have to be sufficient to justify the infrastructure construction necessary to produce and transport hydrocarbon resources to TAPS,⁶² and the reduction in resources available for production by the selection of one or more subareas for exclusion could prevent the field, or fields, from reaching viability.

In the Beaufort Sea, access to resources is equally vital for successful exploration and development of OCS resources, although an existing network of onshore and nearshore infrastructure based out of Prudhoe Bay would serve to lower the threshold for economic viability of discoveries relative to those for Chukchi Sea prospects. Therefore, if several Subarea Options were chosen, there could be economic implications and industry interest could be affected, possibly altering the distribution of benefits described for the proposed lease sales.

Environmental Risks

If the Chukchi and the Beaufort Seas program areas were not already subject to Section 12(a) withdrawals, the specific subarea exclusions could reduce certain environmental risks to the specific resources they are designed to protect. Other environmental risks would remain as

⁶² Theoretically, a lessee could use other technology, such as a floating production storage and offloading vessel or other means of transferring oil and gas directly to a tanker, to transport resources without a pipeline. However, operating in the Arctic environment presents numerous challenges, and BOEM assumes that building an extension to TAPS would be the most feasible means of getting the resources to market for the foreseeable future.

similar activities could occur in the non-excluded areas. Appendix I of the Draft Programmatic EIS describes the potential reduction in impacts associated with the Subarea Options for exclusion in the Chukchi Sea and Beaufort Sea program areas. However, since these are largely withdrawn the Subarea Options are provided for informational purposes.

8.2.1.3 *No Sale Option*

Under the No Sale Option, there would be no new OCS activities from the 2023–2028 Program, and communities in Alaska would not receive the benefits or environmental risks from OCS production.

Developmental Benefits

Few, if any, developmental benefits would accrue to Alaska from the No Sale Option (for any or all program areas). This is because most of the substitute energy production would not occur in Alaska.

Environmental Risks

If the No Sale Option is selected for any program area, no environmental risks from OCS exploration, development, and production activities from new leases would occur in that program area under the 2023–2028 Program. BOEM estimates energy market substitutes that would replace OCS production. In the case of these Alaska program areas which do not currently have production, the production of OCS resources would displace other sources (e.g., new Alaska OCS production could support continental U.S. energy needs and result in fewer imports). Very few of the environmental risks posed by the substitute energy sources would occur specifically in Alaska, but instead would continue to occur in West Coast states, where much of the energy is consumed, as well as in portions of the Nation’s interior from increased onshore production.

BOEM estimates the distribution of replacement sources of energy throughout the Nation if the No Sale Option were selected for any or all the Alaska program areas. Since there is currently minimal oil and gas production from the Alaska OCS, it is appropriate to interpret these substitution estimates as the current trends that would be avoided should production from the Alaska OCS occur.

These estimates use the PADDs (see **Chapter 6**) to describe where in the U.S. substitute production would occur. Alaska is in the West Coast PADD. Under the No Sale Option for Alaska program areas, about 64% of the energy content (on a BTU basis) that would have been available from OCS production would likely be provided by substitute oil and gas sources from the West Coast PADD, primarily oil imports to West Coasts ports. An additional 16% of the replacement energy sources would be onshore oil and natural gas production in the other PADDs and a small amount produced from existing OCS leases in the GOM. Approximately 9% of the forgone oil and gas production would be replaced by energy sources other than oil and gas. About

10% of the forgone energy would be “replaced” by a reduction in consumption, which would not be associated with any significant ESCs.⁶³

The estimated substitution rates are based on forecasts of energy markets that incorporate existing trends and policy-neutral assumptions. Substantial changes in energy market dynamics, such as improving technology and/or a more rapid increase in the market share of renewable energy than currently modeled, could substantially affect these substitution estimates. In addition, OCS projects typically take several years to reach production, so the long-term dynamics of energy markets will determine the relative shares of costs and benefits from OCS activities and from the No Sale Option.

Some Alaska residents are concerned about socioeconomic risks not measured by BOEM’s models, namely the risk, in the absence of new OCS activities, of continued or accelerated declines in employment, income, and government revenues from oil and gas activities that are critically important to the state economy and, in some cases, even more important to maintenance of local government services. This decline was not caused by OCS-related policy, nor is there a guarantee that holding any or all proposed lease sales would result in significant levels of OCS activity, but some see OCS lease sales as a potential means of at least partially mitigating that increasing risk.

8.2.2 Pacific Region

Of the Pacific Region program areas, the only active OCS projects are in Southern California, but there are additional infrastructure networks to support projects in state waters and onshore. The area along the Pacific coastline features numerous construction companies and labor sources but also areas of important natural habitat, beach recreation, and scenic views. Levels of human use and infrastructure development in parts of the Pacific Region and adjacent onshore areas are high, particularly in Southern California, the San Francisco Bay area, and nearby ports.

Ecological issues in such areas are already a part of the local and regional planning process. The extent to which new onshore supporting infrastructure adjacent to the region results in space-use conflicts, damage to archaeological resources, and strain on local public infrastructure (e.g., roads, housing, hospitals) depends on where infrastructure facilities are constructed. Although onshore infrastructure needed to support new OCS development would be novel in some areas, balancing important environmental issues with human use would not be a new issue in the areas most likely to host new infrastructure.

⁶³ Independent rounding causes displayed sums to differ from some calculated sums but reporting the individual numbers with greater precision would imply a false level of certainty.

8.2.2.1 Lease Sale Options

Developmental Benefits

The developmental benefits of Pacific leasing would depend on the extent to which leasing would lead to notable oil and gas exploration, development, and production. This is an uncertainty because oil and gas lease sales have not been conducted in the Pacific region for many years. The last sale was held in 1984. If substantial oil and gas activities were to occur, these activities would likely extend the economic life of some regional onshore infrastructure dependent on oil and gas, but new infrastructure would likely be needed as well. Construction companies and labor sources along and near the coast, and their communities, could benefit from local infrastructure construction associated with new activities in the area. Communities along the Southern California coast would benefit from continued operation of facilities constructed to service OCS operations.

Any exploration and development activities in the other Pacific program areas would likely be performed by imported labor and use existing suppliers for specialized goods and services. However, there would be opportunities for the numerous construction companies and labor sources along and near those program areas. There also would be a need to use (and possibly expand) local ports, heliports, and other such facilities. If exploration were successful, operators likely would begin constructing or expanding more facilities, and there would be increasing opportunities—especially during the production phase—for companies and individuals to provide some of the less specialized goods and services that operators would need, especially in communities with well-educated workforces and complex economies.

Employment, income, and revenues. Given the mature industry and support network along and near the coast adjacent to the Southern California Program Area as well as inland, OCS activities from the proposed lease sales could provide business opportunities for local and other California companies to provide goods and services. Onshore production workers might increase their incomes by working offshore. There are numerous cities with complex economies along other parts of the West Coast that could benefit from supplying goods, services, and labor for activities in other program areas as well.

New, expanded, or rehabilitated infrastructure needed to support activities from proposed lease sales would strengthen the tax base in communities that hosted it, as would increased employment at relatively high-paying jobs offshore and increased local income accruing to new or existing businesses. This economic activity would support income tax revenues.

Revenue sharing. The 8(g) provisions described in **Section 8.1.3.3** apply to revenues received from leases within 3 nm of each state's seaward boundary. The GOMESA revenue sharing provisions do not apply in the Pacific.

Proximity of supply and consumers of energy. Overall, the three states adjacent to the Pacific region, Washington, Oregon, and California, are large consumers of both crude petroleum and petroleum products. The states are in PADD 5, which also includes Alaska, Hawaii, Arizona, and Nevada. PADD 5 states imported an average of 1.27 million barrels of crude oil per day in 2019 (EIA 2021a). Crude oil has few uses except as an input to petroleum refineries. Of the 26 refineries in PADD 5, 14 are in California, and five are in Washington (EIA 2021a).

California ranks second in the Nation in oil consumption, and Washington ranks 14th (EIA 2021a). OCS production from the Pacific program areas would therefore be a new or additional source of oil and gas near refineries and consumers of petroleum products and would be expected to reduce regional oil imports.⁶⁴

Environmental Risks

Section 4.1 of the Draft Programmatic EIS identifies and discusses potentially significant impacts on several environmental resources from several IPFs. Air quality, water quality, most biological resources, and all sociocultural resources could experience significant impacts from several IPFs in the Pacific OCS region. **Chapter 7** presents the analysis for the environmental sensitivity of resources in the Pacific program areas. While not addressing impacts, the Economic Inventory Report (BOEM 2014a) describes environmental and social resources in and near those areas that could be affected by an oil spill, and **Section 6.5** describes other uses of the OCS.

8.2.2.2 Subarea Options

There were no Subarea Options identified for Pacific region sales. Absent changes in the designation and regulation of NMSs, large areas of the Central California Program Area and Washington/Oregon Program Area would be unavailable for leasing (see **Section 4.5** of this document).

8.2.2.3 No Sale Option

Developmental Benefits

As there is only minimal oil and gas production from the Pacific OCS currently, without this production, current trends and substitute energy sources would continue to provide. To the extent the substitute energy sources are domestic, they provide developmental benefits such as employment and spending needed for onshore natural gas production in the Rocky Mountain states, in the states along the GOM coast, and in PADD 5. Production from state and Federal

⁶⁴ Refineries require different kinds of facilities and equipment to process various grades and qualities of crude oil, so not every refinery can handle every kind of crude. For OCS oil production to be able to reduce regional imports, the oil would have to be suited for the refineries' needs and capacity. However, U.S. refineries have sophisticated abilities to mix crudes of different grades to obtain suitable blends at the lowest price, and larger refineries on the Pacific Coast should have access to a wide range of imported, if not domestically produced, crude oil to blend with new OCS oil.

lands brings benefits to state treasuries from the spending of additional revenues (or, possibly, lower-than-otherwise taxes on citizens and businesses). Other sources that could be displaced as a result of additional Pacific OCS production would be imports with developmental benefits accruing to other nations. The No Sale Option would also eliminate the risk of space-use conflicts between oil and gas development and potential future renewable energy projects.

Environmental Risks

If the No Sale Option were selected for the Pacific program areas, no environmental risks from OCS exploration, development, and production activities from new leases would occur in or adjacent to the Pacific Region.

BOEM estimates the distribution of energy substitutions if the No Sale Option were selected for Pacific program areas. Since there is currently minimal oil and gas production from the Pacific OCS, it is appropriate to interpret these substitution estimates as the current trends that would be avoided should production from the Pacific OCS occur. Benefits and risks from those energy substitutions tend to occur in the same geographical areas where the substitutes occur. The Pacific states are in PADD 5, and the distribution of energy substitute sources should be similar to that described for Alaska (see **Section 8.2.1.3**).

Approximately 64% of the energy content (on a BTU basis) that would have occurred from OCS production would be provided by substitute energy sources from the West Coast PADD—primarily oil imports to West Coast ports. Most of the remaining oil and gas substitutes for production would be onshore production in the Gulf Coast and Rocky Mountain PADDs. Approximately 9% of the forgone oil and gas production would be replaced by energy sources other than oil and gas. About 10% of the forgone energy would be “replaced” by a reduction in consumption.

The estimated substitution rates are based on baseline forecasts of energy markets that incorporate existing trends and policy-neutral assumptions. Substantial changes in energy market dynamics, such as improving technology and/or a more rapid increase in the market share of renewable energy than currently modeled, could substantially affect these substitution rates. In addition, OCS projects typically take several years to reach production, so the long-term dynamics of energy markets will determine the relative shares of costs and benefits from OCS activities and from the No Sale Option.

8.2.3 Gulf of Mexico Region

Both OCS and onshore oil and gas activities have been occurring in the GOM and the adjacent states for decades. The petroleum industry has based its planning on offshore lease sales being

held in the Western and Central GOM twice a year,⁶⁵ with few exceptions, and the resulting OCS activities have been incorporated into the communities that supply labor, goods, and services to support them.

Significant infrastructure for oil and gas development already exists in and near the GOM and will not require additional new development or modification, potentially avoiding or reducing environmental risks associated with new coastal development. The current, extensive onshore infrastructure contributes to local and state economies and helps fund government services. The GOM program areas are near ample refining and natural gas processing capacity, and a continuous supply of OCS oil and gas has been a factor in the amount and kind of capacity available. Gulf Coast refineries have access to domestically produced oil from the OCS, state waters, and onshore, as well as imported oil, and can blend oil of various grades and qualities to obtain the best price for the optimal grade and quality for their specific equipment and facilities.

Phase 1 of GOMESA (which began in FY 2007) provided for the uncapped sharing of 37.5% of OCS revenues from selected areas stipulated in the law, which applies in the Central and Eastern GOM planning areas.⁶⁶ The second phase of GOMESA began in FY 2017 and includes the sharing of additional GOM oil and gas lease revenues (limited to \$375 million annually to states and counties/parishes and \$125 million annually to the LWCF). GOMESA specifies the methods for allocating revenues to the applicable states (Texas, Louisiana, Mississippi, and Alabama) and to counties/parishes within those states.

8.2.3.1 *Lease Sale Options*

Developmental Benefits

Most of the employment benefits of the new National OCS Program would be the continuation of current sources of business, employment, and public funding or, described another way, would be the avoidance of societal consequences resulting from lower activity levels. Maintenance of benefits for states adjacent to the region would occur by continued GOM area-wide sales. However, offshore oil and gas activities and jobs have been lower in recent years than in prior years in part due to lower oil and gas prices and industry adaptations to cut costs and streamline activities.

⁶⁵ The first area-wide GOM lease sales were held in 1983, replacing the previous “tract selection” approach. Since then, two such sales have been held almost every year. Prior to 2017, one of these sales would offer Western GOM acreage and the other would offer Central GOM acreage. The 2017–2022 Program, approved in January 2017, continued the practice of annually offering two area-wide sales but combined the available GOM planning areas into a single program area. Since the first sale under the current National OCS Program was held in August 2017, both annual area-wide sales have also been “regionwide,” offering all available acreage in both the Western and Central GOM planning areas, as well as the small unrestricted portion of the Eastern GOM Planning Area.

⁶⁶ More information on GOMESA revenue sharing is available on BOEM’s website at <http://www.boem.gov/Revenue-Sharing/>.

Employment, income, and revenues. Most workers employed offshore and in the vast supporting network for GOM activities live in the Gulf Coast states. In addition to construction of new infrastructure, production from the GOM would extend the economic life of regional onshore infrastructure dependent on oil and gas. This is especially true for the GOM, where the economies of adjacent communities—and even state and local treasuries—depend on revenues from income taxes and from continued use of infrastructure.

While Gulf Coast communities would not require extensive development of new facilities to serve anticipated production resulting from the proposed sales, it is possible that major discoveries in the withdrawn area of the Eastern GOM Planning Area could lead to the need for expanded refinery and natural gas processing capacity. However, the area is withdrawn for leasing until at least 2032.

Revenue sharing. The 8(g) provisions described in **Section 8.1.3.3** apply to revenues received from leases within 3 nm of state waters, although the likelihood is that only relatively small fields in the 8(g) zone remain unproduced. All revenues from applicable GOM leases issued during the 2023–2028 Program will be subject to GOMESA revenue sharing provisions. However, the GOMESA revenue sharing caps (for state/local governments and the LWCF) are likely to be reached in future years due to revenues from existing leases, and therefore such revenue sharing will not increase due to new leasing.

Proximity of supply and consumers of energy. Texas is the Nation’s top consumer of crude oil and natural gas (EIA 2021a), and four of the states adjacent to the GOM host 53 of the Nation’s 129 operable refineries (EIA 2021a). OCS production from the GOM would allow continuation of a reliable source of oil and gas near many refineries and a large pipeline network to supply other states’ demand for petroleum products. It would reduce any need for additional oil imports into the Gulf Coast’s ports (and the LOOP). Refineries in the area have a wide selection of crude oil grades to blend appropriately for their capacities and are accustomed to use of OCS crude oil grades.

Environmental Risks

Section 4.1 of the Draft Programmatic EIS identifies and discusses potentially significant impacts on several environmental resources from several IPFs. Air quality, water quality, most biological resources, and all sociocultural resources could experience significant impacts from several IPFs in the GOM OCS region. **Chapter 7** presents the analysis for the environmental sensitivity of resources in the GOM program areas. While not addressing impacts, the Economic Inventory Report (BOEM 2014a) describes environmental and social resources in and near those areas that could be affected by an oil spill, and **Section 6.5** describes other uses of the OCS.

One risk particular to infrastructure in the GOM is the risk of hurricanes, especially as climate change increases the risks posed by extreme weather as storms could increase in intensity and/or

frequency. To better deal with existing infrastructure, “in FY 2019, BSEE revised its guidance to industry on the timeliness of decommissioning activities to reduce the environmental and financial risk of idle infrastructure being damaged by a changing climate, which frequency increases the intensity of severe weather, such as hurricanes” (BSEE 2021a). An average of 200 platforms have been removed every year over the past decade within the GOM (BSEE 2021a). Additionally, BSEE inspectors conduct inspections annually at more than 1,750 facilities in the OCS (BSEE 2022). These preemptive measures, in combination with reporting programs for facilities and pipelines both during and after a hurricane, aid BSEE in mitigating the risk posed by extreme weather, even in the event of increasing intensity and/or frequency.

8.2.3.2 *Subarea Options*

Developmental Benefits

As described in **Section 3.1**, this Proposed Program analysis is conducted on the full Draft Proposal. Withdrawn areas, such as the Eastern GOM, are not being considered inclusion by the Secretary in the 2023–2028 Program but are still included in the Draft Proposal analysis as if they were available for leasing. BOEM estimates that selection of the 15-Mile Baldwin County No Leasing Zone Subarea Option would have minimal impact on the developmental benefits in the region. Given the size of the area, and the amount of acreage offered elsewhere in the GOM, it is unlikely that the benefits of the proposed lease sales would be significantly reduced by excluding the acreage associated with this option.

Although the Eastern GOM Planning Area is withdrawn under Section 12(a) withdrawals, BOEM still includes information on the Subarea Options identified in the Draft Proposal in **Table 5-3**. Accordingly, if any of these options were selected, a portion of the developmental benefits anticipated to result from GOM Program Area 2 lease sales and accrue to Gulf Coast communities, perhaps including new opportunities in Florida, would be forgone. If any of the No Leasing Zones were selected, states adjacent to the zones would not receive 8(g) revenues. However, as the area is excluded through Section 12(a) withdrawal, there will be no benefits from the area.

Environmental Risks

The purpose of the subarea exclusions is to restrict project sites to areas farther from coastal natural, social, and economic resources, as well as to accommodate military activities. Selecting one of those options would both reduce environmental risks overall (due to lower levels of production and associated activity) and reduce the risk of oil spills from wells or production platforms. Imported oil in place of forgone OCS production would increase impacts on air quality and oil spill risks from tankers near shore. Most of the risks from onshore oil and gas production would accrue to the Gulf Coast states, as discussed under the No Sale Option.

Under the 15-Mile Baldwin County No Leasing Zone Subarea Option, current leases could be explored and developed, but new leasing opportunities could not occur in the buffer area. Therefore, with selection of this Subarea Option, there would be no new environmental risks to the region from OCS production in that Subarea. Section 4.5 and Appendix I of the Draft Programmatic EIS describe the potential reduction in impacts associated with the Subarea Options for exclusion in the GOM program areas.

8.2.3.3 *No Sale Option*

Developmental Benefits

If the No Sale Option were selected, there would be benefits from additional onshore production of natural gas (and some oil), primarily in the Gulf Coast states but also in other PADDs. Most of the substitute energy would come from additional imported oil, the primary benefits of which would be experienced overseas, although oil imports would help retain refinery activity and jobs, along with levels of some other downstream activities and associated employment. Slightly higher oil prices would reduce overall consumption, but the Gulf Coast refineries would be able to adjust their sources of crude oil (onshore, imports, and OCS blocks leased in previous sales) to make up for long-term declines in OCS production.

Environmental Risks

If the No Sale Option for the Western and Central GOM planning areas were selected, there would likely be negative socioeconomic impacts on the counties/parishes and states adjacent to the GOM region. The severity of the negative effects on Gulf Coast state communities depends on several factors, some of which would be difficult to predict. The effects of a lack of sales for a few years could be modest, given the number of existing leases not fully developed.

However, the No Sale Option could trigger decisions by companies operating in the GOM (as well as supporting companies and employees) to put more emphasis on non-GOM-related business opportunities. The nature of these decisions would influence the severity and longevity of the impacts. The nature of the socioeconomic impacts of the No Sale Option would also depend on the extent to which other business opportunities would arise, for example in the renewable energy industry.

The No Sale Option for the Eastern GOM would not have these impacts since most of this area has already been under, and will continue to be under, a prohibition on leasing, now by withdrawal through 2032.

The No Sale Option would reduce demand for early-stage activities such as G&G surveys and exploration drilling, which would negatively impact the people and businesses that rely on those activities. The scale of this effect depends on the extent to which activities on existing, undeveloped leases could partially offset the loss of business from new leases. Oil and gas

production would not be greatly affected during the first several years because existing lessees would maintain production and new discoveries on existing leases could be developed. However, a decline in exploration would lead to a gradual decline in production over subsequent years.

Not holding lease sales would also prevent the receipt of OCS revenues from bonus bids, royalties, and rental payments associated with the forgone leases. The Federal Government would lose its share of revenues, but the states would lose GOMESA revenues if the \$375 million revenue sharing cap (excluding LWCF revenue sharing) had not been reached.

However, it is expected that the GOMESA revenue sharing cap will be reached in future years due to revenues from existing leases. There would be an increase in decommissioning of oil and gas structures as the use of those structures for subsea tiebacks for new developments would be reduced; these decommissioning activities would support economic activity for the companies and workers that perform the decommissioning work. BOEM (2021c) provides information regarding recent trends and activities in the deepwater GOM, which provides insights regarding the potential losses of activity should the No Sale Option be selected. However, the ultimate effects of the No Sale Option depend on the prevailing economic environment, including factors such as energy prices, resource discoveries, and the evolution of the economy.

Under the No Sale Option, risks to the environment and local communities from OCS oil and gas production would decline, but energy substitutes would likely replace OCS production and produce their own risks. Assuming current laws and policies, these substitutions would largely be onshore oil and gas production and additional imports which would generate their own potential impacts.

Although much of the imported oil, and even natural gas produced onshore, to replace forgone GOM oil and gas would occur in Gulf Coast states (and, to a small extent, on existing OCS leases), there would be locational shifts of risk within the GOM and the Gulf Coast region, and communities and households whose business relationships were focused more on offshore (rather than onshore activities or downstream activities such as refining) would bear the greatest socioeconomic impacts. Some risks would increase in other areas providing substitute sources of energy.

The estimated substitution rates are based on forecasts of energy markets that incorporate existing trends and policy-neutral assumptions. Substantial changes in energy market dynamics, such as improving technology and/or a more rapid increase in the market share of renewable energy than currently modeled, could substantially affect these substitution rates. In addition, OCS projects typically take several years to reach production, so the long-term dynamics of energy markets will determine the relative shares of costs and benefits from OCS activities and from the No Sale Option.

8.2.4 Atlantic Region

The Atlantic Coast is heavily populated and industrialized; some of these areas have significant general infrastructure (e.g., major ports, petroleum refineries, shipyards for building and/or repairing vessels, roads, housing, medical facilities) to meet some of the needs required for potential new exploration and development. However, there are no oil and gas exploration or development activities ongoing in the Atlantic, and new infrastructure would be needed to support production activities.

8.2.4.1 Lease Sale Options

Developmental Benefits

Employment, income, and revenues. The developmental benefits of Atlantic leasing would depend on the extent to which leasing would lead to notable oil and gas exploration, development, and production. This is an uncertainty because there has not yet been any oil and gas development or production in the Atlantic OCS. If oil and gas development and production were to occur, activities from the proposed lease sales would likely create opportunities for constructing new infrastructure facilities and expanding others, such as port facilities and heliports.⁶⁷ The construction companies and labor sources along and near the coast, and their communities, could benefit from local infrastructure construction associated with the new activities in the area.

Exploration and development activities in the Atlantic program areas would likely be performed by labor and equipment brought in from the GOM area and use existing suppliers for specialized goods and services. However, there would be opportunities for the numerous construction companies and labor sources along and near those program areas. If exploration were successful, operators likely would begin constructing or expanding facilities, resulting in increased opportunities—especially during the production phase—for companies and individuals to provide some of the less specialized goods and services operators would need, especially in communities with well-educated workforces and complex economies.

During the production phase, employment opportunities for support operations onshore would likely increase. Some of the workers and their employers, working on production platforms or for jobs that initially are supplied out of the Gulf Coast area but are required for operations and maintenance activities, could decide to move to states along the Atlantic Coast as long-term operations are established.

The tax base for state and local governments should increase as exploration, development, and production activities proceed. Those employed in the OCS industry would be expected to have higher-than-average incomes, and the base for personal and business income taxes would likely

⁶⁷ See the report titled *Onshore Oil and Gas Infrastructure to Support Development in the Mid-Atlantic OCS Region* (Dismukes 2014) for information about the kinds of infrastructure needed to support OCS activities.

expand from the development of supply relationships between new or existing local businesses and OCS operators and contractors. An expanded property tax base due to new infrastructure, or increased values of under-used or expanded existing infrastructure, could be even more important to local governments.

Revenue sharing. There is no legal framework for revenue sharing for Atlantic states other than the 8(g) provisions in the OCS Lands Act. The 8(g) provisions described in **Section 8.1.3.3** apply to revenues received from leases for Atlantic region blocks within 3 nm of state waters. The GOMESA revenue sharing provisions do not apply on the Atlantic.

Proximity of supply and consumers of energy. The states adjacent to the Atlantic Region are, in general, heavily populated, and four of them—Florida, New York, Georgia, and North Carolina—are among the top 10 consumers of petroleum. Pennsylvania, another state in PADD 1, is also among the top 10 (EIA 2021a). New Jersey has two refineries, Delaware has one, and Pennsylvania has three (EIA 2021a). PADD 1 imported 426,000 barrels of crude oil per day in 2020 (the United States as a whole imported 5,891,000 barrels of crude oil per day in 2020)(EIA 2021a). OCS production from the Atlantic program areas would therefore be a new source of oil and gas near refineries and consumers of petroleum products and would be expected to reduce regional oil imports.⁶⁸

Environmental Risks

Section 4.1 of the Draft Programmatic EIS identifies and discusses potentially significant impacts on several environmental resources from various IPFs. Water quality, most biological resources, and all sociocultural resources could experience significant impacts from several IPFs in the Atlantic OCS region. **Chapter 7** presents the analysis of the environmental sensitivity of resources in the Atlantic program areas. While not directly addressing impacts, the Economic Inventory Report (BOEM 2014a) describes environmental and social resources in and near those areas that could be affected by an oil spill, and **Section 6.5** describes other uses of the OCS.

8.2.4.2 Subarea Options

Developmental Benefits

As described in **Section 3.1**, this Proposed Program analysis is conducted on the full Draft Proposal for informational and transparency purposes. The Secretary is not considering any withdrawn areas for inclusion in the 2023–2028 Program but they are still included in the analysis as if they were available for leasing for informational and transparency purposes. In 2016,

⁶⁸ Refineries require different kinds of facilities and equipment to process various grades and qualities of crude oil, so not every refinery can handle every kind of crude. For OCS oil production to be able to reduce regional imports, the oil would have to be suited for the refineries' needs and capacity. However, most U.S. refineries have sophisticated abilities to mix crudes of different grades to obtain suitable blends at the lowest price, and refineries on the Mid-Atlantic coast have access to a wide range of domestic and imported crude to blend with new OCS oil.

President Obama withdrew the Atlantic Canyons from consideration for future oil and gas leasing. In 2020, President Trump issued Section 12 withdrawals for the Straits of Florida, the South Atlantic, and a portion of the Mid-Atlantic program areas through 2032. BOEM acknowledges the withdrawals but has kept an analysis of the full program areas and the Draft Proposal Subarea Options in this document for information purposes.

As shown in **Table 5-3**, the 25-Mile No Leasing Zone Subarea Option would remove about 7 to 14% of the acreage in the North, Mid-, and South Atlantic program areas from leasing consideration. Selecting the 25-Mile No Leasing Zone Subarea Option for the North or South Atlantic is not likely to significantly affect oil and gas production or associated developmental benefits. Similarly, even though selection of this option for the Straits of Florida would preclude almost 70% of program area acreage from leasing consideration, the area is not estimated to have significant resource potential and removal of that acreage is unlikely to reduce production or associated benefits.

However, a 25-mile no leasing zone in the Mid-Atlantic would remove a prospective area off North Carolina from leasing consideration and could significantly reduce the benefits that could result from oil and gas activities in that area. If any of the no leasing zones were selected, states adjacent to the zone would not receive 8(g) revenues.

The Atlantic Canyons lie along the geological play extent in the North and Mid-Atlantic program areas, but selection of the Atlantic Canyons Subarea Option is unlikely to have a significant effect on production and associated developmental benefits anticipated from activities related to development in those areas. The extent of this effect could depend on actual location of resources (to be determined by subsequent exploration, if allowed) and any provisions that could allow the possibility of directional drilling or other means of production without disturbing sensitive resources.⁶⁹ The benefits from energy substitutes for forgone OCS production would be larger, but in the same proportions discussed under the No Sale Option (see **Section 8.2.4.3**).

The withdrawal of a portion of the Mid-Atlantic Program Area (see **Section 3.1**) from leasing consideration prevents the development of the hydrocarbon resources in this area. This would not cause substantial effects since no OCS oil and gas development currently exists in the area. However, the withdrawal does prevent the benefits that could accrue from new development. The forgone benefits would be roughly proportional to the amount of oil and gas production that would have occurred if leasing were to take place in this area. In addition, the fact that the remaining area available for leasing is much smaller could lessen industry interest in the area. BOEM will more fully analyze the areas chosen in the Second Proposal in the PFP analysis.

⁶⁹ It could be difficult or impossible to determine at the National OCS Program stage whether there are ways to explore and produce without harming specific natural resources or the environment. Programmatic decisions can allow such issues to be considered, but the necessary lease sale stipulations or other detailed requirements are rarely developed prior to pre-sale planning.

Environmental Risks

The purpose of the 25-Mile No Leasing Zone and Atlantic Canyons Subarea Options is to restrict project sites to areas farther from coastal social, ecological, and economic resources, so selecting one or both of those options would both reduce environmental risks overall (due to lower levels of production and associated activity) and reduce site-specific risks. The risks associated with energy substitutes would be larger and in the same proportions discussed under the No Sale Option (see **Section 8.2.4.3**). Section 4.5 of the Draft Programmatic EIS describes the potential reduction in impacts associated with the Subarea Options for exclusion in the Atlantic program areas.

8.2.4.3 No Sale Option

Developmental Benefits

Under the No Sale Option there would be no change to existing activities as there is no current production in the Atlantic. Under this baseline, employment and spending needed for onshore natural gas production in the non-coastal areas of PADD 1 and in the states along the Gulf Coast would continue, and there would be continued imports along the Atlantic Coast and Gulf Coast ports. Most upstream benefits would continue to be experienced in other countries, but imports would provide continued support for the downstream industry and workforce and the communities nearby.

The estimated substitution rates are based on forecasts of energy markets that incorporate existing trends and policy-neutral assumptions. Substantial changes in energy market dynamics, such as improving technology and/or a more rapid increase in the market share of renewable energy than currently modeled, could substantially affect these substitution results. In addition, OCS projects typically take several years to reach production, so the long-term dynamics of energy markets will determine the relative shares of costs and benefits from OCS activities and from the No Sale Option.

The No Sale Option would also eliminate the risk of space-use conflicts between OCS oil and gas development and other ocean users, including the large amount of wind energy development that is planned in the Atlantic Region. **Section 6.5** provides more information regarding other uses of the OCS, including renewable energy development.

Environmental Risks

If the No Sale Option were selected, no environmental risks from OCS exploration, development, and production activities from new leases would occur in or adjacent to the Atlantic Region. Atlantic Region OCS production could replace current energy trends such as oil imports to Atlantic and Gulf Coast states and onshore production which pose their own environmental and social risks to the Atlantic region and adjacent areas.

8.3 Widely Distributed Benefits and Risks

8.3.1 Widely Distributed Benefits

Offshore oil and gas activities have positive and far-reaching economic impacts. For example, the offshore oil and gas industry generates substantial government revenue. Bonus bids, royalty payments, and rental payments arising from OCS oil and gas leases provided revenues of \$5.6 billion in FY 2019, \$3.7 billion in FY 2020, and \$4.1 billion in FY 2021 (ONRR 2021a). Benefits flowing from these revenues tend to be widely distributed among the geographic regions of the U.S. Most leasing revenues are deposited into the U.S. Treasury General Fund and then appropriated by Congress for various Federal functions. As shown in **Table 8-1**, some OCS revenues are also disbursed to states through the 8(g) provisions of the OCS Lands Act, and to states and counties/parishes through the provisions of GOMESA. OCS oil and gas activities also generate a significant amount of tax revenue (such as corporate tax revenue) to the U.S. Treasury.

Revenues from OCS oil and gas leases also provide most of the support for the LWCF, which provides geographically widespread assistance to states and local efforts to acquire land for parks and recreation facilities. In addition to funding matching grants, the LWCF is the primary revenue source for recreational land purchases by the National Park Service, Bureau of Land Management (BLM), U.S. Fish and Wildlife Service, and U.S. Forest Service. Spending on “other uses” under the LWCF Act has generally been for related natural resource purposes throughout the Nation.⁷⁰

In August 2020, the Great American Outdoors Act (GAOA) was enacted, which guarantees annual funding of \$900 million for the LWCF (up until then, the LWCF had been subject to the annual appropriations process) (White House 2020b). GOMESA mandates an appropriation of additional funding for the LWCF. In addition, the GAOA provides \$1.9 billion a year from payments to the U.S. Treasury from energy development revenues from oil, gas, and other energy development on Federal land and water each fiscal year from 2021–2025 to be used for deferred maintenance projects in the National Park Service (NPS), in the National Wildlife Refuge System, on public land administered by the BLM, for the Bureau of Indian Education schools, and in the National Forest System.

OCS revenues also fund the Historic Preservation Fund (HPF), which provides grants to states, Tribes, local governments, and nonprofit organizations to preserve historic places. In FY 2020, Congress appropriated \$118.7 million for the HPF; the annual report for the HPF (NPS 2021) describes how these funds were spent.

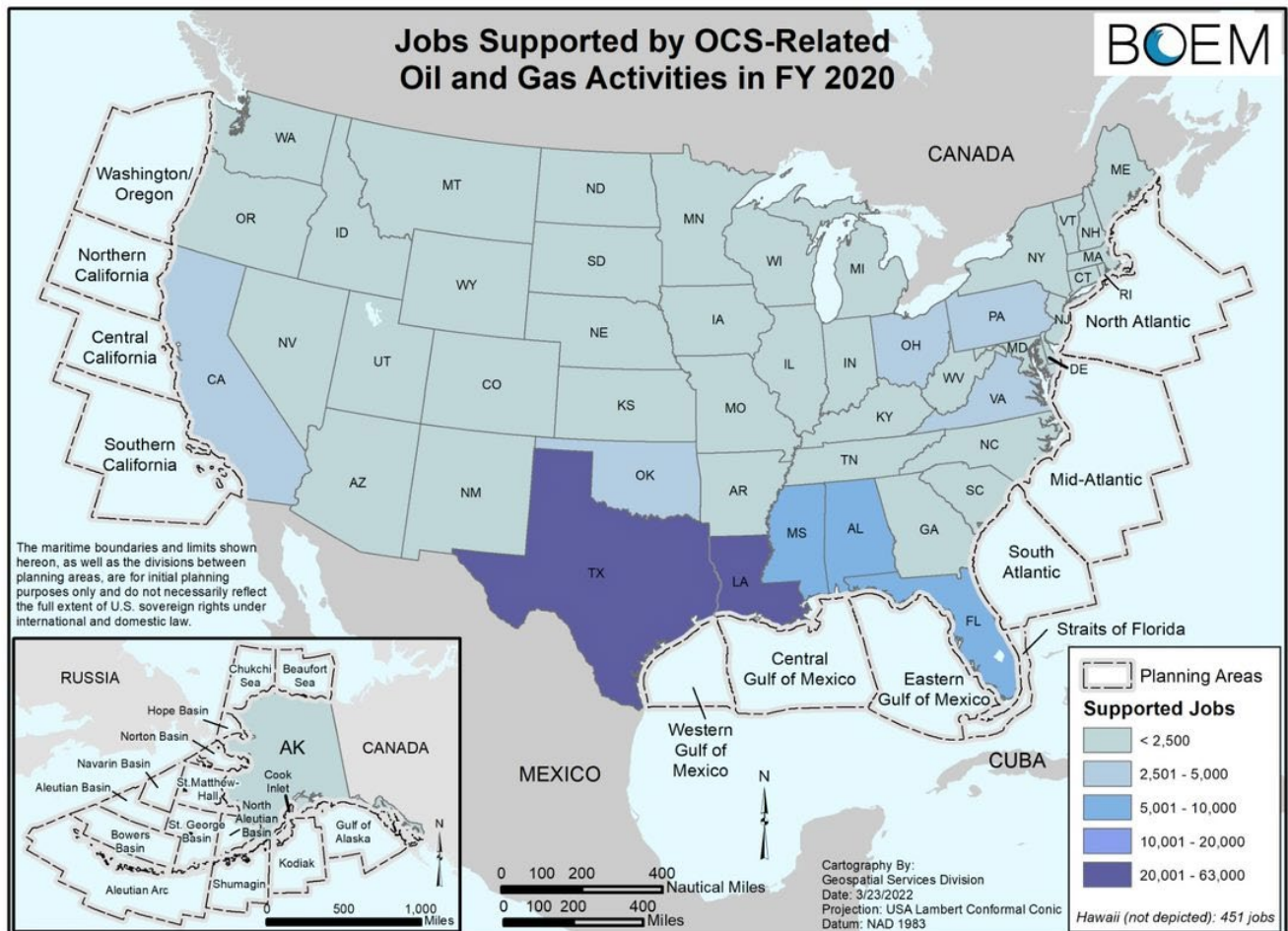
⁷⁰ Historically, some of the major “other uses” of LWCF monies include funding for the Cooperative Endangered Species Conservation Fund, the Forest Legacy program, State and Tribal Wildlife Grants, and deferred maintenance in National Parks and other federally owned areas (CRS 2016).

An OCS oil and gas project requires spending on equipment and supplies for exploration, development, platform fabrication, pipeline construction, air and water transportation, and other activities. The various equipment and supplies required for an OCS oil and gas project, as well as the industry's work schedules, allow for vendors, suppliers, and employees to be located throughout the U.S. Vendors can be located, and employees can live and spend their wages, far from the OCS areas leased, thereby contributing money from OCS jobs to local economies, perhaps hundreds of miles from the OCS. In addition to employment benefits, OCS oil and gas activities generate substantial industry profits that provide dividends to shareholders and serve as a source of investment capital.

BOEM uses internal regional economic impact models to estimate the impacts of industry spending, government revenues, and industry profits generated by OCS oil and gas activities. In FY 2020, OCS oil and gas activities sustained approximately 176,000 jobs and generated \$20.6 billion of value added (contribution to national GDP) (BOEM 2021f). These contributions were lower than usual due to the COVID-19 pandemic, although the number of jobs in the OCS oil and gas industry has been steadily declining in recent years.

Figure 8-1 shows the geographic distributions of OCS oil and gas jobs during 2020; BOEM estimates that approximately 70% of jobs remained in the states adjacent to the GOM (Texas, Louisiana, Alabama, Mississippi, and Florida). The geographic distribution of jobs arising from the Proposed Program would depend on which OCS areas are included. The current distribution of developmental benefits indicates that both the states with significant levels of OCS-related employment and those states near the new activity would very likely benefit.

Figure 8-1: Distribution of Total Jobs Supported by FY 2020 OCS Oil and Gas Activities



Source: BOEM (2020a)

In addition to monetary benefits to the U.S. from OCS activities, development of the OCS provides other national benefits that are less easily monetized. One of these benefits is a reduction in the U.S. trade deficit, with reduced dependence on imported oil. Domestic energy production also reduces risks to national security and adds to supply that can fulfill U.S. energy needs. These national benefits from OCS production are discussed in **Chapter 1**.

8.3.2 Widely Distributed Risks

Most risks to the natural environment that result from OCS activities are regional in nature. However, some of those risks have financial impacts that are more national in scope and GHG emissions present global risks. The risks and benefits of energy substitute production are widely distributed throughout the Nation and in countries from which the U.S. imports oil.

BOEM performed a quantitative analysis of the ESCs of OCS activities, and of the No Sale Option, using the OECM and the *MarketSim* model. This analysis is designed to approximate the differences in the geographic distributions of risks associated with leasing or not leasing certain

OCS areas. Only a subset of impacts is quantified and monetized; more information regarding non-monetized impacts is provided in Chapter 2 of the Draft Economic Analysis Methodology Document (BOEM 2022a).

In addition, this quantitative analysis incorporates assumptions that could be less applicable if the structure of the economy substantially changes in future years. For its Proposed Program analysis of the Draft Proposal, BOEM creates and evaluates potential scenarios to ensure that decisionmaking is as informed as possible, but projecting energy needs and consumption years into the future is inherently uncertain, for example, notable technological advances or a more pronounced adoption of renewable energy than currently modeled could substantially change the results of this analysis.

Chapter 5 provides a hypothetical net-zero emissions analysis should the substitution rates change as the U.S and other nations achieve success towards a net-zero emissions future. BOEM is soliciting feedback on potential methodologies that would enable BOEM to evaluate this issue and refine its analyses in the next stage of the process, the PFP.

To illustrate the distributional differences of the No Sale Option in each program area versus the selection of the leasing alternative in each program area, **Table 8-2** shows a comparison of the regional and national cost allocations for the mid-activity case. To obtain these estimates, the OECM first calculates estimated ESCs of the proposed lease sales and the No Sale Option for each program area using cost data for each likely impact location (within U.S. jurisdiction).

Those costs are then allocated to geographic areas in two ways: using a national perspective and a regional perspective. To make comparisons easier, both allocations group the costs within the same program area definitions. With the national allocation, all estimated costs—whether resulting from the proposed lease sales or from selection of the No Sale Option—are attributed to the program areas that would provide the OCS oil and gas resources, regardless of where the costs are borne. However, the regional allocation assigns costs according to where they are incurred (rather than by location of oil and gas resources), so the program areas represent larger geographic areas that include both the offshore areas and the adjacent onshore states (where most of the costs are experienced).

Table 8-2: Comparison of Environmental & Social Costs, Regional vs. National Allocation

Program Area and Adjacent Coastal States	A	B	C	D	A minus C	B minus D
	Program Costs		No Sale Option		Incremental Environmental & Social Costs	
	National Allocation	Regional Allocation	National Allocation	Regional Allocation	National Allocation	Regional Allocation
Beaufort Sea	161	161	756	0	-594	161
Chukchi Sea	503	502	1,711	0	-1,208	502
Cook Inlet	20	19	308	0	-288	19
Gulf of Alaska	8	7	114	0	-107	7
Washington/ Oregon	24	24	61	29	-37	-5
Northern California	90	90	173	0	-84	90
Central California	80	80	229	53	-148	28
Southern California	245	245	1,091	132	-846	113
GOM Program Area 1	773	774	3,906	246	-3,133	528
GOM Program Area 2	148	148	412	0	-264	148
South Atlantic	105	105	558	1	-452	105
Mid-Atlantic	326	327	2,051	15	-1,725	312
North Atlantic	114	114	684	89	-570	25
Non-Coastal U.S.	-	-	-	11,489	-	-11,489
Total	2,598	2,598	12,054	12,054	-9,456	-9,456

Notes:

All costs are in millions of dollars. Rows may not sum to totals due to independent rounding.

The national allocation assigns to each program area the costs likely to result from activities necessary to find and produce the anticipated production from that area, along with the corresponding costs of providing energy substitutes for forgone oil and gas if no sale is held for that area.

The regional allocation also assigns No Sale Option costs to program areas, but it applies costs to the offshore areas or adjacent coastal states or non-coastal states likely to incur the costs of the activities associated with providing the OCS or substitute energy. Accordingly, the table includes a Non-Coastal U.S. “program area” to capture the costs resulting from the production of energy substitutes inland of the coastal states.

Areas without anticipated commercial discoveries (and no costs from the No Sale Option) were omitted from this table.

The incremental columns calculate the difference between the program area costs and the No Sale Option costs. A negative incremental cost means a relative benefit from holding the program versus the No Sale Option.

ESCs included in this table are only those that can be monetized. Chapter 4 of the Draft Programmatic EIS describes qualitatively the potential impacts of OCS oil and gas leasing on the physical, biological, and human environments in and adjacent to the program areas considered in this analysis.

The first two columns in **Table 8-2** show the ESCs of OCS activities likely to result from the proposed lease sales using the national allocation (first column) and the regional allocation (second column). Note that, for the Program, the national and regional allocations yield very similar costs.

The third and fourth columns show the ESCs attributed to each program area because of the No Sale Option being selected for all program areas (i.e., no OCS lease sales anywhere under the new National OCS Program). The only difference between the third and fourth columns in **Table 8-2** is whether the costs are attributed to the areas in which the forgone resources are located (national allocation) or to the program areas in the vicinity of the locations likely to experience

those ESCs (regional allocation). Because most of the costs resulting from energy substitutes are experienced outside of the OCS and adjacent coastal states, there is a Non-Coastal U.S. “program area” for the regional allocations.

As an example, in the baseline substitutions analysis, about 51% of the forgone production from the Alaska areas is replaced with (additional) imports to the West Coast, and that pattern is expected to continue. Thus, in **Table 8-2**, portions of the \$756 million in ESCs resulting from the Beaufort Sea No Sale Option are attributed to the Washington/Oregon, Central California, and Southern California program areas.⁷¹

Under the regional allocation (in column D), the No Sale Option costs are attributed to other areas as no costs occurring because the No Sale Option in the Beaufort Sea are incurred in the Beaufort Sea. Much of the remaining forgone production from the Alaska areas is replaced by onshore production. Onshore production results in higher per-unit-of-production ESCs compared with other energy substitutes, and under the regional allocation column, most of the costs resulting from this onshore production are allocated to the Non-Coastal U.S.

The national and regional allocation approaches produce the same total cost, but those costs can be attributed to either the program areas where the forgone resources are located or to the general locations where the costs would be experienced, and these geographic allocations can be very different. The last two columns in the table show the incremental (or net) ESCs—the costs resulting from the proposed lease sales minus the costs of the energy substitutes (No Sale Option)—under both the national and regional allocation approaches. These numbers represent ESCs of the National OCS Program by program area; a negative number is an avoided cost (i.e., a relative environmental benefit of implementing the proposed lease sales). For example, as shown in the fifth column, the proposed leasing in GOM Program Area 1 could prevent \$3.133 billion in ESCs around the Nation.

The sixth column shows that the Non-Coastal U.S. states would benefit the most from the proposed lease sales (or conversely, would bear the most costs of No Sale Option decisions). These regional allocation costs are meant to provide the Secretary with a perspective of the relative sharing of ESCs in the absence of an OCS program. The avoided costs of having an OCS program rather than relying on substitutes are a widely distributed benefit of the program. While these two methods of allocation assign very different costs to specific program areas, the total ESCs to the Nation from the No Sale Option (\$12.054 billion) are the same, regardless of where and how they are allocated. Non-monetized impacts are discussed under the No Action Alternative in the Draft Programmatic EIS (BOEM 2022a) and in Chapter 2 of the Economic Analysis Methodology Document (BOEM 2022b).

⁷¹ Costs incurred by the countries supplying the oil imports are not included in any of these estimates.

The Secretary’s decisions (regarding holding lease sales) in the National OCS Program are described by program area. The potential effect of each program area decision on the overall balance of Section 18 factors is considered. Because this analysis is national in scope, allocating benefits and costs according to resource location, using the national allocation, allows BOEM to present the results in a single table, facilitating this dual consideration.

For each program area, the Secretary can see: 1) the anticipated level of incremental (net) benefits to the U.S. likely to result from leasing; 2) the level of benefits relative to ESCs; and 3) the level of incremental benefits from offering that area relative to those from offering each of the other program areas for lease.

The regional allocation approach provides important information on the relative geographical sharing of the ESCs (whether from the Lease Sale Option or the No Sale Option), which is relevant for this analysis. The regional allocation attributes the costs to the program areas in or adjacent to the locations where the costs are borne (or to the non-coastal U.S. for most of the substitute energy costs).

Unlike the national allocation, it widely distributes and—for each program area—aggregates the costs from all originating program areas, irrespective of where the resources would be produced (or forgone). Therefore, while the regional allocation provides valuable information, it illustrates the collective result of the proposed lease sales, rather than the result of any one area-specific decision, on the relative and total costs anticipated to result from leasing.

While the risks associated with air quality are largely regional, the risks from GHG emissions are national and international in scale, whether they would be produced by implementation of the proposed lease sales or by the energy substitutes in the absence of new OCS activity. Chapter 2 of the Draft Economic Analysis Methodology (BOEM 2022b) discusses the impacts of GHGs that could be emitted as a result of the activities associated with the 2023–2028 Program.

The environmental risk of a low-probability catastrophic oil discharge, such as that resulting from the *Deepwater Horizon* accident, is remote and would be primarily regional. However, the compensation costs for such events and for other losses not attributable to specific parties are shared by companies and individuals throughout the country. For example, after the *Deepwater Horizon* oil spill, all BP shareholders were affected by compensation liabilities associated with the spill. In that case, there was a significant transfer of funds to the GOM coast for clean-up and compensation from an international company with widely dispersed stockholders.

While this chapter has focused on the ESCs that occur in the U.S., some costs from the National OCS Program are not limited to the U.S. Similarly, foreign countries conduct their own oil and gas activities that could increase the risk to U.S. waters and coasts. For example, many long-lived marine species, such as whales, dolphins, sharks, and tuna, have distributions or ranges that cross

international boundaries. Impacts on these species or populations originating within U.S. waters could be detectable within the waters of other countries and vice versa.

8.4 Summary

Development of the OCS results in developmental benefits, but also environmental risks. To the extent that oil and gas development occurs in areas, the developmental benefits include employment, higher-than-average incomes, business opportunities, and increased government revenues. Oil and gas activities could also lead to environmental risks such as potential adverse impacts on marine and coastal resources from routine activities and from oil spills.

A major determinant of where benefits and risks occur is the extent to which onshore areas in the vicinity of a region already have an experienced workforce and businesses that provide goods and services for oil and gas activities. In communities already providing goods, services, and/or labor for OCS oil and gas activities, new lease sales could sustain benefits and thus prevent problems such as those associated with worker dislocation or a weakening of the tax base.

For communities not near OCS activities but providing similar support for onshore projects, there should be early opportunities for increased employment, income, and revenues because of successful lease sales. In communities without those existing relationships, there could be some early employment and business opportunities—especially for infrastructure construction, while longer-term employment/business opportunities and spending effects could develop more slowly and occur primarily during the production phase.

Risks to the natural environment from OCS activities include potential adverse impacts on marine and coastal resources from routine activities and from oil spills. These risks include impacts on commercial fishery stocks, other uses of the OCS, and the availability of subsistence resources. These risks vary greatly depending on the types and scale of new OCS oil and gas activities, levels of existing OCS activities, and distribution of environmental resources. The benefits resulting from new OCS activities are also accompanied by risks of negative socioeconomic impacts such as increased demand for land and housing, along with overuse of existing roads and public facilities. This is especially true for smaller communities with less complex, non-industrialized economies. The Draft Programmatic EIS provides more information on such risks and impacts.

Supplying additional domestic energy to replace forgone OCS production provides widely distributed benefits from onshore producer spending and related employment. However, most of the energy replacing forgone OCS oil and gas is from imported oil, the upstream benefits of which tend to accrue to countries that export the oil to the U.S. Additional OCS oil and gas production would reduce the need to obtain oil and gas from other domestic and foreign markets. Reducing imports could also reduce the overall trade deficit and increase energy security.

Currently, the GOM and adjacent states receive most of the direct benefits from OCS oil and gas activities and bear most of the risks to the human and natural environment. Due to a lack of lease sales in recent decades and other reasons, the large population centers on the Pacific and Atlantic coasts, which are major consumers of energy, neither enjoy most benefits nor bear most environmental risks of OCS activities.

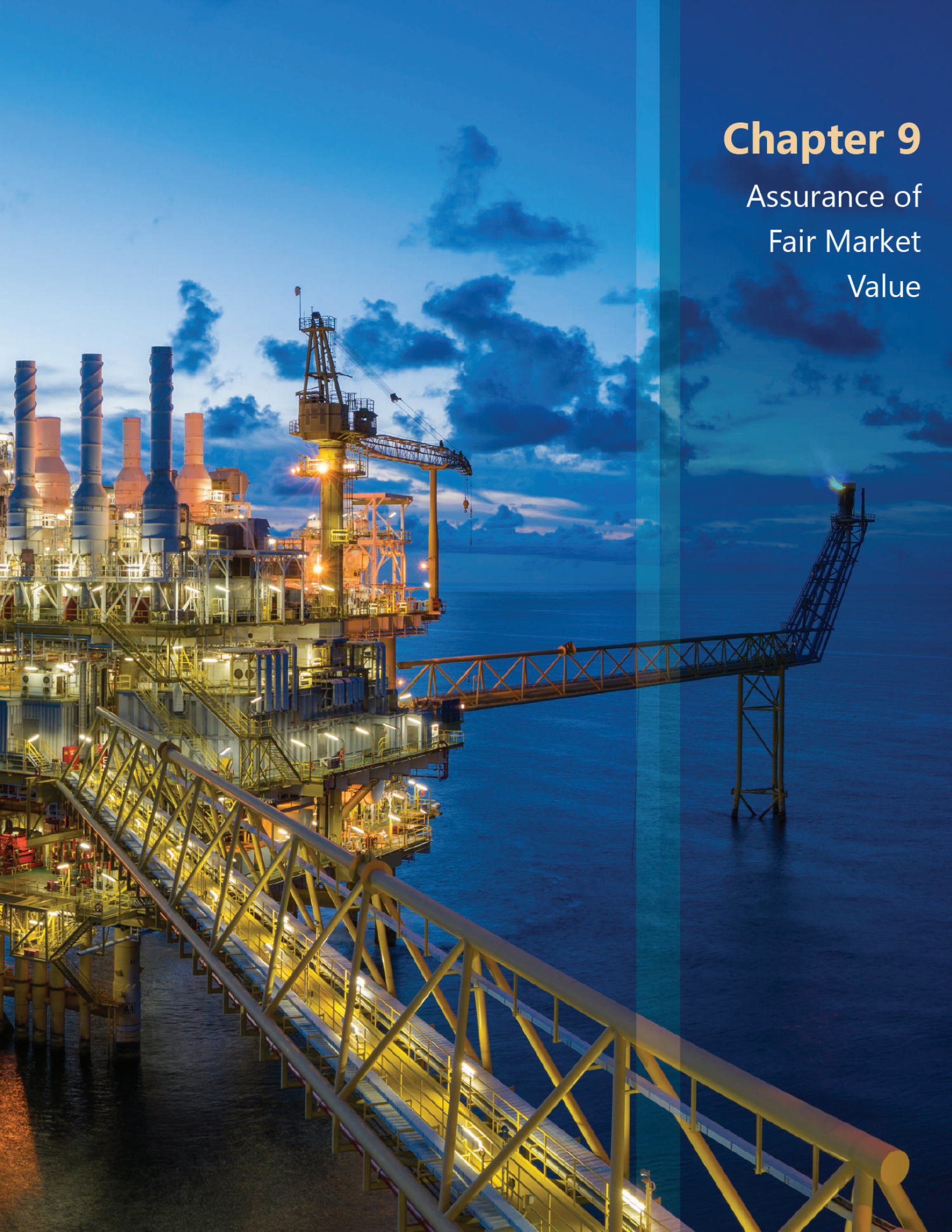
They do, however, necessarily bear the risks associated with imported oil and transportation of oil and gas substitutes. Any consideration of oil and gas leasing in the Atlantic or Pacific should also consider interactions with potential future renewable energy projects in these areas. Alaska is not a major consumer of energy but has a well-developed oil and gas industry that is in decline. New oil and gas activities on the Alaska OCS would bring economic benefits to the state's residents.

Therefore, while there are many other factors that the Secretary must consider, offering acreage in multiple OCS Regions would contribute to a more equitable sharing of both benefits and risks resulting from OCS activities. The GOM region has the most to lose from selection of the No Sale Option, given the extensive existing business, government, and employee inter-relationships and dependency associated with OCS activities. Scheduling sales for the Alaska OCS—which rivals the GOM in resource potential—would give the state a chance, which many have requested, to share in the benefits of the National OCS Program, but would increase associated risks as well. However, the extent of the benefits would depend on how much oil and gas leasing and development eventually occurs. This is a particular concern because the existing Section 12 withdrawals of most of the Arctic OCS areas substantially reduced the resources available for development.

Regardless of the Secretary's decisions in this process, the approved National OCS Program can be only a first step in creating the *potential* for equitable sharing of developmental benefits and environmental risks. The actual sharing will be influenced by factors beyond the Secretary's control, including the state of the economy and energy markets at the time that sales are held, actions by coastal states that facilitate or hinder implementation, and major trends in industry and consumer choices. However, it is the Secretary's programmatic decisions on size, timing, and location of proposed lease sales that determine the potential for sharing, and the other factors generally can only influence sharing within the bounds set by those decisions.

Chapter 9

Assurance of Fair Market Value



Chapter 9 Consideration of the Value of OCS Leases and Assurance of Fair Market Value

Section 18(a)(4) of the OCS Lands Act requires receipt of FMV from OCS oil and gas leases, stating “[l]easing activities shall be conducted to assure receipt of fair market value for the lands leased and the rights conveyed by the Federal Government.” Furthermore, the OCS Lands Act states that the OCS is a “vital national reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs” (43 U.S.C. § 1332 (3)).

While the OCS Lands Act mandates that BOEM ensure receipt of “fair market value,” the GAO has issued reports in recent years that refer instead to “fair return.” FMV was operationally defined by the report titled *Procedures for OCS Bid Adequacy Including the Final Report of the OCS Fair Market Value Task Force* (USDOJ 1983), as related to the adequacy of the level of the high bid offered for a lease with given fiscal terms, not to the design or setting of the fiscal terms themselves. In contrast, the term “fair return” considers whether all aspects of a lease sale, including fiscal terms, are likely to give an appropriate share of revenue to the government. This chapter considers both the specific procedures designed to ensure FMV for a specific lease as well as the broader consideration of fair return.

To secure and maintain public trust in making OCS resources available for private development, BOEM employs an established set of criteria, described herein, that ensure an adequate return to the public for the OCS lease rights issued. The valuation of OCS acreage is a multi-phase process including National OCS Program-level analysis, lease sale-level analysis, and, finally, the ultimate determination that a bid on a specific OCS block meets FMV in the analysis conducted prior to the issuance of an individual lease following a lease sale.

In considering the value of OCS acreage at the National OCS Program development stage, BOEM adopts screening criteria that recognize the importance of considering the value of waiting to lease. This analysis, described in detail in this chapter, identifies whether each program area would provide greater value if leasing it is included in the 2023–2028 Program or delayed until a future National OCS Program. Some other factors that could affect the value of waiting to lease are discussed qualitatively in **Section 9.1.1**.

Also pertinent for both the National OCS Program and the lease sale stage is the consideration of the size(s) and frequency of lease sales. Size and frequency affect competition and the pace of leasing. The size of a lease sale is determined based on several factors, including economic, environmental, or other grounds. BOEM considers FMV during the preparation and execution of

the National OCS Program. Further discussion is provided in **Section 9.3.2**, Fiscal and Lease Terms.

Following the size, timing, and location decisions formulated at the National OCS Program development stage, BOEM assesses FMV-related components, such as bidding systems and fiscal and lease terms, at the lease sale stage, to help ensure that the public receives a fair return when leasing resources. The OCS Lands Act and its implementing regulations allow BOEM flexibility to tailor these components in each program area for each sale at the lease sale stage.

The final step in the FMV consideration following a lease sale involves assessing the bonus bids submitted for leases, which occurs for each block receiving a bid shortly after the lease sale and prior to lease issuance. The rules and procedures for this process were revised in 2016 and are available at <http://www.boem.gov/Fair-Market-Value>. These FMV assessments of the cash bonus bids are also referred to as determinations of bid adequacy, and BOEM follows a two-phase procedure to assess the adequacy of each bid.

The first phase involves BOEM’s assessment of the block’s geologic and economic viability. In the second stage, the government’s assessment of the high bid is based on a stochastic simulation model of the post-sale activities and risked revenues anticipated to occur related to the exploration, development, and production of the oil and gas resources. Furthermore, consistent with the private formulation of cash bonus bids, these determinations account for existing statutory and regulatory conditions, such as drilling requirements within the lease terms, that could restrict lessee flexibility.

9.1 Timing of OCS Lease Sales and Related Activities

In determining whether an area should be included at this National OCS Program stage, BOEM evaluates broad area-specific considerations, including a comparison of market prices to the calculated hurdle prices for oil and natural gas. However, many other factors are considered for the Secretary’s ultimate decisions on size, timing, and location; these include the views of coastal states, local governments, industry, Tribal entities, and other stakeholders as well as environmental factors (see **Chapter 2**).

Each potential lease sale scheduled in the 2023–2028 Program will be subject to separate established pre-lease sale decision processes, including hurdle price screening and lease term analysis (described in **Section 1.4**).

The value of the OCS resources and associated leases is affected by the timing of leasing. Because OCS leases have fixed primary terms (described in **Section 9.3.2**) as required by the OCS Lands Act, lessees planning to explore and initiate development on an economic prospect must do so within the primary term. However, in certain cases, it could theoretically be better for the

What is a Hurdle Price?

The hurdle price is the price below which delaying exploration in the sale area is more valuable than immediate exploration.

lessee to wait longer to explore for and develop resources, but this cannot be accomplished if it requires waiting beyond the primary term.

This situation could arise, for example, if the price of oil or gas were trending downward but showing signs of recovery after the primary term. In this situation, the lessee cannot wait for prices to rise before exploration and development begins because the primary term would be nearing expiration. However, waiting could be in society's (as well as the lessee's) interest because the resources would be worth more if produced later. In this case, it is conceivable that greater value could be realized by waiting longer to lease in the first place, given the fixed length of the primary lease term.

To account for the possibility wherein waiting to lease at a future point in time might bring a greater value to society, a hurdle price analysis is performed. In this context, the social value is like that calculated in **Section 5.3**. Social value is the gross revenue of the produced resources less the private and social costs of extracting the resources. The hurdle price is among the factors used to evaluate an area both at the National OCS Program stage and before a lease sale. This is explained more fully in **Section 9.1.2**.

9.1.1 Information and Uncertainty

At the time of lease issuance, uncertainty exists regarding not only future prices, but also risked resource endowments, capital and operational costs, available technologies, ESCs, and the prevailing post-sale regulatory and legal environments. An objective of both the government and industry is to manage the risks associated with these uncertainties.

With its fiscal terms, the government, as the lessor, transfers most of the fiscal risk to the lessee and in return receives an upfront bonus bid, rentals on non-producing acreage, and royalties if the lease enters production. The lessee assumes virtually all the cost risk. Other risks are managed through the application of industry best practices, mitigating legal liability, and enforcement of safety and environmental laws and regulations governing OCS operations.

This section explains how decisions regarding the timing of leasing, made at the appropriate points during the preparation and execution of the National OCS Program, reflect consideration of how uncertainty and information could evolve.

9.1.1.1 Option Value

Option value is defined as the value of waiting to make an irreversible investment until critical new information arrives. In general, option value can be an element of FMV, and its magnitude and significance are directly affected by components of uncertainty and information, or lack thereof. In designing the National OCS Program, BOEM provides the Secretary with information relevant to decisions on the size, timing, and location of lease sales. Public comments received on prior National OCS Programs have suggested that USDOJ consider option value while performing

its size, timing, and location analysis to fulfill the FMV statutory requirement. The hurdle price analysis considers the uncertainty of oil and gas prices and the anticipated hydrocarbon endowment and is discussed in **Section 9.1.2**. This section discusses non-market factors that are reflected in option value in a broad sense.

When uncertainties exist, having the option to delay activities creates value as additional and new information can be revealed and acted on in the future. However, once an action is taken, the presence of uncertainty is known to reduce the net benefits of a project because the action eliminates the value of the option to wait to take that action (Arrow and Fisher 1974). In connection with socially optimal OCS oil and gas development, the gist of option value is that a decision regarding whether to use an oil and gas asset can be modeled as a perpetual call option (Davis and Schantz 2000).

From the government’s perspective, OCS oil and gas resources are a perpetual call option in that the government has the right, but not the obligation, to offer OCS areas for lease at any time in the future (i.e., the option does not expire). The decision regarding exercising the option at a particular time can reflect price volatility as well as emerging information about resources, costs, and risks when the social value of the option is in question.

The broad form of option value here includes what can be termed “quasi-option value.” The concept of “quasi-option value” was identified by Arrow and Fisher (1974) and is defined as the “benefit associated with delaying a decision when there is uncertainty about the payoffs of alternative choices and when at least one of the choices involves the irreversible commitment of resources” (Freeman 1984). While traditional option value focuses on the value of action now versus in the future, the quasi-option value of an action is based on uncertainty and the value of information that can be gained now versus in the future.

An important distinction in quasi-option value is what is uncertain and how those uncertainties are resolved. Some uncertainties can be resolved through receipt of additional information, and this information can be learned without the development of the oil and gas resource (e.g., waiting for the results of a study on the baseline condition of an environmental resource in a program area). These uncertainties are then defined as “independent learning” (Fisher and Hanemann 1987). However, other uncertainties can only be resolved with exploration and development of the oil and gas, demonstrating “dependent learning.”

In their work on option value, Fisher and Hanemann (1987) specifically discuss the example of offshore oil leasing, acknowledging the “dependent” nature of uncertainties given that the largest uncertainty lies in estimating the quantity of oil and gas resources, which can only be resolved, and then only partially, by exploratory well drilling. If, on the other hand, the desired information regarding ESCs is, or can be, obtained without drilling, which by nature embodies some degree of risk, then it is “independent” information, and the case for significant option value and exclusion from the next Program is strengthened. Conversely, if there is no way to obtain information

other than by conducting exploration activities, then this aspect of the option value is ambiguous. As described by Fisher and Hanemann (1987):

It surely requires no algebra to show that, if the information about the consequences of an irreversible development action can be obtained only by undertaking development, this strengthens the case for some development. The practical importance of this observation depends on the answers to two empirical questions. Is it true that the information can be obtained only by undertaking development? How much development is required to obtain the information?

To answer these questions, BOEM must first consider the nature of the information being sought based on the many uncertainties surrounding OCS oil and gas development and how these uncertainties can be resolved.

9.1.1.2 Considering Uncertainties for the National OCS Program

To determine whether the possibility exists for significant option value associated with delayed leasing, BOEM considers the uncertainties surrounding OCS activities and how these uncertainties could impact the value of OCS acreage. Resolving uncertainties can reduce risk and greatly change the value of a lease and its corresponding societal value. The following sections discuss the uncertainties that can affect the potential value and possible risks of OCS oil and gas development and how these uncertainties could be resolved. Major uncertainties surrounding oil and gas development are discussed in the context of independent and dependent learning. Many include components of both, and these uncertainties are tied to components of the net benefits analysis discussed in **Section 5.3**.

The discussion of uncertainties and option value must always consider the pyramidal structure of the National OCS Program development and lease sale processes. The National OCS Program development process begins by considering all leasing areas, and then the potential areas are usually winnowed down into what is ultimately the lease sale schedule in the PFP. Program areas can be removed at any stage of the National OCS Program development process but once a Program is approved, areas passed over cannot be added back in without restarting the National OCS Program development process or an Act of Congress. Further, the Secretary has the flexibility to cancel a lease sale even after the National OCS Program is approved.

Given these procedures, to maintain the maximum option value, USDOJ may consider retaining in the National OCS Program less resource-rich program areas and assess interest in leasing these areas at the lease sale stage. At that stage, if BOEM determines that there is no industry interest in leasing these areas, BOEM can always decide not to hold a sale.

USDOJ retains the greatest flexibility, and therefore option value, by including areas in the National OCS Program. It is also true that there could be instances where the Secretary could be justified in excluding an entire area from the National OCS Program. These reasons could include

the possibility that major environmental or comparative studies would not be completed, and no new information is expected to be available within the span of the National OCS Program.

Another reason to exclude an area could be if an area's estimated developmental value is marginal and the improbability of generating sufficient geologic information limits the value of including the area in the National OCS Program. Excluding areas also reduces administrative and study costs associated with further analyzing the area. Should a lease sale occur, and leases be developed, most of the production from this National OCS Program would likely not transpire for 10 or more years.

The Secretary may choose to cancel lease sales if any important informational uncertainties have not been satisfactorily resolved at the lease sale stage. Further, the Secretary can consider when important information is expected to become available when scheduling the individual lease sales within the National OCS Program.

At the National OCS Program stage, no irreversible commitment of resources occurs because no activities are authorized, and, as discussed, the Secretary could always choose to cancel a lease sale at the individual lease sale planning stage. For this reason, the lease sale stage is a more appropriate place to consider quasi-option value because that is when the irreversible leasing decision is made. However, it is helpful to discuss early on, at the National OCS Program stage, the nature of OCS oil and gas leasing, and the resolution of uncertainty.

In addition to obtaining FMV for OCS resources, the OCS Lands Act sets forth goals for OCS resources to be made available for expeditious and orderly development, subject to environmental safeguards, in a manner consistent with the maintenance of competition and other national needs. Through the National OCS Program development process and lease sale design process, the Secretary can evaluate decisions in conjunction with the OCS Lands Act purposes.

The next subsections consider the many different uncertainties that exist in OCS oil and gas development. Most of these uncertainties are discussed qualitatively with reference to the nature of the uncertainty and how the uncertainties could resolve with additional information. This discussion is included because BOEM acknowledges the possibility of obtaining additional information that could affect the value of OCS resources over time. This value was also recognized by the court in *CSE v. Jewell* (779 F.3d 588 [D.C. Cir. 2015]).⁷² While discussed, BOEM does not quantify the quasi-option value of each of these uncertainties given difficulties in

⁷² The court found that “[t]here is therefore a tangible present economic benefit to delaying the decision to drill for fossil fuels to preserve the opportunity to see what new technologies develop and what new information comes to light.” *CSE v. Jewell*, 779 F.3d 588, 610 (D.C. Cir. 2015).

quantifying the informational value of delay and the continuing lack of well-established methods to quantify such considerations.⁷³

While many of the uncertainties are considered qualitatively, BOEM includes a quantitative treatment of price and resource uncertainty. These uncertainties are quantitatively discussed in **Section 9.1.2**, which describes the hurdle price analysis.

9.1.1.3 Resource Uncertainty

BOEM assessments of undiscovered oil and gas resources account for uncertainty by using distributions for model inputs and assigning geologic risk at both the prospect and play level (described in **Chapter 5**). The uncertainty associated with the presence and estimated quantity of oil and gas resources can only be fully resolved through lease acquisition and subsequent production of oil and gas reserves on OCS acreage. In this sense, “dependent learning” is required to resolve uncertainty. Private companies must spend significant amounts of money to acquire leases and analyze geologic information to discover and ultimately produce new oil and natural gas reserves.

At this stage of National OCS Program development, there is significant uncertainty regarding the individual and aggregate volumes of technically recoverable oil and gas resources on unleased acreage. BOEM recognizes the uncertainty and assesses the extent to which these undiscovered resources may be commercially viable. BOEM’s current estimates of both technically recoverable and economically recoverable resources available in each of the OCS planning areas are presented in the 2021 National Assessment (BOEM 2021e). A summary of the methodology for this assessment is presented in **Chapter 5** and in the 2021 National Assessment (full report) (BOEM 2021a).

The GOM Region provides an example of where recent activity and exploration results provide information that supports an update of undiscovered resource potential. While the expansion of offshore infrastructure and new technology has allowed industry to produce smaller and more geologically complex reservoirs, discovery trends in the GOM led to BOEM refining the field size distributions and the estimated number of prospects for some mature geologic plays, particularly on the shallow water shelf.

When compared to the 2016 National Assessment, the UTRR mean estimate for oil decreased by 38% to 29.59 BBO, while the estimate for gas decreased 61% to 54.84 Tcfg. While the overall aggregated resource volumes decreased for the GOM Region, it is worth noting that several geologic plays were assessed to contain more resources than in the previous assessment based

⁷³ The D.C. Circuit court upheld BOEM’s qualitative approach to considering option value in *CSE v. Jewell*, 779 F.3d 588 (D.C. Cir. 2015). The court found that “Interior acted reasonably in employing qualitative, rather than quantitative, measures of the informational value of delay.”

on current information. The mean resource estimate for one geologic play increased by more than 1.5 BBOE due in large part to additional information from several new analog fields.

The Navarin Basin in the Alaska OCS is another example of how data compiled from exploration can lead to a significant reduction in assessed undiscovered resources. A resource assessment published in 1985 reported that the Navarin Basin Planning Area had an estimated 1.30 BBO of mean risked oil volumes (MMS 1985). However, no oil or natural gas pools were discovered from any of the eight exploration wells that were drilled in the Navarin Basin Planning Area after a 1983 lease sale resulted in 163 tracts being leased for \$633 million. In the 2021 National Assessment (BOEM 2021e), the current geologic analysis includes a Navarin Basin Planning Area resource estimate of 0.26 BBO of mean risked oil volumes. There has been little or no industry interest in this area after the leasing and drilling activity associated with the 1983 lease sale.

Seismic surveys are critical to improving knowledge and reducing resource uncertainty and to better understand hydrocarbon potential. However, exploration and development activities (drilling and production) are the most definitive way to reduce resource uncertainty.⁷⁴

9.1.1.4 *Capital and Operating Cost and Extractive Technology Uncertainty*

Companies operating on the OCS face uncertainty regarding future capital and operating costs. This uncertainty is greater in frontier program areas because much is still unknown about the costs of finding and developing oil and gas in those areas. In the GOM, lessees have had decades of experience and there is generally less cost uncertainty. Costs cannot be known with certainty in frontier areas until exploration and development activities begin.

Cost uncertainty can be driven by market factors that affect demand for oil and gas exploration and development equipment (e.g., rigs, skilled workers). Increased oil prices provide increased incentive for additional exploration and development activity, which increases demand for drilling rigs, and in turn raises the costs of exploration, development, and production. Similarly, the opening of a new province for oil and gas development can bring in additional interest and investment from industry, increasing competition for skilled labor and drilling rigs. For example, when Mexico opened its waters for oil and gas development, it generated additional investment dollars in the region, increasing demand for rigs and skilled workers, and ultimately, costs.

According to the logic of option value, a value can be enhanced by delaying action in a case where costs are currently deemed to be high, with a probability of decreasing in the future. In the case of OCS oil and gas, there is not a reliable method to know or predict whether costs will decrease in the future. In addition to capital and operating costs, technical challenges during the exploration and delineation of a particular prospect can result in drastic cost changes (e.g., drilling

⁷⁴ This is analyzed in the paper by Rothkopf et al. (2006), *Optimal Management of Oil Lease Inventory*.

a well into a high temperature/high-pressure reservoir or impacts from natural events such as hurricanes). This further demonstrates dependent learning.

Uncertainties surrounding the magnitudes of capital and operating costs also influence the net benefits estimates for each program area. Because the capital and operating costs are inherent in calculating the NEV (a major component of a program area's net benefits calculation), changes in costs could alter the estimate of NEV in each of the program areas.

Over time, innovative technology could become available to extract oil and gas resources more efficiently or safely, and/or reduce risks associated with extraction. Well control and containment technologies are improving the ability of operators to mitigate damages from well control incidents by closing the well, capturing the flow, or assisting in clean-up operations. This further illustrates the concept of dependent learning, which is an element in the option value calculus but is oftentimes not considered in comments received regarding the importance of evaluating option value concepts in National OCS Program formulation.

9.1.1.5 Environmental and Social Cost Uncertainty

As part of the National OCS Program decision on size, timing, and location, the Secretary considers the available environmental and social cost information. Additional and new environmental and social information is continually becoming available. All the environmental or social cost estimates in BOEM's analysis, particularly the impacts estimated in the OECM, are subject to uncertainty and future revision. A range of uncertainty around any of the point estimates provided can occur. Viewed from an analytical perspective, the situation is like that of resource estimates; there is some probability that ESCs might be smaller or greater than the point estimates provided, and that directly affects the magnitude of the expected option value.

In contrast to resource estimates, most environmental impacts can be mitigated, remediated, or otherwise compensated. However, even with mitigation measures in place, certain impacts could be deemed significant and irreversible. For many years, environmental scientists and economists have examined the risks of irreversible impacts, and some researchers have applied real options theory to irreversible issues such as species extinction.

Research and studies have considered the uncertainty of the chances of resource development causing wildlife species extinction in connection with the uncertainty of the value of a given species. For example, Abdallah and Laserre (2008) assert that logging in a certain forest might cross an ecological threshold leading to caribou extinction. Option value models formalize the intuition that logging is not beneficial unless the implied risk is "low enough." The value lost if a species becomes extinct is also uncertain. As described by Kassari and Lasserre (2002), biodiversity relates to a "portfolio" of future uses for species.

Another study specifically considered the amenity value, the characteristics that influence and enhance appreciation of the particular area that would be lost with oil and gas development in the

ANWR. Conrad and Kotani (2005) estimate a “trigger price” for oil that would justify the loss in amenity value if development were allowed in the region. In theory, a similar approach could be applied to OCS leasing. BOEM is continuing to evaluate methods in which an amenity value could be incorporated into future hurdle price analyses.

The relatively few studies that apply real options concepts to possibly irreversible environmental impacts from oil and gas activities demonstrate the serious difficulty of assessing these risks. It is not hard to envision the broad outlines of a real options model of environmental impact, but it is surprisingly difficult to specify and estimate a useful empirical model of that type.

BOEM’s Environmental Studies Program (ESP) recognizes the need for and importance of new environmental information and has funded more than \$1 billion in research throughout its 50-year history, covering physical oceanography, atmospheric sciences, biology, protected species, social sciences, economics, submerged cultural resources, and environmental fates and effects. Information developed by BOEM’s ESP and other sources is incorporated in environmental analyses conducted by BOEM and builds the foundation for science-based decisionmaking throughout the National OCS Program development and leasing stages.

The ESP recognizes the different needs for information in each of the OCS Regions and tailors the studies accordingly. In Alaska, the ESP focuses on many topics including protected species, physical oceanography, wildlife biology, subsistence and traditional knowledge, economic modeling, oil spills, and Arctic resources. Research in the Pacific region focuses on platform biology, an intertidal monitoring program, and renewable energy development.

In the GOM, studies focus on a wide range of subjects including oil spill modeling and deepwater oceanographic processes, archaeological and biological research, deepwater corals and habitat mapping, protected species observations and monitoring, and socioeconomic issues. In the Atlantic, much of the recent focus of the ESP has been on establishing environmental baseline data and on visual impacts, space-use conflicts, and associated economic effects of renewable energy projects, but some research, especially that conducted historically, has focused on the impacts of oil and gas projects in the region.

BSEE also has an active safety and technology research program. For example, the longstanding Oil Spill Response Research Program conducts research on oil spill response technologies for oil spill detection, containment, treatment, recovery, and clean-up. Part of this research is conducted at the National Oil Spill Response Research and Renewable Energy Test Facility, Ohmsett, which allows testing of oil spill response technologies. BSEE conducts extensive oil spill response research for Arctic conditions, which considers how sea ice, cold temperatures, and hazardous conditions could potentially interfere with oil spill response in the Arctic. In addition, BSEE also manages a Technology Assessment Program that conducts research related to operational safety and pollution prevention. This program focuses on assessing offshore engineering technology to promote safety and environmental protection.

BOEM also receives information from other Federal agencies. BOEM collaborates with agencies such as NOAA and the U.S. Fish and Wildlife Service. Focusing on Alaska, the U.S. Geological Survey published a report in 2011 outlining the additional information needs for Alaska oil and gas development (USGS 2011), and E.O. 13580 created the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska to define information needs. Both have led to interagency coordination on research projects and information sharing in the U.S. Arctic.

Further, BOEM works with non-Federal entities, such as Alaska Native groups, the scientific community, industry, Tribal entities, and state and local governments. Valuable information has been obtained through collaboration and coordination with other entities, such as the North Pacific Research Board and the Arctic Research Council, which are involved in directing, conducting, and prioritizing science in the Arctic. One specific example includes the close coordination between BOEM and the Interagency Arctic Research Policy Committee to help develop the Arctic Research Plan for FY 2017–2021. BOEM also recently developed a partnership with the National Academies of Sciences, Engineering, and Medicine to provide independent information on environmental studies and assessment activities. The committee includes members with a broad range of expertise in the natural and social sciences, including ecology, sea ice, economics, noise, the application of science to policy, and other topics.

BOEM includes new information at all stages of development of the National OCS Program and lease sale planning processes through its research and that of other Federal agencies and non-Federal entities. BOEM also considers comments received from the public during each of the public comment periods. In developing a National OCS Program, BOEM acknowledges the ever-expanding availability of scientific information. The development of the 2023–2028 Program includes new scientific information and stakeholder feedback to proactively identify and try to resolve potential conflicts. The Draft Programmatic EIS published alongside this Proposed Program document provides an analysis focused on environmental information.

While most of the research discussed above is driven by the possibility of oil and gas operations and is conducted to inform decisionmakers, the knowledge gained is largely “independent” learning. This follows the Fisher and Hanemann (1987) suggestion that needed information about environmental impacts can sometimes be obtained by research separate from drilling. To that extent, there could be option value in waiting to drill while research is being conducted. It is likely that the wait for information could extend beyond the 5-year timeframe of a given National OCS Program, and the pyramidal structure of the National OCS Program development process allows for more refined research and analysis at the specific lease sale stage.

Because the process from the National OCS Program development to the lease sale stage contains multiple steps, BOEM has several opportunities to incorporate new information and

revise decisions. Before a lease sale is held, a NEPA review is conducted, and, if warranted, additional ESCs are studied, in part based on new information.

BOEM continues to investigate social and environmental issues and consider the relevant information as it becomes available. In the meantime, BOEM provides qualitative information to the Secretary to consider existing uncertainties and how new information could become available for consideration in the decisions on size, timing, and location. Information on the environmental impacts for each region is provided in the Draft Programmatic EIS.

ESCs are an important component in the net benefits calculation. Additionally, an important aspect of OCS energy development is that in the absence of lease sales in any of the program areas, substitute sources of energy would be necessary to fulfill the U.S. demand for energy. These substitute energy sources have their own ESCs, which are also uncertain. BOEM does not incorporate the costs of these substitute energy sources into its FMV hurdle price analysis to keep the analysis solely focused on the costs and timing for a specific area and that leasing decision. More on the energy market substitutes are included in **Chapter 5**.

Although the hurdle price analysis calculated in **Section 9.1.2** does not incorporate a quantitative estimate of the uncertainty of ESCs or the possibility of irreversible damage, it does incorporate monetized estimates of anticipated ESCs (consistent with those costs monetized and explained in **Chapter 5**). As in the 2017–2022 Proposed Program and PFP analyses, the hurdle price calculation considers both the private and social costs of exploration and development.

9.1.1.6 Regulatory and Legal Environment Uncertainty and Policy Changes

An objective of both government and industry is to manage the risks associated with OCS oil and gas operations. Operators manage these risks by using industry best practices and prudent risk management methodologies. The government uses legal liability (e.g., liability of lessees for accident clean-up, and enforcement of lease obligations), and the promulgation and enforcement of safety and environmental laws and regulations.

The ability to maintain a stable and transparent regulatory and legal environment for oil and gas industry operations is an important factor for lessees and operators on the OCS when considering whether, when, and how much to invest in OCS tracts and related drilling and development activities.

The legal and regulatory environment for OCS exploration and development can greatly impact project profitability. As the National OCS Program evolves and throughout the time when the lessee proceeds to develop the leases, new regulations could be promulgated, and existing regulations revised. Occasionally, implementation of new statutory requirements and legal precedents are inevitable in the interest of ensuring safe and environmentally sound OCS operations. The practice of BOEM and BSEE is to communicate and coordinate with the industry and other stakeholders on the content and rationale of regulatory approaches and requirements.

The bureaus encourage feedback, input, and suggestions for alternatives to regulatory proposals before they are finalized.

As the U.S. moves toward achieving climate-related policy goals, shifts in consumption could impact OCS leasing and development in the future. Policy changes can also affect markets in ways that impact companies' decisions about leasing, exploration, and production on the OCS. **Chapter 1** of this document provides a description of the different pathways available to meet net-zero goals. All pathways highlight the need for, and policies to, improve energy efficiency, the decarbonization of electricity, and the transition to clean fuels. Depending on the pathway selected, associated changes consumption will play an important in the context of the National OCS Program. The pyramidal nature of the National OCS Program creates future decision points throughout the National OCS Program development and lease sale processes where, if necessary, changes can be made in response to new energy, climate, or other conditions.

9.1.1.7 Price Uncertainty

While the value promised by a lease sale is related to the resource endowment and the likelihood of finding economic hydrocarbon resources, it also is heavily influenced by forecasts of future oil and natural gas prices. Mean-reversion is one of several possible models that could be used to simulate oil and gas prices. The simplest model, used by Black and Scholes for valuing financial options, assumes geometric Brownian motion, which has the volatility of a mean-reversion model without the tendency to revert to a single long-run mean. In addition to the economic logic that implies that oil and gas prices tend to revert to a long-run level, statistical tests can be applied to determine whether the oil or gas price series has a mean-reverting tendency.

In one paper, Pindyck (2001) concluded that “over the long run, price behavior seems consistent with a model of slow mean reversion.” Under a mean-reversion framework, uncertainty stabilizes over time as prices revert to a long-run mean. Weijermars (2018) have emphasized that mean-reversion pricing is only followed during times of “business as usual” supply and demand equilibrium; unusual price events like the short-term price shocks in 2008–2009 and 2014–2016 will move prices well off the expected price range. Under the mean-reversion assumption, there is little benefit to waiting to lease because the uncertainty band narrows around the long-run average. However, should prices progress below the long-term trend, there could be a benefit in waiting for prices to rebound.

To consider the option value of the resources related to resource price uncertainty and optimal timing decisions, BOEM has adopted a hurdle price analysis. It is intended to evaluate every area included in the National OCS Program and determine if there is at least one geologic field where prompt exploration during the 2023–2028 Program is consistent with an optimal allocation of resources. The hurdle prices are calculated assuming a mean-reverting price model.

9.1.2 Hurdle Prices

At the National OCS Program stage, to formally assess whether program areas should be included in the National OCS Program given price uncertainty, BOEM subjects the assessment of undiscovered fields in each program area to an economic analysis to determine an area “hurdle” weighted average (i.e., BOE) price. BOEM’s hurdle price analysis only considers the uncertainty surrounding oil prices. While many other uncertainties exist (described in **Section 9.1.1**), given data limitations and the lack of a widespread documented methodology for quantitatively evaluating other types of uncertainty, only price uncertainty is quantitatively evaluated at this time.

The hurdle price is defined as the market price below which the social value of delaying to a future program the exploration of a large field in the sale area would exceed the value of immediate exploration of those fields within this program.⁷⁵ That is, when market prices are at or above the hurdle price, the value of allowing exploration for these large prospects exceeds the value of delay. Greater social value could be realized by leasing that prospect now rather than delaying for future leasing. Note that other timing, composition, and lease sale design decisions are also relevant to, and considered at, the lease sale stage. This approach has the advantage of identifying areas at the National OCS Program stage that show current economic promise of at least one geologic field, while deferring other timing, composition, and lease sale design decisions to later in the National OCS Program process or to the lease sale stage.

Once the National OCS Program is approved, BOEM revisits the decision at the lease sale design stage of whether to hold a sale included in the National OCS Program and evaluates which OCS blocks to offer and how to set the sale terms. Designing specific lease fiscal terms at the lease sale stage rather than the earlier National OCS Program formulation stage provides more flexibility (i.e., option value) and allows decisions to be made closer to the time when economic and other conditions that influence sale decisions are better known and somewhat easier to forecast. Given the iterative process of National OCS Program development and lease sale design, there are benefits from including areas in the National OCS Program if their hurdle prices are below current market prices because further analysis can be conducted at a later stage (i.e., individual lease sale stage). **Section 9.3.2** provides more discussion on BOEM’s lease sale fiscal terms procedures.

The hurdle price analysis is conducted considering the NSV of each program area and determines whether the value from leasing in the current National OCS Program is expected to be greater than waiting to lease an area until a future National OCS Program. For this calculation, BOEM considers both the private and social costs of exploration and development. For this Proposed

⁷⁵ All else being equal, the largest fields tend to have the highest net value per equivalent barrel of resources, so they are least likely to benefit from delaying leasing in anticipation of increasing resource prices.

Program analysis, BOEM calculated the hurdle prices for each of the 13 program areas with anticipated production.

Within each program area, BOEM selected for use in the hurdle price analysis an approximation of a large undiscovered field size, which was identified by a statistical resource estimation model. As described in the Draft Economic Analysis Methodology paper, BOEM used the 95th percentile field size from the 2021 National Assessment to define the large field size available in each program area (BOEM 2022b). This field size was then used for conducting the hurdle price analysis in each program area in conjunction with private and social cost estimates appropriate for the applicable water depths and field sizes. These factors were input into an in-house dynamic programming model, When Exploration Begins version 3 (WEB3), to generate the hurdle prices.

The rationale for basing the hurdle price analysis on large fields is that larger fields are more valuable and more likely to be developed first when compared to smaller fields, even after accounting for social costs. It is possible, for certain price assumptions, that social benefits would be optimized by leasing large fields in the 2023–2028 Program while holding small fields for later leasing. Since the locations of undiscovered fields are unknown, however, a single timing decision must be made for areas in their entirety. If the area is included in the National OCS Program based on the hurdle price calculated on the possibility of large fields, and leasing conducted due to the possibility of large fields, a social cost of prematurely leasing some small fields might be incurred.

Table 9-1 shows the NSV Hurdle Prices for each of the program areas that were analyzed. Column B in **Table 9-1** shows the input field sizes for each area. Columns C and D show the assumptions made about natural gas-oil ratios for each area along with the relative proportion of oil and natural gas associated with each area as implied by that ratio. For example, in Cook Inlet, there is 1.13 mcf of natural gas for every barrel of oil. This, on a BOE basis,⁷⁶ means that on average, approximately 83% of a field is oil, and 17% is natural gas.

BOEM uses WEB3 to estimate the BOE hurdle prices shown in Column E of **Table 9-1**. Price forecasts from EIA are used to create a per-BOE price appropriate for each program area based on their natural gas-oil ratios (shown in Column F); if these prices are below the hurdle price, from the monetized option value perspective calculated here, delaying the exploration of an undiscovered field of the size shown in Column B is more valuable than immediate exploration. However, as described in this chapter, there could be other reasons to keep these areas in at the National OCS Program stage and to wait for further consideration at the lease sale stage. The hurdle prices are per BOE and shown in 2022 dollars. More details on the calculation of applicable

⁷⁶ On a thermal basis, 5.62 mcf of natural gas provides the same heat content as a barrel of oil.

oil and natural gas prices that derive from the BOE hurdle prices are included in the Draft Economic Analysis Methodology paper.

Table 9-1: NSV Hurdle Prices

A Program Area or Location	B Large Undiscovered Field (Million BOE)	C Natural Gas-Oil Ratio	D Portion of Field BOE		E NSV Hurdle Price	F 2022 EIA AEO 2022 Prices
			Oil	Natural Gas	Price Per BOE	Price Per BOE
Alaska Region						
Beaufort Sea	375	2.8	67%	33%	\$26.00	\$53.33
Chukchi Sea	706	5.06	53%	47%	\$24.00	\$46.99
Cook Inlet	342	1.13	83%	17%	\$48.00	\$60.58
Gulf of Alaska	326	6.56	46%	54%	\$38.00	\$43.82
Pacific Region						
Washington/Oregon	11	5.63	50%	50%	\$49.00	\$45.47
Northern California	45	1.71	77%	23%	\$43.00	\$57.66
Central California	44	1.03	84%	16%	\$23.00	\$61.22
Southern California	87	1.46	79%	21%	\$18.00	\$58.95
Gulf of Mexico Region						
GOM Planning Area 1	179	1.67	77%	23%	\$30.00	\$57.86
GOM Planning Area 2	173	2.52	69%	31%	\$51.00	\$54.24
Atlantic Region						
South Atlantic	87	5.85	49%	51%	\$54.00	\$45.18
Mid-Atlantic	358	9.52	37%	63%	\$26.00	\$39.74
North Atlantic	356	6.15	48%	52%	\$29.00	\$44.73

Notes: Bold text indicates program areas where the EIA AEO forecasted price is above the calculated hurdle price. The large undiscovered field size is defined as the 95th percentile field from the 2021 National Assessment field size distribution. The 95th percentile represents very large field sizes while avoiding outlier values. The estimate of large field sizes in the GOM program areas assumes that the largest field will be in deepwater and is modeled accordingly. See the Draft Economic Analysis Methodology paper for further elaboration.

Key: AEO = Annual Energy Outlook; BOE = barrel of oil equivalent; NSV = net social value

Source: EIA (2021e)

The hurdle prices for the program areas differ, in some cases greatly. Among the main considerations in the hurdle price calculation are the cost estimates associated with developing the largest field size in each region. For example, the largest field size in the Northern California Program Area is more likely to be in deeper water than the largest field in either the Central or Southern California program areas. As such, the development costs in the Northern California Program Area are higher than in either the Central or Southern California program areas, which in turn lead to higher hurdle prices. Similarly, areas where the largest field size is very small also have higher hurdle prices as the cost per BOE in these areas is higher.

The weighted BOE forecast prices from the EIA for 2022 exceed the hurdle price in most of the program areas. For those areas, the analysis does not point to the need to delay leasing in any of these areas for option value considerations. However, as shown in **Table 9-1**, the hurdle price

calculated for the South Atlantic⁷⁷ and Washington/Oregon program areas indicates that waiting to lease in the region could provide greater value to society than leasing in the 2023–2028 Program. At the National OCS Program stage, the Secretary has the option to continue to include the area in the proposed lease sale schedule as the hurdle price will again be evaluated during the sale development stage and compared with an updated price expectation for the time of the sale, which can be updated based on the newly available information (e.g., updated resource estimates).

BOEM notes that the calculation of hurdle prices is highly dependent on several assumptions, especially future price trends of oil and natural gas, and on the rate at which prices revert to that trend. Given recent energy market changes, prices remain incredibly uncertain. More detail on these assumptions and the sensitivities of hurdle prices are included in the Draft Economic Analysis Methodology paper (BOEM 2021d). Further, the hurdle price analysis only considers the uncertainty associated with resource prices. Accordingly, the hurdle price findings should be taken as a guide for only price-based option value.

The lease sale stage provides another opportunity to revisit the hurdle price analysis and consider whether to hold a lease sale. As discussed, option value is merely one component of BOEM's analyses and National OCS Program formulation. This is especially important to note as new information becomes available that could affect resource estimates or private or social costs for any of the program areas. To capture the option value of new information becoming available that could make an area profitable to lease, the Secretary may choose to include or exclude areas in the National OCS Program regardless of the relationship between the hurdle prices and current prices.

The creation of a National OCS Program lease sale schedule allows companies the opportunity to plan for expenditures and prospects. Choosing to cancel sales based purely on the hurdle price is not costless and could have an adverse impact on company interest in the region and the value received by the public. As such, the Secretary also considers many other factors in the decision of whether to include an area in the National OCS Program and ultimately hold a sale.

9.2 Leasing Framework

The size of a lease sale and the frequency of sales within a program area are key considerations within the National OCS Program framework.

9.2.1 Size of a Lease Sale

Regarding the size of a lease sale, BOEM considers whether all acreage within a program area should be included in the sale, or whether to make a more focused area available for leasing. Since 1983, BOEM and its predecessors have conducted GOM lease sales under the area-wide

⁷⁷ The South Atlantic Planning Area is currently included under Section 12 withdrawal.

leasing format, meaning that the government offers all available (unleased and not restricted) acreage in the program area in the sale. Prior to 1983, BOEM used an industry nomination/agency tract selection process in which companies nominated acreage or BOEM selected specific acreage for lease, and only that acreage was offered. The tract selection lease sales tended to sell fewer leases and allow more focused environmental analyses.

In the early 2000s, the State of Louisiana requested on several occasions the use of methods other than area-wide leasing, similar to industry nomination/agency tract selection. In 2010, BOEM contracted a study analyzing area-wide leasing. The study, *Policies to Affect the Pace of Leasing and Revenues in the Gulf of Mexico*, evaluated the efficacy of alternative leasing schemes to the area-wide leasing model (Balcom et al. 2011); hereinafter referred to as “Area-wide Leasing Study.”

The Area-wide Leasing Study suggested that government revenues in the form of increased cash bonus bids per block leased under the nomination/tract selection format would be offset by fewer blocks leased, less drilling, a reduced pace of discovery, lower rentals and royalties, and less annual future production of OCS oil and natural gas from newly issued leases. From this FMV perspective, the report found little benefit from adopting any of these alternative leasing schemes. However, targeted leasing can have other important programmatic advantages.

When developing or implementing the National OCS Program, BOEM can design the size and scope of a program area or lease sale area, respectively, and adopt a more targeted approach in particular areas. Given the structure of the National OCS Program process, BOEM can make these decisions throughout the National OCS Program development process or during the lease sale stage. More focused leasing is geographically targeted in scope and could be used to balance resource availability and limit conflicts with states’ CZM plans, DOD activities, environmentally sensitive areas, and subsistence use by making certain determinations about which blocks within the program area are most suitable for leasing.

In addition, a targeted leasing approach would be able to take into account industry bidding and investment trends, allowing BOEM to focus leasing and development efforts on those specific blocks that would provide the highest social and private value. BOEM can also include a targeted leasing approach for environmental considerations as described in **Section 1.4**. In the subsequent National OCS Program development steps and in the sale design for specific lease sales, BOEM continues to evaluate area-wide and focused leasing. BOEM considers FMV and other concerns, such as environmental and subsistence use issues, when determining whether to hold area-wide or more targeted lease sales in a particular area.

Specifically, BOEM has used a targeted leasing approach in the Alaska Region, which aimed to offer areas with the most promising oil and gas resource potential while also protecting environmentally sensitive habitats and important social and cultural uses. BOEM’s targeted leasing approach narrowed the area available within the planning area to a targeted area, but

within that space, all available blocks were open for leasing. **Section 1.4** describes the targeted leasing adopted in Lease Sale 244 and the benefits of that approach.

9.2.2 Frequency of Lease Sales

Another consideration at the National OCS Program stage is the frequency of lease sales within the years covered by a particular National OCS Program. When deciding the frequency of lease sales to be held in a particular area, an important consideration is the potential for new information (e.g., geologic information, revised price forecasts, new technology, environmental considerations) to become available between sales.

In the GOM Region, seismic activity, exploration well drilling, and lease relinquishments are occurring almost continuously. Thus, in the GOM Region, the emerging information and tract availability could impact a company's bidding strategy as well as the government's evaluation of blocks. Accordingly, and partly in response to demand and new information, an efficient GOM lease sale schedule tends to involve more frequent sales.

In other areas where little or no current activity exists and there would be minimal to no new information between sales, it could be more appropriate to have a lease sale schedule with less frequent sales. Of course, other factors (such as changing prices or environmental concerns) could warrant fewer or no sales in a particular area throughout the National OCS Program. Additional information that could influence the frequency of lease sales will be considered throughout the development of the National OCS Program.

9.3 FMV: Lease Terms and Bid Adequacy

After an area is included in an approved National OCS Program and, following the determination of the lease sale size and timing, the next decision is the selection of the bidding system and lease terms for the lease sale offering. USDOJ evaluates these terms prior to each lease sale to ensure the terms provide the public with FMV for the rights conveyed. After the lease sale and before acceptance of any bids, BOEM performs a bid adequacy evaluation. The lease sale components for ensuring receipt of FMV consist of the bidding system, lease terms, and bid adequacy review.

9.3.1 Bidding Systems

In designing a lease sale, USDOJ determines the appropriate bidding system. The specific competitive bidding systems available under the OCS Lands Act are set forth in 30 CFR § 560.202. The OCS Lands Act requires the use of a sealed bid auction format for oil and gas lease sales, with a single bid variable on tracts no larger than 5,760 acres, "unless the Secretary finds that a larger area is necessary to comprise a reasonable economic production unit" (43 U.S.C. § 1337(b)(1)). The OCS Lands Act allows for different competitive bidding variables including royalty rates, bonus bids, work commitments, or profit-sharing rates.

When Congress amended the OCS Lands Act in 1978, it instructed USDOJ to experiment with alternative bidding systems for OCS leasing, primarily to encourage the participation of small companies by reducing upfront costs associated with the traditional cash-bonus bid system. USDOJ used four alternative bidding systems from 1978 through 1982. While one sale utilized the royalty rate as the bid variable, almost all the lease term structures during this period maintained the cash bonus bid but varied the contingency variable with the use of a sliding scale royalty, which varied depending on the rate of production; a fixed net profit share; and 12.5 and 33% royalty rates.

These systems were not found to enhance National OCS Program performance compared to the then-prevalent 16.67% fixed royalty rate system in shallow water. Among other things, they did not increase participation by small companies; were significantly more complex to administer; distorted bids, which made it more difficult to identify the high bid; and often were not beneficial to the taxpayer. As a result, since 1983, USDOJ has chosen to use the cash-bonus bidding system along with a fixed royalty rate.

In evaluating which bidding terms to use, USDOJ considers the goals of the OCS Lands Act, the costs and complications of implementing the selected approach, the ability of the bidding variables to accurately identify the bidder offering the highest value, and the economic efficiency of the selected approach. The OCS Lands Act requires that USDOJ offer OCS acreage competitively. Competitive auctions are the most likely to maximize OCS leasing and production, and efficiently allocate capital in a manner that is beneficial to the public. When preparing for specific lease sales, BOEM analyzes alternative fiscal terms to offer in conjunction with the current bidding systems. USDOJ also considers alternative bidding systems, as appropriate. These are described in **Section 9.3.2**, Fiscal and Lease Terms.

9.3.2 Fiscal and Lease Terms

After deciding to hold a lease sale and determining the bidding system to use, the next set of decisions deals with the sale terms to be offered, largely the fiscal terms and duration of the primary term. The fiscal terms include an upfront cash bonus, rental payments, and royalties, with the rental and royalty terms set by USDOJ and the upfront cash bonus offered by bidders subject to USDOJ's minimum bid level. All the financial obligations (cash bonus, rental payments, and royalties) reflect the value of the lessor's (i.e., Federal Government's) property interest in the leased minerals and are fiscal components of FMV. In determining the appropriate lease terms for a sale, USDOJ must balance the need to receive FMV with the policy goals in the OCS Lands Act. USDOJ evaluates fiscal and lease terms on a sale-by-sale basis and has adjusted these in recent lease sales in response to emerging market and resource conditions, competition, and the prospective nature of available OCS acreage.

BOEM follows formalized procedures for evaluating fiscal terms before lease sales. These annual procedures consider the effectiveness of the status quo fiscal terms in comparison to

international fiscal systems and recent National OCS Program performance. During these procedures, BOEM updates the in-house analytical models, conducts additional statistical analysis, reviews international fiscal system trends, and recommends either adopting fiscal terms used in previous lease sales or other alternative fiscal terms. BOEM's procedures include use of both discounted cash flow and real option methods for deciding the set of fiscal terms that maximize the potential value of future leasing and production while ensuring receipt of FMV.

BOEM periodically conducts studies and incorporates their results into the procedures and analyses on fiscal terms. As discussed previously, BOEM conducted the 2010 Area-wide Leasing Study to consider a range of alternative fiscal terms. The study was not able to identify alternative leasing and fiscal policies that would lead to significant increases in Federal revenues. Further, BOEM, jointly with the BLM and BSEE, completed a study with IHS Markit titled *2018 Comparative Analysis of the Federal Oil and Gas Fiscal Systems: Gulf of Mexico International Comparison* (IHS Markit 2018). The study compared peer group countries' petroleum extraction fiscal systems and terms to the U.S. Federal system and found that, from a government perspective and an investor perspective, the current GOM lease fiscal terms are competitive with the fiscal terms employed by other countries that compete with the U.S. for upstream oil and gas investment.

After a lease sale, BOEM evaluates the bids received to determine whether the lease terms offered have enhanced bidding and competition for leases and to evaluate the necessity for additional changes or adjustments. USDOJ sets lease terms sale-by-sale and BOEM evaluates them annually to determine whether market or other conditions warrant a change. In general, any changes in fiscal terms are done incrementally, allowing BOEM the opportunity to evaluate the results of a lease sale held with new sale terms and for USDOJ to further refine terms, if necessary, in future lease sales. Each of the lease sale terms contributes to the assurance that FMV is received for the public's resources.

In the past, Congress has passed laws requiring USDOJ to offer specific fiscal terms. In 1995, Congress passed the Deepwater Royalty Relief Act (43 U.S.C. §§ 1337 *et seq.*), requiring the use of royalty suspension volumes for certain leases in water depths of 200 meters and deeper. Additionally, Congress passed the Energy Policy Act of 2005, with requirements for offering specific provisions of deep water and deep gas royalty relief. If Congress were to enact legislation requiring the use of specific lease or fiscal terms, they would be incorporated at the NOS stage.

9.3.2.1 *Minimum Bid and Bonus Bid Amounts*

For many years, the bid variable of the auction has been the bonus bid. This signature bonus is a cash payment required at the time of lease execution. A bonus bid is formulated by the bidder based on its perception of expected profit, net of other payments. USDOJ sets a minimum bid as a floor value for acquiring the rights to OCS acreage. Historically, its primary utility has been to ensure receipt of FMV on blocks for which there are insufficient data to make a tract evaluation,

or existing geologic or economic potential of the blocks is inadequate to support a positive tract value. In 2011, USDOJ increased the minimum bid in the deepwater GOM to encourage bidders to focus on blocks more likely to be explored during the primary lease term.

A higher minimum bid results in a greater proportion of offered blocks being passed over (i.e., not bid on) by bidders. To the extent these passed-over blocks are marginally valued, their retention in the government's inventory and reoffering at the next lease sale could enhance the efficiency of the lease sale process and generate option value and higher bonus bids for the retained blocks. A higher minimum bid level can also serve to narrow bidder interest to the more valuable blocks offered in the lease sale, thereby enhancing competition on the better blocks and encouraging bidders to focus their bidding on those blocks that they are most likely to explore and develop.

As discussed in **Section 9.1**, Timing of OCS Lease Sales and Related Activities, the minimum bid can be adjusted to improve the timing of activities where option value is found to be significant. While higher minimum bid levels can have a significant effect on decreasing the number of blocks leased, aggregate cash bonuses could be little affected or could even increase, since raising the minimum bid level can push bids to higher levels.

The lessee pays the bonus bid at the outset regardless of future activity or production, if any, so the lessee bears the risk of paying more than the lease is eventually worth, while the government bears the risk of accepting less than it is eventually worth. In contrast, the royalty has neither risk because royalty is a percentage of actual production. A fiscal advantage of the bonus is that it is received by the government immediately; there is no delay of, possibly, a decade or more, as with the royalty.

Although the minimum bid stipulates the lowest bid level, actual bids submitted are based on the expected profitability of the field and the evaluation of geology and economic viability (as described in **Section 9.3.2.2**). Bidders develop the actual amount of their bonus bid in consideration of the expected discounted present value of the lease. Accordingly, the fiscal terms in effect in a lease sale can affect the amount of the bonus bid for a lease, and changes in other fiscal terms can affect the revenues collected through bonuses. For example, a higher expected royalty or rental rate induces bidders to formulate lower bonus bids and vice versa.

9.3.2.2 *Bid Adequacy*

Following a lease sale, BOEM evaluates all high bids on each OCS block to determine whether they satisfy the FMV requirements for acceptance. BOEM assesses all blocks using a combination of block-specific bidding factors and detailed block-specific resource and economic evaluation factors to ensure that the government receives FMV for each lease issued. Bidders must always bid an amount exceeding the government's reservation price. This reservation price is calculated using block-specific geologic and engineering parameters to evaluate the economics of that block. As explained below, this value is separate from the minimum bid which is set at the

time of the lease sale notice (discussed in the previous section). Creating a reservation price for individual blocks ensures that even when there is only a single bid on a block, the bid is still evaluated against the government's estimate of the block's value.

The bid adequacy procedures, instituted in 1983, use a two-phased evaluation process to assess the adequacy of bids received in lease sales. The first phase involves BOEM's assessment of the block's geologic and economic viability using the best available seismic and other information available. All bidders must provide BOEM with the geologic and seismic data used to formulate the bid. This prevents a situation where asymmetric information gives an advantage to the bidder. Details on the procedures can be found at: <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Energy-Economics/Fair-Market-Value/Summary-of-Procedures-For-Determining-Bid-Adequacy.pdf>.

Since 1984, bid adequacy reviews and FMV determinations have resulted in an average rejection rate of bids of approximately 4.3%. One result of bid rejection is to encourage bidders to submit bids (in future or subsequent sales) that exceed the government's reservation price and thereby promote receipt of FMV. Moreover, rejection of high bids under existing BOEM bid adequacy procedures has consistently resulted in higher returns in subsequent lease sales for the same tracts, even when those tracts not receiving subsequent bids were included in the calculation of the average returns.

In the GOM, from 1984 through 2020, BOEM rejected total high bids of \$739 million, but when BOEM reoffered the blocks, they drew subsequent high bids of \$1.95 billion, for a total net gain of \$1.28 billion, or an increase of almost 164%. These results indicate that BOEM's bid adequacy assessments and procedures have performed well in identifying blocks with high bids below FMV. With the possibility of bid rejection from the government and competition from other bidders, lease sale participants are encouraged to submit bids that will reflect or exceed the government's reservation price. When bids exceed the reservation price, the government is confident it is receiving FMV.

BOEM occasionally conducts look-back studies to evaluate bid evaluations and actual development. These studies show that BOEM assigned most OCS leases with profitable hydrocarbon discoveries a positive value at the time of sale. However, in some cases where BOEM estimated block values to be negative and the blocks were issued for near-minimum bid, the lessees made discoveries of substantial size. In these cases, BOEM has documented that either new information became available after the lease was awarded, prompting a company to drill a specific target different than what was originally evaluated, or the BOEM evaluation of the potential oil and gas accumulation target did not coincide with that of the lessee company.

In those cases where new information became available after the lease was awarded, the information tends to be either new or reprocessed geophysical data unavailable at the time of sale, or new subsurface well data acquired because of drilling on a nearby lease that could indicate

the possibility of material hydrocarbon deposits on the subject lease. Since it is quite common for exploration companies to acquire new or reprocessed geophysical data on leases after they are awarded but prior to exploratory drilling, these look-back studies tend to identify those wells that have been drilled to a target that sometimes is not coincident with the target that was evaluated pre-sale.

Bid adequacy procedures are dynamic, and BOEM looks for opportunities to improve its process. The original form of the bid adequacy procedures was instituted in 1983 in conjunction with the implementation of the area-wide leasing policy, but these procedures have undergone several refinements to address FMV concerns as conditions have changed. Most recently in March 2016, BOEM removed the “Number of Bids Rule” that was previously applicable in Phase 1 of the bid adequacy procedures. The current procedures are available online at <http://www.boem.gov/Fair-Market-Value/>.

BOEM continues to look for opportunities to improve the process and is currently refining the tract evaluation model used for bid adequacy determinations. Specifically, BOEM is finalizing recommendations for improvements based in part on the Government Accountability Office’s Report GAO-19-531, “Offshore Oil and Gas: Opportunities Exist to Better Ensure a Fair Return on Federal Resources (Government Accountability Office 2019)” and is considering revisions to the bid adequacy process as a result. In addition, in implementing a new National OCS Program, there could be revisions to the bid adequacy procedures to incorporate new knowledge or accommodate structural changes to the leasing process.

9.3.2.3 *Primary Term*

In cases where a high bid meets the FMV requirements, the lease rights are issued to the lessee for a limited term, called the primary term. The OCS Lands Act sets the primary term at 5 years, or up to 10 years, “where the Secretary finds that such longer period is necessary to encourage exploration and development in areas because of unusually deep water or other unusually adverse conditions....” The primary term promotes expeditious exploration while still providing time to commence development. In evaluating the primary term of the lease, USDOJ considers technology and time necessary for exploration and infrastructure development.

When designing specific lease sales, USDOJ considers the length of the primary term and whether it remains appropriate given current exploration timeframes. For example, for Lease Sale 256 in late 2020, USDOJ increased the primary term for leases in water depths of 800 to 1,600 meters to account for the technological difficulties associated with developing fields in this water depth. BOEM continues to study the primary term given the muted bidding activity in recent sales and a significant reduction in leases held by industry.

9.3.2.4 *Rentals*

Before the commencement of royalty-bearing production, the lessee pays annual rentals that are generally either fixed or escalating. Rentals compensate the public for the value of holding the lease during the primary term and encourage diligent development. The primary use of escalating rentals is to encourage swift exploration and development of leases, and earlier relinquishment when exploration is unlikely to be undertaken by the current lessee. Escalating rentals have also been used when the initial lease period is extended following the spudding of a well, which in certain cases (water depths of less than 400 meters) in the GOM must be targeted to a drill depth of at least 25,000 feet subsea.

Rental payments serve to discourage lessees from purchasing marginally valued tracts too soon since companies are hesitant to pay the annual holding cost to keep low-valued or currently uneconomic leases in their inventory. Rental payments provide an incentive for the lessee to either drill the lease in a timely manner or relinquish it before the end of the primary term, thereby allowing other market participants to acquire these blocks earlier than otherwise.

9.3.2.5 *Royalties*

The government reserves a royalty interest for all OCS production. Leases issued in recent years have a fixed royalty rate; by law, it must be no lower than 12.5%. The rate is applied to the value of oil and gas sold, net of certain transportation and processing costs. The amount collected per barrel is greater or lesser as the oil price changes, but the rate itself does not vary. It is also the lease fiscal term in which the government shares in the risk of the lease (i.e., the government only receives royalty revenues if production occurs). Alternative royalty arrangements are possible in which the rate varies above that level, or no royalty is paid for certain periods.

Royalty rates can have a significant impact on bidder interest and are a key fiscal parameter in the calculation of the underlying economic value for a block. USDOJ increased the GOM royalty rate in lease sales held in 2007 and 2008 (to 18.75%) to capture a greater portion of revenue because oil and gas prices had risen substantially above levels that prevailed for virtually all previous years. USDOJ issued leases in GOM Region-wide Lease Sale 249 and subsequent GOM sales in water depths less than 200 meters with a royalty rate of 12.5%. The decision to offer shallow water leases with a 12.5% royalty rate came at the conclusion of the annual lease term reassessment process and was the result of an analysis of market conditions; international considerations; available resources; leasing, drilling, and production trends; and other factors.

Section 208 of E.O. 14008⁷⁸ directs USDOJ to incorporate the social cost of GHG emissions into royalty rates. USDOJ is evaluating an approach to incorporate a royalty surcharge for upstream GHG emissions. The surcharge could provide a mechanism that allows the social value of GHG

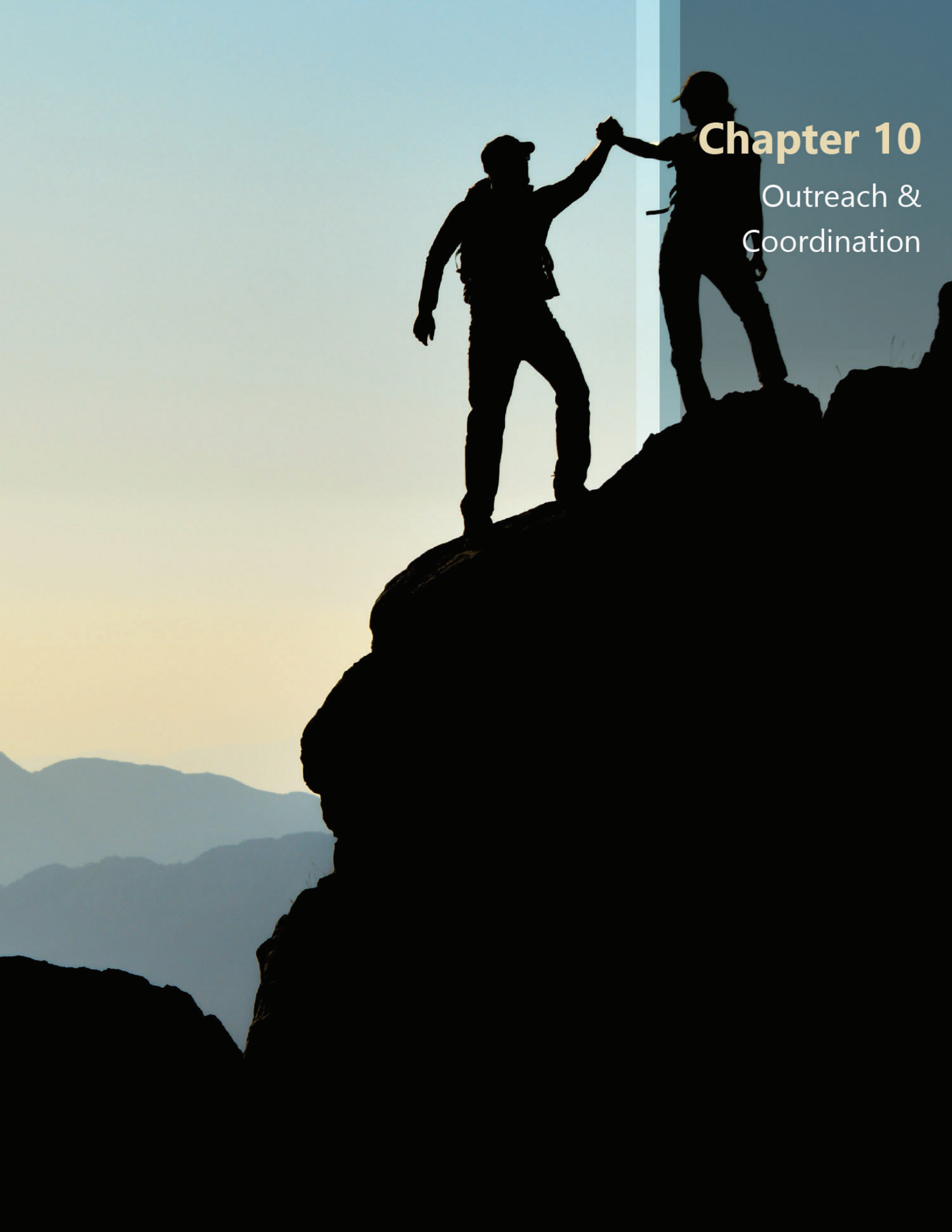
⁷⁸ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad>.

emissions to factor into operators' decisionmaking process. If lessees internalize the costs associated with carbon emissions, OCS activity and corresponding production could move toward a lower but more socially optimal level.⁷⁹ Development of only the most economic projects allows USDOJ to facilitate the production of OCS resources in a manner promoting environmental conservation. Incorporation of the social cost of GHG emissions can be further considered and implemented in the lease sale analysis.

9.4 Conclusion

USDOJ evaluates market conditions, available resources, bidding patterns, and the status of production on OCS acreage when establishing terms and conditions for each lease sale. While some components of OCS lease offerings are initially set at the National OCS Program stage (i.e., optimal timing and leasing framework), other components (e.g., fiscal and lease terms, bidding systems, and bid adequacy) are considered on a sale-by-sale basis to incorporate new information and to take into consideration the receipt of FMV. BOEM's hurdle price analysis indicates that some areas could benefit from additional consideration or, possibly, delay, before being included in a lease sale, given option value consideration. If USDOJ changes any of the lease sale terms, bidding system, or bid adequacy procedures, the changes are announced to the public and industry through the Proposed NOS or other notification in the *Federal Register*, typically prior to publication of the Final NOS.

⁷⁹ An introduction to the economics of policy options regarding GHG emissions is available at: <https://open.oregonstate.education/climatechange/chapter/economics/>.

The image shows two hikers in silhouette standing on a rocky mountain peak. They are holding hands, symbolizing teamwork and support. The background is a soft, hazy sky with a gradient from light blue at the top to a warm orange and yellow near the horizon, suggesting a sunrise or sunset. The hikers are wearing backpacks and hats. The overall mood is one of achievement and camaraderie.

Chapter 10

Outreach &
Coordination

Chapter 10 Outreach and Coordination

BOEM's outreach and coordination with other Federal agencies; state, local, and Tribal governments; non-governmental organizations; and the public is a crucial part of the National OCS Program development process. BOEM's outreach and public involvement efforts strive to encourage open and continued communication between and among these groups to share ideas and concerns, and to ensure that accurate and timely information is exchanged.

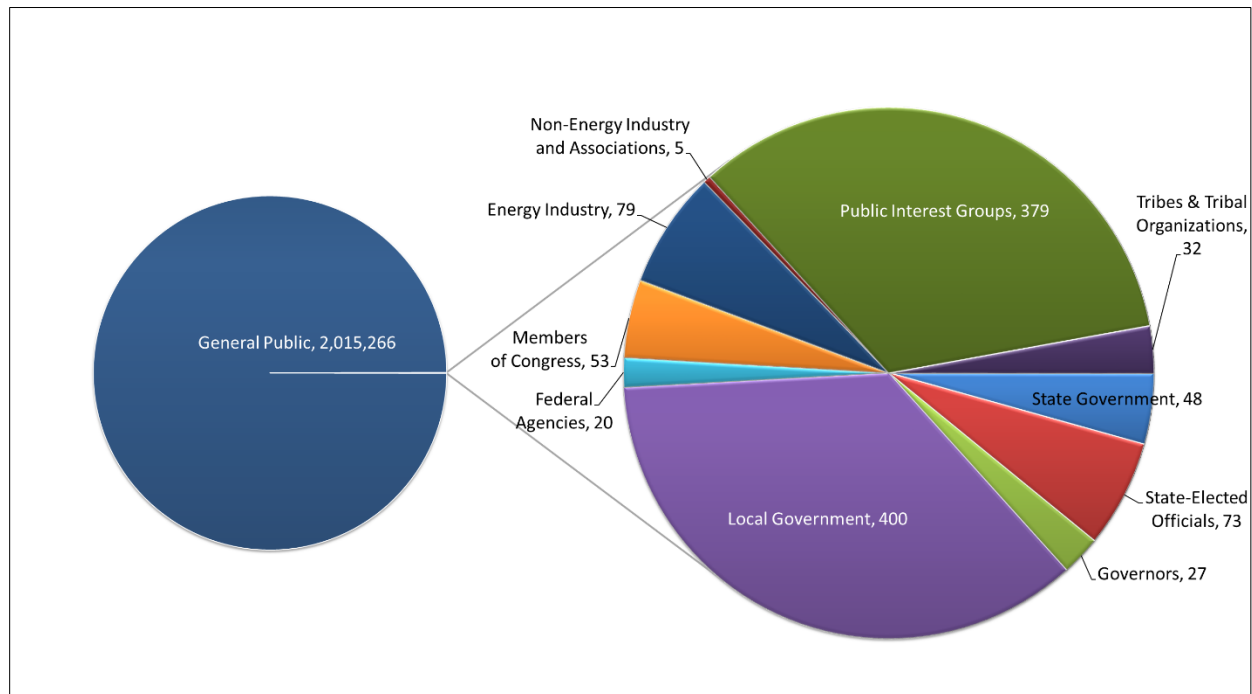
Section 18 of the OCS Lands Act specifies a multi-step process of public involvement and analysis that must be completed before the Secretary may approve a new National OCS Program. This process requires the Secretary to consider, among other factors, comments, and concerns of governors, local governments and Tribes, public input, and competing users of the OCS. Additionally, the OCS Lands Act requires the consideration of the laws, goals, and policies of affected states that have been specifically identified in comments received from governors, and the interest of potential oil and gas producers in the development of oil and gas resources as indicated by exploration or nomination (i.e., industry interest). Industry interest is discussed in **Section 10.3** and laws, goals, and policies of affected states that were identified by governors' comments are discussed in **Section 10.5**.

The National OCS Program development process provides multiple opportunities for stakeholders and the public to provide comments, with three comment opportunities under the OCS Lands Act process and two that occur concurrently under the NEPA process.

10.1 Public Comment Process

On July 3, 2017, BOEM published an RFI in the *Federal Register*, which is the first step in the preparation of a new National OCS Program (82 FR 30886). BOEM also sent letters to all governors and potentially interested Federal agencies requesting their input. BOEM received a total of approximately 816,000 comments in response to the RFI (see Appendix A of the DPP for a summary of comments received on the RFI).

The DPP 60-day public comment period was initiated with the publication of the DPP on January 4, 2018, and ended on March 9, 2018 (83 FR 829). The scoping comment period for the Programmatic EIS was concurrent with the DPP public comment period. BOEM received more than 2 million public comments from various stakeholders and partners on the DPP, including 188 different form letters and more than 23,000 unique letters (see **Figure 10-1**). Of those that stated a position on particular planning areas, more than 80% opposed Atlantic area leasing, and more than 95% stated opposition to Atlantic and/or Pacific area leasing. **Appendix A** provides an overview of comments and summaries of the substantive comments received on the DPP.

Figure 10-1: Number of 2018 DPP Comment Letters by Commenter Category

10.2 Public Meetings for the National OCS Program and Draft Programmatic EIS

In addition to the procedural requirements under Section 18, the NEPA process requires public input at the scoping stage of EIS development and after the publication of the Draft EIS. BOEM collected comments relevant to the development of the Draft Programmatic EIS and National OCS Program at 23 public meetings (see **Table 10-1** and **Figure 10-2**), from the Federal commenting website www.regulations.gov (docket number BOEM-2017-0074), and through the U.S. mail. BOEM's staff attended the public meetings to facilitate discussions with the public on both planning processes. The Final Programmatic EIS will address substantive comments on the Draft Programmatic EIS.

10.3 Industry Interest

OCS Lands Act Section 18(a)(2)(E) (see **Section 2.2**) requires BOEM to consider the interest of potential oil and gas producers. In response to the DPP, BOEM received 33 comment letters from exploration and development companies and oil and gas industry associations representing such companies. Of those responses, most supported including the Draft Proposal areas for further analysis. **Table 10-2** summarizes the comments on specific program areas that were received from industry. Summaries of comments from industry are included in **Appendix A**.

Table 10-1: Public Meetings for the 2019–2024 Draft Programmatic EIS and National OCS Program

Date	Location	Approximate Number of Attendees
1/16/2018	Annapolis, MD	75
1/16/2018	Jackson, MS	5
1/18/2018	Dover, DE	91
2/6/2018	Salem, OR	36
2/6/2018	Austin, TX	60
2/8/2018	Sacramento, CA	204
2/8/2018	Tallahassee, FL	100
2/13/2018	Hartford, CT	85
2/13/2018	Columbia, SC	300
2/14/2018	Trenton, NJ	217
2/15/2018	Albany, NY	80
2/21/2018	Richmond, VA	75
2/21/2018	Anchorage, AK	101
2/22/2018	Washington, D.C.	91
2/26/2018	Raleigh, NC	500
2/27/2018	Boston, MA	350
2/28/2018	Atlanta, GA	85
2/28/2018	Providence, RI	177
3/5/2018	Concord, NH	87
3/5/2018	Olympia, WA	259
3/6/2018	Baton Rouge, LA	27
3/7/2018	Augusta, ME	93
3/8/2018	Montgomery, AL	9

10.4 Tribal Coordination and Consultation

Many Native Americans live near and use areas where BOEM-regulated activities are proposed and conducted. The ancestors of today’s Tribes were the earliest inhabitants of North America, who occupied and used these same areas dating back more than 14,000 years ago. BOEM implements Tribal engagement through both formal government-to-government consultation with federally recognized Tribes (per BOEM consultation policies) and informal dialogue, collaboration, and engagement. BOEM is committed to maintaining open and transparent communications with Tribal governments, Alaska Native organizations, and other indigenous communities. BOEM’s approach emphasizes trust, respect, and shared responsibility as part of a deliberative process for effective collaboration and informed decisionmaking.

BOEM is continuing to conduct outreach to Tribal communities in each OCS region that was considered for the National OCS Program. See Appendix G of the Draft Programmatic EIS for a list of Tribes and Tribal organizations with known or potential current and historical ties to the ocean and coastal areas of the U.S. shoreward of the OCS planning areas, as well as a figure depicting the approximate current location of those Tribes. Federally recognized Tribes and ANCSA Corporations with whom BOEM held consultation meetings for the Alaska and Pacific

regions are listed in **Table 10-3**. No consultation or informational meetings have been requested by Tribes or Tribal organizations in the GOM or Atlantic regions, and no meetings have been held.

Figure 10-2. Draft Proposed Program Public Meeting Locations

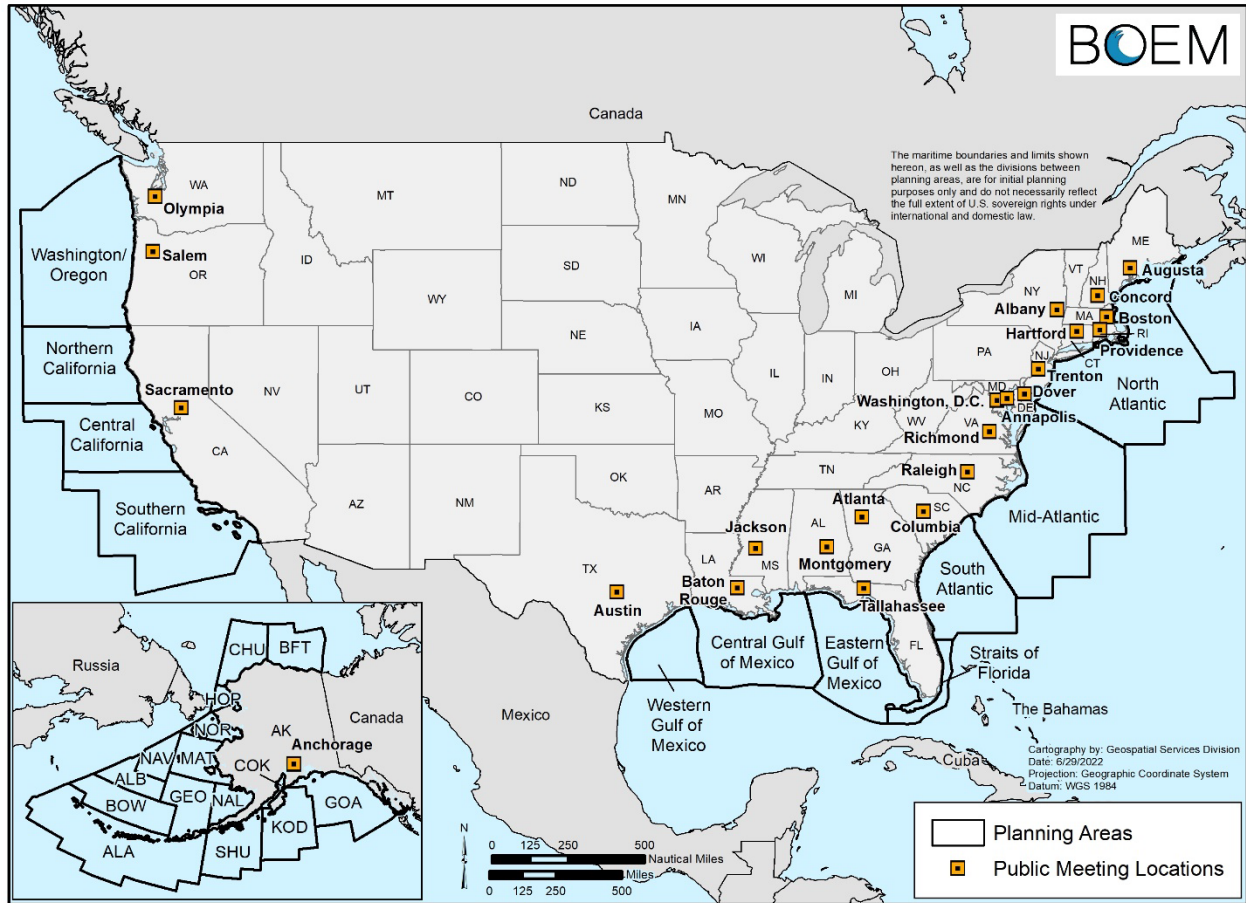


Table 10-2: Summary of Energy Exploration and Production Industry Comments on the DPP

Commenter	Program Area Mentioned in Comment Letter			
	Gulf of Mexico	Atlantic	Pacific	Alaska
Alabama Petroleum Council	X (particularly Eastern GOM)	X	X	X
Alaska Oil and Gas Association				Beaufort and Chukchi seas
American Petroleum Institute - New York	X	X	X	X
American Petroleum Institute	X	X	X	X
API Pennsylvania and State Coalition Members	X	X	X	X
API, NOIA, IPAA, USOGA, AXPC, IAGC, PESA, IADC, OOC, AOGA*	X	X	X	X
Arena Offshore (2)	X	X	X	X
Arctic Iñupiat Offshore LLC				Arctic with cultural/subsistence protection
Arctic Slope Regional Corporation Exploration				Arctic with subsistence exclusions
Arkansas Petroleum Council	X	X	X	X
BP	X	X		Beaufort and Cook Inlet
Chevron	X	X	X	X
Cook Inlet Region, Inc.				X
Diamond Offshore	X			
Enven Energy Ventures LLC	X	X	X	X
ExxonMobil Exploration Company	X	X	X	X
Florida Petroleum Council (2)	X (Florida)	X (Florida)	X	X
Hornbeck Offshore Operators, LLC	X	X	X	X
Independent Petroleum Association of America	X	X	X	X
Louisiana Mid-Continent Oil and Gas Assn	X			
Louisiana Oil Gas Association	X	X	X	X
Massachusetts Petroleum Council	X	X	X	X
National Ocean Industries Association	X	X	X	X
Noble Corporation PLC	X	X	X	X
Offshore Operators Committee	X	X	X	X
Ridgewood Energy	X	X	X	X
Shell Oil Company	X	X	X	X
South Carolina Petroleum Council		X		
Statoil USA	X	X	X	X
Texas Oil and Gas Association	X	X	X	X
Virginia Petroleum Council	X	X	X	X

Note: * = American Petroleum Institute, National Ocean Industries Association, Independent Petroleum Association of America, U.S. Oil and Gas Association, American Exploration and Production Council, International Association of Geophysical Contractors, Petroleum Equipment Suppliers Association, International Association of Drilling Contractors, Offshore Operators Committee, Alaska Oil and Gas Association

Key: X = a region that was mentioned in the comment letter without specific reference to individual program areas, all program areas in the specified region were mentioned or general support for the Draft Proposal.

Table 10-3: Federally Recognized Tribes and ANCSA Corporations Participating in National OCS Program Consultations

Alaska Region
Arctic Slope Regional Corporation
Pacific Region
Blue Lake Rancheria
Coquille Indian Tribe
Elk Valley Rancheria
Federated Tribes of Graton Rancheria
Kashia Band of Pomo Indians of the Stewarts Point Rancheria
Makah Tribe
Quinault Indian Nation
Tolowa Dee-ni' Nation
Yurok Tribe

Key: ANCSA = Alaska Native Claims Settlement Act

Note: No consultation meetings were requested or held for Tribes in the GOM and Atlantic regions.

10.4.1 Alaska Region

In Alaska, BOEM notified more than 20 Tribes that have had ongoing interests in energy exploration in the Beaufort and Chukchi seas and Cook Inlet. Additionally, 17 ANCSA corporations from the same areas were also notified, as were 11 state, regional, and local government leaders, 10 traditional Tribal groups, and 16 non-governmental organizations.

Outreach efforts were also initiated with the Nome Region for the Bering Sea and Norton Sound areas, including contacts with Kawarek—the regional organization that interfaces with and represents more than 40 Tribes and two dozen ANCSA village corporations. The Bering Sea Elders Group, an association of elders appointed by 39 Tribes in the Yukon-Kuskokwim and Bering Strait regions, was included in these outreach efforts. Informational meetings were held with the Savoonga Tribe, Kawerak, the Bering Sea Elders Group, and the Alaska Eskimo Whaling Commission. In total, 10 comment letters were received from Tribes and native corporations, associations, and groups in Alaska.

10.4.2 Pacific Region

With assistance from the California Native American Heritage Commission, Oregon Office of Tribal Affairs, and Washington Governor's Office of Indian Affairs, BOEM identified federally recognized Tribes with known or potential interest in National OCS Program activities in Pacific program areas. These Tribes range from those living in the northwestern corner of the Olympic Peninsula in Washington State to near the U.S.-Mexico border in Southern California and inland to the Columbia River in western Idaho. There is substantial diversity in the Tribes' connections to the marine environment. There are four Tribes on the Olympic Peninsula whose treaties with the U.S. government reserve the Tribes' rights to harvest marine resources at all usual and

accustomed grounds and stations.⁸⁰ These Tribes are fisheries co-managers with the State of Washington and NMFS has specified boundaries in which the Tribes may exercise treaty rights to fish for salmon, halibut, groundfish, and highly migratory species.

In July 2017, BOEM contacted 79 federally recognized Tribes with known or potential interest in Pacific Region activities to notify them of the RFI and invite government-to-government consultation. Comment letters in response to the RFI were submitted by four federally recognized Tribes and one Tribal organization; all letters included requests to exclude some or all the planning areas in the Pacific Region from the National OCS Program (see Appendix A of the DPP).

The Makah Tribe requested consultation in its comment letter and a government-to-government meeting was held with the Makah Tribal Council and staff on October 12, 2017. The Makah Tribal Council members emphasized their co-management role in fisheries with the State of Washington, the high cultural importance of their treaty-reserved right to hunt whales, and that their sovereign perspective must be acknowledged.

Immediately following the release of the DPP in January 2018, BOEM contacted 80 federally recognized Tribes with known or potential interest in Pacific program area activities to provide notification of the DPP and to again invite government-to-government consultation. BOEM added the Nez Perce Tribe to its contact list because of discussions with other Tribes that indicated that the Nez Perce could have marine interests because of anadromous fish in the Columbia River. Comment letters in response to the DPP were submitted by nine federally recognized Tribes, two non-federally recognized Tribes, and four Tribal organizations; all letters expressed opposition to leasing activity in some or all the program areas in the Pacific Region (see **Appendix A**).

In the Pacific region, requests for government-to-government consultation on the DPP were received from 13 Tribes and nine of those meetings have occurred (see **Table 10-3**). BOEM responded to requests from the four other Tribes to schedule consultation meetings, but the meetings have not been scheduled to date. Informational meetings (not government-to-government consultation) were requested by and held with the Confederated Tribes of Grand Ronde, Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, Quileute Tribe, and Northern California Tribal Chairmen's Association.

All Tribes with whom BOEM consulted or met objected to the inclusion of some or all Pacific Region program areas in the National OCS Program. The need for BOEM to uphold its trust

⁸⁰ The 1855 Treaty of Neah Bay secures the Makah Tribe's "right of taking of fish and of whaling or sealing at usual and accustomed grounds and stations." The 1856 Treaty of Olympia secures the "right of taking fish at all usual and accustomed grounds and stations" for the Hoh Indian Tribe, Quileute Tribe, and Quinault Indian Nation (the term "fish" in the Treaty of Olympia has been interpreted to encompass whales and seals). These treaty rights have been adjudicated through Federal courts and the usual and accustomed harvest areas extend 40 miles offshore for the Makah Tribe and Quileute Tribe and 30 miles offshore for the Quinault Indian Nation.

responsibilities, consultation obligations, and to respect Tribal treaty rights was expressed frequently. Common concerns expressed by Tribes include potential impacts on cultural resources, cumulative impacts on fisheries and other resources that restrict the ability to exercise treaty rights, risks of oil and gas activity in seismically active areas off the West Coast (particularly the Cascadia Subduction Zone and Mendocino Triple Junction), worsening climate change impacts, and disproportionate impacts on Tribes due to reliance on the environment.

Several Tribes stated that their cultural identities and well-being are inextricably linked to the coastal and marine environment, and the risk of environmental damage from exploration and development activities would be unacceptable. The Makah Tribe and the Quinault Indian Nation also expressed their concerns with potential development in the Alaska Region and any area that could impact migratory resources of importance or harvested in treaty-protected usual and accustomed areas offshore.

10.4.3 Gulf of Mexico Region

In August 2017, BOEM sent letters to 10 federally recognized Tribes with known or potential interest in GOM Region area activities to provide notification of the RFI and to invite government-to-government consultation. One Tribe, the Muscogee (Creek) Nation, responded that any proposed activities would be within an historic area of interest, and they wished to continue receiving information on National OCS Program development. No other responses were received.

Following the release of the DPP in January 2018, BOEM contacted each of the 10 federally recognized Tribes with known or potential interest in GOM Region activities to notify them of the DPP and to again invite government-to-government consultation. Some of the Tribal representatives requested additional information. No official consultations were requested.

10.4.4 Atlantic Region

In August 2017, BOEM sent letters to 30 federally recognized Tribes with potential interest in Atlantic Region OCS activities to notify them of the RFI and to invite government-to-government consultation.

Following the release of the DPP on January 4, 2018, BOEM contacted each of the federally recognized Tribes with potential interest in Atlantic Program Area activities to provide notification of the DPP and to again invite government-to-government consultation. On January 30, 2018, six additional Tribes in Virginia attained status as federally recognized Tribes, and information was sent to these Tribes as contact information became available. In total, four comment letters were received, all of which stated opposition to oil and gas leasing in the Atlantic OCS (see **Appendix A**). BOEM did not receive any requests for Tribal consultation.

10.5 Laws, Goals, and Policies of Affected States

OCS Lands Act Section 18(a)(2)(F) (see **Section 2.2**) requires BOEM to consider laws, goals, and policies of affected states that are specifically identified by their governors. BOEM received 61 comment letters in response to the DPP from governors, or a state agency on behalf of the governor. These letters identified laws, goals, and/or policies that the state deemed relevant for the Secretary’s consideration.

Although only the U.S. Government has the authority to restrict or prohibit, or even mandate, leasing and authorization of subsequent industry activities on the OCS, several coastal states have introduced bills in their legislatures intended to limit OCS oil and gas operations off their coasts by banning or restricting, in state waters and on state lands, the construction of new infrastructure (e.g., pipelines) and/or other means of supporting new OCS exploration and development. California, Delaware, Florida, New Jersey, New York, and Oregon have enacted such laws. Additionally, 31 states, Washington, D.C., and two territories have active Renewable Portfolio Standards (RPS) or Clean Electricity Standards (CES), while an additional three states and one territory have set voluntary renewable energy goals.

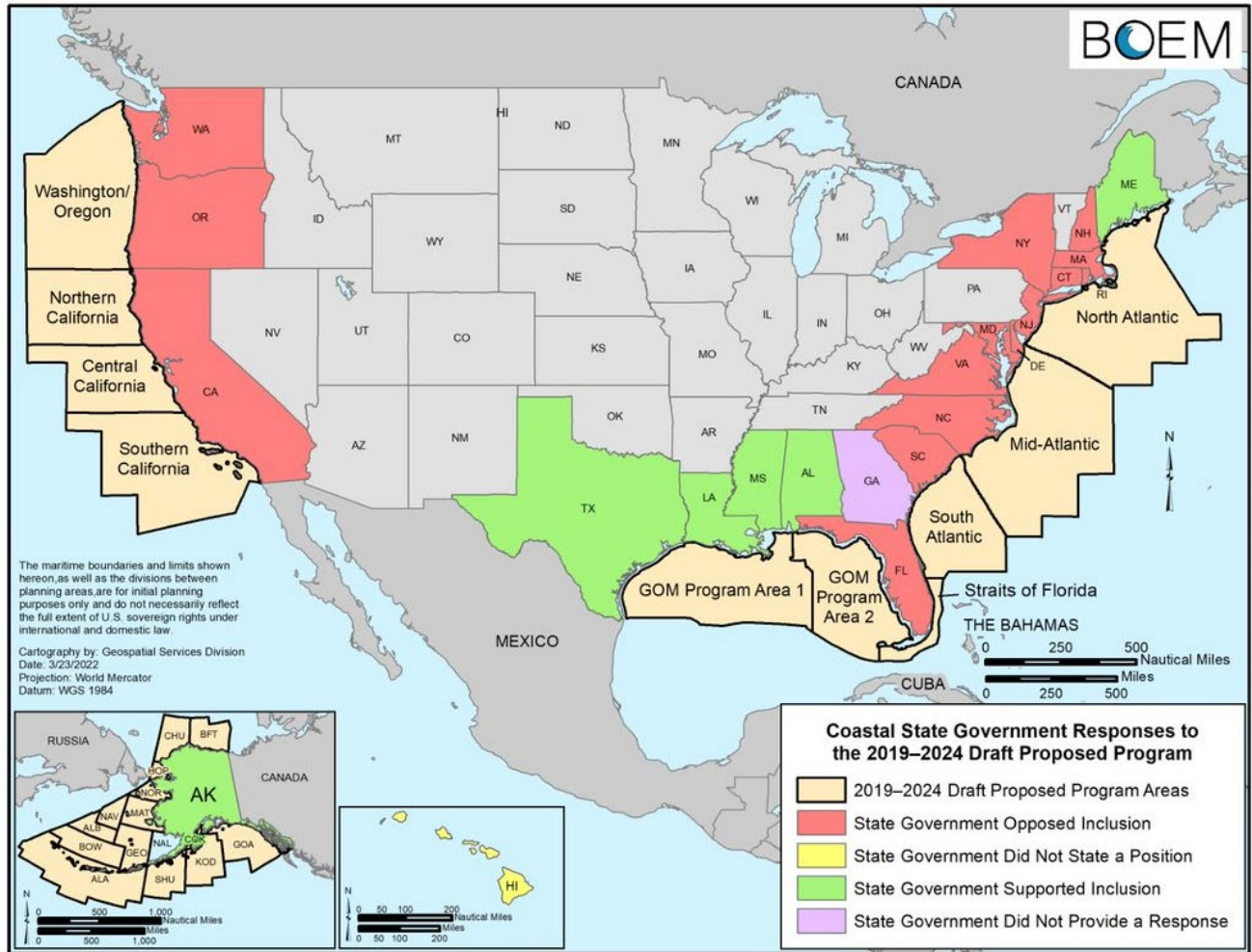
An RPS or CES requires a specified percentage of the electricity utilities sell comes from renewable or clean resources. The difference between a RPS and a CES depends on how a particular state defines what is a “renewable” versus a “clean” source of energy. Clean energy typically refers to sources of energy that have zero carbon emissions.

These policies can play an integral role in state efforts to diversify their energy mix, promote economic development, and reduce emissions. Roughly half of the growth in U.S. renewable energy generation since the beginning of the 2000s can be attributed to state renewable energy requirements. States with legally binding RPSs collectively accounted for 67% of total electricity retail sales in the United States in 2020. In addition to the 31 states with binding RPS or CES policies, seven states have nonbinding renewable portfolio goals.

RPS legislation has seen two opposing trends in recent years. On one hand, many states with RPS targets are expanding or renewing those goals. Since 2018, 15 states, two territories, and Washington, D.C., have passed legislation to increase or expand their renewable or clean energy targets. On the other hand, seven states and one territory have allowed their RPS targets to expire (NCSL 2021, EIA 2022d) (see **Section 6.2** for more information).

Comments from governors and state agencies are shown in **Figure 10-3** and summarized in **Table 10-4**. More detailed comment summaries are presented in **Appendix A**. The views expressed in these summaries are those of the commenters, not of BOEM.

Figure 10-3: Coastal State Governor or State Agency Responses to the 2018 Draft Proposed Program



10.6 Next Steps

A 90-day public comment period follows the publication of this Proposed Program document, which will end concurrently with the comment period for the Draft Programmatic EIS. A series of public meetings will also be held. BOEM will then analyze public input and work will commence on the PFP and Final Programmatic EIS analyses. For the PFP, BOEM will analyze the Proposed Program decision and any other Program Options that the Secretary deems ripe for inclusion for analysis at the PFP stage (see **Section 1.3.4** for further information). Sixty days after the Secretary delivers the PFP to the President and Congress, the National OCS Program may be approved.

Table 10-4: DPP Comment Summaries from Governor and State Agencies

Commenter(s)	Comment Summary
OCS Governors Coalition (Maine, Alabama, Mississippi, Louisiana, Texas, Alaska)	Include all proposed leasing areas in the Proposed Program and avoid reducing the leasing areas until the Programmatic EIS can be completed.
State Attorneys General (California, Connecticut, Delaware, Massachusetts, Maryland, Maine, North Carolina, New Jersey, New York, Oregon, Rhode Island, and Virginia)	Twelve state Attorneys General opposed oil and gas leasing in the Atlantic and Pacific oceans and requested that BOEM collaborate with states in developing a new leasing plan.
State Attorneys General (California, Connecticut, Massachusetts, Maryland, Maine, North Carolina, New Jersey, New York, Oregon, Rhode Island, Virginia, Washington)	Twelve state Attorneys General expressed their opposition to oil and gas leases off their states' coasts in the Atlantic and Pacific OCS and explained how expanding the scope of oil and gas leasing is counter to the goal of reducing dependence on fossil fuels and accelerating a shift toward renewable energy.
Alaska Governor	Supports the DPP and responsible oil and gas leasing in the Arctic.
Washington Governor	Opposes oil and gas leasing in the Pacific Region, and especially off the coast of Washington.
Washington, Department of Ecology	Opposes including the Washington/Oregon Planning Area in the proposed plan.
Washington, Office of the Attorney General	Opposes oil and gas development off the coast of Washington.
Washington, State Commissioner of Public Lands	Opposes the proposal to lease portions of the Pacific planning area.
Oregon Governor	Concerned that the inclusion of the OCS off Oregon's coast goes against many years of state policy.
Oregon, State Treasurer	Opposes oil and gas leasing off the coast of Oregon.
California Governor	Opposes oil and gas leasing in the Pacific, and especially off the coast of California.
California Coastal Commission (3 submissions)	Opposes expanded oil and gas leasing exploration and production off the California coast.
California, Department of Parks and Recreation	Opposes drilling off California's coast and urges BOEM to remove California from consideration.
California, Fish and Game Commission	Opposes any new or expanded leases for oil and gas development off the California coast.
California, Natural Resources Agency	States that the DPP is inconsistent with California's state goals.
California, Ocean Protection Council	Opposes oil and gas development off the California coast and urges that the State of California be withdrawn from consideration.
California, Office of the Attorney General	Strongly opposes lease sales for any California OCS planning area.
California, State Lands Commission (2 submissions)	Opposes offshore oil and gas drilling in the Pacific OCS and urges the withdrawal of California from consideration.
Hawaii Governor's Office of Planning	States that Hawaii does not have any indigenous oil and gas resources out to the boundary of the U.S. EEZ.
Texas Railroad Commission	Strongly supports proposal to expand access in the GOM and to maintain all 26 OCS planning areas.
Alabama Governor	Supports the DPP, but the state has long sought to minimize visual impacts of new oil and gas structures within a 15-mile area south of Baldwin County and requests continued assistance in this regard.

Commenter(s)	Comment Summary
Florida Defense Support Task Force	Opposes leasing in the GOM planning region and states that the current moratorium should be maintained.
Florida Department of Environmental Protection (2)	Opposes oil and gas leasing off the coast of Florida.
Florida, Department of Environmental Protection; Fish and Wildlife Conservation Commission; Department of Agriculture and Consumer Services	Opposes inclusion of any lease sales offshore Florida.
South Carolina, Governor	Requests that South Carolina be excluded from the DPP.
South Carolina, Department of Health and Environmental Control	Does not state a position on the DPP but states the need for further consideration and analyses before moving forward with a proposed plan.
South Carolina, Department of Natural Resources	Opposes offshore oil and gas drilling in the Atlantic OCS.
North Carolina Governor (4)	Opposes offshore oil and gas drilling in the Atlantic region, and specifically off the coast of North Carolina.
Virginia Governor	Requests that Virginia be excluded from the Proposed Program.
Virginia, Department of Conservation and Recreation	States that the Virginia State Natural Area Preserves, within the Mid-Atlantic Planning Area, should be excluded from any oil and gas leasing activities.
Virginia, Department of Environmental Quality (2)	Does not state a position but provided comments to ensure the completeness of the Programmatic EIS, consistency with the Coastal Zone Management Act and conformance with the performance criteria in the Chesapeake Bay Preservation Act.
Virginia, Office of the Attorney General	Opposes any opening of the Atlantic and states concern for the Commonwealth of Virginia.
Virginia Offshore Wind Development	Does not state a position specific to the DPP but requests that the wind development interests in the Atlantic OCS be protected from encroachment or other impacts from offshore oil and gas leasing.
Maryland Department of Natural Resources (3)	Opposes any development of or exploration for oil and gas in the Atlantic Ocean and particularly off the coast of Maryland.
Maryland, Office of the Attorney General	Opposes offshore drilling and exploration in the Atlantic region.
Delaware Governor (2)	Opposes the DPP, specifically the inclusion of the Atlantic region, and requests that BOEM maintain the longstanding protections in place for Delaware and other coastal areas in the Atlantic.
Delaware Department of Natural Resources and Environmental Control	Opposes any offshore oil and gas exploration in the Atlantic, specifically off the coast of Delaware.
Delaware, Office of the Attorney General	Opposes the DPP and the inclusion of Delaware's coast.
New Jersey Governor	Opposes oil and gas development off the coast of New Jersey.
New York, Governor (2)	Opposes offshore drilling in the North Atlantic region and states that oil and gas leasing in the Atlantic would conflict with New York's energy plan.
New York, Air Resources, Climate Change and Energy at State Department of Environmental Conservation	Opposes offshore drilling in the Atlantic Coast.
New York, Department of Environmental Conservation	Opposes offshore drilling in the Atlantic, specifically off Long Island, New York.

Commenter(s)	Comment Summary
New York, Departments of Environmental Conservation, State, and Energy	Opposes the location of the public meeting slated for Albany, NY.
New York, Office of the Attorney General	Opposes drilling offshore New York.
Connecticut Department of Energy and Environmental Protection	Opposes offshore drilling in the Atlantic, specifically off the coast of Connecticut.
Rhode Island Governor	Opposes the inclusion of the North Atlantic Region in the DPP.
Rhode Island, Department of Environmental Management	Strongly opposes the inclusion of the North Atlantic, and specifically Rhode Island, in the proposed plan.
Rhode Island, Department of Health	Opposes offshore drilling in the North Atlantic region, specifically in Rhode Island.
Rhode Island, Providence Plantations Department of Attorney General	Opposes the proposal to open the North Atlantic Planning Area for oil and gas exploration.
Massachusetts Governor	Opposes oil and gas drilling in the Atlantic Ocean, specifically off the coast of Massachusetts.
Massachusetts, Office of the Attorney General	Opposes opening any portion of the Atlantic to oil and gas leasing.
New Hampshire Governor	Opposes offshore oil and gas development off the coast of New Hampshire.
Maine Governor	Supports the DPP and states that Maine needs natural gas to reduce electricity costs.
Maine, Office of the Attorney General	Opposes leasing for oil and gas development in the North Atlantic and states specific concern for the State of Maine.
Utah, Governor's Office of Energy Development	Supports the DPP as part of an all-of-the-above energy policy.

Chapter 11

Glossary



Chapter 11 Glossary

2-D Seismic — A seismic survey where a line of geophones captures enough information to generate a two-dimensional (height and length) image of the Earth’s subsurface directly below the line.

3-D Seismic — A seismic survey where a three-dimensional image of the subsurface is developed by combining numerous energy sources and multiple lines of geophones. The image consists of height, length, and side-to-side information that provides better resolution to the subsurface than a 2-D survey.

Area Identification (Area ID) — The Area ID is an administrative pre-lease step that describes the geographical area of the proposed actions (proposed lease sale areas) and identifies the alternatives, mitigating measures, and issues to be analyzed in the corresponding NEPA document.

barrel — The standard unit of measurement of liquids in the petroleum industry, which is 42 U.S. standard gallons.

barrel of oil equivalent (BOE) — The amount of energy resource (in this document, natural gas) that is equal to one barrel of oil on an energy basis. The conversion assumes that one barrel of oil produces the same amount of energy when burned as 5,620 cubic feet of natural gas.

basin — A depression in the earth’s surface where sediments are deposited, usually characterized by sediment accumulation over a long interval; a broad area of the earth beneath which layers of rock are inclined, usually from the sides downward toward the center.

block — A numbered area on an OCS leasing map or official protraction diagram. Blocks are portions of OCS leasing maps and official protraction diagrams (OPDs) that are themselves portions of planning areas. Blocks vary in size but cannot be larger than 5,760 acres (about 9 square miles or 2,304 hectares). Each block has a specific identifying number, area, and latitude and longitude coordinates that can be pinpointed on a leasing map or OPD.

bonus bid — The cash consideration paid to the U.S. by the successful bidder for a mineral lease. The payment is made in addition to the rent and royalty obligations specified in the lease.

Bureau of Ocean Energy Management — On October 1, 2011, the Bureau of Ocean Energy Management (BOEM) was created. BOEM is responsible for managing development of the Nation’s offshore resources in an environmentally and economically responsible way. Functions

include: Leasing, Plan Administration, Environmental Studies, National Environmental Policy Act (NEPA) Analysis, Resource Evaluation, Economic Analysis, and the Renewable Energy Program.

Bureau of Safety and Environmental Enforcement — On October 1, 2011, the Bureau of Safety and Environmental Enforcement (BSEE) was created. BSEE is responsible for enforcing safety and environmental regulations. Functions include: all field operations including Permitting and Inspections; Research for Offshore Regulatory Programs; Oil Spill Response, and Training; and Environmental Compliance functions.

catastrophic discharge event — A low-probability, unexpected, and unauthorized large discharge of oil into the environment that could cause long-term and widespread effects on marine and coastal environments.

categorical exclusion — A category of actions which do not individually or cumulatively have a significant effect on the human environment, and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of Council of Environmental Quality regulations (§1507.3) and for which, therefore, neither an environmental assessment nor an environmental impact statement pursuant to NEPA is normally required (40 CFR 1508.4).

conceptual play — Geologic play in which hydrocarbons have not been discovered and the petroleum system has not been proven to exist.

continental shelf — A broad, gently sloping, shallow feature extending from the shore to the continental slope.

conventional reservoir — A hydrocarbon accumulation in which reservoir and fluid characteristics typically allow oil or natural gas to flow readily into a well. This distinguishes the resources from unconventional reservoirs where there is little to no significant force driving the migration of resources to a wellbore.

conventional resources — Oil and gas resources in conventional reservoirs where buoyant forces keep resources in place beneath a caprock.

conventional recovery methods — Producing oil and gas resources using traditional extraction methods, such as natural pressure, pumping, or by using secondary methods such as gas or water injection.

crude oil — Petroleum in its natural state as it emerges from a well, or after it passes through a gas-oil separator, but before refining or distillation.

Department of the Interior (Department, USDOJ) — The Department of the Interior is a Cabinet-level agency that manages America’s vast natural and cultural resources.

Determination of NEPA Adequacy — BOEM uses a Determination of NEPA Adequacy (DNA) memo in the decision file to document that existing NEPA analyses are adequate for evaluating a new proposed action.

development — Activities following exploration, including the installation of facilities and the drilling and completion of wells for production purposes.

development and production plan — A plan describing the specific work to be performed on an offshore lease after a successful discovery, including all development and production activities that the lessee proposes to undertake during the period covered by the plan and all actions to be undertaken up to and including the commencement of sustained production. The plan also includes descriptions of facilities and operations to be used, well locations, current geological and geophysical information, environmental safeguards, safety standards and features, schedules, and other relevant information. All lease operators are required to formulate and obtain approval of such plans by BOEM before development and production activities can begin; requirements for submittal of the plan are identified in 30 CFR 550.241. A Development and Production Plan is also called a Development Operations Coordination Document.

Draft Proposed Program (DPP) — Section 18 of the OCS Lands Act requires the Secretary of the Interior to prepare and maintain a schedule of proposed OCS oil and gas lease sales determined to “best meet national energy needs for the 5-year period following its approval or reapproval.” The Draft Proposal is the first of three proposals to be issued before a new National OCS Program may be approved. Preparation and approval of a National OCS Program is based on a consideration of principles and factors specified by Section 18 to determine the size, timing, and location of lease sales.

endangered species — Any species that is in danger of extinction throughout all or a significant portion of its range and has been officially listed by the appropriate Federal agency (either the National Oceanic and Atmospheric Administration [NOAA] or U.S. Fish and Wildlife Service) under the Endangered Species Act.

enhanced recovery techniques — Techniques that increase the amount of oil that can be recovered from a reservoir, usually by injecting a substance into an existing well to increase pressure and reduce the viscosity of the fluids.

environmental assessment — A concise public document prepared pursuant to NEPA and the Council on Environmental Quality regulations. In the document, a Federal agency proposing (or reviewing) an action provides evidence and analysis for determining whether it must prepare an environmental impact statement or whether it finds there is no significant impact (i.e., Finding of No Significant Impact).

environmental impact statement (EIS) — A public document prepared pursuant to NEPA and Council on Environmental Quality regulations for a major Federal action significantly affecting

the environment. EISs provide a full and fair discussion of significant environmental impacts to inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts. The document is used by Federal officials, in conjunction with other relevant material, to plan actions and make decisions.

environmental sensitivity — A measure of a region’s ecological components’ vulnerability to, and resilience after, potential adverse impacts of offshore oil and gas exploration and development activities in the context of existing conditions.

established play — Geologic plays in which hydrocarbons have been discovered and a petroleum system has been proven to exist.

Exclusive Economic Zone (EEZ) — The maritime region adjacent to the territorial sea, extending 200 nautical miles (nm) from the baseline of the territorial sea, in which the U.S. has exclusive rights and jurisdiction over living and nonliving natural resources.

exploration — The process of searching for minerals preliminary to development. Exploration activities include: (1) geophysical surveys, (2) any drilling to locate an oil or gas reservoir, and (3) the drilling of additional wells after a discovery to delineate a reservoir.

exploration plan — A plan submitted by a lessee (30 CFR 250.33) that identifies all the potential hydrocarbon accumulations and wells that the lessee proposes to drill to evaluate the accumulations within the lease or unit area covered by the plan. All lease operators are required to obtain approval of such a plan by a BOEM Regional Supervisor before exploration activities may commence.

field — Area consisting of a single reservoir or multiple reservoirs all grouped on, or related to, the same general geologic structural feature and/or stratigraphic trapping condition. There could be two or more reservoirs in a field that are separated vertically by impervious strata, laterally by geologic barriers, or both.

formation — A bed or deposit sufficiently homogeneous to be distinctive as a unit. Each different formation is given a name, frequently because of the study of the formation outcrop at the surface and sometimes based on fossils found in the formation.

geological data — Information derived from rocks of the seabed to provide information on the geological character of rock strata.

geological surveys — Geological surveying on the Outer Continental Shelf consists of bottom sampling, shallow coring, and deep stratigraphic tests. These surveys provide data that are useful in determining the general geology of an area and whether the right types of rocks exist for petroleum formation and accumulation.

geophysical data — Facts, statistics, or samples that have not been analyzed or processed, pertaining to gravity, magnetic, seismic, or other surveys/systems.

geophysical surveys — Geophysical surveys on the OCS provide data about the seafloor and the subsurface. Comprised of 2-D and 3-D seismic surveys, as well as multi-component, high-resolution, wide-azimuth, and other advanced types of seismic surveys, the surveys obtain data for hydrocarbon exploration and production, identify possible seafloor or shallow depth geologic hazards, and locate potential archaeological resources and hard bottom habitats that should be avoided.

hurdle price — The price below which delaying exploration for the largest potential undiscovered field in the sale area is more valuable from a quantified option value perspective than immediate exploration.

hydrocarbon — Any of a large class of organic compounds containing primarily carbon and hydrogen; comprising paraffins, olefins, members of the acetylene series, alicyclic hydrocarbons, and aromatic hydrocarbons; and occurring, in many cases, in petroleum, natural gas, coal, and bitumens.

lease — A legal document executed between the U.S. as lessor, and a company or individual (as lessee) that conveys the right to explore, develop and produce, subject to plan approval, within the leased area for minerals on the OCS for a specified period. The term also means the geographic area (i.e., lease block) covered by that authorization, whichever the context requires.

lease sale — A BOEM proceeding by which leases of certain OCS tracts are offered for lease by competitive sealed bidding and during which bids are received, announced, and recorded.

lease period — Duration of an OCS lease. Oil and gas leases are issued for a primary term of between 5 and 10 years. After that, the lease term continues if there is production in paying quantities or if the lease is suspended.

lessee — An entity, person, or persons to whom a lease is awarded; the holder of a lease.

liquefied natural gas (LNG) — Natural gas is converted to LNG by cooling it to a temperature of -256°F, at which point it becomes a liquid.

minerals — Minerals include oil, gas, sulfur, geopressured-geothermal and associated resources, and all other minerals which are authorized by an Act of Congress to be produced from “public lands” as defined in Section 1702 of the Federal Land Policy and Management Act of 1976.

leasing moratorium — Statutory restriction on what areas BOEM can offer for OCS oil and gas leasing (e.g., the GOMESA moratorium on leasing in the Eastern GOM that expired on June 30, 2022).

natural gas — A mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in gaseous phase at the surface or in solution with crude oil in natural underground reservoirs at reservoir conditions.

nearshore waters — Offshore waters that extend from the shoreline out to the limit of the territorial sea (12 nm).

net economic value (NEV) — The value to society that is derived from the resources in the ground. The NEV equals the discounted gross revenues from the produced oil and natural gas minus the private costs required to realize the economic value of the resources.

net social value — The discounted gross revenues from the produced oil and natural gas minus the private, environmental, and social costs required to realize the economic value of the resources.

net-zero — resulting in neither a surplus nor a deficit of something specified, for example when gains and losses are added together and offset each other completely (e.g., net-zero carbon emissions).

oil and gas resource — Concentrations in the earth's crust of naturally occurring liquid or gaseous hydrocarbons that can conceivably be discovered and recovered. Normal use encompasses both discovered and undiscovered resources.

Oil Spill Response Plan — A plan submitted to BSEE by the lease or unit operator prior to using a facility handling oil that details provisions for fully defined specific actions to be taken following discovery and notification of an oil spill occurrence (30 CFR part 254).

operator — The person or company engaged in the business of drilling for, producing, or processing oil, gas, and the designated operator is recognized by BOEM as the official contact and responsible party for the lease activities or operations on behalf of all owners.

Outer Continental Shelf (OCS) — All submerged lands, subsoil, and seabed lying between the seaward extent of the jurisdictions of coastal states (which in most cases begins 3 nautical miles (nm) from the coastline) and the seaward extent of the jurisdiction of the United States (U.S.), which extends to 200 nm, or in some cases more, from the coastline. The jurisdiction of Texas and that of Florida, off its Gulf Coast, ending 9 nm from the coastal baseline and Louisiana's jurisdiction ends 3 imperial miles, reflecting boundaries at the time these states became states of the U.S.

petroleum — An oily, flammable, bituminous liquid that occurs in many places in the upper strata of the earth, either in seepages or in reservoirs; essentially a complex mixture of hydrocarbons of different types with small amounts of other substances; any of various substances (as natural gas or shale oil) similar in composition to petroleum.

petroleum system — All of the geologic elements and processes which create a suitable environment to generate, accumulate, and preserve oil and gas. Elements such as source rock, reservoir rock, and the trapping mechanism, along with fluids migration methods are necessary for the creation of a suitable hydrocarbon reservoir.

planning area — An administrative subdivision of the OCS used as the initial area(s) compared in the National OCS Program analyses.

play (geologic play) — A group of known and/or postulated pools that share common geologic, geographic, and temporal properties, such as history of hydrocarbon generation, migration, reservoir development, and entrapment.

pool — A discovered or undiscovered accumulation of hydrocarbons.

production — Activities that take place after the successful completion of a well, including removal of minerals, field operations, transfer of minerals to shore, operation monitoring, maintenance, and workover drilling.

production status — State of an active lease that has produced oil, gas, or both.

primary production — The production of biomass from inorganic carbon and water through photosynthesis or chemosynthesis. The primary productivity of a marine community is its capacity to produce energy for its component species, which thus sets limits on the overall biological production in marine ecosystems.

Proposed Program — The Second Proposal and an analysis of the Draft Proposal, the second in a series of three leasing schedules to be issued before a new National OCS Program may be approved.

Proposed Final Program (PFP) — The final leasing schedule and an analysis of the Second Proposal, which may be adopted as the new National OCS Program after it has been before Congress and the President for 60 days.

Record of Decision (ROD) — The final step in the EIS process. The ROD identifies the selected alternative, presents the basis for the decision, identifies alternatives considered, specifies the environmentally preferable alternative, and identifies appropriate mitigation measures.

recoverable resources — Portion of the identified oil or gas resources that can be economically extracted under current technological constraints.

rent — Periodic payments made by the holder of a lease, prior to production in paying quantities, for the right to use resources for exploration, development, and production as established in the lease.

Request for Information and Comments (RFI) — The first step in the development of a National OCS Program. BOEM publishes a *Federal Register* notice to request information and comments from states and local governments, Tribal governments, Native American and Alaska Native organizations, Federal agencies, environmental and fish and wildlife organizations, the oil and gas industry, non-energy industries, other interested organizations and entities, and the public for use in the preparation of the National OCS Program. BOEM seeks a wide array of information including information associated with the economic, social, and environmental values of all OCS resources, as well as the potential impact of oil and gas exploration and development on resource values of the OCS and the marine, coastal, and human environments.

reservoir — Subsurface, porous, permeable rock body in which oil or gas or both may have accumulated.

royalty — Payment, in value (money) or in kind (in oil and gas), of a stated proportionate interest in production from leased mineral deposits by the lessees to the lessor.

secondary production — The amount of new biomass produced by consumer (heterotrophic) organisms over time. Its definition may be limited to only include the consumption of primary producers by herbivorous (plant-eating) organisms but is more commonly defined to include all biomass generation by heterotrophs.

seismic — Pertaining to, characteristic of, or produced by, earthquakes or Earth vibrations; having to do with elastic waves in the Earth.

seismic survey — A method of geophysical prospecting using the generation, reflection, refraction, detection, and analysis of elastic waves in the Earth. Seismic surveys use sound waves that are sent through the ocean floor to map the subsurface.

stipulation — Specific measures imposed upon a lessee by a provision not included in the standard lease form. Similar stipulations could apply to some or all tracts in a sale. For example, a stipulation might limit drilling to a certain period of the year or certain areas.

tract — An area of the seabed that could be offered for lease. It is a designation assigned, for administrative and statutory purposes, to a block or combination of blocks that are identified by an official protraction diagram prepared by BOEM.

trap — A geologic feature that permits the accumulation and prevents the escape of accumulated fluids (hydrocarbons) from the reservoir.

unconventional recovery methods — Enhanced technological and engineering techniques used to produce oil and gas resources, such as horizontal drilling and hydraulic fracturing.

unconventional resources — Oil and gas resources trapped in formations that have lower permeability and/or porosity than rocks that have typically produced oil and gas resources in the past.

Undiscovered Economically Recoverable Resources (UERR) — The portion of the undiscovered technically recoverable resources that are economically recoverable under specified economic and technological conditions, including prevailing prices and costs.

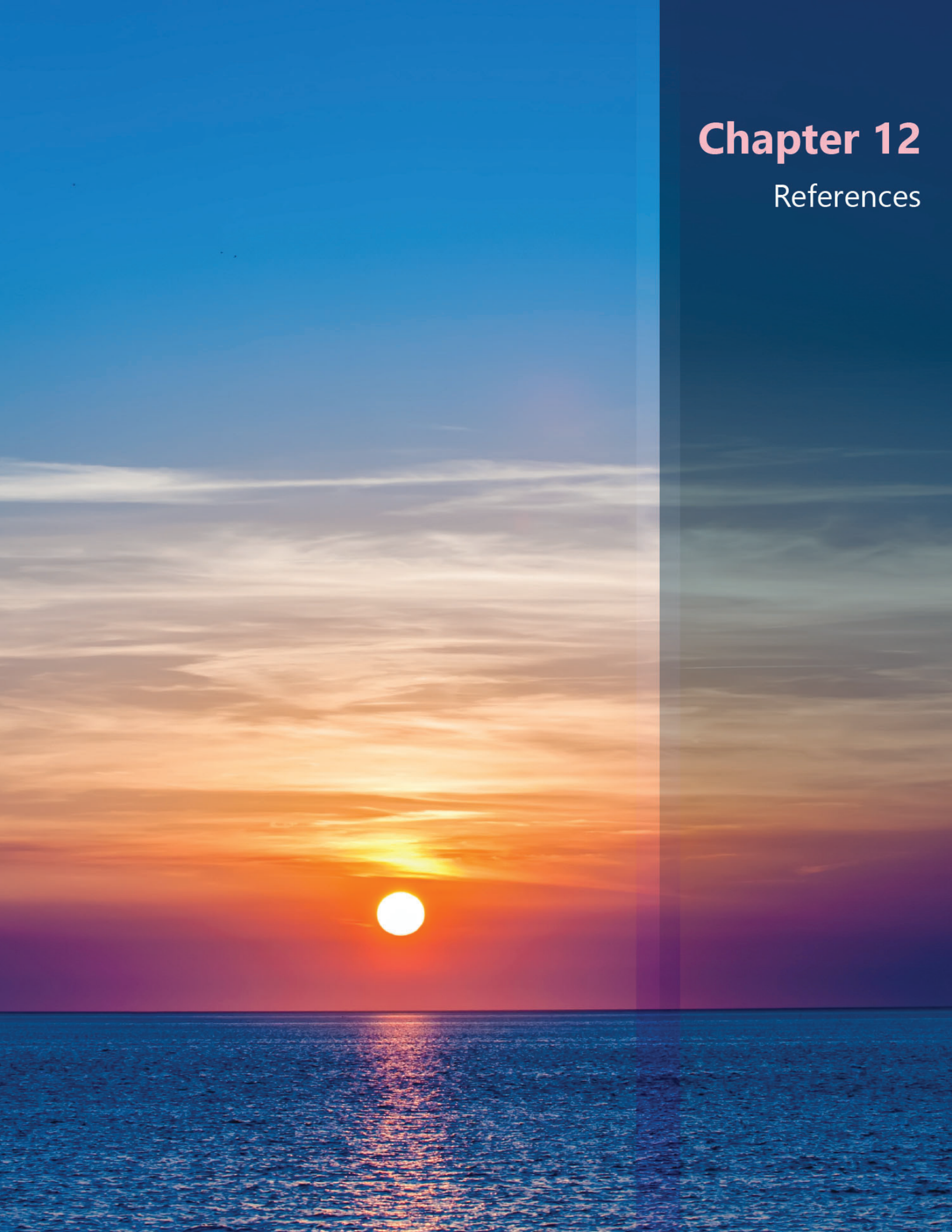
Undiscovered Technically Recoverable Resources (UTRR) — Oil and gas that could be produced from the subsurface using conventional extraction techniques without considering economic viability.

unit status — The combination or consolidation of leases or portions of leases, that BSEE determines to be the logical unit area, for joint exploration and/or development of reservoirs or potential common hydrocarbon accumulations under the terms of a Unit Agreement as regulated under 30 CFR 250 Subpart M.

well — A hole drilled or bored into the earth, usually cased with metal pipe, to produce gas or oil, a hole for the injection under pressure of water or gas into a subsurface rock formation.

Chapter 12

References



Chapter 12 References

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APPENDIX A
SUMMARIES OF PUBLIC COMMENTS
ON THE
DRAFT PROPOSED PROGRAM

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Abbreviations and Acronyms

AOGA	Alaska Oil and Gas Association
API	American Petroleum Institute
AXPC	American Exploration and Production Council
BOEM	Bureau of Ocean Energy Management
DNR	Department of Natural Resources
DOD	Department of Defense
DOI	U.S. Department of the Interior
DPP	Draft Proposed Program
EIS	environmental impact statement
FR	<i>Federal Register</i>
GDP	gross domestic product
GHG	greenhouse gas
GOM	Gulf of Mexico
IADC	International Association of Drilling Contractors
IAGC	International Association of Geophysical Contractors
ID	identification
IPAA	Independent Petroleum Association of America
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act of 1969
NMS	National Marine Sanctuary
NOIA	National Ocean Industries Association
OCMP	Oregon Coastal Management Program
OCS	Outer Continental Shelf
PESA	Petroleum Equipment and Services Association
PFP	Proposed Final Program
TAPS	Trans-Alaska Pipeline System
USOGA	U.S. Oil and Gas Association

Appendix A Summaries of Public Comments by Commenter Category

The Bureau of Ocean Energy Management (BOEM) requested information and comments on the 2019-2024 National Outer Continental Shelf (OCS) Oil and Gas Leasing Draft Proposed Program (DPP) in the *Federal Register* (FR) on January 4, 2018 (82 FR 30886). The DPP was distributed to interested and affected parties, including governors and Federal agency leaders, for a 60-day comment period. BOEM received more than 2.02 million comments on the DPP (see www.regulations.gov docket identification [ID] BOEM-2017-0074). A summary of substantive comments received on the DPP is provided below.

Comments were received from several different types of stakeholders (see Table A-1). Of the states, BOEM received comment letters from 22 governors individually and/or as joint signatories (Alaska, Alabama, California, Connecticut, Delaware, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Texas, Utah, Virginia, and Washington); 4 comments from agencies in one state where the governor did not comment separately (Florida), and 64 comments from agencies in 15 states in addition to the governor (California, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Texas, Virginia, and Washington). In addition, BOEM received 196 comment letters from local governmental entities in 20 states (Alaska, California, Delaware, Florida, Idaho, Illinois, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Virginia, and Washington). Several form letter campaigns and petitions stated support for the development of a new National Program, while several were opposed.

Each summary contains a Document ID. The Document ID refers to the comment submission's docket number in the Federal government's online comment website, www.regulations.gov, where the full comment submission can be accessed. Tables at the beginning of each section show the list of commenters that submitted comment letters for each commenter type.

TableA-1: Stakeholders Providing Comments on the Draft Proposed Program

Commenter Type
Governors and State Agencies
Local Governments
Public Interest Groups
Federal Agencies
Energy Exploration & Production Industry and Associations
Non-energy Exploration & Production Industry and Associations
State-level Elected Officials
Members of Congress
Tribes and Tribal Organizations
General Public

A.1 GOVERNORS AND STATE AGENCIES

List of Commenters

Outer Continental Shelf Governor’s Coalition (Maine, Mississippi, Alabama, Alaska, Louisiana, and Texas)
Seven Atlantic Governors (Maryland, Connecticut, Delaware, North Carolina, Massachusetts, Rhode Island, and Virginia)
Twelve State Offices of the Attorney General, Joshua Segal (1)
Twelve State Offices of the Attorney General, Joshua Stein (2)
Alabama Governor
Alaska Governor
California Governor
California, Air Resources Board
California, Coastal Commission, John Ainsworth
California, Coastal Commission, Dayna Bocho
California, Coastal Commission, Alison Dettmer
California, Department of Parks and Recreation
California, Fish and Game Commission, Melissa Miller-Henson
California, Natural Resources Agency
California, Ocean Protection Council
California, Office of the Attorney General
California, State Lands Commission
Connecticut, Department of Energy & Environmental Protection
Delaware Governor
Delaware, Department of Natural Resources and Environmental Control

Delaware, Office of the Attorney General
Florida Defense Support Task Force, Terrance McCaffrey
Florida, Department of Environmental Protection (1)
Florida, Department of Environmental Protection (2)
Florida, Department of Environmental Protection; Fish and Wildlife Conservation Commission; Department of Agriculture and Consumer Services
Hawaii, Governor’s Office of Planning
Maine Governor
Maine, Office of the Attorney General, Janet Mills
Maryland, Department of Natural Resources
Maryland, Office of the Attorney General
Massachusetts Governor
Massachusetts, Office of the Attorney General, Maura Healey
Massachusetts, Office of the Attorney General, Megan Herzog
New Hampshire Governor
New Jersey Governor
New York Governor
New York, Air Resources, Climate Change and Energy at State Department of Environmental Conservation
New York, DEC Regional Director
New York, Departments of Environmental Conservation, State, and Energy
New York, Environmental Protection Bureau, Office of the Attorney General

New York, New York State Department of Environmental Conservation, Region Director
New York, Office of the Attorney General
North Carolina Governor
Oregon Governor, Energy and Climate Change Policy Advisor
Oregon Governor, Energy and Climate Change Policy Advisor
Oregon, State Treasurer, Tobias Read
Rhode Island Governor
Rhode Island, Department of Environmental Management
Rhode Island, Department of Health
Rhode Island, Providence Plantations Department of Attorney General
South Carolina Governor
South Carolina, Department of Health and Environmental Control
South Carolina, Department of Natural Resources

Texas, Railroad Commission
Utah, Governor’s Office of Energy Development
Virginia Governor
Virginia, Department of Conservation and Recreation
Virginia, Department of Environmental Quality, Bettina Rayfield
Virginia, Department of Environmental Quality, Daniel Moore
Virginia, Office of the Attorney General
Virginia, Virginia Offshore Wind Development Authority
Washington Governor
Washington, Department of Ecology
Washington, Department of Natural Resources
Washington, Office of the Attorney General
Washington, State Commissioner of Public Lands

A.1.1 Multi-Region Commenters

OCS Governors Coalition, Paul LePage, et al. Document ID: BOEM-2017-0074-10667

Six governors (ME, MS, AL, AK, LA, and TX) stated that BOEM should include all proposed leasing areas in the Proposed Program and should avoid reducing the leasing areas until the Programmatic Environmental Impact Statement (EIS) can be completed. The commenters offered support for revenue sharing among states, requesting an increase in the existing revenue sharing cap to improve equity, and stated that responsible offshore development could provide needed energy resources and jobs, promote economic activity in associated industries, and generate large amounts of tax revenue.

Twelve State Offices of the Attorney General, Joshua Segal

Document ID: BOEM-2017-0074-11233

Twelve state Attorneys General from various states (CA, CT, MA, MD, ME, NC, NJ, NY, OR, RI, VA, and WA) expressed their opposition to oil and gas leases off their states’

coasts in the Atlantic and Pacific OCS. The commenters explain how expanding the scope of oil and gas leasing is counter to the goal of reducing dependence on fossil fuels and accelerating a shift toward renewable energy. The commenters stated that the Atlantic and Pacific planning areas have relatively low resource production potential and should not be considered for leasing.

Twelve State Offices of the Attorney General, Joshua Stein and 11 others

Document ID: BOEM-2017-0074-4879

Twelve state Attorneys General (CA, CT, DE, MA, MD, ME, NC, NJ, NY, OR, RI, and VA) opposed oil and gas leasing in the Atlantic Ocean and requested BOEM collaborate with states in developing a new leasing plan. The commenters stressed the importance of a clean ocean to the economies of their states and threatened legal action if BOEM either refused to terminate the current DPP or remove the Atlantic Coast from the Proposed Program.

A.1.2 Alaska Region

Alaska, Governor Bill Walker

Document ID: BOEM-2017-0074-10660

The commenter expressed support for the DPP and for responsible oil and gas leasing in the Arctic and Cook Inlet. The commenter encouraged BOEM to strike an equitable balance that includes lease sales in the Arctic and protects traditional subsistence areas. The commenter stated oil and gas leasing are important to maintain the viability of the Trans-Alaska Pipeline System (TAPS). The commenter also provided specific comments on certain sections of the DPP.

A.1.3 Pacific Region

California, Governor Edmund Brown

Document ID: BOEM-2017-0074-10996

The commenter opposed oil and gas leasing in the Pacific, and especially off the coast of California. The commenter stated if the Proposed Program were to be carried out, it would break with Federal and state agreements and be in direct opposition to the climate change and clean energy policies of the state. The commenter also expressed concern about impacts on marine life, natural and cultural resources, tourism, and recreation. The commenter stated that the Programmatic EIS should examine the effects of installing and decommissioning platforms and the impacts on tribal cultural resources. The commenter also expressed concern about oil spills, citing the 1969 spill off the coast of Santa Barbara, which is the largest spill in California history and the third largest in U.S. history.

California, Air Resources Board,

Richard Corey

Document ID: BOEM-2017-0074-10988

The commenter does not state a position regarding the proposed plan, but instead voiced concern for impacts on California from offshore development. The commenter's primary

concern is with the potential and significant air quality and climate impacts and recommends that BOEM should consider these issues in the Proposed Program.

California, Coastal Commission,

John Ainsworth, Executive Director

Document ID: BOEM-2017-0074-11165

The commenter expressed opposition to expanded oil and gas leasing exploration and production off the California coast. The commenter cited the potential compromise of California's productive coastal ecosystems and vital coastal economy as reasons for opposition. The commenter also cited concerns over environmental risks and impacts on commercial and recreational fishing, aquaculture, tourism and recreation. The commenter asserted that BOEM did not properly consider and appropriately weigh the uncertainty in the estimates of available oil and gas resources. The commenter also stated that BOEM's analysis significantly undervalues the unique and irreplaceable value of California's marine ecosystems.

California, Coastal Commission, Chair

Dayna Boehco

Document ID: BOEM-2017-0074-6174

The commenter expressed opposition to oil and gas development and leasing off California's coast. The commenter argued that the State's coastal economy and resources would be put at risk under this program. The commenter also stressed that California has been strongly opposed to oil and gas drilling since the 1969 Santa Barbara crude oil spill, which devastated California's coastal ecosystems.

California, Coastal Commission,

Allison Dettmer, Deputy Director

Document ID: BOEM-2017-0074-10914

The commenter expressed their opposition to additional lease sales in California and requested that the state be removed from consideration. The commenter stated that the EIS should

include analysis of the cumulative impacts associated with the maximum extent of oil and gas development, including the potential leasing of all proposed planning areas. The commenter also stated that the EIS should also analyze the impacts of oil and gas exploration, seismic and other geophysical studies, drilling exploratory wells, hydraulic fracturing, oil spills, and clean-up activities. The commenter also requested that BOEM conduct consultations with both Federal- and state-recognized tribes.

California, Department of Parks and Recreation, Lisa Ann L Mangat

Document ID: BOEM-2017-0074-10982

The commenter expressed their opposition to drilling off the California's coast and urged BOEM to remove California from consideration. The commenter cited threats to California's state parks as a primary concern because of the high quality outdoor recreational services they provide. These services include ecological protections, biodiversity, historical culture, birdwatching, hiking, swimming, surfing, and much more. Other concerns cited by the commenter include environmental damage, clean-up operations, and human harm. The commenter supported a transition away from fossil fuel energy towards more renewable and sustainable options to protect against sea level rise.

California, Fish and Game Commission, Melissa Miller-Henson

Document ID: BOEM-2017-0074-10733

The commenter expressed their opposition to any new or expanded leases for oil and gas development off the California coast. The commenter voiced concern over potential harm to California's coasts and beaches, as well as potential detrimental impacts on California marine life. The commenter cited that California is home to the largest scientifically based network of marine protected areas in the world and a profitable fishing industry. The

commenter asserted that the DPP does not adequately assess the potential impact on those resources.

California, Natural Resources Agency, Kenneth A. Harris

Document ID: BOEM-2017-0074-10983

The commenter did not state a position regarding the proposed plan, but instead discussed issues specific to California. The commenter stated that the DPP is inconsistent California's state goals. For example, the commenter stated that new Federal leases could be counterproductive to the greenhouse gas (GHG) emissions reduction objectives set forth in California. The commenter also stated that the EIS should include all direct and indirect impacts, including construction or modification of attendant infrastructure, impact from unintended accidents, and decommissioning.

California, Ocean Protection Council, John Laird

Document ID: BOEM-2017-0074-7756

The commenter expressed opposition to oil and gas development off the California coast and urged that the state of California be withdrawn from consideration. The commenter discussed the devastation of the fishing and tourism industries caused by the 1969 Santa Barbara oil spill. The commenter stated the importance of National Marine Sanctuaries (NMSs) and National Parks that rely on a clean ocean to protect their fragile ecosystems.

California, Office of the Attorney General, Baine Kerr

Document ID: BOEM-2017-0074-10937

The commenter expressed strong opposition to lease sales for any California OCS planning area. The commenter cited potential oil spills as a reason for their opposition. The commenter stated that one public meeting held in California was not enough and the location was poorly chosen since it was far from coastal communities, which would be affected most.

Other concerns included the consideration of renewable resources, potential environmental risks, impacts on coastal economies, air quality, water quality, coastal and estuarine habitats, and sea turtles.

**California, State Lands Commission,
Jennifer Lucchesi
Document ID: BOEM-2017-0074-7560**

The commenter expressed their opposition to lease sales in the Pacific planning area. The commenter's primary concern was the risk of oil spills. The commenter claimed that even with technology improvements and increased safety precautions, the risk of a spill is unacceptably high and could hurt the community's economy and environment. Additionally, the commenter stated that an oil spill could result in harm to birds, marine mammals, commercial fishing, and cause a decline in tourism. Other concerns stated by the commenter include negative impacts on air quality, the unpopularity of oil and gas development in California, and lack of renewable energy regulations.

**California, State Lands Commission,
Jennifer Lucchesi
Document ID: BOEM-2017-0074-10948**

The commenter expressed their opposition to offshore oil and gas drilling in the Pacific OCS and urged the withdrawal of California from consideration. The commenter stated that the focus on fossil fuels development in the OCS is shortsighted and will not help America become energy dominant. The commenter voiced other concerns including the environmental impact of potential oil spills. The commenter claimed that the DPP underestimated the costs associated with oil and gas exploration and development in California and it did not consider the large economic and ecological impact from oil spills on coastlines.

**Hawaii, Governor's Office of Planning
Document ID: BOEM-2017-0074-13838**

The commenter stated that Hawaii does not have any indigenous oil and gas resources out to the boundary of the U.S. EEZ.

**Oregon Governor's Energy and Climate
Change Policy Advisor, Ruchi Sadhir
Document ID: BOEM-2017-0074-10514**

The commenter expressed the Governor's concern that the inclusion of the OCS off Oregon's coast goes against many years of state policy.

**Oregon Governor's Energy and Climate
Change Policy Advisor, Ruchi Sadhir
Document ID: BOEM-2017-0074-10960**

As a follow on to the earlier comment, the Governor's Advisor coordinated and submitted comments from various state natural resource agencies, including Oregon Coastal Management Program (OCMP), Department of Fish and Wildlife, Parks and Recreation Department, Department of Environmental Quality, Department of Energy, and Department of Geology and Mineral Industries. The agencies provided information on their roles and responsibilities and varied levels of detail on specific issues within their purview, particularly in relation to oil and gas activities off the coast. The commenter stated that if any oil and gas leases are included on Oregon's OCS lands, the OCMP will use the Federal consistency provisions within the Coastal Zone Management Act to ensure that actions will not have any reasonably foreseeable impacts on coastal resources and uses that are protected under state policy.

**Oregon, State Treasurer, Tobias Read
Document ID: BOEM-2017-0074-3718**

A state official opposed oil and gas leasing off the coast of Oregon, citing concerns over the detrimental impacts on the natural resources, marine life, and coastal environment that are essential to Oregon's economy.

Washington, Governor Jay Inslee
Document ID: BOEM-2017-0074-0636

The commenter opposed oil and gas development off the coast of Washington, citing their exempt status from drilling activity since 1984. The commenter also argued that every state should have the same opportunity for exemption as Florida.

Washington, Governor Jay Inslee
Document ID: BOEM-2017-0074-4880

The commenter expressed opposition to oil and gas leasing in the Pacific Region, and especially off the coast of Washington. The commenter cited concerns over damaging oil spills; economic impacts on tourism, recreation, and fishing; and lack of industry interest in pursuing leases in the Pacific.

Washington, Department of Ecology,
Maia Bellon
Document ID: BOEM-2017-0074-10831

The commenter expressed opposition to include the Washington/Oregon Planning Area in the proposed plan. The commenter's concerns include threats to the highly productive marine ecosystem, sensitive marine species and habitats, valuable ocean activities such as fishing, shellfish aquaculture, recreation, and tourism along the coast. The commenter also stated that Washington and Oregon have little potential for oil and gas production and would not contribute significantly to the Nation's energy supply.

Washington, Office of the Attorney General,
William Sherman
Document ID: BOEM-2017-0074-5733

The commenter expressed opposition to oil and gas development off the coast of Washington. The commenter stressed the importance of a clean environment to the state economy and argued that oil and gas development would pose a risk to the important environmental resources.

Washington, State Commissioner of Public Lands, Sarah Vansot

Document ID: BOEM-2017-0074-9698

The commenter expressed opposition to the proposal to lease portions of the Pacific planning area. The commenter's primary concern was the potential for oil spills, which could cause irreversible damage to coastal communities whose livelihoods depend on a healthy marine environment. The commenter also voiced concern for impacts on marine environments and resources.

A.1.4 Gulf of Mexico Region¹

Alabama, Governor Kay Ivey
Document ID: BOEM-2017-0074-11163

The commenter expressed support for the DPP, specifically off the coast of Alabama. The commenter expressed understanding for the critical importance of offshore drilling to the economy and national security. The commenter also stated that it is important that BOEM protects the coast from future incidents such as the Deepwater Horizon oil spill. The commenter requested that the 15-mile area south of Baldwin County currently under moratorium until 2022 remain unavailable to minimize impacts from offshore drilling structures.

Florida Defense Support Task Force,
Terrance McCaffrey

Document ID: BOEM-2017-0074-7899

The commenter, a legislatively mandated council, opposed the Gulf of Mexico (GOM) planning region, and stated the current moratorium should be maintained. The commenter discussed the importance of military operations in the region, and how these would be negatively impacted by oil and gas activity.

¹ Gulf of Mexico section includes comments from Florida that address both Atlantic and Gulf of Mexico coasts.

Florida, Department of Environmental Protection, Noah Valenstein
Document ID: BOEM-2017-0074-4875

The commenter expressed opposition to oil and gas leasing off the coast of Florida. The commenter stated the impact on the marine environment, coastal habitat, and other natural resources would be too great and leasing could threaten military activities in the region.

Florida, Department of Environmental Protection, Rebecca Prado
Document ID: BOEM-2017-0074-7887

The commenter opposed lease sales in Florida's coastal and offshore areas, including the Eastern GOM and the Atlantic. The commenter stated the coast of Florida is valuable for environmental, economic, and military purposes. The commenter stated the State of Florida strongly supports Secretary Zinke's proposed exclusion of the Florida coast in this DPP.

Florida, Department of Environmental Protection; Fish and Wildlife Conservation Commission; Department of Agriculture and Consumer Services, Shana Kinsey
Document ID: BOEM-2017-0074-10984

The commenter expressed opposition to the inclusion of any lease sales offshore Florida. The commenter stressed the high environmental, economic, and military value the coasts have to Florida. The commenter places emphasis on military readiness as a concern and the negative impact on marine species, such as coral reefs. The commenter also stated that the EIS should include complete descriptions and evaluations of all aspects of the proposed location, duration, and alternatives. The commenter stated that the EIS should also include complete characterizations and descriptions of environmental resources, a thorough assessment of potential direct and indirect effects, and an assessment of the cumulative impact of the proposed activities in combination with other activities in the vicinity.

Texas, Railroad Commission, Christi Craddick
Document ID: BOEM-2017-0074-11279

The commenter expressed the Commission's strong support to the proposal to expand access in the GOM and to maintain all 26 OCS planning areas. The commenter stated that the Texas economy could greatly benefit from expanded offshore exploration by providing Texas businesses and families affordable energy and enhance their economy and standard of living. The commenter also stated that excluding regions from leasing consideration at the outset and the absence of critical environmental analysis could be harmful and hinder America's energy security efforts.

A.1.5 Atlantic Region²

Seven Governors, Larry Hogan et al.
Document ID: BOEM-2017-0074-4825

Seven governors (CT, DE, MA, MD, NC, RI, and VA) expressed opposition to leasing, exploration, and production in the Atlantic Ocean. The commenters stated that the economies and nature areas of Atlantic states were at risk from offshore development. The commenters requested that, like Florida, the Atlantic region be granted an exemption.

Connecticut, Department of Energy & Environmental Protection, Robert J. Klee
Document ID: BOEM-2017-0074-21151

The commenter expressed opposition to offshore drilling in the Atlantic, specifically off the coast of Connecticut. The commenter's primary concerns included adverse environmental impacts ranging from sonic impacts on marine mammals to oil spill impacts that would harm wildlife, fish, and fishing. The commenter also

² Comments from Florida are shown under the Gulf of Mexico section.

stated that the real energy potential is not in oil, but in wind power.

Delaware, Governor John Carney
Document ID: BOEM-2017-0074-0639

The commenter expressed opposition to offshore oil and gas drilling in the Atlantic region. The commenter argued that the tourism industry that drives the economy of Delaware and is reliant on healthy beaches that would be threatened by offshore development.

Delaware, Governor John Carney
Document ID: BOEM-2017-0074-10879

The commenter expressed opposition to the DPP, specifically the inclusion of the Atlantic region, and requested that BOEM maintain the longstanding protections in place for Delaware and other coastal areas in the Atlantic. The commenter stated that offshore drilling threatens the fishing, tourism, and recreation industries that depend on a vital environment.

Delaware, Department of Natural Resources and Environmental Control, Kimberly Cole
Document ID: BOEM-2017-0074-10922

The commenter expressed opposition to any offshore oil and gas exploration in the Atlantic, specifically off the coast of Delaware. The commenter stated their reasons for opposition included risks posed to the tourism industry, which depends heavily on healthy coasts. Other concerns the commenter stated include habitat impacts on critical species of fish, seas turtles, and marine mammals, and environmental impacts on deepwater canyon health, wetlands, and air quality.

Delaware, Office of the Attorney General, Matthew Denn
Document ID: BOEM-2017-0074-0640

The commenter expressed opposition to the DPP and the inclusion of Delaware's coast. The commenter argued the process of developing the DPP violates Federal law and requested the Program be withdrawn in its entirety.

Maine, Governor Paul LePage
Document ID: BOEM-2017-0074-10930

The commenter expressed support for the DPP and stated that Maine needs natural gas to reduce electricity costs and that improving access to low-cost, environmentally friendly energy sources is a priority.

Maine, Office of the Attorney General, Janet Mills
Document ID: BOEM-2017-0074-10872

The commenter expressed their opposition to leasing for oil and gas development in the North Atlantic. The commenter stated specific concern for the State of Maine. The commenter cited threats of oil spills, pollution of beaches and coastlines, damages to tourism, local economy, and wetlands ecology as reasons for opposition.

Maryland, Department of Natural Resources, Mark Belton
Document ID: BOEM-2017-0074-4810

The commenter opposed oil and gas development off the coast of Maryland, citing concerns over impacts on the Chesapeake Bay and other environmentally sensitive areas. The commenter also requested an exemption for the state of Maryland from any future oil and gas drilling.

Maryland, Department of Natural Resources, Mark Belton
Document ID: BOEM-2017-0074-5917

The commenter expressed opposition to any development or exploration of oil and gas in the Atlantic Ocean. The commenter specifically requested Maryland be exempted from consideration. The commenter's primary concern is the negative impact the proposal would have on Assateague Island and Ocean City, since both of these locations provide significant revenue to the state. Other concerns included threats to coastal and marine areas, coastal communities, industry, and a lack of clean energy.

**Maryland, Department of Natural Resources,
Mark Belton****Document ID: BOEM-2017-0074-10940**

The commenter expressed opposition to the proposed exploration of oil and gas, specifically in Maryland. The commenter stated that the proposed plan is not in the best interest of their citizens, their communities, economy, environment, industries, or visitors. The commenter added emphasis to the value of Maryland commercial and recreational fishing. Other concerns the commenter expressed included energy, seismic activities for geological surveying, and the threat of oil spills.

**Maryland, Office of the Attorney General,
Brian Frosh****Document ID: BOEM-2017-0074-0603**

The commenter opposed offshore drilling and exploration in the Atlantic region. The commenter cited concerns for the economy and tourism industry, impacts on migratory birds, and expressed concern over Florida's exemption. The commenter also stated OCS exploration would be in direct opposition to state and local regulatory ecosystem protections.

Massachusetts, Governor Charles Baker**Document ID: BOEM-2017-0074-11147**

The commenter expressed opposition to oil and gas drilling in the Atlantic Ocean, specifically off the coast of Massachusetts. The commenter stated that other resources and uses of the OCS conflict with oil and gas related activities, such as marine ecosystems that support local, state, regional, and national economies. The commenter also stated that the OCS off of Massachusetts also has significant potential for renewable energy development.

**Massachusetts, Office of the Attorney
General, Megan Herzog****Document ID: BOEM-2017-0074-11000**

The commenter expressed opposition to opening any portion of the Atlantic to oil and gas leasing. The commenter explained that the U.S. does not

need to expand offshore fossil fuel extraction to meeting future energy needs nor can the Nation afford increased GHG emissions and other environmental risks that would result from this development. The commenter stressed the significant risk and adverse impacts of oil and gas development to Massachusetts' ecosystem and oceans that outweigh any potential benefits.

New Hampshire, Governor**Christopher Sununu****Document ID: BOEM-2017-0074-10566**

The commenter expressed opposition to offshore oil and gas development off the coast of New Hampshire. The commenter stressed the importance of the coastline for travel and tourism, recreation, fishing, and preservation of coastal waters and wildlife habitat. The commenter also encouraged BOEM to reconsider the decision to exclude the impacts of an oil spill from the calculation of net social value.

New Jersey, Governor Virginia Kopkash**Document ID: BOEM-2017-0074-10846**

The commenter opposed oil and gas development off the coast of New Jersey. The commenter stressed the importance of the New Jersey coast and natural resources for critical habitat areas, the migration patterns of endangered species, and the state's economy via the tourism and fishing industries.

New York, Governor Andrew Cuomo**Document ID: BOEM-2017-0074-0638**

The commenter expressed opposition to offshore drilling in the North Atlantic region. The commenter cited concerns over possible oil spills threatening the economy and increasing climate change impacts. The commenter also stated offshore drilling would negatively impact the ecology of New York.

**New York, Governor Andrew Cuomo
Document ID: BOEM-2017-0074-10877**

The commenter expressed opposition to the DPP and requested that the North Atlantic region be excluded from the Proposed Program. The commenter stated that oil and gas leasing in the Atlantic would be in conflict with New York's energy plan, especially its offshore wind planning process, and that potential threats outweigh the potential gains of oil discovery. The commenter's concerns included risks to the economically significant tourism, recreation, shipping, boating, and fishing industries; loss of marine life and habitat; and harm to both natural resources and human populations. The commenter also requested that BOEM provide a legal or factual basis for excluding Florida but not other states, particularly when the DPP's analysis indicates that the Northeast OCS is more likely to face more ecosystem changes than the Southeast OCS due to offshore drilling.

**New York, Air Resources, Climate Change and Energy at State Department of Environmental Conservation, Jared Snyder
Document ID: BOEM-2017-0074-11173**

The commenter expressed their opposition to offshore drilling in the Atlantic Coast. The commenter stated their concerns for wildlife, such as right whales, humpback whale, seals, finback whales, and rare seal species that would face dangers from seismic testing and habitat disruption from the proposed plan. The commenter stated that the tourism and recreation industries would be threatened by this proposal. Other concerns included interfering with the ability for the U.S. to mitigate the substantial adverse societal impact of climate change.

**New York, Department of Environmental Conservation, Carrie Gallagher
Document ID: BOEM-2017-0074-11360**

The commenter stated opposition to offshore drilling in the Atlantic, specifically off of Long Island, New York. Primary concerns included

the environmental integrity necessary to maintain the tourism industry, the proposal being contrary to New York's environmental, economic, and energy interest, and seismic surveys causing damage to aquatic mammals common around Long Island.

**New York, Departments of Environmental Conservation, State, and Energy, Julie Tighe
Document ID: BOEM-2017-0074-4838**

The commenter requested that BOEM reevaluate the location of the public meeting currently slated for Albany, NY. The commenter stated that Albany was far from the coast and communities that would be impacted and BOEM would receive more accurate public input from a public meeting in New York City or Long Island.

**New York, Office of the Attorney General, Lemuel Srolovic
Document ID: BOEM-2017-0074-10859**

The commenter expressed opposition to offshore drilling in New York. The commenter voiced concern over the threat to the unique ecology of New York's shores, arguing that the shores and marine waters contribute significantly to the state's economy. Other industries that could be harmed include living resources, transportation, construction, ship and boat building, etc. Other risks the commenter cited are loss of employment through these industries and the potential contribution to GHG emissions and climate change.

**North Carolina, Governor Roy Cooper
Document ID: BOEM-2017-0074-4826**

The commenter expressed opposition to offshore oil and gas drilling in the Atlantic region, and specifically off the coast of North Carolina. The commenter argued that like Florida, North Carolina should be exempt because of the threat to a profitable tourism industry and coastal economy.

**North Carolina, Governor Roy Cooper
Document ID: BOEM-2017-0074-10565**

The commenter requested an extension to the comment period and expressed opposition to the inclusion of the Atlantic in the DPP. The commenter stressed North Carolina's economic reliance on the tourism industry and concern for coastal natural resources.

**North Carolina, Governor Roy Cooper
Document ID: BOEM-2017-0074-10564**

The commenter stated opposition to offshore oil and gas development off the North Carolina coast. The commenter remarked that North Carolina's economy is heavily reliant upon the state's ecology and the tourism industry in the region, which would be damaged by offshore development.

**North Carolina, Governor Roy Cooper
Document ID: BOEM-2017-0074-11011**

The commenter provided formal comments that detail the expressed opposition to the DPP, specifically off the coast of North Carolina, as expressed in an earlier submission. The commenter stated that offshore drilling threatens the state's coastal economy and environment and offers little economic benefit.

**Rhode Island, Governor Gina M. Raimondo
Document ID: BOEM-2017-0074-10753**

The commenter expressed opposition to the inclusion of the North Atlantic Region in the DPP. The commenter cited concerns over the impact on the state's economic and tourism sectors, environmental resources, and coastal health. The commenter also stated that the DPP was in contradiction to the OCS Lands Act.

**Rhode Island, Department of Environmental Management, Janet Coit
Document ID: BOEM-2017-0074-11013**

The commenter expressed a strong opposition to the inclusion of the North Atlantic, and specifically Rhode Island, in the proposed plan. The commenter voiced concerns over the

impacts on marine life, habitat and fisheries, and seismic air gun blasting on marine animals. Lastly, the commenter emphasized Rhode Island's vulnerability to climate change.

**Rhode Island, Department of Health,
Nicole Alexander-Scott
Document ID: BOEM-2017-0074-10860**

The commenter expressed opposition to offshore drilling in the North Atlantic region, specifically in Rhode Island. The commenter stated that this proposal threatens Rhode Island's cultural, environmental, and economic interests. The commenter put emphasis on the risk of accelerating climate change and the potential of oil spills. The commenter discussed renewable energy alternatives to fossil fuel use.

**Rhode Island, Providence Plantations
Department of Attorney General,
Peter F. Kilmartin
Document ID: BOEM-2017-0074-10710**

The commenter expressed their opposition to the proposal to open the North Atlantic Planning Area for oil and gas exploration. The commenter specifically stated their concern for Rhode Island. The commenter's primary concerns are the threat to numerous coastal salt ponds, which are an important resource to the state, and the state's beaches. The commenter also voiced concern over the risk of oil spills and damage to local economies and ecosystems.

**South Carolina, Governor Henry McMaster
Document ID: BOEM-2017-0074-10511**

The commenter requested that South Carolina be excluded from the DPP. The commenter stated that offshore development and the associated infrastructure would conflict with the current economic activity of the state and voiced concerns over potential hurricanes in the area impacting infrastructure should it be constructed off the coast.

**South Carolina, Department of Health and Environmental Control,
Elizabeth Von Kolnitz
Document ID: BOEM-2017-0074-10990**

The commenter does not state a position on the DPP. The commenter stated the need for further consideration and analyses before moving forward with a proposed plan. The commenter requested that detailed information regarding impacts on uses and resources of the state be evaluated in the Programmatic EIS and considered in the development of the National OCS Program. These impacts should include impacts on upland resources where onshore support facilities could be located, coastal tourism and recreation, ports and navigation channels, renewable energy, commercial and recreation fisheries, and more.

**South Carolina, Department of Natural Resources, Loraine Riggins
Document ID: BOEM-2017-0074-10861**

The commenter expressed their opposition to offshore oil and gas drilling in the Atlantic OCS. The commenter determined that South Carolina is not an appropriate area to be considered in this proposal. The commenter cited potential negative impacts on coastal resources and tourism as reasons for opposition. Other concerns include geophysical and geological seismic surveys, which could cause sea turtles to abandon their habitat and disrupt mating attempts.

**Virginia, Governor Ralph Northam
Document ID: BOEM-2017-0074-0637**

The commenter requested that Virginia be excluded from the Proposed Program. The commenter argued that offshore oil and gas development would threaten the military's position in Virginia and harm the tourism industry. The commenter also requested the public meeting locations be moved closer to the coast.

**Virginia, Department of Conservation and Recreation, Matthew Stickler
Document ID: BOEM-2017-0074-10871**

The commenter stated that the Virginia State Natural Area Preserves, within the Mid-Atlantic Planning Area, should be excluded from any oil and gas leasing activities. The commenter suggested that any areas identified for oil and gas leasing within the Mid-Atlantic Planning Area be sent to the Department of Conservation and Recreation's Division of Natural Heritage for review. After the reviewed, the commenter would be able to make a recommendation about the potential impacts on natural heritage resources. The commenter's primary concerns with the proposal included threats to coastal barrier islands, oil spills, and marine species.

**Virginia, Department of Environmental Quality, Bettina Rayfield
Document ID: BOEM-2017-0074-5919**

The commenter provided comments to ensure the completeness of the Programmatic EIS, consistency with the Coastal Zone Management Act, and provided relevant data sources to aid in the development of the Programmatic EIS.

**Virginia, Department of Environmental Quality, Daniel Moore
Document ID: BOEM-2017-0074-5918**

The commenter provided comments to ensure any construction- and development-related activities would conform with the performance criteria in the Chesapeake Bay Preservation Act.

**Virginia, Office of the Attorney General, Mark Herring
Document ID: BOEM-2017-0074-10820**

The commenter expressed opposition to any opening of the Atlantic and stated concern for the Commonwealth of Virginia. The commenter's primary concern is that the proposal creates potential for significant and long-lasting damage to Virginia's economy and environment. The commenter also elaborated on the threat to military training and readiness, fish

and tourism interests, including local chambers of commerce, and tourism and restaurant associations.

**Virginia, Virginia Offshore Wind Development Authority, Joan Bondareff
Document ID: BOEM-2017-0074-11012**

The commenter does not state a position specific to the DPP but requested that the wind development interests in the Atlantic OCS be protected from encroachment or other impacts from offshore oil and gas leasing. The commenter’s primary concern is that Virginia is already the host of multiple offshore wind leases and the commenter asserted that oil and gas leases could hinder the progress of wind power development.

A.1.6 Interior United States

**Utah, Governor’s Office of Energy Development, Laura Nelson
Document ID: BOEM-2017-0074-10774**

The commenter offered support for the DPP as part of an all-of-the-above energy policy. The commenter stated that Utah's quality of life is reliant on abundant, affordable energy and stressed the importance of strengthening national security through reduced reliance on international imports of oil.

A.2 LOCAL GOVERNMENTS

List of Commenters

Alaska, City of Kaktovik, Anguyak Reitan
Alaska, North Slope Borough, Kevin Fisher
California, Cambria County Services District, Amanda Rice
California, Cayucos Citizens Advisory Council, Carol Baptiste
California, City of Arcata , Bridget Dory
California, City of Arcata, Kayla Johnson
California, City of Berkeley, Kriss Worthington
California, City of Carlsbad, Matt Hall
California, City of Carmel by the Sea, Fenton
California, City of Carpinteria, Fred Shaw
California, City of Del Mar, Sarah Krietor
California, City of Encinitas, Bob McSeveney
California, City of Fort Bragg, Lindy Peters
California, City of Goleta Council, Paula Perotte
California, City of Grover Beach, Matthew Bronson
California, City of Imperial Beach, Jacqueline Kelly
California, City of Laguna Beach Council, Zachary Commins
California, City of Malibu, Reva Feldman
California, City of Manhattan Beach, Dana Murray
California, City of Monterey, Clyde Roberson

California, City of Morro Bay, Mayor, Jamie L. Irons
California, City of Oceanside, Peter Weiss
California, City of Pismo Beach, Ed Waage
California, City of Point Arena, Paul Anderson
California, City of San Diego, Kevin Faulconer
California, City of San Diego Clerk’s Office
California, City of San Leandro, Pauline Russo Cutter
California, City of San Luis Obispo, Heidi Harmon
California, City of Santa Cruz, David Terrazas
California, City of Scotts Valley, Tracy Ferrara
California, City of Solana Beach, Angela Ivey
California, City of Watsonville
California, City of West Hollywood
California, County of Humboldt
California, County of Humboldt Board of Supervisors
California, County of Los Angeles Board of Supervisors
California, County of Marin Board of Supervisors, Dan Eilerman
California, County of Mendocino Clerk of the Board Office, Nadia Tipton
California, County of Monterey, Nick Chiulos

California, County of San Mateo, Connie Juarez-Diroll
California, County of Santa Barbara Air Pollution Control District, Molly Pearson
California, County of Santa Barbara Board of Supervisors, Das Williams
California, County of Santa Barbara Board of Supervisors, Don Gilchrest
California, County of Santa Barbara Planning & Development, Errin Briggs
California, County of Santa Cruz Board of Supervisors, Carlos Palacios
California, County of Santa Cruz Board of Supervisors, Katherine O'Dea
California, County of Sonoma Water Coalition, Jane Nielson
California, County of Ventura, Steve Offerman
California, Humboldt Bay Harbor, Recreation and Conservation District
California, Port San Luis Harbor District, Andrea Lueker
California, Town of Fairfax, Barbara Coler
California, Town of Windsor, Bruce Okrepkie
Delaware, City of Lewes, Theodore Becker
Delaware, Town of Dewey Beach, James Dedes
Delaware, Town of Fenwick Island, Eugene N. Langan
Delaware, Town of Milton, Kristy Rogers
Delaware, Town of Slaughter Beach, Kathleen Lock
Delaware, Town of South Bethany, Pam Smith
Florida, City of Clearwater, George Cretekos
Florida, City of Coconut Creek, Rebecca Tooley
Florida, City of Miami Beach, Dan Gelber
Florida, City of Miami Commission, Ken Russell
Florida, City of Miami, Todd Hannon
Florida, City of Naples, Bill Barnett
Florida, City of Sanibel, James Evans
Florida, County of Broward, Jason Liechty
Florida, County of Charlotte, Joseph Tiseo
Florida, County of Escambia Board of County Commissioners, Matt Posner
Florida, County of Martin Board of County Commissioners, Harold E. Jenkins
Florida, County of Monroe Board of Commissioners, David Rice
Florida, County of Pinellas Board of County Commissioners, Kenneth T. Welch
Florida, Leon Soil and Water Conservation District, Brian Lee
Florida, South Florida Regional Planning Council,

Frank Caplan
Florida, Town of Lantana, David Stewart
Florida, Town of Palm Beach, Gail Coniglo
Florida, Treasure Coast Regional Planning Council, Reece Parrish
Idaho, City of Ketchem, Courtney Hamilton
Illinois, New Trier Township High School District 203, Natalie Ye
Louisiana, City of Thibodaux, Tommy Eschete
Louisiana, Greater Lafourche Port Commission, Chett Chiasson
Louisiana, Lafourche Parish Government, James Cantrelle
Louisiana, St. Mary Parish Government, David Hanagriff
Louisiana, Terrebonne Parish Consolidated Government
Maine, City of Gloucester, Mayor Sefatia Romeo Theken
Maine, City of Portland, Ethan Strimling
Maine, City of South Portland, Emily Scully
Maine, Monhegan Plantation, Tara Hire
Maine, Town of Islesboro, Archibald Gillies
Maryland, Ocean City, Rick Meehan
Maryland, Town of Berlin, Kelsey Jensen
Massachusetts, Barnstable Town Council, Eric R. Steinhilber
Massachusetts, City of Gloucester, Al Cottone
Mississippi, City of Gautier, Cynthia Russell
Mississippi, City of Pascagoula, Frank Corder
Mississippi, County of Harrison Development Commission, Bill Lavers
Mississippi, County of Jackson Board of Supervisors, Josh Eldridge
New Hampshire, Town of Rye, Michael Magnant
New Jersey, Borough of Atlantic Highlands, Rhonda Le Grice
New Jersey, Borough of Belmar, Matthew Doherty
New Jersey, Borough of Cape May Point County, Elaine Wallace
New Jersey, Borough of Fair Haven, Allyson Cinquegrana
New Jersey, Borough of Harvey Cedars, Daina Dale
New Jersey, Borough of Mantoloking, Beverley Konopada
New Jersey, Borough of Point Pleasant Beach, Antoinette Jones
New Jersey, Borough of Point Pleasant Beach, Ellen Farrell
New Jersey, Borough of Point Pleasant Beach, Paul

Kanitra
New Jersey, Borough of Roosevelt, Kathleen Hart
New Jersey, Borough of Sea Girt, Lorraine Carafa
New Jersey, Borough of Spring Lake, Jennifer Naughton
New Jersey, Borough of Union Beach, Anne Marie Friscia
New Jersey, Borough of West Cape May, Carol Sabo
New Jersey, City of Long Branch, Kathy Schmelz
New Jersey, City of Neptune Council, Glen Kocsis
New Jersey, City of Point Pleasant Beach Council, Paul Kanitra
New Jersey, City of Sea Isle City, Mary Tighe
New Jersey, County of Cape May Board of Chosen Freeholders, Elizabeth Bozzelli
New Jersey, County of Monmouth Board of Chosen Freeholders, Marion Masnick
New Jersey, County of Ocean Board of Chosen Freeholders, Betty Vasil
New Jersey, Fair Harbor Beach Erosion Control District, Jerome Feder
New Jersey, Lawrence Environmental Committee, Dionne Polk
New Jersey, Township of Berkeley, Beverly Carle
New Jersey, Township of Buena Vista, Lisa Tilton
New Jersey, Township of Lakewood, Kathryn Hutchinson
New Jersey, Township of Plumsted Environmental Commission
New Jersey, Township of Toms River, Alison Carlisle
New Jersey, Township of Wall Environmental Advisory Committee, Wilma Morrissey
New York, City of Long Beach, Michael Tangney
New York, City of New York, Haley Stein
New York, County of Suffolk Legislature, Al Krupski
New York, County of Suffolk Legislature, Bailey Spahn
New York, County of Suffolk Legislature, Bridget Flemming
New York, County of Suffolk Legislature, DuWayne Gregory
New York, County of Suffolk Legislature, Leslie Kennedy
New York, County of Suffolk Legislature, Susan A. Bertrand
New York, County of Suffolk Legislature, Vivian Vilorina Fisher
New York, Davis Park Association, Inc., Jayne Robinson

New York, Fire Island Year Round Residents Association, Dawn Lippert
New York, Town of Brookhaven Councilman, Kevin Lavalle
New York, Town of Brookhaven Councilman and Deputy Supervisor, Dan Panico
New York, Town of Brookhaven, Edward Romaine
New York, Town of Brookhaven, Edward Romaine
New York, Town of Brookhaven, Edward P. Romaine
New York, Town of Brookhaven, Long Island, Edward Romaine
New York, Town of East Hampton Waterfront Advisory Committee
New York, Town of Islip, Angie M. Carpenter
New York, Town of Smithtown, Edward Wehrheim
New York, Village of Saltaire, John Zaccaro
North Carolina, County of Brunswick, Patricia Sykes
North Carolina, County of Dare, Robert Woodard
North Carolina, County of Dare, Gary Gross
North Carolina, County of Dare Board of Commissioners, Bob Woodard
North Carolina, County of Dare Tourism Board, Ann Wood
North Carolina, County of New Hanover Board of Commissioners, Woody White
North Carolina, County of Orange Board of Commissioners, Donna Baker
North Carolina, League of Municipalities, Sarah Collins
North Carolina, Town of Arapahoe, Kathryn Garcia
North Carolina, Town of Duck, Lori Ackerman
North Carolina, Town of Emerald Isle, Frank A Rush
North Carolina, Town of Kill Devil Hills Mayor, Sheila Davies
North Carolina, Town of Kure Beach, Craig Blonszinsky
North Carolina, Town of Manteo, Bobby Owens
North Carolina, Town of Nags Head, Ben Cahoon
North Carolina, Town of Oriental, Bill Hines
North Carolina, Town of Pine Knoll Shores, Sarah Williams
North Carolina, Town of Southern Shores, Tom Bennett
North Carolina, Town of Swansboro, John Davis
North Carolina, Village of Bald Head Island, J. Andrew Sayre
Oregon, City of Newport Council, Sandra Roumagoux
Oregon, City of Toledo, Craig Martin

Oregon, County of Lincoln Board of Commissioners, Doug Hunt
Oregon, Port of Newport, Karen Hewitt
Oregon, Port of Toledo, Bud Shoemaker
Rhode Island, City of East Providence
Rhode Island, City of Providence
Rhode Island, Town of Barrington, Joseph DePasquale
Rhode Island, Town of Hopkinton, Elizabeth J. Cook-Martin
Rhode Island, Town of Little Compton, Robert Mushen
Rhode Island, Town of Narragansett, Susan Cicilline Buonanno
Rhode Island, Town of New Shoreham, Kenneth C. Lacoste
Rhode Island, Town of Portsmouth, Keith E. Hamilton
Rhode Island, Town of South Kingstown, Abel Collins
Rhode Island, Town of South Kingstown, Margaret Healy
Rhode Island, Town of Tiverton, Denise DeMedeiros
South Carolina, City of Myrtle Beach, Mark Kruea
South Carolina, City of North Myrtle Beach, Marilyn Hatley
South Carolina, County of Georgetown Council, John Thomas
South Carolina, County of Horry, Mark Lazarus

South Carolina, Town of Seabook Island, Ronald Ciancio
Virginia, City of Accomack, Michael Mason
Virginia, City of Hampton, Joy Mautz
Virginia, City of Newport News, McKinley Price
Virginia, City of Norfolk Kenneth Cooper Alexander
Virginia, City of Norfolk, McKinley L. Price
Virginia, City of Suffolk Council, Tracey Sanford
Virginia, City of Virginia Beach, Amanda Barnes
Virginia, City of Williamsburg, Paul Freiling
Virginia, County of Accomack, Maricela Ruvalcaba
Virginia, County of Isle of Wight, Carey Storm
Virginia, Hampton Roads Planning District Commission, Ella Ward
Washington, City of Ocean Shores, Crystal Dingler
Washington, City of Ocean Shores, Crystal Dingler
Washington, County of Clallam Commissioners, Clallam County Commissioners
Washington, County of Grays Harbor Marine Resources Committee, Lorena Maurer
Washington, County of Jefferson, Washington's Tourism Coordinating Council

Note: Summary document includes submissions that were part of meetings (BOEM-2017-0074-11238 and BOEM-2017-0074-11242).

A.2.1 Alaska Region

Alaska, City of Kaktovik, Anguyak Reitan Document ID: BOEM-2017-0074-10678

The commenter opposed the DPP and the inclusion of the Alaskan region. The commenter stressed the importance of the area to traditional knowledge and way of life, tribal subsistence fishing and hunting, and protecting the environmental resources.

Alaska, North Slope Borough, Kevin Fisher Document ID: BOEM-2017-0074-10989

The commenter provided additional information regarding establishing exclusion zones to protect subsistence activities and important ecological areas, requiring conflict avoidance agreements as a condition of lease sales, improving spill prevention and response capabilities, limiting

lease sales to a manageable level, improving documentation of baseline conditions to assess natural resources damages, and proposing a revenue sharing program and developing employment opportunities.

A.2.2 Pacific Region

California, Cambria County Services District, Amanda Rice

Document ID: BOEM-2017-0074-11068

The commenter opposed the DPP and the inclusion of California sites. The commenter expressed that it will be prohibitively expensive in areas around California. The commenter specifically mentioned four NMSs off the coast of California that should be protected.

California, Cayucos Citizens Advisory Council, Carol Baptiste**Document ID: BOEM-2017-0074-10644**

The commenter opposed any new oil and gas activity off the California coast. The commenter stated the potential environmental damages that oil and gas technologies can produce.

California, City of Arcata, Bridget Dory
Document ID: BOEM-2017-0074-10645

The commenter opposed the inclusion of the Pacific Ocean in the proposed leasing regions. The commenter discussed the potential of electric energy from the ocean, and the risks associated with oil and gas energy.

California, City of Arcata, Kayla Johnson
Document ID: BOEM-2017-0074-11159

The commenter opposed any new oil and gas exploration off the coast of California. The commenter attached a resolution from the City of Arcata, in which the city resolves to oppose any new activity.

California, City of Berkeley, Kriss Worthington**Document ID: BOEM-2017-0074-10785**

The commenter opposed offshore development in the Pacific Region, and especially off the coast of California. The commenter stressed the importance of the natural environment for economic activities and quality of life and stated concerns over potential oil spills and possible earthquakes from exploration.

California, City of Carlsbad, Matt Hall
Document ID: BOEM-2017-0074-10518

The commenter opposed any offshore oil leasing or drilling within 20 nautical miles of the San Diego coast. The commenter stated that residents and visitors enjoy the beaches and the Pacific Ocean for a variety of recreational, commercial, and educational activities, which support the local economy. The commenter also stated that the community values the coastal

habitat that supports a wide array of wildlife that depends on a healthy environment.

California, City of Carmel by the Sea, Fenton
Document ID: BOEM-2017-0074-11152

The commenter opposed any new activity off the coast of California. The commenter mentioned the impacts from previous oil spills, such as damage to the environment.

California, City of Carpinteria, Fred Shaw
Document ID: BOEM-2017-0074-10703

The commenter expressed opposition for the DPP and the inclusion of any part of the Pacific Coast. The commenter stressed that the proposal threatens the regional tourism-based economy that relies on healthy ecosystems and fisheries and the multiple visitor-serving industries that depend on them.

California, City of Del Mar, Sarah Krietor
Document ID: BOEM-2017-0074-10771

The commenter opposed oil and gas leasing off the coast of California. The commenter stated that public support for oil and gas leasing in the state is extremely low and the state supports clean, renewable energy. The commenter stressed the uniqueness and beauty of the California coast.

California, City of Encinitas, Bob McSeveney
Document ID: BOEM-2017-0074-10768

The commenter expressed opposition to oil and gas leasing off the coast of California. The commenter voiced concerns over oil spills impacting the important economic and environmental resources of the region and stressed the California laws and policies that protect the coastline.

California, City of Fort Bragg, Lindy Peters
Document ID: BOEM-2017-0074-10781

The commenter expressed opposition to offshore oil and gas drilling in the Pacific region. The commenter voiced concerns over the risk of oil

spills and related damage to environmental and economic resources of the area.

**California, City of Goleta Council,
Paula Perotte**

Document ID: BOEM-2017-0074-9557

The commenter expressed opposition to offshore drilling in the Pacific region and stated support for a phase-out of all oil and gas extraction in state and Federal waters in the Pacific Ocean along the United States.

**California, City of Grover Beach,
Matthew Bronson**

Document ID: BOEM-2017-0074-10810

The commenter opposed the DPP and oil and gas leasing in the Pacific region. The commenter stated that the local economy and natural environment relies on a clean and healthy coastline and voiced concerns for potential oil spills.

**California, City of Imperial Beach,
Jacqueline Kelly**

Document ID: BOEM-2017-0074-4827

The commenter opposed oil and gas drilling and exploration in the Pacific region. The commenter cited concerns over the ecological, tourism, aesthetic impacts, and oil spill risks of offshore drilling.

**California, City of Laguna Beach Council,
Zachary Commins**

Document ID: BOEM-2017-0074-10776

The commenter opposed offshore drilling, fracking, and other well-stimulation activities on the California coast. The commenter cited the potential for environmental and economic damage at various locations along the West Coast. The commenter also stated that offshore drilling is in direct contrast to the actions taken by the City and the State of California to promote a greener, more sustainable lifestyle through the utilization of alternative energy.

**California, City of Malibu, Reva Feldman
Document ID: BOEM-2017-0074-10825**

The commenter expressed opposition for offshore oil and gas drilling, fracking, and other well-stimulation activities in Federal and state waters off the California coast. The commenter stated that this proposal will promote a stronger dependence on fossil fuels instead of pursuing greener, more sustainable alternative energies.

**California, City of Manhattan Beach,
Dana Murray**

Document ID: BOEM-2017-0074-5921

The commenter opposed offshore drilling in any OCS planning area on the Pacific Coast. The commenter argues that offshore oil and gas drilling and exploration puts key coastal resources, and the communities and industries that depend on them, at risk from oil spills and other damage.

**California, City of Monterey, Clyde Roberson
Document ID: BOEM-2017-0074-10828**

The commenter opposed the leasing of areas off the coast of California, specifically Monterey Bay. The commenter discussed how the economy and environment depend on clean waters. The commenter also mentioned that the country should focus efforts on developing renewable alternatives.

**California, City of Morro Bay, Mayor,
Jamie L. Irons**

Document ID: BOEM-2017-0074-10714

The commenter opposed offshore drilling in the Pacific regions and expressed support for a framework for responsible renewable energy development.

**California, City of Oceanside, Peter Weiss
Document ID: BOEM-2017-0074-11187**

The commenter opposed offshore drilling. The commenter expressed concern for maintaining clean and healthy ecosystems, tourism, and recreational jobs that depend on them.

California, City of Pismo Beach, Ed Waage
Document ID: BOEM-2017-0074-0615

The commenter opposed offshore drilling off the coast of California. The commenter argued that the tourism industry would suffer and offshore drilling would be in opposition to state policies.

California, City of Point Arena,
Paul Anderson

Document ID: BOEM-2017-0074-10669

The commenter opposed offshore oil drilling, exploration, and fracking off the Pacific Coast. The commenter argued that the proposal will increase the dependence on fossil fuels, undermine its efforts to address climate change, damage and disrupt the marine environment, and increase pollution.

California, City of San Diego,
Kevin Faulconer

Document ID: BOEM-2017-0074-10610

The commenter opposed the DPP and the inclusion of the California coast. The commenter cited the potential damage to the coast and its negative effect on local economy, human health, marine wildlife, and the environment.

California, City of San Diego Clerk's Office,
Catherine C. Morrison

Document ID: BOEM-2017-0074-11010

The commenter opposed all planned leasing regions, including those off the coast of California. The commenter stated that offshore drilling undermines California's effort to address climate change. The commenter also discussed the previous harm of oil-related incidents.

California, City of San Leandro,
Pauline Russo Cutter

Document ID: BOEM-2017-0074-10874

The commenter opposed the Pacific planning region, including any new leasing in California. The commenter stated that oil and gas development is incompatible with California's tourism and fishing industries.

California, City of San Luis Obispo,
Heidi Harmon

Document ID: BOEM-2017-0074-10780

The commenter opposed the DPP. The commenter discussed the potential impact on climate change due to offshore drilling.

California, City of Santa Cruz,
David Terrazas

Document ID: BOEM-2017-0074-5906

The commenter opposed offshore oil and gas drilling in U.S. waters, specifically off the Pacific Coast. The commenter cited concerns over the impact on California's unique and fragile marine environment and potential impacts on local economies.

California, City of Scotts Valley,
Tracy Ferrara

Document ID: BOEM-2017-0074-10783

The commenter opposed the DPP and the inclusion of the California coast. The commenter argues that expanding offshore oil and gas drilling and exploration threatens coastal stakeholders, marine wildlife, human health, and climate.

California, City of Solana Beach, Angela Ivey
Document ID: BOEM-2017-0074-10779

The commenter expressed opposition for offshore oil and gas drilling off the Pacific Coast. The commenter argued that offshore drilling comes with a high risk of damage and disruption to the marine environment and economy of the state.

California, City of Watsonville,
Beatriz Vazquez Flores

Document ID: BOEM-2017-0074-5904

The commenter submitted a city resolution that supported a ban on offshore oil and gas drilling, fracking, and other well-stimulation activities off the California coast. The commenter also stated that it supports no new leasing in all U.S. waters, including off California.

**California, City of West Hollywood,
Andi Lovano****Document ID: BOEM-2017-0074-10811**

The commenter submitted a resolution that opposed offshore oil and gas drilling, fracking, and other well-stimulation activities in Federal and state waters off the California coast. The commenter argues that expanding offshore drilling, fracking, and other well-stimulation off the California coast will deepen the state's dependence on fossil fuels and undermine its efforts to address climate change by reducing GHG emissions and moving toward renewable energy.

**California, City of West Hollywood,
Hernan Molina****Document ID: BOEM-2017-0074-11150**

The commenter opposed the DPP and the inclusion of California in the leasing regions. The commenter stressed that the potential negative environmental and social impacts should not be underestimated. The commenter referenced the resolution submitted under Document ID: BOEM-2017-0074-10811.

**California, County of Humboldt Board of
Supervisors, Ryan Sharp****Document ID: BOEM-2017-0074-10819**

The commenter submitted a resolution that opposed offshore oil drilling development and objecting to any new oil and gas leases off the California coast. The commenter stated that such action threatens the regional clean coast economy which relies on healthy ecosystems, fisheries, and the multiple visitor-serving industries that depend on them.

California, County of Humboldt, Ryan Sharp**Document ID: BOEM-2017-0074-10819**

The commenter opposed any drilling off the coast of California. The commenter expressed the high risk to marine life that drilling imposes.

**California, County of Los Angeles Board of
Supervisors, Lori Glasgow****Document ID: BOEM-2017-0074-11262**

A local government body opposed inclusion of the Pacific planning region in the DPP and passed a resolution supporting a ban on offshore drilling in the Los Angeles region and any oil and gas leasing in U.S. waters. The commenters discussed the importance of the tourism and fishing industries and their dependence on clean coastal environments, as well as the potential for harm to human health and wildlife. The commenters cited damage from previous oil spills and stated that expanded offshore drilling poses an unacceptable level of risk. The commenters also stressed that increasing fossil fuel consumption will undermine the state's efforts to reduce GHG emissions by embracing renewable energy.

**California, County of Marin Board of
Supervisors, Dan Eilerman****Document ID: BOEM-2017-0074-10690**

The commenter opposed the DPP. The commenter stressed the reliance of California communities on tourism as an economic driver and stated that these activities deepen the dependence on fossil fuels and undermine efforts to appropriately address global climate change.

**California, County of Mendocino Clerk of the
Board Office, Nadia Tipton****Document ID: BOEM-2017-0074-4125**

The commenter opposed offshore oil and gas leasing in the Pacific Ocean, stating that fossil fuel development would be in opposition to California's clean coast economy and would threaten the protected environments of the state.

California, County of Monterey, Nick Chiulos**Document ID: BOEM-2017-0074-11274**

The commenter opposed any new oil and gas drilling off the coast of California. The commenter discussed the importance of

California's wildlife, and the lack of current oil and gas drilling in the state.

**California, County of San Mateo,
Connie Juarez-Diroll
Document ID: BOEM-2017-0074-11254**

The commenter expressed opposition to the DPP. The commenter cited that fracking and other well stimulation increase pollution and the risk of oil spills and earthquakes and will undermine its efforts to address climate change by reducing GHG emissions and moving toward renewable energy.

**California, County of Santa Barbara Air
Pollution Control District, Molly Pearson
Document ID: BOEM-2017-0074-10773**

The commenter discussed the effects of offshore drilling on air pollution. The commenter expressed concern about the air quality impacts associated with development of the proposed leases.

**California, County of Santa Barbara Board
of Supervisors, Das Williams
Document ID: BOEM-2017-0074-10835**

The commenter expressed opposition to the Proposed Program, specifically lease sales of the coast of California. The commenter stated that oil and gas activities pose risks to the fragile coastal environment and biodiversity, important fish stocks and NMSs, and the state's \$45 billion ocean economy.

**California, County of Santa Barbara Board
of Supervisors, Don Gilcrest
Document ID: BOEM-2017-0074-11167**

The commenter opposed any oil and gas exploration of the coast of Santa Barbara, California. The commenter mentioned the California Senate resolutions, which support the previous prohibition of oil and gas exploration.

**California, County of Santa Barbara
Planning & Development, Errin Briggs
Document ID: BOEM-2017-0074-10752**

The commenter expressed opposition to the Proposed Program, specifically lease sales off the coast of California. The commenter stated that oil and gas activities pose risks to the fragile coastal environment and biodiversity, important fish stocks and NMSs, and the state's \$45 billion ocean economy.

**California, County of Santa Cruz Board of
Supervisors, Carlos Palacios
Document ID: BOEM-2017-0074-10895**

The commenter opposed offshore oil and gas leasing off the coast of California. The commenter stated that the U.S. should focus on developing a renewable energy infrastructure.

**California, Santa Cruz Board of Supervisors,
Katherine O'Dea
Document ID: BOEM-2017-0074-11155**

The commenter opposed any new activity off the coast of California. The commenter mentioned previous oil spills and the damage to the environment.

**California, County of Sonoma Water
Coalition, Jane Nielson
Document ID: BOEM-2017-0074-0610**

The commenter expressed opposition to the proposed oil and gas drilling off the coast of California. The commenter argued that the Proposed Program violates several Federal laws and state policies, threatens coastal economies, and does not adequately address climate change threats.

**California, County of Ventura, Steve
Offerman
Document ID: BOEM-2017-0074-10890**

The commenter opposed new offshore oil leases in the Federal waters off the California coast. The commenter argues that the proposal will negatively impact coastal recreation and boating,

which are important components of the local economy.

**California, Humboldt Bay Harbor,
Recreation and Conservation District,
Larry Oetker**

Document ID: BOEM-2017-0074-10824-2

The commenter opposed the DPP, specifically leasing regions off California. The commenter discussed the oil spill in Santa Barbara in 1969, and its negative effects. The commenter also discussed the need to focus on renewable alternatives in the search for U.S. energy independence.

**California, Port San Luis Harbor District,
Andrea Lueker**

Document ID: BOEM-2017-0074-10901

The commenter expressed opposition to offshore drill on the coast of California. The commenter stated that the proposal would have measurable impacts on the biological, physical, and/or human environment.

California, Town of Fairfax, Barbara Coler

Document ID: BOEM-2017-0074-10569

The commenter expressed opposition for the DPP and requested withdrawing the DPP, because expanding drilling in the Arctic, Atlantic, Eastern GOM, and Pacific waters would put coastal residents, businesses, oceans, and the climate at grave risk.

**California, Town of Windsor,
Bruce Okrepie**

Document ID: BOEM-2017-0074-11236

The commenter opposed the DPP and offshore oil and gas drilling, fracking, and other well stimulation in Federal and state waters off the California coast. The commenter stated that the DPP will increase the dependence on fossil fuels, undermine efforts to address climate change, damage and disrupt the marine environment, and increase pollution.

**Oregon, City of Newport Council,
Sandra Roumagoux**

Document ID: BOEM-2017-0074-10823

The commenter expressed opposition to any plan or legislation that encourages offshore oil and gas development and associated exploration that would affect the citizens of the City of Newport, Lincoln County, and the State of Oregon. The commenter argued that offshore oil and gas drilling and associated exploration poses unnecessary risks to the region's economic and ecological health.

Oregon, City of Toledo, Craig Martin

Document ID: BOEM-2017-0074-11223

The commenter is opposed to any plan or legislation which encourages oil and gas development and exploration offshore that would impact the citizens of Oregon. The commenter stated that offshore oil and gas drilling and exploration puts an unnecessarily risk on the economic and ecological health of Oregon.

**Oregon, County of Lincoln Board of
Commissioners, Doug Hunt**

Document ID: BOEM-2017-0074-10568

The commenter expressed opposition to the DPP and requested that BOEM not authorize the opening of the Oregon coastline to gas and oil exploration.

Oregon, Port of Newport, Karen Hewitt

Document ID: BOEM-2017-0074-10809

The commenter opposed any plan or legislation that encourages oil and gas development and exploration offshore that would impact the citizens of the State of Oregon. The commenter argued that offshore oil and gas drilling and exploration pose unnecessary risks to the region's economic and ecological health and future.

**Oregon, Port of Toledo, Bud Shoemaker
Document ID: BOEM-2017-0074-10827**

The commenter opposed any plan or legislation which encourages oil and gas development and exploration offshore that would impact the citizens of Oregon. The commenter stressed that this proposal threatens the maritime industry, commercial fishing, and the potential for a catastrophic seismic event in the Cascadia Subduction Zone.

**Washington, City of Ocean Shores,
Crystal Dingler
Document ID: BOEM-2017-0074-10646**

The commenter opposed the offshore oil and gas exploration in the waters off the coast of Washington State. The commenter said that oil and gas exploration poses unnecessary risks on the economic and ecological health of Washington State.

**Washington, City of Ocean Shores,
Crystal Dingler
Document ID: BOEM-2017-0074-11158**

The commenter opposed offshore drilling off Washington State. The commenter discussed that offshore drilling poses unnecessary risks to the economy and ecological health of the region.

**Washington, County of Clallam
Commissioners, Clallam County
Commissioners
Document ID: BOEM-2017-0074-10706**

The commenter expressed opposition to the DPP. The commenter cited that residents of, and visitors to, Clallam County depend on a healthy coast to support large commercial fisheries, vital scientific research, and tourism.

**Washington, County of Grays Harbor
Marine Resources Committee,
Lorena Maurer
Document ID: BOEM-2017-0074-10782**

The commenter opposed the Pacific planning region. The commenter discussed Washington State and the deep connection to marine

resources. The commenter also discussed the significant risks that various economies would be exposed to if drilling took place.

**Washington, County of Jefferson,
Washington’s Tourism Coordinating Council,
Bill Roney
Document ID: BOEM-2017-0074-10761**

The commenter expressed opposition to the DPP and the inclusion of the Washington coast in the proposal for leasing. The commenter cited concerns about increased emissions of carbon based fuels on ocean acidification, threats to shellfish aquaculture, and the potential eradication of endangered species in the region.

A.2.3 Gulf of Mexico Region³

**Florida, City of Clearwater, George Cretekos
Document ID: BOEM-2017-0074-10502**

The commenter expressed opposition to oil and gas leasing and seismic surveys in the Eastern GOM. Although encouraged by the recent comments on a possible exemption, the commenter was concerned over the impacts on tourism and the ocean environment from seismic testing. The commenter noted that the ocean circulation could cause oil to show up on the coast, even from a spill farther away in the GOM.

**Florida, City of Coconut Creek,
Rebecca Tooley
Document ID: BOEM-2017-0074-4143**

The commenter opposed seismic surveys and exploration off the Atlantic Coast of Florida. Despite recent statements regarding a possible exemption, the commenter expressed concern over the impact of seismic surveys on marine life and ecotourism.

³ Gulf of Mexico section includes Florida local governments, both Gulf and Atlantic coasts.

**Florida, City of Miami Beach, Dan Gelber
Document ID: BOEM-2017-0074-10516**

The commenter opposed the proposal to increase offshore drilling leases off Florida’s Atlantic and Gulf coasts, because efforts to expand offshore drilling seriously jeopardizes national and local natural resources, scenic beauty, and wildlife, as well as tourist and fishing industries.

**Florida, City of Miami, Todd Hannon
Document ID: BOEM-2017-0074-10519**

The commenter opposed offshore oil and gas drilling and exploration in the Atlantic, including seismic airgun blasting, because the activities would put Florida’s environment, beaches, marine resources, and local economies at risk.

**Florida, City of Naples, Bill Barnett
Document ID: BOEM-2017-0074-10553**

The commenter opposed offshore oil drilling and exploration in the Eastern GOM and supported the current moratorium because the Gulf’s marine environment provides the foundation for robust local and regional economic activity, primarily tourism and recreational and commercial fishing industries.

**Florida, City of Sanibel, James Evans
Document ID: BOEM-2017-0074-10721**

The commenter opposed offshore drilling in the Eastern GOM. The commenter stated that the proposal will terminate future Presidential authority to establish Marine National Monuments to protect critical marine resources, and eliminates several protections afforded to marine mammals under the Marine Mammal Protection Act of 1972.

**Florida, County of Broward, Jason Liechty
Document ID: BOEM-2017-0074-11045**

The commenter opposed the DPP because it proposes increased oil and gas activity in Florida. The commenter discussed the risks associated with GHG emissions as it relates to climate change.

**Florida, County of Charlotte, Joseph Tiseo
Document ID: BOEM-2017-0074-10739**

The commenter opposed oil and gas leasing in the Eastern GOM. The commenter discussed the impacts of the Deepwater Horizon oil spill and the impacts on tourism in the area. The commenter also voiced concerns for the commercial and recreational fishing industries and the military operations in the region.

**Florida, County of Escambia Board of
County Commissioners, Matt Posner
Document ID: BOEM-2017-0074-9489**

The commenter opposed offshore oil and gas drilling and exploration, including seismic airgun blasting, because the activities would put Florida’s environment, beaches, marine resources, and local economies at risk.

**Florida, County of Martin Board of County
Commissioners, Harold E. Jenkins
Document ID: BOEM-2017-0074-9723**

The commenter opposed all oil and gas exploration, including seismic testing, in the Straits of Florida and the South Atlantic region because the activities will have a negative impact on the ecosystem, tourism industry, and economy of the community, and all communities along the Atlantic Coast.

**Florida, County of Monroe Board of
Commissioners, David Rice
Document ID: BOEM-2017-0074-4154**

The commenter opposed oil and gas development off the coast of Florida in the GOM and the Atlantic Ocean. The commenter expressed concerns over the impact to environmentally sensitive locations and tourism. The commenter supported the extension of the moratorium on drilling in the Eastern GOM.

**Florida, County of Pinellas Board of County
Commissioners, Kenneth T. Welch
Document ID: BOEM-2017-0074-9641**

The commenter strongly opposed all oil and gas exploration in the Eastern GOM. The

commenter stated that in addition to the economic and environmental impacts, drilling would negatively impact flight training and testing from the numerous bases, which require unrestricted access to the Eastern GOM.

Florida, Leon Soil and Water Conservation District, Brian Lee

Document ID: BOEM-2017-0074-11242

The commenter is opposed to offshore drilling off the Florida coast. The commenter expressed concern for the potential loss of tourists and the negative effects on the economy and the ecology of Florida.

Florida, South Florida Regional Planning Council, Frank Caplan

Document ID: BOEM-2017-0074-10604

The commenter expressed opposition for oil drilling off the coast of Florida. The commenter stressed concerns for the effects drilling could have on Florida's sensitive environment, wildlife, and tourism-based economy.

Florida, Town of Lantana, David Stewart

Document ID: BOEM-2017-0074-11221

The commenter voiced opposition to oil and gas drilling in the Atlantic and GOM OCS off the coast of Florida. The commenter stated concern for the potential oil spill and discussed the impacts of seismic surveys to coastal ecosystems.

Florida, Town of Palm Beach, Gail Coniglo

Document ID: BOEM-2017-0074-4831

The commenter expressed opposition to oil and gas drilling in the South Atlantic and Straits of Florida. The commenter stated that the natural resources that are essential to tourism in the area would be in peril due to offshore drilling.

Florida, Treasure Coast Regional Planning Council, Reece Parrish

Document ID: BOEM-2017-0074-7961

The commenter opposed offshore oil and gas drilling and exploration, including seismic

airgun blasting, because the activities would put Florida's environment, beaches, marine resources, and local economies at risk.

Louisiana, City of Thibodaux, Tommy Eschete

Document ID: BOEM-2017-0074-10609

The commenter expressed support for the DPP and offshore drilling in the GOM. The commenter cites the potential benefits offshore drilling will have on Louisiana economically such as new jobs, increased gross domestic product (GDP), and increased state revenue.

Louisiana, Greater Lafourche Port Commission, Chett Chiasson

Document ID: BOEM-2017-0074-10928

The commenter expressed support for the continuation and expansion of oil and gas exploration and production in the GOM. The commenter argues that coastal environmental restoration efforts are dependent upon continued oil and gas leasing, exploration, and production, as well as the potential to increase American jobs, grow America's economy, improve America's national security, and ensure America's energy dominance.

Louisiana, Lafourche Parish Government, James Cantrelle

Document ID: BOEM-2017-0074-11093

The commenter supported the expansion of oil and gas drilling access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure already in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Louisiana, St. Mary Parish Government, David Hanagriff

Document ID: BOEM-2017-0074-4830

The commenter offered support for oil and gas leasing in the GOM and urged BOEM to include

all leasing areas in the Proposed Final Program (PFP). The commenter stated the economic boost from offshore drilling could provide critical public services.

Louisiana, Terrebonne Parish Consolidated Government, Gordon E. Dove
Document ID: BOEM-2017-0074-11194

The commenter supported the GOM planning regions, and mentioned the importance of oil and gas to the vitality of Louisiana. The commenter discussed the reserves in the Gulf, and the economic benefits that development would bring to Louisiana as well as the rest of the country. The commenter also wrote about the importance of development using the U.S. stricter regulatory and safety standards.

Mississippi, City of Gautier, Cynthia Russell
Document ID: BOEM-2017-0074-10618

The commenter expressed support for the DPP and offshore drilling in the GOM. The commenter cites the importance of affordable energy and the potential growth in jobs, GDP, and state revenue.

Mississippi, City of Pascagoula, Frank Corder

Document ID: BOEM-2017-0074-5905

The commenter offered support for oil and gas leasing in the GOM to provide reliable energy, jobs, tax revenues, and other services to help support economies at the local, state, and Federal level.

Mississippi, County of Harrison Development Commission, Bill Lavers

Document ID: BOEM-2017-0074-11095

The commenter supported the expansion of access in the GOM, and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Mississippi. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Mississippi, County of Jackson Board of Supervisors, Josh Eldridge

Document ID: BOEM-2017-0074-3380

The commenter supported oil and gas leasing in the GOM, citing the positive economic benefits of oil and gas development for the local and national economies. The commenter urged BOEM to retain commitments of revenue sharing under the Gulf of Mexico Energy Security Act.

A.2.4 Atlantic Region⁴

Delaware, City of Lewes, Theodore Becker

Document ID: BOEM-2017-0074-10740

The commenter opposed lease sales and seismic testing along the Atlantic Coast. The commenter stated that the underlying facts related to climate change and environmental impacts have not changed since the current policy was enacted. The commenter stressed the importance of the local fishing, recreation, and tourism industries.

Delaware, Town of Dewey Beach,

James Dedes

Document ID: BOEM-2017-0074-11220

The commenter opposed offshore development in the Atlantic Ocean. The commenter voiced opposition to seismic surveys, citing concerns over potential impacts on marine organisms. The commenter stated that the local economy depends heavily on tourism and recreational fishing.

Delaware, Town of Fenwick Island,

Eugene N. Langan

Document ID: BOEM-2017-0074-7605

The commenter expressed opposition for oil and gas leasing in the Atlantic. The commenter argues that the risks associated with oil and natural gas exploration, and the precursor

⁴ See the Gulf of Mexico Region section for comments from local government in Florida.

activity of seismic testing, far outweighs the potential benefits that will be received from these activities and the residents, workers, property owners, businesses, and recreational visitors.

**Delaware, Town of Milton, Kristy Rogers
Document ID: BOEM-2017-0074-10745**

The commenter voiced opposition to the inclusion of the Atlantic OCS in the DPP. The commenter voiced concern over potential impacts on various marine organisms and the local fishing industry. The commenter also stated that an oil spill could cause tremendous environmental damage in the Atlantic region.

**Delaware, Town of Slaughter Beach,
Kathleen Lock
Document ID: BOEM-2017-0074-10892**

The commenter opposed oil and gas leasing in the Atlantic Ocean. The commenter discussed potential environmental impacts such as water, noise, and air pollution resulting from development activities. The commenter also argued that oil and gas leasing would threaten the shoreline that sustains the economy of the state.

**Delaware, Town of South Bethany,
Pam Smith
Document ID: BOEM-2017-0074-11218**

The commenter opposed oil and gas leasing in the Atlantic Ocean. The commenter stressed the town's reliance on the coast for tourism and fishing and voiced concerns over potential detrimental impacts from oil spills.

**Maine, City of Gloucester,
Mayor Sefatia Romeo Theken
Document ID: BOEM-2017-0074-10699**

The commenter opposed the DPP's inclusion of the Atlantic region. The commenter requested that BOEM representatives be present at upcoming public hearings. The commenter voiced concerns over the impact of oil and gas

drilling on the region's maritime heritage and economy.

**Maine, City of Portland, Ethan Strimling
Document ID: BOEM-2017-0074-7969**

The commenter opposed any plan or legislation that would open the coast of Maine to offshore drilling for gas and oil because it would place coastal communities at economic and ecological risk from oil spills and the pollution brought by routine drilling operations and onshore industrialization.

**Maine, City of South Portland, Emily Scully
Document ID: BOEM-2017-0074-10608**

The commenter opposed the DPP and drilling along the Atlantic Coast. The commenter expressed concern over offshore infrastructure and the potential for wetland loss, storm surges and sea level rise, as well as the economic and ecological risk to coastal communities.

**Maine, Monhegan Plantation, Tara Hire
Document ID: BOEM-2017-0074-11049**

The commenter opposed the DPP and asked that Maine be removed from the planning regions. The commenter discussed the community of Monhegan Plantation, and the negative impacts on their island of any oil and gas drilling.

**Maine, Town of Islesboro, Archibald Gillies
Document ID: BOEM-2017-0074-5907**

The commenter opposed oil and gas leasing off the coast of Maine, expressing concern over the impact to the local economy, lobstering, and other resource-based businesses.

**Maryland, Ocean City, Rick Meehan
Document ID: BOEM-2017-0074-10868**

The commenter opposed the DPP, and the inclusion of waters off the coast of Maryland. The commenter discussed the economic harm that would be caused by offshore drilling near the Town of Ocean City.

Maryland, Town of Berlin, Kelsey Jensen
Document ID: BOEM-2017-0074-10797

The commenter opposed offshore drilling and proposed seismic testing off the coast of Maryland. The commenter discussed the harms to the marine ecosystem associated with these tests.

Massachusetts, Barnstable Town Council, Eric R. Steinhilber
Document ID: BOEM-2017-0074-10798

The commenter expressed opposition to offshore oil and gas leasing in the Atlantic Ocean. The commenter asserted that more economically and responsible energy sources could be developed. The commenter also stressed the importance of the waters off Cape Cod for migratory and breeding habitat.

Massachusetts, City of Gloucester, Al Cottone
Document ID: BOEM-2017-0074-10907

The commenter opposed any leasing in the North Atlantic region. The commenter discussed Massachusetts and its history of pristine coastlines, tourism, and commercial fishing. The commenter stated that the smallest accident would hurt Massachusetts forever.

New Hampshire, Town of Rye, Michael Magnant
Document ID: BOEM-2017-0074-10615

The commenter expressed opposition to offshore gas and oil development and exploration along the Atlantic Coast. The commenter stressed the possibility of oil spills and the impact on the economy and quality of life of residents and visitors.

New Jersey, Borough of Atlantic Highlands, Rhonda Le Grice
Document ID: BOEM-2017-0074-10517

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey and calls upon BOEM to withdraw New Jersey and the entire Atlantic Ocean from consideration for the

offshore oil and gas exploration, development, or drilling, because the harmful environmental consequences of offshore oil and gas exploration and development are serious and threaten the environmental and economic assets of New Jersey.

New Jersey, Borough of Belmar, Matthew Doherty
Document ID: BOEM-2017-0074-10515

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey and calls upon BOEM to withdraw New Jersey and the entire Atlantic Ocean from consideration for the offshore oil and gas exploration, development, or drilling, because the harmful environmental consequences of offshore oil and gas exploration and development are serious and threaten the environmental and economic assets of New Jersey.

New Jersey, Borough of Cape May Point County, Elaine Wallace
Document ID: BOEM-2017-0074-10619

The commenter opposed offshore oil and gas activities that affect the coast of New Jersey. The commenter stated that New Jersey relies heavily on tourism and offshore drilling could have a large impact on the economy.

New Jersey, Borough of Fair Haven, Allyson Cinquegrana
Document ID: BOEM-2017-0074-10574

The commenter opposed offshore oil and gas activities that affect the coast of New Jersey. The commenter stated that New Jersey relies heavily on tourism and offshore drilling could have a large impact on the economy.

New Jersey, Borough of Harvey Cedars, Daina Dale
Document ID: BOEM-2017-0074-10751

The commenter expressed opposition for oil and gas exploration and drilling off the coast of New Jersey. The commenter cited concerns over the

impacts on the tourism industry and threats to the economy and sensitive marine environment of the region.

**New Jersey, Borough of Mantoloking,
Beverley Konopada
Document ID: BOEM-2017-0074-10613**

The commenter opposed the DPP and drilling off the coast of New Jersey. The commenter expressed concern for the potential harm on the endangered species in New Jersey waters and the threat to environmental and economic assets.

**New Jersey, Borough of Point Pleasant
Beach, Paul Kanitra
Document ID: BOEM-2017-0074-4111**

The commenter expressed opposition to oil and gas drilling off the coast of New Jersey. The commenter stressed the importance of the local economy, dependent on clean beaches and natural resources and voiced concern over potential oil spills.

**New Jersey, Borough of Point Pleasant,
Antoinette Jones
Document ID: BOEM-2017-0074-10520**

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey and calls upon BOEM to withdraw New Jersey and the entire Atlantic Ocean from consideration for the offshore oil and gas exploration, development, or drilling, because the harmful environmental consequences of offshore oil and gas exploration and development are serious and threaten the environmental and economic assets of New Jersey.

**New Jersey, Borough of Point Pleasant,
Ellen Farrell
Document ID: BOEM-2017-0074-10545**

The commenter expressed opposition for oil and gas development in the Atlantic Region. The commenter voiced concerns over the impacts on ocean and coastal environments, wetland loss and sea level rise, and impacts on the local

economy. The commenter also stated that the required infrastructure would negatively impact the character of New Jersey coastline.

**New Jersey, Borough of Roosevelt,
Kathleen Hart
Document ID: BOEM-2017-0074-10640**

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey. The commenter sites the potential for onshore damage, water pollution, noise from seismic surveys, air pollution, and oil spills, and calls upon the Secretary of the Interior to withdraw New Jersey from consideration.

**New Jersey, Borough of Sea Girt,
Lorraine Carafa
Document ID: BOEM-2017-0074-10605**

The commenter opposed offshore oil and gas activities that affect the coast of New Jersey. The commenter stated that New Jersey relies heavily on tourism and offshore drilling will potentially have a large impact on the economy.

**New Jersey, Borough of Spring Lake,
Jennifer Naughton
Document ID: BOEM-2017-0074-10524**

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey and calls upon BOEM to withdraw New Jersey and the entire Atlantic Ocean from consideration for the offshore oil and gas exploration, development, or drilling, because the harmful environmental consequences of offshore oil and gas exploration and development are serious and threaten the environmental and economic assets of New Jersey.

**New Jersey, Borough of Union Beach,
Anne Marie Friscia
Document ID: BOEM-2017-0074-10611**

The commenter opposed the offshore oil and gas exploration that would affect the New Jersey coast. The commenter explains that offshore oil

and gas development cause substantial environmental impacts including onshore damage, water pollution, noise from seismic surveys, air pollution and oil spills.

New Jersey, Borough of West Cape May, Carol Sabo

Document ID: BOEM-2017-0074-5901

The commenter opposed offshore oil and gas exploration and drilling. The commenter voiced concerns over the potential impacts on the unique marine environment off the coast of New Jersey and the tourism industry and asked that BOEM remove the Atlantic Coast from the Proposed Program.

New Jersey, City of Long Branch, Kathy Schmelz

Document ID: BOEM-2017-0074-5903

The commenter opposed offshore oil and gas exploration and drilling, citing concerns over the impact on the unique marine environments off the coast of New Jersey, local tourism reliant on healthy beaches and fisheries, and asked that BOEM remove the Atlantic Coast from the Proposed Program.

New Jersey, City of Neptune Council, Glen Kocsis

Document ID: BOEM-2017-0074-11238

The commenter opposed offshore drilling in the Atlantic. The commenter stressed the importance of clean energy in transportation.

New Jersey, City of Point Pleasant Beach Council, Paul Kanitra

Document ID: BOEM-2017-0074-11238

The commenter opposed the DPP and the inclusion of New Jersey. The commenter explained the potential negative consequences on the tourism and fishing industry.

New Jersey, City of Sea Isle City, Mary Tighe

Document ID: BOEM-2017-0074-10576

The commenter opposed the DPP and oil and gas activities off the coast of New Jersey. The commenter stressed the concern for the tourism

industry, recreational and commercial fishing, and the need for energy conservation to limit the need to drill for nonrenewable resources.

New Jersey, County of Cape May Board of Chosen Freeholders, Elizabeth Bozzelli

Document ID: BOEM-2017-0074-8749

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey and calls upon BOEM to withdraw New Jersey and the entire Atlantic Ocean from consideration for the offshore oil and gas exploration, development, or drilling, because the harmful environmental consequences of offshore oil and gas exploration and development are serious and threaten the environmental and economic assets of New Jersey.

New Jersey, County of Cape May Board of Chosen Freeholders, Elizabeth Bozzelli

Document ID: BOEM-2017-0074-10567

The commenter opposed any oil and gas activities that would affect the coast of New Jersey. The commenter discussed the environmental impacts of oil-related incidents. The commenter also cited the estimates of recoverable gas and said that the risks to the coast are too great.

New Jersey, County of Monmouth Board of Chosen Freeholders, Marion Masnick

Document ID: BOEM-2017-0074-10578

The commenter opposed the DPP and drilling off the coast of New Jersey, specifically Monmouth County. The commenter cited the potential for damage from accidents or incidents on the shoreline, tourism, and residents of the county.

New Jersey, County of Ocean Board of Chosen Freeholders, Betty Vasil

Document ID: BOEM-2017-0074-10523

The commenter strongly opposed the exploration, development, or production of oil or natural gas off the North Atlantic Coast because

of the disruptive impact of such activities on the marine environment and coastal tourism.

New Jersey, Fair Harbor Beach Erosion Control District, Jerome Feder
Document ID: BOEM-2017-0074-10929

The commenter is opposed to opening the Atlantic coastal region in the vicinity of Long Island to offshore oil and gas exploration and drilling. The commenter argues that commercialization of the offshore areas would damage the value of an important national resource with significant economic consequences.

New Jersey, Lawrenceville Environmental Committee, Dionne Polk
Document ID: BOEM-2017-0074-11238

The commenter opposed the drilling off the coast of New Jersey. The commenter stressed the likelihood of a spill and the detrimental effects on aquaculture, commercial fishing, and coastal ecosystems.

New Jersey, Township of Berkeley, Beverly Carle
Document ID: BOEM-2017-0074-5902

The commenter opposed offshore oil and gas exploration and drilling, citing concerns over the impact on the unique marine environments off the coast of New Jersey, local tourism reliant on healthy beaches and fisheries, and asked that BOEM remove the Atlantic Coast from the Proposed Program.

New Jersey, Township of Buena Vista, Lisa Tilton
Document ID: BOEM-2017-0074-10606

The commenter expressed opposition for offshore drilling along the Atlantic Coast. The commenter cites the reliance on tourism in New Jersey and the effect that a potential spill could have on the economy and the shoreline.

New Jersey, Township of Lakewood, Kathryn Hutchinson
Document ID: BOEM-2017-0074-10583

The commenter expressed opposition for the DPP and called for the exclusion of the coast of New Jersey and the entire Atlantic Ocean from consideration. The commenter cites the negative effects drilling will have on the economic dependency on tourism and the ecosystems.

New Jersey, Township of Plumsted Environmental Commission, Beverley Vienckowski
Document ID: BOEM-2017-0074-10766

The commenter expressed opposition for DPP, specifically oil and gas leasing in the Atlantic. The commenter argued that fossil fuel development will increase likelihood of climate change, coastal flooding, storm surges, and ocean acidification, and is not sustainable.

New Jersey, Township of Toms River, Alison Carlisle
Document ID: BOEM-2017-0074-10538

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey and calls upon BOEM to withdraw New Jersey and the entire Atlantic Ocean from consideration for the offshore oil and gas exploration, development, or drilling, because the harmful environmental consequences of offshore oil and gas exploration and development are serious and threaten the environmental and economic assets of New Jersey.

New Jersey, Township of Wall Environmental Advisory Committee, Wilma Morrissey
Document ID: BOEM-2017-0074-4832

The commenter opposed oil and gas drilling, exploration, and seismic testing, especially off the coast of New Jersey. The commenter stated concern for the tourism industry and local ecology and stated that the state should be

exempt from the Proposed Program if Florida is also exempt.

**New York, City of Long Beach,
Michael Tangney
Document ID: EBOEM-2017-0074-11173**

The commenter opposed the DPP and the inclusion of the Long Island region. The commenter stressed the potential for increased barge traffic, possibility for spills and the damage to shoreline.

**New York, City of New York, Haley Stein
Document ID: BOEM-2017-0074-10971**

The commenter expressed opposition to the proposal to open the North Atlantic Planning Area to oil and gas activities, specifically the coast of New York City. The commenter cited noncompliance with the OCS Lands Act, undermining efforts to fight climate change, and the potential disruption of the development of clean offshore wind generation.

**New York, County of Suffolk Legislature,
Al Krupski
Document ID: BOEM-2017-0074-11173**

The commenter opposed the DPP, specifically oil and gas drilling in the Atlantic. The commenter stressed the importance of investing in renewable resources as opposed to fossil fuel exploration.

**New York, County of Suffolk Legislature,
Bailey Spahn
Document ID: BOEM-2017-0074-11179**

The commenter opposed the DPP and the inclusion of the Long Island region. The commenter stressed the potential harm on ocean life, increased pollution and global warming, and the importance of moving toward clean energy.

**New York, County of Suffolk Legislature,
Bridget Flemming
Document ID: BOEM-2017-0074-11173**

The commenter opposed the DPP and the inclusion of the Long Island region. The

commenter expressed concern on the effect on the economy, tourism and labor forces.

**New York, County of Suffolk Legislature,
DuWayne Gregory
Document ID: BOEM-2017-0074-11181**

The commenter opposed the DPP and the inclusion of the Long Island region. The commenter expressed concern for the negative effects on the coastal communities, and tourism and economic impacts.

**New York, County of Suffolk Legislature,
Leslie Kennedy
Document ID: BOEM-2017-0074-11173**

The commenter opposed the DPP, specifically the inclusion of the Atlantic. The commenter expressed concerns of polluting the coastline and the negative effects on tourism and lifestyle.

**New York, County of Suffolk Legislature,
Susan A. Bertrand
Document ID: BOEM-2017-0074-11173**

The commenter opposed the DPP and the inclusion of the Long Island region. The commenter stressed that the program will negatively impact tourism in the region.

**New York, County of Suffolk Legislature,
Vivian Vilorio Fisher
Document ID: BOEM-2017-0074-11173**

The commenter opposed drilling along the Long Island coast. The commenter expressed the negative effects on health, the ecosystems and marine life.

**New York, Davis Park Association, Inc.,
Jayne Robinson
Document ID: BOEM-2017-0074-10750**

The commenter opposed the inclusion of the North and Mid-Atlantic regions the Proposed Program. The commenter cited potential negative effects of offshore drilling such as temperature change, ocean acidification, upwelling effects, sea level rise and saltwater intrusion, increased storm activity, and changes in species composition

New York, Fire Island Year-Round Residents Association, Dawn Lippert**Document ID: BOEM-2017-0074-10614**

The commenter expressed opposition to the DPP. The commenter cited the potentially harmful effects that offshore drilling will have on Fire Island including damage to ocean beaches and devastation to aquatic species and habitats.

New York, Town of Brookhaven Councilman, Kevin Lavalle**Document ID: BOEM-2017-0074-11360**

The commenter opposed the DPP, specifically oil and gas lease sales and drilling off the coast of New York. The commenter stated that it is a bipartisan issue, and that coastal waters must be protected.

New York, Town of Brookhaven Councilman and Deputy Supervisor, Dan Panico**Document ID: BOEM-2017-0074-11360**

The commenter opposed the DPP and stated that there is no evidence of resources offshore. The commenter argued that focus should be placed on developing renewable alternatives.

New York, Town of Brookhaven, Edward Romaine**Document ID: BOEM-2017-0074-3609**

The commenter expressed opposition to oil and gas leasing in the Atlantic Ocean, and voiced concerns about the impacts of an oil spill to the economy and environment.

New York, Town of Brookhaven, Edward Romaine**Document ID: BOEM-2017-0074-10617**

The commenter expressed opposition to offshore drilling in the Atlantic and requested that an additional meeting be held in Long Island to hear public opinion from those who live on New York's coast. The commenter cited concerns and explained a desire to have the voices heard of those near the coast.

New York, Town of Brookhaven, Edward P. Romaine**Document ID: EBOEM-2017-0074-11173**

The commenter opposed any drilling in the Atlantic as well as the Arctic. The commenter expressed concern about potential damage to coastline in the event of a spill, damage to tourism and potential environmental harm to Fire Island.

New York, Town of Brookhaven, Long Island, Edward Romaine**Document ID: BOEM-2017-0074-11237**

The commenter expressed opposition to offshore drilling in the Atlantic and requested that an additional meeting be held in Long Island to hear public opinion from those who live on New York's coast. The commenter cited concerns and explained a desire to have the voices heard of those near the coast.

New York, Town of East Hampton Waterfront Advisory Committee, Rameshwar Das**Document ID: BOEM-2017-0074-11180**

The commenter opposed the DPP and fossil fuel development along the OCS. The commenter stressed the potential for accidental spills and the devastating effects on the East Hamptons' fishing and resort industries.

New York, Town of Islip, Angie M. Carpenter**Document ID: BOEM-2017-0074-11184**

The commenter opposed the DPP, specifically, oil and gas leasing and development in the Atlantic. The commenter stresses the potential harm a spill could have on the fishing and aquaculture industries.

New York, Town of Smithtown, Edward Wehrheim**Document ID: BOEM-2017-0074-10620**

The commenter opposed the DPP and the inclusion of New York in the leasing program. The commenter argued that the activities

associated with offshore oil drilling have great potential for catastrophic impacts on coastal areas.

**New York, Village of Saltaire, John Zaccaro
Document ID: BOEM-2017-0074-10765**

The commenter opposed the DPP and the danger it poses to New York. Specifically, the commenter discussed the communities of Fire Island, and the risk that much of the economy would bear.

**North Carolina, County of Brunswick,
Patricia Sykes
Document ID: BOEM-2017-0074-11108**

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in North Carolina. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

**North Carolina, County of Dare,
Robert Woodard
Document ID: BOEM-2017-0074-5908**

The commenter requested BOEM hold a public meeting in Dare County and asked that the comment period be extended.

**North Carolina, County of Dare, Gary Gross
Document ID: BOEM-2017-0074-10760**

The commenter expressed opposition to offshore drilling and seismic testing. The commenter is concerned about the potential harm on the North Carolina culture, heritage, and economy that this proposal may have.

**North Carolina, County of Dare Board of
Commissioners, Bob Woodard
Document ID: BOEM-2017-0074-10647**

The commenter discussed the issues facing North Carolina with any potential offshore oil and gas drilling. The commenter expressed

hope that North Carolina would be included in any discussion on how to proceed.

**North Carolina, County of Dare Tourism
Board, Ann Wood
Document ID: BOEM-2017-0074-8972**

The commenter expressed opposition to oil and gas leasing in the Atlantic and warned that the exploration and production of oil and natural gas carries with it a very real threat to the environment.

**North Carolina, County of New Hanover
Board of Commissioners, Woody White
Document ID: BOEM-2017-0074-4829**

The commenter stated opposition to offshore oil and gas development in the Atlantic Ocean. The commenter cited obligations to the health, safety, and environmental stewardship of the coast and tourism industry in their opposition.

**North Carolina, County of Orange Board of
Commissioners, Donna Baker
Document ID: BOEM-2017-0074-10764**

The commenter opposed offshore oil and gas exploration, offshore drilling activities and seismic blast activities on the continental shelf or elsewhere off the coast of North Carolina. The commenter argued that offshore drilling activities pose specific threats for the offshore marine ecosystems and coastal and river wetlands, which are of intrinsic ecological value for numerous migratory bird species, serve as essential nursery habitats for our recreational and commercially important fisheries, and act as natural buffers from storm surge and hurricanes.

**North Carolina, League of Municipalities,
Sarah Collins
Document ID: BOEM-2017-0074-10742**

The commenter expressed opposition to the DPP. The commenter argued that the potential for adverse impacts on North Carolina's coastal communities, tourism, and fishing industry far outweigh the potential for discovery of oil and gas.

**North Carolina, Town of Arapahoe,
Kathryn Garcia**

Document ID: BOEM-2017-0074-10741

The commenter expressed opposition to seismic testing and oil and gas exploration on the coast of North Carolina. The commenter argued that drilling will negatively impact jobs and damage the sensitive ecology of the region.

**North Carolina, Town of Duck,
Lori Ackerman**

Document ID: BOEM-2017-0074-9457

The commenter opposed offshore drilling off the coast of North Carolina, because the risks from offshore oil and natural gas exploration and drilling have the potential to irrevocably harm the natural environment, the economic wellbeing, and the overall quality of life of the region.

**North Carolina, Town of Emerald Isle,
Frank A Rush**

Document ID: BOEM-2017-0074-10696

The commenter opposed offshore oil and gas development in the Atlantic OCS, including off the coast of North Carolina. The commenter stressed the importance of the coastal environment to the local economy and reiterated opposition

**North Carolina, Town of Kill Devil Hills
Mayor, Sheila Davies**

Document ID: BOEM-2017-0074-4828

The commenter opposed offshore oil and gas development in the Atlantic Ocean and requested an extension of the public comment period.

**North Carolina, Town of Kure Beach,
Craig Blonszinsky**

Document ID: BOEM-2017-0074-10587

The commenter expressed opposition for oil and gas leasing and development in the Atlantic. The commenter suggested extending the comment period and requested additional hearings because of the new, large scope of the

DPP and its potential impacts on coastal communities and economies, the marine environment, and climate.

**North Carolina, Town of Manteo,
Bobby Owens**

Document ID: BOEM-2017-0074-10570

The commenter requested extending the comment period and additional hearings because of the new, large scope of the DPP and its potential impacts on coastal communities and economies, the marine environment, and climate.

**North Carolina, Town of Nags Head,
Ben Cahoon**

Document ID: BOEM-2017-0074-7573

The commenter expressed opposition to oil and gas exploration in the Atlantic. The commenter stated that seismic testing and offshore drilling threaten the environment, economy, and quality of life.

North Carolina, Town of Oriental, Bill Hines

Document ID: BOEM-2017-0074-11020

The commenter opposed the Atlantic planning region, specifically around the town of Oriental in North Carolina. The commenter discussed the community of Oriental, and how any seismic blasting would drastically hurt the commercial fishing industry.

**North Carolina, Town of Pine Knoll Shores,
Sarah Williams**

Document ID: BOEM-2017-0074-10680

The commenter expressed opposition for oil and gas leasing in the Atlantic OCS, specifically off the coast of North Carolina. The commenter argued that offshore development would place the natural environment at risk of pollution and oil spills. The commenter also stated that the state is reliant on the coastal ecosystem as an economic boon.

**North Carolina, Town of Southern Shores,
Tom Bennett****Document ID: BOEM-2017-0074-4865**

The commenter opposed oil and gas drilling and exploration off the Pacific Coast. The commenter cited concerns over the potential impacts on the environment, tourism, and aesthetic appeal of the coast.

**North Carolina, Town of Swansboro,
John Davis****Document ID: BOEM-2017-0074-10546**

The commenter requested extending the comment period and additional hearings because of the new, large scope of the DPP and its potential impacts on coastal communities and economies, the marine environment, and climate.

**North Carolina, Village of Bald Head Island,
J. Andrew Sayre****Document ID: BOEM-2017-0074-11016**

The commenter opposed the DPP, specifically the Mid- and South Atlantic planning areas. The commenter discussed the ecological species that could be affected by pollution. The commenter also cited concerns about the outdated data for Atlantic planning region.

Rhode Island, City of East Providence**Document ID: BOEM-2017-0074-11013-02**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on New England's fishing industry. The commenter also mentioned the cultural heritage of the fishing industry in New England.

Rhode Island, City of Providence**Document ID: BOEM-2017-0074-11013-07**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on New England's fishing industry. The commenter also mentioned the culture heritage of the fishing industry in New England.

**Rhode Island, Town of Barrington,
Joseph DePasquale****Document ID: BOEM-2017-0074-11013-10**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on New England's fishing industry. The commenter also mentioned the cultural heritage of the fishing industry in New England.

**Rhode Island, Town of Barrington,
Michael Carroll****Document ID: BOEM-2017-0074-11013-01**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on New England's fishing industry. The commenter also mentioned the cultural heritage of the fishing industry in New England.

**Rhode Island, Town of Hopkinton,
Elizabeth J. Cook-Martin****Document ID: BOEM-2017-0074-11013-03**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on the fishing industry. The commenter also mentioned the cultural heritage of the fishing industry in New England.

**Rhode Island, Town of Little Compton,
Robert Mushen****Document ID: BOEM-2017-0074-11013-04**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on the fishing industry.

**Rhode Island, Town of Narragansett,
Susan Cicilline Buonanno****Document ID: BOEM-2017-0074-11013-05**

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's commitment to marine stewardship and believed that oil and gas

exploration would be detrimental for no real purpose.

**Rhode Island, Town of New Shoreham,
Kenneth C. Lacoste**

Document ID: BOEM-2017-0074-11185

The commenter opposed the DPP and the inclusion of the North Atlantic region in the leasing program. The commenter expressed determination to protect cultural heritage, marine ecosystems, and economic wellbeing.

**Rhode Island, Town of Portsmouth,
Keith E. Hamilton**

Document ID: BOEM-2017-0074-11013-06

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on the fishing industry. The commenter also mentioned the cultural heritage of the fishing industry in New England.

**Rhode Island, Town of South Kingstown,
Abel Collins**

Document ID: BOEM-2017-0074-11024

The commenter opposed the Northern Atlantic leasing regions. The commenter discussed the risks of climate change associated with oil and gas drilling and said the community of Matunuck is particularly at risk.

**Rhode Island, Town of South Kingstown,
Margaret Healy**

Document ID: BOEM-2017-0074-11013-08

The commenter opposed the North Atlantic leasing region in the DPP. The commenter discussed Rhode Island's dependence on New England's fishing industry. The commenter also mentioned the cultural heritage of the fishing industry in New England.

**Rhode Island, Town of Tiverton,
Denise DeMedeiros**

Document ID: BOEM-2017-0074-11013-09

The commenter opposed all leasing regions and focused on areas in the North Atlantic. The commenter cited the size of tourism and

commercial fishing nationwide, and those whose livelihood depends on clean coastal waters.

**South Carolina, City of Myrtle Beach,
Mark Kruea**

Document ID: BOEM-2017-0074-10786

The commenter expressed opposition of offshore exploration and drilling along the coast of South Carolina. The commenter argued that this proposal will be detrimental to South Carolina's economy, the tourism industry, and will harm aquatic wildlife.

**South Carolina, City of North Myrtle Beach,
Marilyn Hatley**

Document ID: BOEM-2017-0074-8870

The commenter argued that the slight and speculative benefit of drilling for oil or gas off our coast that would likely accrue to the Global Energy Market is not worth the risk of even a single incident that could cripple the local and statewide economies, and ruin natural resources.

**South Carolina, County of Georgetown
Council, John Thomas**

Document ID: BOEM-2017-0074-10886

The commenter opposed the areas of South Carolina included in the DPP. The commenter stressed that South Carolina would bear the risks associated with oil and gas leasing.

**South Carolina, County of Horry,
Mark Lazarus**

Document ID: BOEM-2017-0074-10759

The commenter opposed the Atlantic planning region in the proposal. The commenter discussed the vital importance of fishing in tourism for the economy of South Carolina. The commenter also cited the past costs of spills.

**South Carolina, Town of Seabook Island,
Ronald Ciancio**

Document ID: BOEM-2017-0074-10607

The commenter expressed opposition for oil and gas exploration, drilling and production. The commenter cites the potential for a decline in fisheries due to seismic blasting, and the

negative effects on the region's fishing, recreational, and tourism industries.

**Virginia, City of Accomack, Michael Mason
Document ID: BOEM-2017-0074-10521**

The commenter opposed offshore oil and gas leasing off the coast of Virginia. The commenter cited concerns over the impacts on the natural habitat, biodiversity and historical architecture of the area. The commenter also voiced concerns for the safe operation of the National Aeronautics and Space Administration (NASA) and U.S. military sites in the region.

**Virginia, City of Hampton, Joy Mautz
Document ID: BOEM-2017-0074-11186**

The commenter opposed drilling off the coast of Virginia, specifically focusing on the Hampton Roads region. The commenter discussed the naval base in the area, and the negative impact that any offshore activity would pose to the military.

**Virginia, City of Newport News,
McKinley Price**

Document ID: BOEM-2017-0074-10801

The commenter opposed offshore drilling near the coast of Virginia. The commenter argues that offshore drilling will negatively impact the military's ability to conduct operations and training as well as the potential impact that offshore drilling could have on the region's tourism industry.

**Virginia, City of Norfolk,
Kenneth Cooper Alexander**

Document ID: BOEM-2017-0074-11192

The commenter opposed the DPP and asked that Virginia be removed from consideration in the subsequent draft. The commenter discussed how drilling could jeopardize the economy, quality of life, and military functions in Norfolk.

**Virginia, City of Norfolk, McKinley L. Price
Document ID: BOEM-2017-0074-10801**

The commenter expressed opposition to offshore drilling near the coast of Virginia. The commenter stated concern for the ability of the military operations in the region to conduct training and for the impact on the region's tourism industry.

**Virginia, City of Suffolk Council,
Tracey Sanford**

Document ID: BOEM-2017-0074-10688

The commenter expressed opposition to offshore oil and gas exploration and drilling, including seismic testing. The commenter argued that the proposal is potentially harmful to the City's tourism industry and economy, to the activities of the U.S. Navy and of the Port of Virginia, as well as to the marine life and environment.

**Virginia, City of Virginia Beach,
Amanda Barnes**

Document ID: BOEM-2017-0074-10847

The commenter opposed offshore oil and gas exploration. The commenter cited that the vulnerability of the coast and beaches to catastrophes that could adversely impact the City's tourism industry as well as energy exploration potentially conflicting with the Department of Defense (DOD)'s mission requirements.

**Virginia, City of Williamsburg, Paul Freiling
Document ID: BOEM-2017-0074-10719**

The commenter opposed offshore development off the coast of Virginia. The commenter stressed the importance of protecting the military operations of the region from commercial and residential development that could threaten operations.

**Virginia, County of Accomack,
Maricela Ruvalcaba**

Document ID: BOEM-2017-0074-3540

The commenter opposed offshore oil and gas drilling off the Virginia coast. The commenter

voiced concerns over the impacts on NASA facilities, local economies, and the environment.

**Virginia, County of Isle of Wight,
Carey Storm**

Document ID: BOEM-2017-0074-10730

The commenter expressed opposition to offshore drilling near the Virginia coast. The commenter cited potential negative impact this activity could have on the military's ability to conduct operations and training, as well as the potential impact that offshore drilling could have on the region's tourism industry.

**Virginia, Hampton Roads Planning District
Commission, Ella Ward**

Document ID: BOEM-2017-0074-10687

The commenter opposed offshore drilling near the Virginia coast and requests that the waters off the coast of Virginia be excluded from the proposal. The commenter cited potential negative impacts on the military's ability to

conduct operations and training as well as on the region's tourism industry.

A.2.5 Interior United States

Idaho, City of Ketchum, Courtney Hamilton

Document ID: BOEM-2017-0074-0241

The commenter expressed opposition to expanded offshore oil and gas leasing and urged BOEM to engage with local, small governments to understand the impacts of the Proposed Program at the local level.

**Illinois, New Trier Township High School
District 203, Natalie Ye**

Document ID: BOEM-2017-0074-11188

The commenter opposed the implementation of the DPP. The commenter described the impact that offshore drilling and seismic testing has on marine life, tourism, and fishing industries.

A.3 PUBLIC INTEREST GROUPS

List of Commenters

198 Methods, Andrew Hudson	Baker
350Brooklyn, Sara Gronim	Choose Clean Water Coalition, Chante Coleman
Action Restoration, Inc. Lynn Therrien	Citizens Campaign for the Environment
Action Together New Jersey, Christine Clarke	Citizens Protecting the Atlantic Coast, Penny Hooper
Alaska Eskimo Whaling Commission, Jessica Lefevre	Clean Air Water & Soil
Alaska Wilderness League, Leah Donahey	Clean Ocean Action, Amanda Wheeler
Alliance of Communities for Sustainable Fisheries, Kathy Fosmark	Clean Ocean Action, American Littoral Society, Food Water Watch, Hackensack, Riverkeeper, New Jersey Sierra Club, NY/NJ Baykeeper, Surfers Environmental Alliance, and Waterspirit
American Littoral Society, Kathleen Gasienica	Clean Ocean Action, Cindy Zipf
Anthropocene Institute, Barbara and Carl Page	Climate Forces, Tineke Thio
Association of New Jersey Environmental Commissions, Jennifer Coffey	ClimateTruth.org, Amanda Mourant
Association to Preserve Cape Cod, Don Keeran	Coalition of Coastal Fisheries, Dale Beasley
Atlanta Audubon Society, Nikki Belmonte	Coalition to Protect America's National Parks, Phil Francis
Audubon Society of Connecticut	Coalition to Protect the Pacific, Brady Bradshaw
Audubon Society of Corvallis, Chris Matthews	Coast Range Association, Chuck Willer
Audubon Society of Eastern Long Island, Byron Young	Coast Salmon Foundation, Jessica Helsley
Audubon Society of New York, Amanda Pachomski	Coastal Conservation Society, Sara Hicks
Audubon Society of Portland, Joseph Liebezeit	Coastal Research and Education Society of Long Island, Arthur Koepelman
Audubon Society of Rhode Island, Meg Kerr	Columbia River Crab Fisherman's Association, Dan Beasley
Audubon Society of South Carolina, Sharon Richardson	Committee of 100 for Economic Development, Inc., Michael Olivier
Audubon Society of Washington, Trina Bayard	Communities for Sustainable Monterey County, Denyse Frischmuth
Barneget Bay Partnership, Louis Hales	Connecticut Fund for the Environment and Save the Sound, Leah Lopez Schmalz
Blue Ocean Society for Marine Conservation, Jennifer Kennedy	Conservation Law Foundation, Peter Shelley
Blue Wave, John Reichman	Conservation Votes of Pennsylvania, Kristin Zilcosky
Bradley Beach Environmental Commission, Amanda Wheeler	Consumer Energy Alliance, David Holt
Bucks Environmental Action, Sharon Furlong	Cook Inlet RCAC, Michael Munger
Bus for Progress, Andy Coleman	Cordell Bank National Marine Sanctuary Advisory Council
California, Channel Islands National Marine Sanctuary Advisory Council	Corolla Civic Association, Barbara Marzetti
California Contract Cities Association, Michael Davitt and Lindsey Horvath	Crystal Coast Waterkeeper, Larry Baldwin
Californians for Western Wilderness, Michael Painter	CWA Local 1075, Thomas Fagan
CALPRIG Students, Jenn Engstrom	Deep Green Wilderness Inc., Kevin Campion
Cape Cod Commercial Fisherman's Alliance, Nick Muto	Defend H2O, Kevin McAllister
Cars Are Basic, Thomas Becker	Defenders of Wildlife, Kent Wimmer
Cascadia Wildlands, Gabriel Scott	Delaware Interfaith Power & Light, Lisa Locke
CBD, LCV, NRDC, 350.org, Sierra Club, Greenpeace, Pub. Citizen, Earthjustice, Env. America, FOE, et al., Miyoko Sakashita	Delaware Nature Society, Brenna Goggin
Center for Biological Diversity, Cybele Knowles	Discover Long Island, Christine Jarnigan
Cetacean Society International, David Kaplan	Dive Services Inc., Joel Michello
Chesapeake Bay Foundation, Alison Prost	Dolphin Project, Patty Godsinn
Chesapeake Climate Action Network, Kiquanda	Don't Drill South Carolina Lowcountry, Alice Morrisey

Douglas County Global Warming Coalition, Stuart Liebowitz
Dunewood Property Owners Association, Jim Rosenthal
Earth Island Institute, Riki Ott
Earthjustice, Erik Grafe
Earthjustice, et al.
ECHO Action NH: FossilFree603, Stephanie Scherr
Empire State Indivisible, Leslie Clark
Environment Advocates of New York, Peter Iwanowicz
Environment America, Kelsey Lamp
Environment New Jersey, Doug O'Malley
Environment Team with Action Together, Christine Clarke
Environmental Action Committee of West Marin, Morgan Patton
Environmental Action, Sally King
Environmental Center of San Luis Obispo, Mary A. Ciesinski
Environmental Defense Center, Sierra Club Los Padres Chapter, and Get Oil Out!
Environmental Defense Fund, James Tripp
Environmental Investigation Agency, Daniel Hubbell
Environmental Justice Task Force at First Parish, Ginger Ryan
Eugene Springfield Interfaith EarthKeepers, Merrily Sutton
Fairbanks Climate Action Coalition, Odin Miller
Federated Conservationists of Westchester County, Carole Griffiths
Florida Keys National Marine Sanctuary Advisory Council
Food and Water Watch, Eric Weltman
Forest Trails Alliance, Alison Anderson
Four Harbors Audubon Chapter, Elaine Maas
FreedomWorks Foundation, Patrick Hedger
Friends Committee on California Legislation, Phyllis Davies
Friends of Casco Bay, Ivy Frignoca
Friends of Penobscot Bay, Ron Huber
Friends of St. George, Wende McIlwain
Friends of the Cape Code National Seashore, Patricia Canavan
Friends of the Earth, Marcie Keever
Garden Club of Long Beach Island, Birds and Wildlife Committee, Teresa Hagan
Georgia Conservancy, Charles McMillan
Georgia Republican Assembly, Wendy Harper
Get Oil Out!, Michael Lyons
Global Energy Institute
Gloucester Fisherman's Wives Association, Angela Sanfilippo
Glynn Environmental Coalition, Rachael Thompson
Great Egg Harbor National Scenic and Recreational

River Council, Fred Akers
Greater Atlantic Region Stranding Consortium, Suzanne Thurman
Greenpeace USA, Mary Sweeters
Group for the East End, Aaron Virgin
Grow Louisiana Coalition
Gulf Economic Survival Team
Gulf Restoration Network, Christian Wagley
Gulf Restoration Network, Sierra Club, Center for Biological Diversity
Gullah GeeChee Nation, Frankie Watson
Gullah/Geechee Fishing Association, Ricky Wright
Gullah/Geechee Sea Island Coalition, Queen Quet Marquette Goodwine
Gullah/Geechee Sustainability Think Tank, Queen Quet Marquette Goodwine
Gullah/Geechee Nation, Queen Quet Marquette Goodwine
Hazlet Elementary Schools, Cindy Zipf
Heal the Bay, Sarah Sikich
Indivisible Monroe Township New Jersey, Irene Linet, et al.
indivisiblesuffragists.org, Brooke Teal Robbins
Inland Ocean Coalition, Vicki Nichols Goldstein
Institute for Policy Integrity, Jason Schwartz
Interfaith Oceans, Marybeth Lorbiecki
International Marine Mammal Project, Earth Island Institute, Mark J Palmer
Islesboro Islands Trust, Charles Verrill
Jersey Shore Partnership, Margot Walsh
John Locke Foundation, Kory Swanson
Kachemak Bay Conservation Society, Roberta Highland
Kalmiopsis Audubon Society, Ann Vileisis
Kiawah Island Natural Habitat Conservancy, Kiawah Conservancy
LA 1 Coalition, Henri Boulet
League of Women Voters Monterey County, Judith Lehman
League of Women Voters of Brookhaven, Nancy Marr
League of Women Voters of Delaware, Coralie Pryde
League of Women Voters of Glen Ellyn, Bonnie Gahrns
League of Women Voters of New Jersey, Kathy Abbott
League of Women Voters of North Carolina, Jennifer Rubin
League of Women Voters of Oregon, Norman Turril, Claudia Keith & Cathy Frischmann
League of Women Voters of the Lower Cape Fear, Clarice Reber
League of Women Voters of Washington, Realene Gold
LI Clean Air Water & Soil, Claudia Borecky

Lynnhaven River NOW, Karen Forget
Madrone Audubon Society, Diane Hichwa
Maine Audubon, Eliza Donoghue
Manasquan Beach Improvement Association, Mary Ryan
Mandate Media, Suvi Chisholm
Maryland Ornithological Society, Kurt Schwarz
Massachusetts Audubon, Jack Clarke
Mendocino Coast Audubon Society, David Jensen
Mexico Beach Charters, Forgotten Coast Chapter of Recreational Fishing Alliance, BBT, L
Mid-Atlantic Fishery Management Council, Jessica Coakley
Mississippi Energy Institute
Monmouth County Audubon Society, Linda Mack
Murrells Inlet 2020, Meredith Millen
Nassau Hiking and Outdoor Club, Guy Jacob
National Audubon Society, Elizabeth Pomper
National Marine Sanctuary Foundation, Kristen Sarri
National Parks Conservation Association, Jim Adams
National Religious Partnership for the Environment, Cassandra Carmichael
National Wildlife Federation, Jim Murphy
Natural Resource Defense Council, Alison Chase
New England Coastal and Wildlife Alliance, Ingrid Biedron
New England Fishery Management Council
New Hampshire Audubon, Douglas Bechtel
New Jersey Council of Diving Clubs, Glenn Arthur
New Jersey FOREST WATCH/Friends of Sparta Mountain
New Jersey League of Conservation Voters, Kristin Zilcosky
New York Aquarium, Wildlife Conservation Society, Jon Forrest Dohlin
New York Coalition for Recreational Fishing, Ralph Vigmostad
New York/New Jersey Baykeeper, Samantha Kreisler
New York Public Interest Group, Kevin Dugan
New York Public Interest Research Group, Russ Haven
New York Surfrider Chapter, Colleen Henn
No Fracked Gas in Mass, Rosemary Wessel
North Carolina Association of Resort Towns and Convention Cities, Ian Holden
North Carolina Coastal Federation, Ana Zivanovic-Nenadovic
North Carolina Coastal Federation, Sheryl McNair
North Carolina Conservation Network, Molly Mckinley
North Carolina Interfaith Power and Light, Penny Hooper
North Carolina Wildlife Resources Commission, Clifton Avery
North Pacific Fisheries Association, Malcolm Milne

North Pacific Fishery Management Council
Northcoast Environmental Center, Daniel Sealy
Northern Alaska Environmental Center, Lisa Baraff
Norwalk River Watershed Association, Louise Washer
NRDC, Laruen Kubiak
NY4Whales/NY4Wildlife, Taffy Williams
Ocean Conservancy, Andrew Hartsig
Ocean Conservancy, Audubon Alaska, Oceana, Pew Charitable Trusts, WWF
Ocean Conservation Research, Michael Stocker
Oceana
Oil Change International, M. Mairorana
Olympic Coast National Marine Sanctuary Advisory Council
Olympic Forest Coalition, Patricia Jones
Olympic Park Associates, Donna Osseward
Olympic Peninsula Visitor's Bureau, Marsha Massey
One More Cast, John McMurray
Oregon Shores Conservation Coalition, Phillip Johnson
Oregon Wild, Doug Heiken
Ortley Beach Voters and Taxpayers Association, Anthony Colucci
Outer Banks Surfrider, Matt Walker
Pacific Environment, Clara Bonaventura
Pacific Fishery Management Council, Amy L'Manian
Palmetto Promise Institute, Ellen Weaver
Panama City Boatmen Association, Bob Zales, II
Partnership for Affordable Clean Energy, Laura Schepis
Peconic Land Trust, John v.H. Halsey
Physicians for Policy Action, Regina LaRocque
Pinelands Preservation Alliance, Katherine Smith
Progressives of Santa Barbara County, Sarah Hearon
Project on Government Oversight, Elizabeth Hempowicz
Public Lands Conservancy, Tom Baty
Rethink Energy Action Fund, Chloe Osborne
Rosecrest Homeowners Association, Dean Smith
Russian River Watershed Protection Committee, Brenda Adelman
Sabin Center for Climate Change Law, Dena Alder
San Diego Audubon Society, James Peugh
Santa Barbara Channelkeeper, Jenna Discroll
Satilla RiverWatch Alliance, Laura Early
Savannah Riverkeeper, Jacob Oblander
Save Barnegat Bay, Britta Wenzel
Save Our Shores, Katherine O'Dea
Save the Bay, Michael Jarbeau
Save the Sound, Louise Harrison
Seattle Audubon, Megan Friesen
Seatuck Environmental Association, Maureen Dunn
Securing America's Future Energy, Paul Ruiz

Sierra Club
Sierra Club California, Kathryn Phillips
Sierra Club Connecticut Chapter, Martha Klein
Sierra Club Croatan Group, Michael Murdoch
Sierra Club Lone Star Chapter, Cyrus Reed
Sierra Club Long Island, Jane Fasullo
Sierra Club Maine 207, Becky Bartovics
Sierra Club New Jersey, Jeff Tittel
Sierra Club of Delaware, Coralie Pryde
Sierra Club Virginia Chapter, Eileen Levandoski
Sierra Club Washington State, Isabelle Goodman
SODA, Peg Howell
SOS California, Alice Green
South Atlantic Fishery Management Council, Roger Pugliese
South Carolina Environmental Law Project, Amelia Thompson
South Carolina Native Plant Society, Rick Huffman
South Carolina Wildlife Federation, Steve Gilbert
South Coast Neighbors United, Wendy M. Graca
South Shore Audubon Society, Jim Brown
Southern Alliance for Clean Energy, Chris Carnevale
Southern Environmental Law Center, Sierra Weaver
Southshore Audubon Society, Jim Brown
St. John's Riverkeeper, Lisa Rinaman
Stellwagen Bank National Marine Sanctuary Advisory Council, Heather Knowles
Stop Offshore Drilling in the Atlantic, Ed Yaw
Suncoast Waterkeeper, Andre Mele
Surfrider Foundation
Surfrider Foundation Florida Region, Holly Parker
Surfrider Foundation DC Chapter
Surfrider Foundation National Headquarters, Katie Day
Surfrider Foundation Newport, Coos Bay, Portland and Siuslaw Chapters
Surfrider Foundation Northeast Region, Melissa Gates
Surfrider Foundation San Diego Chapter
Surfrider Foundation South Bay Chapter, Craig Cadwallader
Surfrider Foundation Washington Chapters, Gus Gates
Surfrider Foundation, Georgia, Steve Combs
Surfrider Grand Strand, Joey Skipper
Texas Conservative Coalition Research Institute, Tom Aldred
The Institute for Energy Research
The Jersey Shore Partnership, Margot Walsh
The League of Women Voters of New Jersey, Nancy Hedinger
The Nature Conservancy
The Nature Conservancy California Chapter, Charlottes Pienkos
The Nature Conservancy of Washington and Oregon,

Mike Stevens
The Ocean Foundation – Coastal Coordination Program, Richard Charter
The Safina Center, Carl Safina
The Wilderness Society, Lois Epstein
The Wildlife Society Northeast Section, Emily Just
Thomas Jefferson Institute for Public Policy, Michael Thompson
Tomales Bay Association, Kenneth J Fox
Turtle Island Restoration Network, Peter Fugazzotto
U.S. SIF: The Forum for Sustainable and Responsible Investment
U.S. Zoos & Aquariums, Erin Eastwood
Veterans for Peace, Mason Rhoads
ViBe Creative District Nonprofit, Kate Pittman
Virginia Beach Hotel Association, Russell Lyons
Washington State Chapter Sierra Club, Judith Akins
Waterkeeper Alliance, Larissa Liebmann
Wild Oceans, Pamela Lyons Gromen
Wildlife Conservation Society, Colin Sheldon
Wine & Water Watch, Janus Matthes
Women Working for Oceans, Barbara Burgess
Women's International League for Peace and Freedom, Boston Branch, Eileen Kurkoski
World Wildlife Fund, Margaret Williams

Note: Summary document includes submissions that were part of meeting transcripts (BOEM-2017-0074-11224, BOEM-2017-0074-11234, BOEM-2017-0074-11235, BOEM-2017-0074-11238, BOEM-2017-0074-11242 and BOEM-2017-0074-11349).

100 Miles, Alice Keyes**Document ID: BOEM-2017-0074-10882**

The commenter opposed the DPP and requested that Georgia and the Atlantic planning regions be excluded. The commenter detailed the important marine, wildlife, and natural resources off the coast of Georgia, and argued that these need to be protected. The commenter also discussed the risks to Georgia's businesses and military activities.

198 methods, Andrew Hudson**Document ID: BOEM-2017-0074-11335**

The commenter opposed the DPP and the further opening of U.S. coastal waters to offshore oil and gas drilling. The commenter expressed concern on the removal of important worker safety and environmental protection clauses, and the major effects on climate.

350Brooklyn, Sara Gronim**Document ID: BOEM-2017-0074-11173**

The commenter opposed offshore drilling and argued that focus should be placed on renewable alternatives. The commenter stated that New York has great potential for wind energy.

Action Restoration, Inc. Lynn Therrien**Document ID: BOEM-2017-0074-11087**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Action Restoration, Inc., Susan Rising**Document ID: BOEM-2017-0074-11088**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued

that U.S. safety standards will help ensure environmental progress.

Action Together New Jersey,**Christine Clarke****Document ID: BOEM-2017-0074-10597**

The commenter opposed any increase in offshore drilling. The commenter discussed New Jersey's commitment to wind energy and suggested that these efforts be expanded instead of fossil fuel development.

Alaska Eskimo Whaling Commission,**Jessica Lefevre****Document ID: BOEM-2017-0074-11001**

The commenter did not state a position on the DPP. The commenter requested that BOEM exclude the Chukchi Sea Buffer, the Barrow Whaling Area, the Kaktovik Whaling Area, and other parts of the Arctic due to the importance to Alaska Native communities of the bowhead whale subsistence harvest in those areas. The commenter also requested that BOEM require offshore operators to meet with local whaling captains to negotiate conflict avoidance agreements. The commenter also recommended that BOEM recognize the knowledge, research, and other support for offshore activities that subsistence communities have offered by including them in revenue sharing. The commenter also provided scoping comments on the Programmatic EIS focused on their concerns about adverse impacts on bowhead whale habitat areas in the Arctic.

Alaska Eskimo Whaling Commission,**John Hopson, Jr.****Document ID: BOEM-2017-0074-4833**

The commenter opposed oil and gas activity in Alaska and requested BOEM reinstate protections for three areas along Alaska's coast: the Chukchi Sea Barrier, the Barrow Whaling Area, and the Kaktovik Whaling Area. The commenter stressed the importance of the annual whale harvest in supporting the local subsistence

economy and food supply and cited several agreements to protect these areas.

Alaska Wilderness League, Leah Donahey
Document ID: BOEM-2017-0074-11316

The commenter opposed new oil drilling anywhere along America's coast, but especially the Arctic, due to the risks to public health, marine life, climate, and coastal communities. The commenter stated that spills in the Arctic would be almost impossible to clean-up.

Alaska Wilderness League, Megan Reschke
Document ID: BOEM-2017-0074-11234

The commenter provided comments from individuals opposed to the implementation of the DPP and offshore oil and gas developments.

Alliance of Communities for Sustainable Fisheries, Kathy Fosmark
Document ID: BOEM-2017-0074-11240

The commenter opposed the Pacific planning region. The commenter discussed the importance of maintaining a healthy commercial fishing industry in Washington and Oregon.

American Cetacean Society, Nancy D'Angelo
Document ID: BOEM-2017-0074-21770

The commenter opposed the DPP and stated that exploratory efforts will cause great harm to plankton and krill.

American Littoral Society,
Kathleen Gasienica

Document ID: BOEM-2017-0074-11065

The commenter opposed the DPP and stated that it is our responsibility to protect the ocean environment as well as human health and the economy.

Anthropocene Institute,
Barbara and Carl Page
Document ID: BOEM-2017-0074-10951

The commenter opposed the Oil and Gas Leasing Program. The commenter expressed concern that the program will weaken the U.S. military position, will result in a competitive

disadvantage economically, devastate the environment, and threaten food security.

Association of New Jersey Environmental Commissions, Jennifer Coffey
Document ID: BOEM-2017-0074-11238

The commenter expressed opposition to offshore oil and gas exploration. The commenter discussed the importance of keeping the beaches and water of New Jersey clean and the potential danger that drilling will have to public safety, fisheries, and local businesses.

Association to Preserve Cape Cod,
Don Keeran

Document ID: BOEM-2017-0074-5936

The commenter opposed the Atlantic planning region. The commenter discussed the fragility of the Cape Cod economy and its dependence on clean coastal waters.

Atlanta Audubon Society, Nikki Belmonte
Document ID: BOEM-2017-0074-10708

The commenter opposed the Atlantic planning region, as well as any offshore drilling activities. The commenter discussed the dangers to wildlife, and the fragile ecosystems of the coasts.

Atlantic Marine Conservation Society,
Robert DiGiovanni

Document ID: BOEM-2017-0074-11359

The commenter opposed the DPP, and discussed the harm caused to wildlife. The commenter touched on the impact this harm has on fisheries, and the coastal ecosystem.

Audubon Society of Connecticut,
Corrie Folsom-O'Keefe
Document ID: BOEM-2017-0074-10936

The commenter opposed the proposed oil and gas leasing program. The commenter expressed concern for the affect that the DPP will have on the welfare of shorebirds and seabirds that require healthy coasts and waters for migration, feeding, and nesting. The commenter cited the

BP oil spill and the major devastation on birdlife in the Louisiana region.

Audubon Society of Connecticut, Leslie Kane
Document ID: BOEM-2017-0074-10571

The commenter requested a 60-day extension of the comment period and additional public meetings, with formal testimony rather than an open house format. The commenter discussed the importance of extensive public feedback on this topic and expressed disappointment that the DPP would include areas previously excluded based on findings from extensive public engagement.

Audubon Society of Corvallis,
Chris Matthews
Document ID: BOEM-2017-0074-5926

The commenter opposed any leasing regions off the coast of Oregon. The commenter cited Oregon's investment in tourism, fisheries, ecological hotspots, and environmental preservation.

Audubon Society of New York,
Amanda Pachomski
Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP and stated that it poses threats to coastal habitats. The commenter discussed the importance of coastal habitats for all wildlife, including birds and humans.

Audubon Society of Portland,
Joseph Liebezeit
Document ID: BOEM-2017-0074-11241

The commenter expressed opposition to the DPP and offshore oil and gas developments along the Oregon coast. The commenter discussed risks to Oregon's marine and coastal ecosystems and the impacts on Oregon's fishing industry, stating that offshore drilling along the Oregon coast is not likely to be productive or feasible.

Audubon Society of Rhode Island, Meg Kerr
Document ID: BOEM-2017-0074-4401

The commenter is opposed to leasing in the Atlantic region of the DPP. The commenter stated that drilling would have negative impacts on the environment and wildlife. The commenter suggested expanding investment in renewable energy.

Audubon Society of South Carolina,
Sharon Richardson
Document ID: BOEM-2017-0074-10947

The commenter expressed opposition the DPP and the inclusion of the Atlantic Coast, especially South Carolina coasts. The commenter discussed the risks to wildlife and tourism and the wide public opposition to the program.

Audubon Society of Washington,
Trina Bayard
Document ID: BOEM-2017-0074-11309

The commenter opposed the DPP, specifically discussing the areas off the coasts of Washington and Oregon. The commenter discussed the risks posed to birds, other wildlife, and coastal communities. The commenter also stated that the DPP is incompatible with the Washington State Marine Spatial Plan and would cause economic and ecological harm.

Barnegat Bay Partnership, Louis Hales
Document ID: BOEM-2017-0074-10906

The commenter opposed any offshore activity in the North Atlantic region, especially Barnegat Bay. The commenter expressed concern that offshore drilling poses substantial risks of adverse environmental and economic impacts.

Blue Ocean Society for Marine Conservation,
Jennifer Kennedy
Document ID: BOEM-2017-0074-11062

The commenter opposed opening any new leasing regions. The commenter discussed the potential harm that could fall on marine species as well as commercial fisheries.

Blue Wave, John Reichman**Document ID: BOEM-2017-0074-11238**

The commenter opposed the expansion of offshore oil and gas drilling. The commenter discussed the risk to the shellfish industry, tourism industry, and the need to move away from fossil fuels.

Bradley Beach Environmental Commission, Amanda Wheeler**Document ID: BOEM-2017-0074-11064**

The commenter opposed the North Atlantic planning region. The commenter discussed New Jersey's constant risk of pollution, and the risk drilling would place on coastal economies.

Bucks Environmental Action,**Sharon Furlong****Document ID: BOEM-2017-0074-9530**

The commenter opposed opening the coastlines to new activity, specifically mentioning Alaska. The commenter mentioned both ecological concerns from seismic testing and tourism concerns for beach communities.

Bus for Progress, Andy Coleman**Document ID: BOEM-2017-0074-11238**

The commenter expressed opposition to offshore oil and gas activities. The commenter discussed the increase in GHG emissions, likelihood of superstorms, and the importance of the tourism industry to New Jersey's economy.

California, Channel Islands National Marine Sanctuary Advisory Council, Phyllis Grifman**Document ID: BOEM-2017-0074-5007**

The commenter expressed opposition to oil and gas development in the Pacific Ocean, stating the Program would have adverse impacts on the NMSs in the region. The commenter cited the economic impact on NMSs and concerns about oil spills.

California Contract Cities Association, Michael Davitt and Lindsey Horvath**Document ID: BOEM-2017-0074-7927**

The commenter opposed the Pacific planning region and stated that the DPP is not in the public interest. The commenter discussed the history of oil spills in the California region.

Californians for Western Wilderness, Michael Painter**Document ID: BOEM-2017-0074-11061**

The commenter opposed any new drilling in the coastal waters of the U.S. The commenter discussed the benefits received by coastal communities from clean waters and a lack of drilling.

CALPRIG Students, Jenn Engstrom**Document ID: BOEM-2017-0074-11213**

The commenters opposed the entirety of the DPP and stated that allowing drilling simply increases the likelihood of oil spills.

Cape Cod Commercial Fisherman's Alliance, Nick Muto**Document ID: BOEM-2017-0074-10744**

The commenter opposed the Atlantic leasing regions. The commenter discussed the fisherman's dependence on clean waters and healthy wildlife.

Cars Are Basic, Thomas Becker**Document ID: BOEM-2017-0074-10841**

The commenter supported oil and gas development, arguing that it would lower fuel prices, benefit the economy, and strengthen national security. The commenter also requested a hearing be held in Santa Barbara County to gather public input.

Cascadia Wildlands, Gabriel Scott**Document ID: BOEM-2017-0074-11284**

The commenter expressed opposition to the DPP, and the inclusion of the Pacific Northwest. The commenter urged BOEM to conduct a thorough study of the environmental impact,

including climate change, ocean health, safety, tourism, and regional identity.

CBD, LCV, NRDC, 350.org, Sierra Club, Greenpeace, Pub. Citizen, Earthjustice, Env. America, FOE, et al., Miyoko Sakashita
Document ID: BOEM-2017-0074-11351

The commenters expressed opposition to the expansion of oil and gas activities in each of the program regions. The commenter discussed the damage that large oil spills have on fisheries, wildlife, and health of ecosystems, and the need to move toward clean energy.

Center for Biological Diversity, Cybele Knowles

Document ID: BOEM-2017-0074-11326

The commenter opposed to the DPP provided comments from individuals who also opposed the program. The commenter discussed the devastation of marine and coastal life as a result of oil spills and the high difficulty of cleaning spill in the Arctic region.

Center for Biological Diversity, Kristen Monsell

Document ID: BOEM-2017-0074-11352

The commenter opposed the entirety of the DPP and stated that BOEM did not accurately project the national energy needs. The commenter also detailed several deficiencies in the analysis provided in the DPP, relating to climate change, costs, and protected areas.

Cetacean Society International, David Kaplan

Document ID: BOEM-2017-0074-10889

The commenter opposed the DPP in its entirety. The commenter stated that the majority of the United States opposes the DPP and the risks that it brings.

Chesapeake Bay Foundation, Alison Prost
Document ID: BOEM-2017-0074-10869

The commenter opposed the inclusion of the Atlantic OCS planning region. The commenter discussed how BOEM must comply with several

laws, including the National Environmental Policy Act (NEPA), in their justification. The commenter discussed the various industries that depend on clean coastal environments, and the negative impacts oil and gas leasing would bring.

Chesapeake Climate Action Network, Kiquanda Baker

Document ID: BOEM-2017-0074-11318

The commenter opposed the Atlantic region and requested that it be removed from consideration. The commenter stated that future energy investment should be focused on offshore wind energy.

Choose Clean Water Coalition, Chante Coleman

Document ID: BOEM-2017-0074-11193

The commenter opposed the DPP and urged that the Atlantic Coast be exempt from planning regions. The commenter discussed fears and dangers posed to the health of coastal areas.

Citizens Campaign for the Environment

Document ID: BOEM-2017-0074-11222

The commenter opposed the Atlantic planning region and discussed the environmental harms that oil spills can cause. The commenter discussed past oil spills and their associated damages. The commenter also mentioned that BOEM's cost benefit analysis is incomplete. The commenter wrote about the public health concerns relating to oil spills, and urged that renewable alternatives be pursued.

Citizens Campaign for the Environment, Adrienne Esposito

Document ID: BOEM-2017-0074-11222

The commenter opposed the DPP and stated the importance of clean waters for coastal living. The commenter suggested that renewable alternatives be pursued.

**Citizens Campaign for the Environment,
Andrienne Esposito**

Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP and discussed the impacts on public health and tourism. The commenter suggested that renewable alternatives be pursued.

**Citizens Campaign for the Environment,
Laurence Yu**

Document ID: BOEM-2017-0074-

The commenter opposed the plan and stated that it benefits oil companies at the expense of the environment.

Citizens Climate Lobby, Allison Kubiczko

Document ID: BOEM-2017-0074-

The commenter opposed the plan and stated that fossil fuels perpetuate the dangers of climate change.

**Citizens Protecting the Atlantic Coast,
Penny Hooper**

Document ID: BOEM-2017-0074-11028

The commenter opposed the DPP and spoke about the Atlantic planning region. The commenter stated that the economic risks to coastal communities are great, and the communities are not compensated in any way for assuming this risk. The commenter also expressed doubt that oil and gas activity would help energy independence any more than renewable alternatives.

Clean Air Water & Soil

Document ID: BOEM-2017-0074-11217

The commenter opposed the Atlantic planning region, specifically those areas off the coast of Long Island. The commenter discussed the threat of climate change, and urged that renewable alternatives be pursued. The commenter discussed the importance of Long Island's clean coastal environment, and the dangers that offshore drilling would pose.

Clean Ocean Action, Amanda Wheeler
Document ID: BOEM-2017-0074-11332

The commenter provided petitions from individuals opposed to the implementation of the DPP and offshore oil and gas developments in the Atlantic.

**Clean Ocean Action, American Littoral
Society, Food Water Watch, Hackensack,
Riverkeeper, New Jersey Sierra Club, NY/NJ
Baykeeper, Surfers Environmental Alliance,
and Waterspirit, Cindy Zipf, et al.**

Document ID: BOEM-2017-0074-11339

The commenters oppose the DPP, with focused comments on the Atlantic planning region. The commenter stated that many elected officials also oppose the DPP. The commenter discussed the fragility of the marine ecosystem, and how the DPP fails to fully consider endangered species. The commenter also discussed the economic impacts on the tourism, fishing, and aquaculture industries. The commenter also discussed the various damages that oil and gas activity could create.

Clean Ocean Action, Cindy Zipf

Document ID: BOEM-2017-0074-11238

The commenter opposed the DPP and gave testimony at a public meeting. The commenter discussed environmental concerns relating to oil and gas activity.

Clean Ocean Action, Cindy Zipf

Document ID: BOEM-2017-0074-11014

The commenter opposed any activity in the Atlantic planning region and provided a transcript of elected officials voicing their opposition. The commenters discussed environmental concerns, and the science of climate change.

Clean Ocean Action, Cindy Zipf

Document ID: BOEM-2017-0074-11278

The commenter included letters from children and urged that their voices be heard when considering the Atlantic planning region.

Clean Ocean Action, Scott Thompson
Document ID: BOEM-2017-0074-11238

The commenter opposed offshore oil and gas exploration. The commenter discussed impact of fossil fuels on public health, the need for energy innovation, and the impact of drilling on the environment and wildlife.

Clean Ocean Action, Swarna Muthukrishnan
Document ID: BOEM-2017-0074-10979

The commenter opposed the DPP and the inclusion of the Atlantic Coast. The commenter discussed the negative effects of oil and gas exploration have on air and water quality, the potential harm on marine and coastal animals, and socioeconomic and cultural issues of the program.

Climate Forces, Tineke Thio
Document ID: BOEM-2017-0074-11238

The commenter opposed offshore oil and gas exploration. The commenter discussed the likelihood of more extreme weather and precipitation, rising sea levels, and warmer temperature/climate change.

ClimateTruth.org, Amanda Mourant
Document ID: BOEM-2017-0074-11336

The commenter provided 11,424 individual comments in opposition to any new oil and gas leases.

Coalition of Coastal Fisheries, Dale Beasley
Document ID: BOEM-2017-0074-11178

The commenter opposed any offshore drilling on the West Coast. The commenter presented several West Coast communities that are opposed to the DPP and stated that environmental justice concerns are real.

Coalition to Protect America's National Parks, Phil Francis
Document ID: BOEM-2017-0074-6630

The commenter opposed the DPP due to its unprecedented scale. The commenter discussed BOEM's mission of environmental stewardship,

described the effects of past spills on park lands, and stated that the DPP is reckless and irresponsible. The commenter expressed concern about ecological and economic damage from the DPP. The commenter also recommended that BOEM exclude the areas its own analysis that show have lower production potential. The commenter stated that the range of options being considered is too narrow to satisfy NEPA and offered other critiques of the Programmatic EIS. The commenter also stated that the DPP does not consider state concerns.

Coalition to Protect the Pacific, Brady Bradshaw
Document ID: BOEM-2017-0074-11154

The commenter requested an extension to the comment period, and for BOEM to attend a public hearing in San Diego.

Coast Range Association, Chuck Willer
Document ID: BOEM-2017-0074-11053

The commenter opposed the Northwest planning region, and focused discussion on Oregon. The commenter stated that fisheries are making attempts to be sustainable, while oil and gas exceed demand. The commenter also presented the natural concerns of earthquakes and tsunamis on oil and gas rigging.

Coast Salmon Foundation, Jessica Helsley
Document ID: BOEM-2017-0074-11114

The commenter opposed the Pacific planning region and stated it would pose unnecessary negative impacts on the ecosystems, coastal communities, and economies. The commenter argued that the findings in the DPP are inconsistent with previous BOEM findings.

Coastal Conservation Society, Sara Hicks
Document ID: BOEM-2017-0074-10834

The commenter opposed the Atlantic planning region and wrote that economic benefits to South Carolina have been overstated. The commenter detailed environmental, economic, and energy independence concerns.

Coastal Research and Education Society of Long Island, Arthur Koepelman
Document ID: BOEM-2017-0074-22954

The commenter opposed the DPP and discussed the harm to wildlife that will come from the exploratory efforts.

Columbia River Crab Fisherman’s Association, Dan Beasley
Document ID: BOEM-2017-0074-11178

The commenter was opposed to any offshore drilling and cited environmental and ecological concerns.

Committee of 100 for Economic Development, Inc., Michael Olivier
Document ID: BOEM-2017-0074-0034

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Communities for Sustainable Monterey County, Denyse Frischmuth
Document ID: BOEM-2017-0074-11026

The commenter opposed the DPP, specifically mentioning the coast of California. The commenter stated the risks posed to tourism and fishing industries are unacceptable.

Connecticut Audubon Society, Patrick Comins
Document ID: BOEM-2017-0074-11040

The commenter opposed the inclusion of the coast of New York and Connecticut in the planning regions. The commenter stated that the plan unnecessarily threatens coastal waters, including Long Island Sound. The commenter discussed the estuary and its importance for the vitality of the ocean ecosystem.

Connecticut Fund for the Environment and Save the Sound, Leah Lopez Schmalz
Document ID: BOEM-2017-0074-11148

The commenter opposed the DPP and suggested that renewable alternatives be pursued. The commenter detailed the ecological harms that drilling would create.

Conservation Law Foundation, Peter Shelley
Document ID: BOEM-2017-0074-10959

The commenter opposed oil and gas drilling along the Atlantic Coast and especially in the North Atlantic planning region. The commenter discussed the potential illegality of the DPP, the negative impacts on New England’s economy, and the shift in focus from moving toward renewable energy.

Conservation Votes of Pennsylvania, Kristin Zilcosky
Document ID: BOEM-2017-0074-11323

The commenter opposed the DPP and drilling off the coast of the United States. The commenter stressed the importance of tourism and fishing industries and the increased carbon pollution as a result of offshore drilling.

Consumer Energy Alliance, David Holt
Document ID: BOEM-2017-0074-10927

The commenter supported expanded access to U.S. energy, including in the Atlantic, GOM, and Alaskan Arctic planning areas. The commenter discussed the lower energy prices that Americans would pay with that expanded access. The commenter also stated that technological progress and innovation would help continue improvements to air quality and safety.

Cook Inlet RCAC, Michael Munger
Document ID: BOEM-2017-0074-10812

The commenter requested that the Kodiak, Shumagin, and Gulf of Alaska planning areas be removed. The commenter discussed how these areas present logistical problems, and they should not be considered for offshore activity.

**Cordell Bank National Marine Sanctuary
Advisory Council, Daniel Howard
Document ID: BOEM-2017-0074-6139**

The commenter expressed opposition to the inclusion of any portion of the Pacific continental shelf region in the 2019-2024 DPP that could impact Cordell Bank NMS.

**Corolla Civic Association, Barbara Marzetti
Document ID: BOEM-2017-0074-7306**

The commenter opposed the leasing regions around North Carolina. The commenter specifically mentioned the Outer Banks region, which is dependent on clean water for tourism and fishing.

**Crystal Coast Waterkeeper, Larry Baldwin
Document ID: BOEM-2017-0074-10595**

The commenter opposed the DPP. The commenter discussed the safety risks and the risks to tourism. The commenter disapproved of any further dependence on oil for energy.

**CWA Local 1075, Thomas Fagan
Document ID: BOEM-2017-0074-11044**

The commenter opposed any new offshore drilling for oil and gas. The commenter discussed jobs that are dependent on a clean and vibrant ocean economy. The commenter stressed that renewable alternatives should be pursued.

**CWA Local 1075, Tom Fagan
Document ID: BOEM-2017-0074-11238**

The commenter expressed opposition to the DPP. The commenter discussed increased jobs in clean energy, and the importance of the fishing and tourism industries.

**Deep Green Wilderness Inc., Kevin Campion
Document ID: BOEM-2017-0074-5912**

The commenter is opposed to the DPP in all planning areas. The commenter is concerned about adverse impacts on the marine ecosystems, tourism industries, and the environment.

**Defend H₂O, Kevin McAllister
Document ID: BOEM-2017-0074-11359**

The commenter opposed the DPP and stated that large oil spills were not considered in the analysis.

**Defenders of Wildlife, Kent Wimmer
Document ID: BOEM-2017-0074-11242**

The commenter opposed the DPP and stated that it benefits oil companies at the expense of coastal communities.

**Delaware Interfaith Power & Light, Lisa Locke
Document ID: BOEM-2017-0074-11067**

The commenter opposed the DPP and stated that BOEM ignored scientific evidence relating to climate change. The commenter argued that offshore drilling will contribute to climate change and put Delaware economies at risk.

**Delaware Nature Society, Brenna Goggin
Document ID: BOEM-2017-0074-11273**

The commenter opposed the DPP and the inclusion of the Mid-Atlantic region in the plan. The commenter discussed an increase in carbon dioxide emissions, negative impacts on coastal environments and wildlife, and disruption of coastal tourism and fishing economies as a result of the DPP.

**Discover Long Island, Christine Jarnigan
Document ID: BOEM-2017-0074-**

The commenter opposed the DPP and stated that the tourism industry would be put at risk should there be any oil spills.

**Dive Services Inc., Joel Michello
Document ID: BOEM-2017-0074-11140**

The commenter opposed the DPP and stated that it would cause unnecessary impacts on the marine ecosystem, coastal communities, tourism, and recreation industries. The commenter discussed the dangers of seismic testing and stated that this DPP contradicts previous BOEM findings.

Dolphin Project, Patty Godsin**Document ID: BOEM-2017-0074-5240**

The commenter opposed exploration along the coastline.

Don't Drill SC Lowcountry, Alice Morrisey**Document ID: BOEM-2017-0074-10848**

The commenter opposed the Atlantic leasing region. The commenter discussed the risk that hurricanes pose to the safety and security of offshore rigs, and how these storms create more risk for the DPP.

Douglas County Global Warming Coalition, Stuart Liebowitz**Document ID: BOEM-2017-0074-11047**

The commenter opposed the Pacific planning region and expressed that this policy goes against three decades of sound environmental policy. The commenter discussed the rising sea level and acidification of the ocean and requested that Oregon be granted exemption from the DPP.

Dunewood Property Owners Association, Jim Rosenthal**Document ID: BOEM-2017-0074-10770**

The commenter opposed the DPP, especially in areas around Fire Island. The commenter stated that they support the energy strategy, but that the current DPP disregards coastal communities.

Earth Island Institute, Riki Ott**Document ID: BOEM-2017-0074-10865**

The commenter opposed the DPP and claimed that it violates the rights of citizens as beneficiaries under the Public Trust Doctrine.

Earth Island Institute, Sumona Majumdar**Document ID: BOEM-2017-0074-11003**

The commenter opposed the Oil and Gas Leasing Program. The commenter discussed potential climate crisis, irreversible damage to oceans, marine life, and coastal communities, the increased likelihood of devastating oil spills, and dangerous air and water pollution. The

commenter urged that the Federal government adopt an energy plan that transitions away from fossil fuels, promotes energy conservation, and invests in the development of carbonless sources of energy.

Earthjustice, Erik Grafe**Document ID: BOEM-2017-0074-11353**

The commenter opposed the DPP and the expansion of offshore drilling. The commenter stated that the program puts the Nation's coasts and oceans at great risk from industrial noise, air, and water pollution, oil spills, and increased vessel traffic; takes the Nation in the wrong direction on the need to address climate change and puts at risk coastal economies and communities.

Earthjustice, et al., Kristen Boyles**Document ID: BOEM-2017-0074-11232**

The commenter opposed drilling in the Washington and Oregon planning regions and asked that they be excluded from the DPP. The commenter discussed how the DPP is at odds with the need to address climate change. The commenter expressed that the analysis within the DPP was done incorrectly, and that an analysis of state law's needs to be done.

Eastern Long Island Audubon Society, Byron Young**Document ID: BOEM-2017-0074-11038**

The commenter opposed the inclusion of the Atlantic Ocean in the planning regions. The commenter argued that oil and gas resources were not significant along the East Coast. The commenter discussed the ecological concerns of migratory coastal species. Lastly, the commenter stressed that renewable alternatives should be pursued.

ECHO Action NH: FossilFree603, Stephanie Scherr**Document ID: BOEM-2017-0074-1770**

The commenter opposed the inclusion of all areas of the DPP. The commenter argued that

drilling would result in damage to the marine ecosystems, tourism industries, and the environment in general. The commenter stated that the Nation should be moving toward renewable energy.

Empire State Indivisible, Leslie Clark
Document ID: BOEM-2017-0074-11173

The commenter opposed inclusion of the New York planning region in the DPP. The commenter discussed the New York fishing industry, and wildlife.

Environment Advocates of New York, Peter Iwanowicz
Document ID: BOEM-2017-0074-11173

The commenter opposed the plan and stated that the oceans are under enough stress already with sewage and runoff. The commenter urged for more energy to be shifted into renewable alternatives.

Environment America, Kelsey Lamp
Document ID: BOEM-2017-0074-11333

The commenter opposed the DPP and the expansion of oil and gas drilling off the coasts. The commenter stressed that drilling would increase the likelihood of dangerous oil spills and threatens the ocean ecosystems native to the North Atlantic right whales at risk of extinction. Additionally, the commenter submitted names of 332 individuals who oppose the DPP and requested that they be entered into the official record and considered as separate public comments.

Environment America, Kelsey Lamp
Document ID: BOEM-2017-0074-11334

The commenter opposed the DPP. The commenter discussed the increased chance of spills, threats to marine life, and risks for coastal communities. Additionally, the commenter submitted names of 35,185 individuals who oppose the DPP and requested that they be entered into the official record and considered as separate public comments.

Environment New Jersey, Doug O'Malley
Document ID: BOEM-2017-0074-11238

The commenter expressed opposition to offshore oil and gas activities. The commenter discussed issues with the proposal process, likelihood of oil spills, and the devastation that goes along with spills.

Environment Team with Action Together, Christine Clarke
Document ID: BOEM-2017-0074-11238

The commenter expressed opposition to offshore oil and gas activities. The commenter discussed the need to move toward sustainable energy sources such as wind and solar power, the harming of marine animals as a result of drilling, and increased coral bleaching.

Environmental Action Committee of West Marin, Morgan Patton
Document ID: BOEM-2017-0074-10923

The commenter opposed any new offshore oil and gas leasing. The commenter discussed the environmental and economic risks that would be assumed by coastal leasing areas.

Environmental Action, Sally King
Document ID: BOEM-2017-0074-11329

The commenter opposed the DPP and provided comments from individuals opposed as well. The commenter discussed the risk of increased oil spills that damage ocean ecosystems, endanger livelihoods of coastal communities, and threaten sea animals.

Environmental Center of San Luis Obispo, Mary A. Ciesinski
Document ID: BOEM-2017-0074-11210

The commenter opposed any OCS oil and gas leasing off the California coast. The commenter wrote about their efforts to keep beaches clean, and the dangers of toxic chemicals from oil and gas rigs.

**Environmental Defense Center, Sierra Club
Los Padres Chapter, and Get Oil Out!, Alicia
Roessler**

Document ID: BOEM-2017-0074-10963

The commenter opposed the DPP and urged BOEM to withdraw consideration of the program. The commenter discussed the uniqueness of the Pacific coastal region and the heavy reliance on tourism as an economic driver. Additionally, the commenter requested an extension of the comment period.

Environmental Defense Fund, James Tripp

Document ID: BOEM-2017-0074-10746

The commenter opposed new oil and gas leasing, and listed concerns related to on shore infrastructure. The commenter stated that New York is not equipped to support this infrastructure, which should be considered.

**Environmental Investigation Agency,
Daniel Hubbell**

Document ID: BOEM-2017-0074-10822

The commenter opposed the DPP and requested that the current leasing plan be allowed to continue. The commenter specifically requested that the Cook Inlet, Bering Sea, Chukchi Sea, and Beaufort Sea be removed from the planned regions.

**Environmental Justice Task Force at First
Parish, Ginger Ryan**

Document ID: BOEM-2017-0074-11027

The commenter opposed offshore activity in the waters off the coast of New England. The commenter stated that these waters would be better used to build wind farms, and other renewable alternatives. The commenter discussed past oil spills, and the negative effects they brought.

**Eugene Springfield Interfaith EarthKeepers,
Merrily Sutton**

Document ID: BOEM-2017-0074-5913

The commenter opposed the DPP and remembered the BP Deepwater Horizon oil spill.

**Fairbanks Climate Action Coalition,
Odin Miller**

Document ID: BOEM-2017-0074-11349

The commenter opposed the proposal and stated that it poses great risks to Alaskan coastal communities, and the Nation as a whole.

**Federated Conservationists of Westchester
County, Carole Griffiths**

Document ID: BOEM-2017-0074-10813

The commenter opposed the DPP as written. The commenter discussed the economic, climate, and ecological risks.

**Florida Keys National Marine Sanctuary
Advisory Council, Sarah Fangman**

Document ID: BOEM-2017-0074-10712

The commenter expressed opposition to the inclusion of any portion of the Eastern GOM OCS Planning Area in BOEM's Draft Proposed Five-Year OCS Leasing Program.

Food and Water Watch, Eric Weltman

Document ID: BOEM-2017-0074-11360

The commenter opposed the DPP. The commenter stated that renewable alternatives should be expanded, and fossil fuel consumption decreased.

Food and Water Watch, Junior Romero

Document ID: BOEM-2017-0074-11238

The commenter expressed opposition to offshore oil and gas exploration. The commenter discussed the importance of investing in renewable energy sources such as wind and solar power, and the need to protect New Jersey's economy and environment.

Forest Trails Alliance, Alison Anderson

Document ID: BOEM-2017-0074-11139

The commenter opposed the DPP and stated that it would cause unnecessary impacts on the marine ecosystem, coastal communities, tourism, and recreation industries. The commenter discussed the dangers of seismic

testing, and stated that this DPP contradicts previous BOEM findings.

**Four Harbors Audubon Chapter,
Elaine Maas**

Document ID: BOEM-2017-0074-11048

The commenter opposed the DPP and stressed the protection of birds along the coasts. The commenter urged for renewable alternatives to be pursued in the push for increased energy options.

**FreedomWorks Foundation, Patrick Hedger
Document ID: BOEM-2017-0074-11321**

The commenter supported the expansion of offshore oil and gas leasing. The commenter stated that opening up leasing regions would strengthen free market principles and lower energy prices. The commenter suggested that all leasing contracts should place the financial burden of clean-up costs due to spills on the companies involved, not the public.

**Friends Committee on California Legislation,
Phyllis Davies**

Document ID: BOEM-2017-0074-6281

The commenter opposed offshore drilling, specifically mentioning the coast of California.

**Friends of Casco Bay, Ivy Frignoca
Document ID: BOEM-2017-0074-10691**

The commenter opposed opening any waters in the Gulf of Maine or New England. The commenter cited environmental and economic concerns.

**Friends of Penobscot Bay, Ron Huber
Document ID: BOEM-2017-0074-10735**

The commenter opposed the DPP and requested the exclusion of the Gulf of Maine (particularly Penobscot Bay) and the greater North Atlantic. The commenter stated that offshore drilling in Penobscot Bay would lead to far greater spill risk, harming the significant lobster population. The commenter also stated their understanding that the Gulf of Maine does not contain

extractable oil or gas reserves, making it not worth the investment of time and money needed to explore it.

**Friends of St. George, Wende McIlwain
Document ID: BOEM-2017-0074-4859**

The commenter is opposed to the inclusion of the Atlantic leasing area of the DPP. The commenter argued that drilling would adversely affect Maine's lobster industry, commercial fishing, aquaculture, and tourism industries.

**Friends of the Cape Code National Seashore,
Patricia Canavan**

Document ID: BOEM-2017-0074-10685

The commenter opposed any activity in the Atlantic Ocean, specifically focusing on Cape Cod. The commenter urged BOEM to consider threats to commercial, environmental, and health and safety interests.

**Friends of the Earth, Marcie Kever
Document ID: BOEM-2017-0074-11348**

The commenter opposed the DPP and requested a 60-day extension of the comment period. The commenter discussed the threat to coastal environments, marine ecosystems, and coastal and ocean-dependent economies, as well as the likelihood of oils spills, coastal pollution, and seismic pollution. The commenter also cited several parameters the Programmatic EIS must meet to satisfy all NEPA requirements.

**Garden Club of Long Beach Island, Birds
and Wildlife Committee, Teresa Hagan
Document ID: BOEM-2017-0074-11238**

The commenter expressed opposition to offshore oil and gas activities. The commenter discussed the effects on public health, and the health of New Jersey beaches.

**Georgia Conservancy, Charles McMillan
Document ID: BOEM-2017-0074-10807**

The commenter opposed new oil and gas leasing, and specifically discussed the areas around Georgia. The commenter argued that

coastal economies and ecosystems should be preserved.

**Georgia Republican Assembly,
Wendy Harper**

Document ID: BOEM-2017-0074-11023

The commenter supported the DPP in its entirety. The commenter also supported future development efforts.

Get Oil Out!, Michael Lyons

Document ID: BOEM-2017-0074-10806

The commenter opposed the Pacific planning region, specifically requesting that the Santa Barbara Channel be removed. The commenter discussed the channel, and its vibrant marine environment. The commenter stated that risks of oil spills cannot be added to the natural risks of fires, mudslides, and droughts that California is already facing.

Global Energy Institute, Karen Harbert

Document ID: BOEM-2017-0074-10878

The commenter expressed support for the DPP and stated that domestic energy production insulates the U.S. economy against supply disruptions and market swings. The commenter also stated that they appreciate that not all areas are currently suitable for offshore oil and gas exploration and development but argued that there is room for development in new planning areas that will not hinder tourism or military operations. The commenter expressed confidence in the steps taken to increase safety after the Deepwater Horizon oil spill.

**Gloucester Fisherman's Wives Association,
Angela Sanfilippo**

Document ID: BOEM-2017-0074-10902

The commenter opposed the North Atlantic planning region and asked that planning regions 2021 and 2023 be removed. The commenter discussed the dangers that would face offshore drilling, including storms. The commenter also discussed the risks that would be taken on by

commercial fishing, and the harm that any problems would cause.

**Glynn Environmental Coalition,
Rachael Thompson**

Document ID: BOEM-2017-0074-11063

The commenter opposed opening new leasing regions off the coast of Georgia. The commenter discussed Georgia's sensitive ecosystem, lack of oil deposits, and extensive tourism industry.

**Gray's Reef National Marine Sanctuary
Advisory Council, Jessica White**

Document ID: BOEM-2017-0074-10726

The commenter expressed opposition to the Proposed Program, specifically oil and gas leasing in the Atlantic. The commenter stated that although oil and gas activities are prohibited within Gray's Reef NMS, activities outside the boundaries could have a significant impact on Gray's Reef NMS.

**Great Egg Harbor National Scenic and
Recreational River Council, Fred Akers**

Document ID: BOEM-2017-0074-10594

The commenter opposed any new activity in the North Atlantic. The commenter discussed seismic testing, as well as oil spills, and the environmental damage associated with each.

**Greater Atlantic Region Stranding
Consortium, Suzanne Thurman**

Document ID: BOEM-2017-0074-10839

The commenter opposed the Atlantic region planning region. The commenter stated that the risks to the marine ecosystems, human health, and welfare are too great.

**Greater Farallones National Marine
Sanctuary Advisory Council,**

Jennifer Gamurot

Document ID: BOEM-2017-0074-10675

The commenter expressed opposition the inclusion of any portion of the Pacific Coast OCS Planning Area in BOEM's Draft Proposed Five-Year OCS Leasing Program because the

proposed offshore drilling plan threatens several NMSs and the entire California coastal economy.

Greenpeace USA, Mary Sweeters
Document ID: BOEM-2017-0074-11341

The commenter opposed the DPP and provided comments from individuals opposed as well. The commenter discussed the risk of oil spills and their impacts on local economies, public health, hunting and fishing, and tourism industries.

Group for the East End, Aaron Virgin
Document ID: BOEM-2017-0074-11359

The commenter opposed the DPP and stated that drilling is a step backwards for energy development.

Grow Louisiana Coalition, Marc Ehrhardt
Document ID: BOEM-2017-0074-10749

The commenter expressed support for the expansion of oil and gas drilling in the GOM and all proposed leasing regions. The commenter stated that continued and expanded access to the GOM would increase economic gains for Louisiana residents such as new jobs and increased state revenue. The commenter also stated that the GOM already has the necessary infrastructure and established industry economy to be explored and developed successfully.

Gulf Economic Survival Team, Lori LeBlanc
Document ID: BOEM-2017-0074-11216

The commenter supported expanded access across the GOM in the DPP. The commenter discussed the great oil and gas reserves that are currently off limits and the successful history of drilling in the GOM. The commenter stated that the success in the Gulf can serve as a blueprint for the rest of the country.

Gulf Restoration Network, Christian Wagley
Document ID: BOEM-2017-0074-11214

The commenter opposed the inclusion of Florida in the proposed leasing regions. The commenter discussed Florida's economy and environment, and how they are dependent on the clean waters around the coastline.

Gulf Restoration Network, Serra Club, Center for Biological Diversity and Earthjustice
Document ID: BOEM-2017-0074-11264

The commenter opposed the GOM planning region. The commenter described the Gulf planning region as unnecessary and based on faulty assumptions. The commenter detailed several flaws in BOEM's cost benefit analysis that favor offshore drilling over other industries. The commenter stated that, to comply with NEPA, an EIS must account for the full life cycle climate impacts of drilling.

Gullah GeeChee Nation, Frankie Watson
Document ID: BOEM-2017-0074-11034

The commenter opposed drilling and exploration in the Atlantic. The commenter stated that renewable alternatives are available.

Gullah/Geechee Fishing Association, Ricky Wright
Document ID: BOEM-2017-0074-11041

The commenter opposed the inclusion of the Atlantic planning region and stated that seismic testing will harm fisheries in the Gullah/Geechee Nation.

Gullah/Geechee Sea Island Coalition, Queen Quet Marquette Goodwine
Document ID: BOEM-2017-0074-11042

The commenter opposed the inclusion of the Atlantic planning region. The commenter mentioned that scientists have proven the harm that seismic testing will cause on wildlife in the oceans, which will disrupt waterways and fisheries, and thus harm the environment and tourism economy of states.

**Gullah/Geechee Sustainability Think Tank,
Queen Quet Marquette Goodwine
Document ID: BOEM-2017-0074-11043**

The commenter opposed the inclusion of the Atlantic planning region and stated that seismic testing will harm fisheries in the Gullah/Geechee Nation.

**Gullah/Geechee Nation,
Queen Quet Marquette L. Goodwine
Document ID: BOEM-2017-0074-10767**

The commenter expressed opposition to oil and gas leasing in the Atlantic Ocean. The commenter voiced concerns about the impact of exploration activities on subsistence fisheries and coastal wetland habitat and urged BOEM to consider renewable energy as an alternative to oil and gas leasing.

**Hazlet Elementary Schools, Cindy Zipf
Document ID: BOEM-2017-0074-11252**

The commenter presented letters from 14 children who opposed the DPP.

**Heal the Bay, Sarah Sikich
Document ID: BOEM-2017-0074-10908**

The commenter opposed the DPP, and specifically mentioned the Pacific planning region. The commenter discussed how moving forward with the DPP would undermine the efforts coastal states have made to their ecosystems and economies.

**Heal the Bay, Talia Walsh
Document ID: BOEM-2017-0074-11313**

The commenter opposed the DPP, and specifically discussed the Pacific region. The commenter stated that offshore oil and gas pose great risks, and that efforts should be focused on renewable energy sources.

**Heal the Bay, Talia Walsh
Document ID: BOEM-2017-0074-11314**

The commenter opposed the DPP, and specifically discussed the Pacific region. The commenter stated that offshore oil and gas pose

great risks, and that efforts should be focused on renewable energy sources.

**Indivisible Monroe Twp NJ, Irene Linet et al.
Document ID: BOEM-2017-0074-11179**

The commenter expressed opposition to the DPP on behalf of the citizens of New Jersey. The commenter discussed the threats New Jersey faces from offshore drilling, without advantages to counterbalance. The commenter mentioned the costs of cleaning oil spills, and New Jersey's economic dependence on tourism and clean beaches.

**indivisiblesuffragists.org,
Brooke Teal Robbins
Document ID: BOEM-2017-0074-6908**

The commenter opposed the DPP and stated that effort should be directed toward sustainable energy sources.

**Inland Ocean Coalition,
Vicki Nichols Goldstein
Document ID: BOEM-2017-0074-10964**

The commenter opposed the Oil and Gas Leasing Program. The commenter discussed potential damage to sensitive marine life, the need for jobs in clean energy sectors, and the economic productivity of coastal regions.

**Institute for Policy Integrity, Jason Schwartz
Document ID: BOEM-2017-0074-11257**

The commenter did not state a position on the DPP. The commenter discussed the importance to NEPA analysis of monetizing the cost of GHG emissions. The commenter urged BOEM to use the Interagency Working Group's 2016 estimates of the social cost of GHGs in its decisionmaking.

**Institute for Policy Integrity, Jayni Hein
Document ID: BOEM-2017-0074-10967**

The commenter opposed the offshore leasing program. The commenter discussed that the program fails to meet Interior's statutory mandates as well as contains modeling errors in

terms of economic issues. The commenter urges BOEM to correct and strengthen its analysis.

Interfaith Oceans, Marybeth Lorbiecki
Document ID: BOEM-2017-0074-11268

The commenter opposed opening up new leasing regions to oil and gas activities. The commenter discussed the importance of ocean resources, and the dangers that drilling would pose to those resources. The commenter also mentioned the value of tourism and commercial fishing.

International Marine Mammal Project, Earth Island Institute, Mark J Palmer
Document ID: BOEM-2017-0074-10845

The commenter opposed the DPP and stated that it is a large benefit to oil companies at the expense of the rest of the country. The commenter urged that a new plan be developed to focus on renewable alternatives.

Islesboro Islands Trust, Charles Verrill
Document ID: BOEM-2017-0074-5914

The commenter is opposed to the DPP in the Atlantic area off of Maine's coast. The commenter stated that Maine's marine ecosystem, on which much of their economic activity relies, would be damaged by an oil spill or other environmental impacts from the process of drilling.

Jersey Shore Partnership, Margot Walsh
Document ID: BOEM-2017-0074-11238

The commenter opposed offshore drilling and the DPP. The commenter discussed the effect of oil spills on the economy, and the environmental consequences of offshore oil and gas exploration and development.

John Locke Foundation, Kory Swanson
Document ID: BOEM-2017-0074-10601

The commenter supported the DPP and discussed the importance of lower energy prices for the economy. The commenter requested that North Carolina be involved in discussions about future energy access.

Kachemak Bay Conservation Society, Roberta Highland
Document ID: BOEM-2017-0074-11031

The commenter opposed the DPP and did not find compelling explanation as to why the old plan is being replaced. The commenter stated that ignoring the data presented in the current program appears arbitrary and capricious and is a violation of NEPA. The commenter discussed the environmental harm that could be caused by drilling, and the pollution that would come from burning the fossil fuels. The commenter stated that growth in manufacturing would be better focused on renewable alternatives.

Kalmiopsis Audubon Society, Ann Vileisis
Document ID: BOEM-2017-0074-9701

The commenter opposed the DPP, specifically speaking about the Pacific region. The commenter cited Oregon's tourism economy, fisheries, and wildlife.

Kiawah Island Natural Habitat Conservancy, Kiawah Conservancy
Document ID: BOEM-2017-0074-10790

The commenter opposed any new offshore activity. The commenter discussed the beaches and natural environment of Kiawah Island, and how it would be jeopardized by oil and gas leasing.

LA 1 Coalition, Henri Boulet
Document ID: BOEM-2017-0074-11205

The commenter supported expanded access across the GOM in the DPP. The commenter discussed the great oil and gas reserves that are currently off limits, and the successful history of drilling in the GOM. The commenter stated that the success in the Gulf can serve as a blueprint for the rest of the country.

League of Women Voters Monterey County, Judith Lehman
Document ID: BOEM-2017-0074-9397

The commenter opposed the inclusion of Monterey Bay in the planning regions. The

commenter mentioned the Monterey Bay NMS and stated that a better U.S. policy would focus on renewable energy sources.

**League of Women Voters of Brookhaven,
Nancy Marr**

Document ID: BOEM-2017-0074-11360

The commenter opposed the DPP. The commenter wrote about the importance of tourism, and the harm to marine wildlife caused by seismic testing.

**League of Women Voters of Delaware,
Coralie Pryde**

Document ID: BOEM-2017-0074-10991

The commenter opposed the DPP and seismic testing along the Delaware/Mid-Atlantic Coast. The commenter discussed the effects of seismic testing will have on marine animals like the North Atlantic right whale, growing dependence on fossil fuels, and the threat to the health of the ocean and livability of the Delaware region.

**League of Women Voters of Glen Ellyn,
Bonnie Gahris**

Document ID: BOEM-2017-0074-10734

The commenter opposed the DPP and stated that the benefits do not exceed the risks for Cape Fear North Carolina or the country. The commenter asked if the United States should support one large industry at the expense of small businesses that depend on the coast.

**League of Women Voters of New Jersey,
Kathy Abbott**

Document ID: BOEM-2017-0074-11238

The commenter opposed offshore exploration and development of oil and gas in the North and Mid-Atlantic Ocean due to a broad array of economic, environmental, and quality of life concerns. The commenter cited the importance of the region for tourism, recreation, and fishing. The commenter also expressed concern about issues arising from oil and gas transmission, such as spills, pipeline breaks, water quality disturbances, fires, and explosions.

**League of Women Voters of North Carolina,
Jennifer Rubin**

Document ID: BOEM-2017-0074-11021

The commenter opposed any measure to pursue drilling in the Atlantic Ocean. The commenter mentioned that North Carolina's tourism, recreation, and fishing industries are dependent on a healthy coastal environment. The commenter also stated that the DPP deepen the country's dependence on fossil fuels.

**League of Women Voters of Oregon, Norman
Turril, Claudia Keith & Cathy Frischmann**

Document ID: BOEM-2017-0074-10602

The commenter opposed any expansion of offshore drilling, and stated that it poses unacceptable risk to oceans, wildlife, and coastal residents.

**League of Women Voters of the Lower Cape
Fear, Clarice Reber**

Document ID: BOEM-2017-0074-5163

The commenter opposed the DPP and stated that the benefits do not outweigh the costs. The commenter discussed concerns of pollution and negative impacts on the economy.

**League of Women Voters of Washington,
Realene Gold**

Document ID: BOEM-2017-0074-11059

The commenter opposed the Pacific planning region. The commenter discussed the protected Federal lands along the coast of Washington State, and the risk that would be put on them. The commenter also discussed the protected Native American tribes, and the risk to which they would be subjected.

**Long Island Clean Air Water & Soil,
Claudia Borecky**

Document ID: BOEM-2017-0074-10671

The commenter opposed any plan that includes oil and gas drilling off the coast of Long Island, New York. The commenter discussed the need for further exploration of renewable energy

sources and the potential for job growth in the clean energy sector.

Long Island Sierra Club, Lilia Factor
Document ID: BOEM-2017-0074-10111

The commenter opposed the DPP and stated that U.S. efforts should be directed toward renewable energy sources.

Lynnhaven River NOW, Karen Forget
Document ID: BOEM-2017-0074-11039

The commenter opposed the DPP, and specifically mentioned concern about seismic activity off the coast of Virginia. The commenter presented the tourism industry in Virginia Beach that would be devastated by spills and by seismic activity.

Madrone Audubon Society, Diane Hichwa
Document ID: BOEM-2017-0074-11055

The commenter opposed the DPP and suggested that the current leasing program be maintained. The commenter discussed how the DPP contradicts the findings and conclusions presented in the previous leasing program.

Maine Audubon, Eliza Donoghue
Document ID: BOEM-2017-0074-10673

The commenter expressed opposition to the planning regions in Maine. The commenter discussed Maine's coastal economies, and their reliance on clean waters.

Manasquan Beach Improvement Association, Mary Ryan
Document ID: BOEM-2017-0074-10600

The commenter opposed the Atlantic planning regions of the DPP. The commenter discussed the environmental impacts of drilling, and the past damage from oil spills.

Manasquan Beach Improvement Association, Mary Ryan
Document ID: BOEM-2017-0074-11022

The commenter opposed the inclusion of the Atlantic leasing region and asked that it be removed in subsequent drafts. The commenter

discussed the environmental risks associated with oil spills and stated that any benefit does not outweigh the potential harms.

Mandate Media, Suvi Chisholm
Document ID: BOEM-2017-0074-11306

The commenter opposed the DPP and argued to preserve coastal ecosystems and leave fossil fuels in the ground.

Maryland Ornithological Society, Kurt Schwarz
Document ID: BOEM-2017-0074-10763

The commenter opposed the DPP. The commenter stated that spills are inevitable and that they would cause substantial harm to coastal communities due to economic and ecological impacts.

Massachusetts Audubon, Jack Clarke
Document ID: BOEM-2017-0074-10711

The commenter opposed the DPP on the grounds of environmental conservation. The commenter specifically cited four areas in Massachusetts that need to be protected: Georges Bank, Stellwagen Bank, Northeast Canyons, and Seamounts National Marine Monument.

Mendocino Coast Audubon Society, David Jensen
Document ID: BOEM-2017-0074-11054

The commenter opposed the DPP and urged that the plan maintain the exclusions listed in the current plan. The commenter discussed human-induced climate change and stated that renewable alternatives should be pursued. The commenter also discussed the potential harm to wildlife.

Mexico Beach Charters, Forgotten Coast Chapter of Recreational Fishing Alliance, BBT, LLC, Betty Adams
Document ID: BOEM-2017-0074-11076

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the

economic boost that oil and gas activity would provide to Florida. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Mexico Beach Charters, Forgotten Coast Chapter of Recreational Fishing Alliance, BBT, LLC, Thomas Adams
Document ID: BOEM-2017-0074-11075

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Florida. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Mid-Atlantic Fishery Management Council, Jessica Coakley
Document ID: BOEM-2017-0074-10933

The commenter opposed drilling along the Atlantic Coast. The commenter expressed concern for the health of marine ecosystems and fishery resources that could be affected by offshore development. The commenter stated that spills could also harm the economy by negatively impacting tourism.

Mississippi Energy Institute, Patrick Sullivan
Document ID: BOEM-2017-0074-9097

The commenter expressed support for expanded oil and gas leasing in the GOM and encouraged BOEM to include all proposed leasing regions in the Program. The commenter also stated that expanded access could help ensure a stable domestic energy supply and provide income for Mississippi families and businesses.

Monmouth County Audubon Society, Linda Mack
Document ID: BOEM-2017-0074-6392

The commenter opposed the DPP and the risks that offshore drilling would represent.

Murrells Inlet 2020, Meredith Millen
Document ID: BOEM-2017-0074-11226

The commenter stated their opposition to any drilling activities off the coast of South Carolina. The commenter stressed their commitment to ensuring a healthy coastal environment.

Nassau Hiking and Outdoor Club, Guy Jacob
Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP, discussing the dangers it presents to the marine environment. The commenter discussed seismic blasts, and the harm they would create marine species.

National Audubon Society, Elizabeth Pomper
Document ID: BOEM-2017-0074-11328

The commenter expressed opposition to the DPP and provided additional comments from individuals opposed to the program. The commenter discussed the risks to birds, other wildlife, and coastal communities. The commenter urged BOEM to continue excluding the Arctic, Atlantic, Pacific, and Eastern Gulf regions from such a plan.

National Audubon Society, Erik Schneider
Document ID: BOEM-2017-0074-10957

The commenter opposed the DPP, especially the inclusion of vulnerable ecosystems, and urged implementation of the 2017–2022 plan instead. The commenter discussed the risk that the program places on birds and other wildlife, as well as coastal communities, and the impracticality of oil and gas development in the Arctic region. The commenter also recommended continuing to keep the Atlantic free of drilling and not expanding drilling in the Pacific.

National Audubon Society, Michael Lynes
Document ID: BOEM-2017-0074-10912

The commenter opposed the DPP and requested that California be permanently banned from any offshore oil and gas activity. The commenter stated that the current proposal is in stark contrast to state leaders along the West Coast,

and that effort should be devoted toward renewable alternatives.

**National Marine Sanctuary Foundation,
Kristen Sarri**

Document ID: BOEM-2017-0074-10981

The commenter urged BOEM not to use the DPP to modify existing protections for NMSs and monuments due to their economic significance.

**National Parks Conservation Association,
Jim Adams**

Document ID: BOEM-2017-0074-10962

The commenter opposed the Arctic planning region. The commenter discussed Alaska's 10 coastal national parks, and their importance to the region. The commenter also discussed the response time of the nearest coast guard station to these parks and stated that they would be unable to adequately respond to oil-related incidents.

**National Parks Conservation Association,
Nicholas Lund**

Document ID: BOEM-2017-0074-10833

The commenter opposed the new OCS Program. The commenter discussed national parks, tourism, and coastal economies. The commenter stated that these need to be protected.

**National Religious Partnership for the
Environment, Cassandra Carmichael**
Document ID: BOEM-2017-0074-11315

The commenter opposed any offshore drilling. The commenter discussed the dangers of spills, and the desire to honor God's creation.

National Wildlife Federation, Jim Murphy
Document ID: BOEM-2017-0074-10793

The commenter opposed any expansion of offshore oil and gas activity and the risks it poses to wildlife. The commenter also discussed coastal communities, and their dependence on clean environments.

**Natural Resource Defense Council,
Alison Chase**

Document ID: BOEM-2017-0074-11173

The commenter opposed the Atlantic planning region, mentioning that spills along the entire East Coast could be harmful to New York. The commenter remembered the BP oil spill, and discussed the wildlife impacted by that event.

**Natural Resource Defense Council,
Allison Chase**

Document ID: BOEM-2017-0074-11360

The commenter opposed the Atlantic planning region and discussed how oil rigs would be harmful to natural resources and tourism.

**Natural Resource Defense Council,
Lauren Kubiak**

Document ID: BOEM-2017-0074-10970

The commenter opposed the DPP and detailed the Programmatic EIS shortcomings regarding its treatment of climate change. The commenter also stated that more attention needs to be given in subsequent analysis towards wildlife and environmental impacts.

Nature Conservancy, Carl LoBoe

Document ID: BOEM-2017-0074-11360

The commenter opposed the DPP and spoke about the great efforts that have been made to keep the coasts of New York clean.

Nature Conservancy, Sally McGee

Document ID: BOEM-2017-0074-10913

The commenter is opposed to drilling in all OCS planning regions, including those in the northeast. The commenter discussed the costs of restoration projects and the impacts on commercial fishing industries. The commenter also discussed the need for renewable alternatives, the effects on coastal economies, and the significance of coastal and marine resources.

**New England Coastal and Wildlife Alliance,
Ingrid Biedron**

Document ID: BOEM-2017-0074-10932

The commenter opposed the gas leasing program as well as the related Programmatic EIS. The commenter expressed concern on the effects that offshore drilling would have on the Nation's wildlife, ecosystems, communities, and natural resources.

**New England Fishery Management Council,
Thomas Nies and John F. Quinn**

Document ID: BOEM-2017-0074-7963

The commenter expressed opposition for the Proposed Program and recommended that the North and Mid-Atlantic planning areas be removed from the 2019–2024 five-year oil and gas leasing plan. The commenter stated that leasing and development of these areas exposes living marine resources and fishing communities to risk of significant damage.

New Hampshire Audubon, Douglas Bechtel

Document ID: BOEM-2017-0074-11056

The commenter opposed the replacement of the current leasing plan with the DPP. The commenter stated that renewable alternatives should be pursued. The commenter also discussed the risks of oil and gas activity and mentioned that they are too high for the short-term reward.

**New Jersey Council of Diving Clubs,
Glenn Arthur**

Document ID: BOEM-2017-0074-10704

The commenter opposed the DPP. The commenter expressed the need for diving to have clear waters, and that oil spills would affect the coast as well as the underwater environment.

**New Jersey FOREST WATCH/Friends of
Sparta Mountain**

Document ID: BOEM-2017-0074-4156

The commenter is opposed to the DPP, particularly in the Atlantic region. The commenter argued there are potential adverse

impacts on marine ecosystems, fisheries, and tourism in New Jersey.

**New Jersey League of Conservation Voters,
Kristin Zilcosky**

Document ID: BOEM-2017-0074-11322

The commenter opposed the DPP and drilling off the coast of the United States. The commenter discussed the high cost of cleaning up a potential spill and the damage to New Jersey's tourism and fishing industries. The commenter also expressed concern for increased carbon pollution and extreme storms and flooding that would take place as a result.

New Jersey Sierra Club, Jeff Tittel

Document ID: BOEM-2017-0074-10757

The commenter opposed the DPP, specifically discussing New Jersey. The commenter stated that oil and gas spills would have a large negative economic impact on the state.

**New York Aquarium, Wildlife Conservation
Society, Jon Forrest Dohlin**

Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP and suspected that the plan favors one use of the ocean over the other uses. The commenter discussed the importance of a healthy ocean environment for wildlife.

**New York Coalition for Recreational Fishing,
Ralph Vigmostad**

Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP and discussed how the Administration does not seem to believe in climate change.

**New York/New Jersey Bay Keeper,
Samantha Kreisler**

Document ID: BOEM-2017-0074-11173

The commenter opposed the New York planning region and discussed the harms of seismic testing.

**New York/New Jersey Baykeeper,
Samantha Kreisler**

Document ID: BOEM-2017-0074-8977

The commenter opposed the Atlantic planning regions. The commenter discussed the dangers to wildlife and the coastal ecosystem.

**New York Public Interest Group,
Kevin Dugan**

Document ID: BOEM-2017-0074-11359

The commenter opposed the DPP and stated that the U.S. Department of the Interior (DOI) should have the opportunity to hear everyone's voices.

**New York Public Interest Research Group,
Russ Haven**

Document ID: BOEM-2017-0074-10677

The commenter opposed any new offshore activity, especially in New York. The commenter discussed climate change, and the potentially negative impacts of more GHG emissions.

New York Surfrider Chapter, Colleen Henn

Document ID: BOEM-2017-0074-11359

The commenter opposed the DPP, and described how the plan was not in the best interest of the people

No Fracked Gas in Mass, Rosemary Wessel

Document ID: BOEM-2017-0074-10832

The commenter opposed any increase in oil and gas activity and cited the growing evidence of climate change. The commenter wrote that to be a leader in energy the U.S. should pursue renewable alternatives.

**North Carolina Association of Resort Towns
and Convention Cities, Ian Holden**

Document ID: BOEM-2017-0074-10866

The commenter opposed new testing and drilling and stated that it puts great risk on the tourism industry.

**North Carolina Coastal Federation,
Ana Zivanovic-Nenadovic**

Document ID: BOEM-2017-0074-10925

The commenter opposed the Mid- and South Atlantic planning regions and asked that North Carolina be excluded from the DPP. The commenter discussed the damage that drilling could cause to the ecosystem and coastal economies within North Carolina.

**North Carolina Coastal Federation,
Sheryl McNair**

Document ID: BOEM-2017-0074-10854

The commenter opposed the DPP and argued that the Programmatic EIS needs to be supplemented to include new and relevant data. The commenter discussed studies that were overlooked in the Programmatic EIS, and that formal consultation needs to happen to better protect essential fish habitats. The commenter stated that the current Programmatic EIS does not provide a thorough analysis.

**North Carolina Conservation Network,
Molly Mckinley**

Document ID: BOEM-2017-0074-11340

The commenter opposed the inclusion of North Carolina and asked that it be removed from subsequent drafts. The commenter stated that drilling would threaten existing tourism and fishing industries, as well as endangered species.

**North Carolina Conservation Network,
Molly Mckinley**

Document ID: BOEM-2017-0074-11324

The commenter opposed the inclusion of North Carolina in the leasing regions. The commenter mentioned the various groups that also oppose the plan and requested that North Carolina be removed from consideration.

**North Carolina Interfaith Power and Light,
Penny Hooper**

Document ID: BOEM-2017-0074-10736

The commenter opposed the leasing regions in the Gulf of Maine and North Atlantic. The

commenter specifically focuses on a problematic region in Penobscot Bay colloquially called the finger.

North Carolina Wildlife Resources Commission, Clifton Avery
Document ID: BOEM-2017-0074-5434

The commenter opposed opening up the southeast United States to offshore drilling, citing the availability of renewable resources that have a far lower environmental impact than fossil fuels do.

North Pacific Fisheries Association, Malcolm Milne
Document ID: BOEM-2017-0074-11146

The commenter opposed the inclusion of the Bering Sea, Aleutian Islands, and Gulf of Alaska planning regions. The commenter discussed Alaska's fisheries, and their economic impact on the state. The commenter also mentioned the Chukchi and Beaufort seas, and their ecological importance to the region.

North Pacific Fishery Management Council, Dan Hull
Document ID: BOEM-2017-0074-10728

The commenter expressed opposition to oil and gas activities in the Arctic region and recommended the removal of the Hope Basin, Norton Sound Basin, St. Matthew-Hall, Navarin Basin, Aleutian Basin, Bowers Basin, Aleutian Arc, St. George Basin, Shumagin, Kodiak, and Gulf of Alaska from the DPP.

Northcoast Environmental Center, Daniel Sealy
Document ID: BOEM-2017-0074-11058

The commenter opposed the Pacific planning region and requested that California and the rest of the West Coast be removed from consideration. The commenter discussed their time cleaning up after disasters, and the importance of clean beaches.

Northern Alaska Environmental Center, Lisa Baraff
Document ID: BOEM-2017-0074-11349

The commenter opposed the DPP and provided individuals comments of opposition. The commenter urges BOEM to hold additional meetings in Alaska to obtain further public comments on the program.

Norwalk River Watershed Association, Louise Washer
Document ID: BOEM-2017-0074-10911

The commenter opposed the inclusion of New England in the planning regions. The commenter felt that New England was better suited for renewable energy sources, and that oil and gas posed great risks to the area.

NRDC, Laruen Kubiak
Document ID: BOEM-2017-0074-10970

The commenter opposed the DPP and provided comments from individuals opposed as well. The commenter discussed the importance of moving toward clean energy, potential harm to a wide variety of marine species and the risk facing coastal communities and economies.

NY4Whales/NY4Wildlife, Taffy Williams
Document ID: BOEM-2017-0074-10808

The commenter opposed the entirety of the DPP and stated that it is regressive for America's environmental progress. The commenter expressed that the U.S. should not be pursuing energy dominance and showed concern over the way BOEM public hearings were held.

Ocean Conservancy, Andrew Hartsig
Document ID: BOEM-2017-0074-10842

The commenter opposed a new OCS leasing program and requested that the existing program be maintained. The commenter mentioned how divisive and contentious the DPP is becoming.

Ocean Conservancy, Audubon Alaska, Oceana, Pew Charitable Trusts, WWF, Andrew Hartsig

Document ID: BOEM-2017-0074-10814

The commenter opposed the new OCS Program and stated that the current program should be left in place. The commenter urged that if the current program continues should not include leasing areas in the Chukchi Sea, Beaufort Sea, or Bering Sea.

Ocean Conservation Research, Michael Stocker

Document ID: BOEM-2017-0074-10672

The commenter opposed the DPP, and any expansion of fossil fuel activity. The commenter discussed the fossil fuel industry and the importance of protecting the environment.

Oceana

Document ID: BOEM-2017-0074-11180

The commenter detailed various organizations and groups which oppose the DPP; both on the East West Coast. The commenter also detailed the environmental and ecological risks posed by oil spills and seismic testing.

Oceana, Bradey Bradshaw

Document ID: BOEM-2017-0074-4835

The commenter opposed opening the Pacific to oil and gas leasing. The commenter requested the comment period be extended and BOEM hold an additional public meeting in San Diego, California.

Oceana, Brian Langloss

Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP and remembered the impacts of the BP Deepwater Horizon spill.

Oceana, Diane Hoskins

Document ID: BOEM-2017-0074-4840

The commenter opposed oil and gas leasing in all areas included in the DPP. The commenter requested BOEM extend the comment period by

60 days and hold additional formal public hearings in coastal towns.

Oceana, Diane Hoskins

Document ID: BOEM-2017-0074-11325

The commenter opposed the oil and gas Leasing program and the inclusion of the Atlantic, Pacific, Arctic and Eastern GOM. The commenter discussed the potential threat to coastal and marine environments, the importance of transitioning away from fossil fuels, and effects such as rising sea levels, ocean acidification, and climate change.

Oceana, Diane Hoskins

Document ID: BOEM-2017-0074-11337

The commenter opposed the inclusion of new lease sales in the Atlantic, Arctic, and Pacific oceans, and the Eastern GOM in the DPP. The commenter discussed that drilling leads to increased risk of devastating oil spills that impact beaches, wildlife, ecosystems, and all of the businesses that depend on a clean coast and the need to move toward more clean energy.

Oceana, Jacequeline Savitz

Document ID: BOEM-2017-0074-10952

The commenter opposed the DPP and the inclusion of any NMSs and monuments. The commenter discussed the effects on local economies, threats to coastal and marine environments, and other devastating effects that would result from constructing the offshore infrastructure.

Oceana, Jacqueline Savitz

Document ID: BOEM-2017-0074-11242

The commenter provided comments from individuals opposed to the implementation of the DPP and offshore oil and gas developments.

Oil Change International, M. Mairorana

Document ID: BOEM-2017-0074-11338

The commenter provided 8,284 individual comments in opposition to any new oil and gas leases.

**Olympic Coast National Marine Sanctuary
Advisory Council, Lee Whitford****Document ID: BOEM-2017-0074-6059**

The commenter expressed opposition to oil and gas leasing in the Pacific and requested the removal of lease sales along the Pacific Coast of Washington, including Olympic Coast NMS, from BOEM's Draft Proposed Five-Year OCS Leasing program.

Olympic Forest Coalition, Patricia Jones**Document ID: BOEM-2017-0074-11007**

The commenter opposed the DPP, specifically the inclusion of the Pacific planning region, including Washington State and the Olympic Peninsula. The commenter expressed concern that the associated activities related to oil and gas exploration will cause significant negative impacts on marine ecosystems, endangered species, coastal communities, and economies.

Olympic Park Associates, Donna Osseward**Document ID: BOEM-2017-0074-11030**

The commenter opposed the DPP, and stated that it is dangerous to the environment, and unnecessary to the welfare of the country. The commenter discussed the various other places that are extracting oil and gas, and the different ways that oil spills can occur.

**Olympic Peninsula Visitor's Bureau,
Marsha Massey****Document ID: BOEM-2017-0074-10616**

The commenter expressed opposition to all regions included in the DPP. The commenter stressed that oil and gas leasing violates Federal statutes relating to Olympic Coast NMS as well as the potential economic and cultural risks to the coastal treaty areas.

One More Cast, John McMurray**Document ID: BOEM-2017-0074-11173**

The commenter opposed the inclusion of the Atlantic planning region and discussed the negative impacts that would fall on the commercial fishing industry.

**Oregon Shores Conservation Coalition,
Phillip Johnson****Document ID: BOEM-2017-0074-11057**

The commenter opposed the DPP, specifically the Northwest Pacific planning region. The commenter discussed the environmental risks and wrote that the chance of disasters is quite high. The commenter also discussed the relatively low estimates of oil in the Oregon coastal waters. Lastly, the commenter mentioned that renewable alternatives should be considered.

Oregon Wild, Doug Heiken**Document ID: BOEM-2017-0074-10829**

The commenter opposed inclusion of the Pacific planning region. The commenter discussed Oregon and Washington's low potential for oil and gas, the high risk of drilling, and the lack of onshore infrastructure to support development. The commenter stressed that the Programmatic EIS should better address these environmental and economic concerns.

**Ortley Beach Voters and Taxpayers
Association, Anthony Colucci****Document ID: BOEM-2017-0074-9503**

The commenter opposed any new activity off the coast of New Jersey. The commenter was concerned about the state's economic and environmental future if the DPP is put in place as written.

**Ortley Beach Voters and Taxpayers
Association, Anthony Colucci****Document ID: BOEM-2017-0074-11238**

The commenter opposed offshore oil and gas drilling. The commenter expressed concern for the economic and environmental impacts that oil and gas exploration will have on the coast. The commenter also discussed the devastation of beaches due to superstorms.

Outer Banks Surfrider, Matt Walker
Document ID: BOEM-2017-0074-11051

The commenter opposed the DPP and asked that it be removed from consideration. The commenter stated that it is bad fiscal policy, which ignores industries that depend on clean coastlines. The commenter discussed the dangers of drilling, and how oil companies can take a long time to pay back their victims. The commenter urged that renewable alternatives be considered instead.

Pacific Environment, Clara Bonaventura
Document ID: BOEM-2017-0074-11312

The commenter opposed any offshore oil and gas activity. The commenter stated that coastal communities should not have to live in fear of oil spills.

Pacific Environment, Clara Bonaventura
Document ID: BOEM-2017-0074-11310

The commenter opposed inclusion of the Alaska planning regions in the DPP. The commenter discussed Alaska's coastal economies, and the risk that oil and gas drilling would pose.

Pacific Environment, Clara Bonaventura
Document ID: BOEM-2017-0074-11311

The commenter opposed the California planning regions. The commenter discussed previous oil spills and the risks of oil and gas drilling.

Pacific Fishery Management Council,
Amy L'Manian
Document ID: BOEM-2017-0074-10975

The commenter opposed the DPP and the inclusion of the coasts of Washington, Oregon, and California. The commenter discussed that the program puts great risk on fishery resources and habitats, does not protect the fishing rights of Indian tribes, and puts economic stress on coastal communities.

Palmetto Promise Institute, Ellen Weaver
Document ID: BOEM-2017-0074-6930

The commenter supported the Atlantic planning regions included in the DPP, specifically those around South Carolina. The commenter discussed how South Carolina is well positioned to benefit economically from the plan and expressed support for extending revenue sharing from offshore drilling to states such as South Carolina. The commenter also stated that new mapping related to oil and gas exploration will lead to better estimates of oil and gas resources.

Panama City Boatmen Association,
Bob Zales, II
Document ID: BOEM-2017-0074-0617

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Florida. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Partnership for Affordable Clean Energy,
Laura Schepis
Document ID: BOEM-2017-0074-10792

The commenter supported the DPP and opening previously closed areas to oil and gas exploration. The commenter discussed the impact on energy prices and the economy and how U.S. energy development is an asset for national security and global leadership.

Peconic Land Trust, John Halsey
Document ID: BOEM-2017-0074-10639

The commenter opposed the Atlantic proposed leasing regions. The commenter cited the economic importance of Long Island's tourism industry and requested an exemption from the DPP.

**Physicians for Policy Action,
Regina LaRocque**

Document ID: BOEM-2017-0074-10778

The commenter opposed the DPP on the basis of public health concerns. The commenter discussed psychological and physical harms that offshore drilling would create by contributions to climate change and the risks of oil spills.

**Pinelands Preservation Alliance,
Katherine Smith**

Document ID: BOEM-2017-0074-10795

The commenter opposed the DPP and stated that it is a reversal of the previous plan, which does not expire until 2022. The commenter stated that New Jersey's coasts are ecologically valuable and would be jeopardized by new oil and gas activity.

Pinelands Preservation Alliance, Katie Smith
Document ID: BOEM-2017-0074-11238

The commenter expressed opposition to establishing oil and gas pipelines in New Jersey. The commenter discussed much opposition from locals and officials.

**Progressives of Santa Barbara County,
Sarah Hearon**

Document ID: BOEM-2017-0074-0737

The commenter requests additional hearings in California (to include Ventura County) and other Pacific states along with a 60-day extension of the comment period. The commenter is opposed to the DPP in the Pacific due to potential economic impacts resulting from adverse effects on the environment, on which much Pacific economic activity relies.

**Project on Government Oversight,
Elizabeth Hempowicz**

Document ID: BOEM-2017-0074-10698

The commenter does not have an opinion on the leasing areas, but believes the methods by which the Federal government is leasing to companies is not providing adequate benefit to tax payers

and is allowing oil companies to take advantage of the Nation's resources.

Public Lands Conservancy, Tom Baty
Document ID: BOEM-2017-0074-10596

The commenter opposed the DPP. The commenter mentioned the longer response time and greater risk of deepwater drilling.

Rethink Energy Action Fund, Chloe Osborne
Document ID: BOEM-2017-0074-11242

The commenter opposed any offshore activity and the dangers it poses to the coastal environment.

**Rosecrest Homeowners Association,
Dean Smith**

Document ID: BOEM-2017-0074-11025

The commenter opposed the Atlantic planning region. The commenter discussed the negative impact on property values in South Carolina if any oil spills were to occur.

**Russian River Watershed Protection
Committee, Brenda Adelman**

Document ID: BOEM-2017-0074-10593

The commenter opposed the inclusion of any portions of the Pacific Coast in the DPP. The commenter listed a number of oppositions, centered on BOEM's mishandling of the regulatory process.

**Sabin Center for Climate Change Law,
Dena Alder**

Document ID: BOEM-2017-0074-10942

The commenter expressed opposition to the DPP. The commenter discussed the likelihood of sea level rises, increased severity of hurricanes and tropical storms and risks to oil and gas infrastructures as a result of the DPP.

San Diego Audubon Society, James Peugh
Document ID: BOEM-2017-0074-10844

The commenter opposed the new leasing program, and the risk it poses to San Diego region. The commenter discussed the potential

harm faced by wildlife, and the coastal economies.

San Diego Audubon Society, Lesley Handa
Document ID: BOEM-2017-0074-10904

The commenter opposed the planning regions off the coast of California. The commenter mentioned previous oil spills and the harm they caused in California.

Santa Barbara Channelkeeper,
Jenna Discroll

Document ID: BOEM-2017-0074-10920

The commenter opposed the Southern California planning region, specifically around Santa Barbara County. The commenter discussed the Santa Barbara Channel and its unique and dense ecological value. The commenter mentioned the risk that the channel would face due to potential spills.

Satilla RiverWatch Alliance, Laura Early
Document ID: BOEM-2017-0074-10918

The commenter opposed the proposed planning area in the South Atlantic. The commenter discussed the negative impacts of small oil spills, including the pollution of the Satilla River, the impact of endangered species habitats, and the impacts on Georgia's coastal economies.

Savannah Riverkeeper, Jacob Oblander
Document ID: BOEM-2017-0074-10802

The commenter opposed the DPP. The commenter discussed the fallacy of an argument for job creation and stated that far more jobs will be destroyed in coastal economies.

Save Barnegat Bay, Britta Wenzel
Document ID: BOEM-2017-0074-9556

The commenter opposed the DPP. The commenter discussed the wildlife that could be negatively impacted by any offshore drilling activities.

Save Our Shores, Katherine O'Dea
Document ID: BOEM-2017-0074-4836

The commenter opposed offshore development in the Pacific and requested that BOEM extend the comment period by 60 days. Given the large scope of the DPP and the potential impacts on coastal environments, the commenter requested BOEM hold additional public meetings in central locations across California.

Save the Bay, Michael Jarbeau
Document ID: BOEM-2017-0074-10788

The commenter opposed the entire Atlantic planning region and focused the discussion on Rhode Island. The commenter discussed how Rhode Island is dependent on coastal tourism and fishing. The commenter stated that the DPP does not adequately value resources of coastal communities.

Save the Sound, Louise Harrison
Document ID: BOEM-2017-0074-11329

The commenter opposed the DPP and argued that renewable alternatives should be pursued. The commenter stressed the importance of tourism on the economy.

Seattle Audubon, Megan Friesen
Document ID: BOEM-2017-0074-4863

The commenter is opposed to the Pacific area of the DPP due to potential adverse effects on wildlife. In particular, the commenter is concerned about migratory and local bird species.

Seatuck Environmental Association,
Maureen Dunn
Document ID: BOEM-2017-0074-10840

The commenter opposed any offshore oil drilling near Long Island due to environmental, climate, and economic impacts. The commenter stated that efforts should be focused on renewable energy sources instead of fossil fuels.

**Seatuck Environmental Association,
Maureen Dunn****Document ID: BOEM-2017-0074-11360**

The commenter opposed the DPP and discussed how New York should be a place where people can protect and enjoy the environment.

**Securing America's Future Energy,
Paul Ruiz****Document ID: BOEM-2017-0074-10954**

The commenter expressed support for the DPP and the opening of federally controlled OCS for energy exploration and production. The commenter discussed the potential for more high-paying jobs and increased investments and tax revenue; greater energy independence and more stable energy prices; and enhanced economic wellbeing. The commenter opposed the exclusion of Florida as arbitrary and prejudicial to the program outcome. The commenter suggested that revenue sharing should be expanded and made other recommendations regarding geographic restrictions and safety standards.

Sierra Club, Jeff Tittel**Document ID: BOEM-2017-0074-11238**

The commenter opposed offshore drilling and the inclusion of the Jersey Shore in any proposed plan. The commenter discussed the negative effects of oil spills on marine life, and the cost to the tourism industry.

Sierra Club, Kathryn Lee**Document ID: BOEM-2017-0074-11331**

The commenter opposed the DPP and provided comments from individuals opposed as well. The commenter argued that the program ignores overwhelming opposition to offshore drilling and puts American waters, communities, and wildlife at risk.

Sierra Club, Natalie Mebane**Document ID: BOEM-2017-0074-10939**

The commenter opposed the inclusion of new Federal offshore areas, as well as the Central and

Western GOM in the DPP. The commenter discussed the incompatibility of offshore drilling with coastal ecosystems and economies.

Sierra Club, Patrick Keane**Document ID: BOEM-2017-0074-11360**

The commenter opposed the DPP and stated that renewable alternatives should be pursued.

Sierra Club California, Kathryn Phillips**Document ID: BOEM-2017-0074-10987**

The commenter expressed opposition to the DPP and any oil and gas drilling off the coast of California. The commenter discussed potential ecosystem and wildlife destruction, economic impacts, tourism impacts, public health impacts, and climate change impacts of offshore drilling.

**Sierra Club Connecticut Chapter,
Martha Klein****Document ID: BOEM-2017-0074-10857**

The commenter opposed the DPP. The commenter discussed the deep integration of the sea into the lives of those in New England.

**Sierra Club Croatan Group,
Michael Murdoch****Document ID: BOEM-2017-0074-10683**

The commenter expressed opposition to offshore drilling and seismic blasting on the North Carolina coast. The commenter discussed coastal economy reliance on fishing and tourism, the likelihood of extinction of the Atlantic right whale, and the need to increase renewable energy sources.

Sierra Club Lone Star Chapter, Cyrus Reed**Document ID: BOEM-2017-0074-10789**

The commenter is opposed to the DPP, and its vague language regarding leasing regions in the coast. The commenter also stated that both climate change and renewable energy must be considered in subsequent drafts. Lastly, the commenter discussed alternate uses of the ocean, and requested that more consideration be given to them.

Sierra Club Long Island, Jane Fasullo
Document ID: BOEM-2017-0074-11173

The commenter opposed any offshore drilling activity, and detailed personal stories to explain the importance of a healthy coastal environment.

Sierra Club Long Island, Lillia Factor
Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP. The commenter discussed all the potential harms and argued that focus should be shifted towards renewable alternatives.

Sierra Club Long Island, Charles Dennington
Document ID: BOEM-2017-0074-11360

The commenter opposed the plan, and stated their members also oppose it.

Sierra Club Maine 207, Becky Bartovics
Document ID: BOEM-2017-0074-10784

The commenter opposed any seismic testing and drilling on the OCS. The commenter discussed coastal communities and the dependence on the productivity of the waters.

Sierra Club of Delaware, Coralie Pryde
Document ID: BOEM-2017-0074-10992

The commenter opposed the DPP and opening the OCS to oil and gas drilling and exploration. The commenter discussed further acidification of the ocean, likelihood of spills, and direct damage to important ecosystems as major consequences of the proposed plan.

Sierra Club Virginia Chapter, Eileen Levandoski
Document ID: BOEM-2017-0074-10799

The commenter opposed the DPP, stating that no new evidence has emerged to support overturning the previous exclusion of the Atlantic. The commenter stated that the DPP ignores the DOI's obligation to climate protection, undermines the rule of law, and conflicts with offshore wind development.

Sierra Club Washington State, Isabelle Goodman
Document ID: BOEM-2017-0074-11235

The commenter opposed the DPP, and focused discussion on the Pacific planning region. The commenter presented testimony from citizens of Washington State who voiced their opposition to the plan.

SODA, Peg Howell
Document ID: BOEM-2017-0074-10885

The commenter opposed the DPP and argued that the justification for the plan is not well developed. The commenter detailed several claims in the DPP and stated that they show a bias towards offshore development.

SOS California, Alice Green
Document ID: BOEM-2017-0074-10837

The commenter supported the inclusion of the Santa Barbara Channel in leasing plans. The commenter discussed oil and gas seeps and the environmental damage that this natural occurrence causes. The commenter stated that drilling for oil and gas would prevent seepage and actually help the environment, as well as the economy and energy prices.

South Atlantic Fishery Management Council, Roger Pugliese
Document ID: BOEM-2017-0074-10909

The commenter opposed the DPP and expressed concern about the harm seismic testing will have on fish stocks. The commenter stated that efforts should be made to develop alternative energy sources, specifically offshore wind.

South Carolina Environmental Law Project, Amelia Thompson
Document ID: BOEM-2017-0074-10931

The commenter opposed the DPP and specifically the inclusion of the Mid- and South Atlantic regions. The commenter discussed the potential threat to tourism in the region as well as the importance of the coastal region to the

Gullah Geechee people’s heritage and culture that could be potentially damaged.

**South Carolina Native Plant Society,
Rick Huffman
Document ID: BOEM-2017-0074-8900**

The commenter opposed seismic testing and offshore drilling anywhere along the coast.

**South Carolina Wildlife Federation,
Steve Gilbert
Document ID: BOEM-2017-0074-10731**

The commenter opposed the DPP and requested that the Mid- and South Atlantic be excluded from the leasing plan. The commenter discussed the environmental hazards of oil and gas activity and its infrastructure.

**South Coast Neighbors United,
Wendy M. Graca
Document ID: BOEM-2017-0074-11259**

The commenter opposed the DPP, and also requested that BOEM hold public hearings in coastal communities to gather public feedback. The commenter discussed the environmental harms that could manifest with oil spills, and desired for coastal citizens to be able to clearly voice their concerns.

**South Shore Audubon Society, Jim Brown
Document ID: BOEM-2017-0074-11029**

The commenter expressed opposition for any offshore oil and gas activity in the Atlantic, as well as the rest of the U.S. The commenter discussed the effects of hurricanes and storms on potential oil spills.

**Southern Alliance for Clean Energy,
Chris Carnevale
Document ID: BOEM-2017-0074-10943**

The commenter opposed the DPP and urged BOEM to continue to rely upon the 2017–2022 Program. The commenter discussed state and local opposition to exploration, the weak economic prospects of Atlantic oil and gas production, risks to the tourism industry and coastal quality of life, potential health impacts as

a result of spills, the environmental harms of seismic air gun exploration, and projected decreases in demand for oil and gas.

**Southern Alliance for Clean Energy,
Chris Carnevale
Document ID: BOEM-2017-0074-11327**

The commenter opposed the DPP and provided comments from individuals opposed as well. The commenter stressed that offshore drilling and seismic blasting jeopardize the environment and coastal tourism economies.

**Southern Environmental Law Center,
Sierra Weaver
Document ID: BOEM-2017-0074-11347**

The commenter opposed the Mid- and South Atlantic planning regions. The commenter submitted letters from organizations to show opposition, and stated that offshore activity represents a substantial threat to the natural resources, coastal economy, and communities.

**Southshore Audubon Society, Jim Brown
Document ID: BOEM-2017-0074-11360**

The commenter opposed the DPP and suggested that renewable alternatives be considered. The commenter discussed the dangers of climate change.

**St. John’s Riverkeeper, Lisa Rinaman
Document ID: BOEM-2017-0074-11242**

The commenter opposed any new leasing along the coast of Florida. The commenter mentioned the importance of the St. James River and its clean waters.

**Stellwagen Bank National Marine Sanctuary
Advisory Council, Heather Knowles
Document ID: BOEM-2017-0074-11052**

The commenter opposed any offshore drilling activity in the North Atlantic, including Georges Bank, Stellwagen, and all adjacent waters. The commenter discussed the tourism and fishing industries, and the catastrophic risks that would

be associated with offshore activity. The commenter also discussed climate change.

**Stop Offshore Drilling in the Atlantic,
Ed Yaw**

Document ID: BOEM-2017-0074-4837

The commenter requested that BOEM hold public meetings in coastal locations across all planning areas, including one in Charleston, South Carolina, because these are the locations that will be affected by the DPP.

Suncoast Waterkeeper, Andre Mele

Document ID: BOEM-2017-0074-11224

The commenter opposed the DPP and stated that energy dominance should be obtained through renewable alternatives.

Surfrider Foundation

Document ID: BOEM-2017-0074-11307

The commenter opposed any offshore oil and gas activity. The commenter stated that it would bring enormous and unnecessary negative impacts on marine ecosystems and coastal communities.

**Surfrider Foundation, Florida Region,
Holly Parker**

Document ID: BOEM-2017-0074-11260

The commenter opposed the DPP, and specifically mentioned the GOM. The commenter stated that BOEM must update their EIS to comply with NEPA and detailed a number of environmental concerns. The commenter discussed the clear public opposition to the plan, and the various economic uses of ocean resources.

Surfrider Foundation DC Chapter

Document ID: BOEM-2017-0074-11277

The commenter opposed the Atlantic planning regions. The commenter discussed industries that rely heavily on clean marine environments, and thus would be endangered by oil and gas activity. The commenter stated that spills are inevitable, and that there is large public

opposition. The commenter also discussed legal requirements under NEPA and requested that the EIS be updated.

**Surfrider Foundation National Headquarters,
Katie Day**

Document ID: BOEM-2017-0074-11369

The commenter opposed the DPP and attached letters of opposition from Federal and state elected officials. The commenter discussed potential decreases in GDP and jobs due to loss of tourism and recreation, reduced fish stock and fish health due to exploration and drilling, and the threat of harm to the coastal environment. The commenter also stated that the DPP runs counter to existing Federal and regional resource policies. The commenter cited several requirements the Programmatic EIS must meet to satisfy NEPA.

**Surfrider Foundation Newport, Coos Bay,
Portland and Siuslaw Chapters,
Charlie Plybon**

Document ID: BOEM-2017-0074-10995

The commenter opposed new oil and gas drilling off the Atlantic, Pacific, Eastern GOM, and Arctic coasts, and specifically the inclusion of the Oregon and Washington planning area. The commenter argues that oil and gas activity pose a severe threat to marine environments and industries like coastal tourism and recreation.

**Surfrider Foundation Northeast Region,
Melissa Gates**

Document ID: BOEM-2017-0074-10905

The commenter opposed the entirety of the planning regions, due to the threats development poses. The commenter stressed that the further drafts of the plan should do better analysis of environmental impacts, as well as interactions with established state laws.

Surfrider Foundation San Diego Chapter

Document ID: BOEM-2017-0074-10682

The commenter expressed opposition to the DPP. The commenter argued that major

environmental impacts will increase, like whale beachings and strandings, and claims that the DPP makes false conclusions about the safety of OCS exploration.

**Surfrider Foundation South Bay Chapter,
Craig Cadwallader**
Document ID: BOEM-2017-0074-11066

The commenter opposed any offshore activity along the coast of California and stated that it violates California law. The commenter discussed the immense benefit of the ocean and coastal economies.

**Surfrider Foundation Washington Chapters,
Gus Gates**
Document ID: BOEM-2017-0074-10843

The commenter opposed the DPP in its entirety, and the severe threats it poses to the marine environment and coastal economies.

Surfrider Foundation Georgia, Steve Combs
Document ID: BOEM-2017-0074-10949

The commenter expressed opposition to the Oil and Gas Leasing Program. The commenter discussed the major effects the program would have on Georgia's economy, their unique tidal ecosystems, and the potential harm that would face the Gray's Reef NMS and the North Atlantic right whale population.

Surfrider Foundation, Jennifer Savage
Document ID: BOEM-2017-0074-11276

The commenter opposed the DPP due to the severe threat it poses to the environment and economy. The commenter discussed the legal requirements under NEPA and suggested that the EIS be updated in subsequent drafts. The commenter discussed the various other uses of ocean resources, and the danger that oil and gas activity poses to these activities.

Surfrider Foundation, John Weber
Document ID: BOEM-2017-0074-11238

The commenter opposed offshore drilling along the New Jersey coast. The commenter discussed

the need to move away from fossil fuels and their effects on animals and coastlines.

Surfrider Foundation, Kevin Piacenza
Document ID: BOEM-2017-0074-10903

The commenter opposed offshore activity off the coast of North Carolina. The commenter discussed the negative impacts on tourism and fishing industries, and the risks associated with hurricane season. The commenter wrote about the Cape Fear River and Masonboro Island reserve, and the danger they would be placed under. The commenter suggested that renewable alternatives be considered.

Surfrider Foundation, Pete Stauffer
Document ID: BOEM-2017-0074-10512

The commenter requested a meeting with BOEM to discuss the DPP. The commenter discussed the importance of protecting beaches.

Surfrider Foundation, Pete Stauffer
Document ID: BOEM-2017-0074-11330

The commenter opposed the DPP and expanding oil and gas drilling. The commenter discussed the negative impacts on marine ecosystems, coastal communities, and recreation and tourism industries.

Surfrider Grand Strand, Joey Skipper
Document ID: BOEM-2017-0074-10994

The commenter opposed the DPP, specifically in South Carolina. The commenter discussed the negative impacts on the environment, wildlife, and coastal economies. The commenter also mentioned how the DPP contradicts previous BOEM findings.

**Texas Conservative Coalition Research
Institute, Tom Aldred**
Document ID: BOEM-2017-0074-10935

The commenter supported the proposal to expand energy development access in the GOM and recommended maintaining all proposed leasing regions. The commenter discussed the importance of continued expansion of the Texas

energy sector as well as the potential for job and GDP growth for not only Texas but also the United States as a whole. The commenter also expressed the importance of decreasing reliance on foreign entities with less stringent regulations for energy.

The Institute for Energy Research
Document ID: BOEM-2017-0074-11258

The commenter supported the current, less restrictive DPP. The commenter discussed the immense benefits that increased energy access would provide the country. The commenter also argued that input by state and local entities on Federal water development should be limited, as these waters will have minimal impact on local activities.

The Jersey Shore Partnership, Margot Walsh
Document ID: BOEM-2017-0074-5371

The commenter opposed offshore oil and gas exploration and drilling activities that would affect the coast of New Jersey. The commenter discussed the importance of coastal tourism to the state, and harm to marine life.

The League of Women Voters of New Jersey, Nancy Hedinger

Document ID: BOEM-2017-0074-11227

The commenter opposed any offshore development in the North and Mid-Atlantic regions. The commenter discussed drilling technology and stated that no technology is completely safe from failure, and that the environment and economy would be harmed from any such failure.

The Nature Conservancy California Chapter, Charlottes Pienkos

Document ID: BOEM-2017-0074-10915

The commenter is opposed to any plan that would open California up to oil and gas leasing and development. The commenter stated that to open up the coast would go against collaboration between Federal, state, and local governments along the coast. The commenter also discussed

how opening the coast up brings the risk of oil spills and the damage associated.

The Nature Conservancy of Washington and Oregon, Mike Stevens

Document ID: BOEM-2017-0074-10755

The commenter opposed the DPP and requested that the Washington and Oregon regions be removed from consideration. The commenters discuss environmental science, the economics of those regions, and the risk to ecological resources.

The Nature Conservancy, Carl LoBue

Document ID: BOEM-2017-0074-11359

The commenter opposed the plan and discussed the harm to the coastal economies that pollution would bring. The commenter also discussed the wildlife habitats that would be impacted by drilling and seismic activity.

The Nature Conservancy, Elizabeth Fly

Document ID: BOEM-2017-0074-10898

The commenter opposed any development in the Mid- and South Atlantic. The commenter stated that pollution from oil and gas development would threaten the ecosystem of the oceans.

The Nature Conservancy, Lynn Scarlett

Document ID: BOEM-2017-0074-10722

The commenter opposed the entirety of the DPP. The commenter stated that there was not enough justification for the new program to supersede the current five-year program. The commenter suggested a comprehensive mitigation approach should guide the planning and development of new leases. The commenter detailed out several concerns with the DPP, including ecological and environmental concerns, gaps in data for planning areas, and research into renewable alternatives.

**The Nature Conservancy,
Temperince Morgan**

Document ID: BOEM-2017-0074-10881

The commenter opposed the Atlantic and GOM planning regions. The commenter discussed the protected species, and their habitats that would be affected by oil and gas activity. The commenter also discussed the economic risks associated with new leasing.

**The Ocean Foundation - Coastal
Coordination Program, Richard Charter**

Document ID: BOEM-2017-0074-10748

The commenter opposed the DPP and stated that it is currently at odds with several laws in place around the country. The commenter discussed wildlife and environmental concerns.

The Safina Center, Carl Safina

Document ID: BOEM-2017-0074-11173

The commenter opposed the DPP, for both the risk of oil spills and the general dangers of fossil fuels.

The Wilderness Society, Lois Epstein

Document ID: BOEM-2017-0074-10598

The commenter opposed the changes to oil and gas leasing and expressed a desire to maintain the previous Administration's policy. The commenter also expressed frustration with how the public hearings were held.

**The Wildlife Society Northeast Section,
Emily Just**

Document ID: BOEM-2017-0074-6675

The commenter stated that the DPP should not be implemented until a comprehensive assessment from the National Academy of Sciences is available. The commenter discussed potential hazards of the plan, such as adverse effects on marine life, and how the assessment would give a clearer idea of the impact of these risks.

**Thomas Jefferson Institute for Public Policy,
Michael Thompson**

Document ID: BOEM-2017-0074-5823

The commenter supported the DPP in the Atlantic area due to economic benefits for Virginia and increased energy independence for the United States. The commenter argued that the oil drilling would improve Virginia's tax base and job prospects, and with better safety protections now than were available in the past.

Tomales Bay Association, Kenneth J. Fox

Document ID: BOEM-2017-0074-11153

The commenter opposed the leasing regions around protected areas, and suggested efforts should be made to reduce fossil fuel consumption.

**Turtle Island Restoration Network,
Peter Fugazzotto**

Document ID: BOEM-2017-0074-11319

The commenter opposed any new offshore activity and stated that spills would cause great harm to endangered and threatened turtle populations, including critically endangered species. The commenter also stated that the tourism and recreation industries would be negatively impacted.

**U.S. SIF: The Forum for Sustainable and
Responsible Investment, Bryan McGannon**

Document ID: BOEM-2017-0074-11239

The commenter opposed the proposed leasing program and recommends that it be withdrawn. The commenter expressed deep concerns about expanding oil access, which could negatively affect climate. The commenter also described the economic harm that would threaten the ocean-based fishing, tourism, and recreation.

U.S. Zoos & Aquariums, Erin Eastwood

Document ID: BOEM-2017-0074-11203

The commenter opposed any new oil and gas activity offshore, and requested more effort be made to gather input from coastal communities.

The commenters discussed the need for healthy waters for wildlife.

Veterans for Peace, Mason Rhoads
Document ID: BOEM-2017-0074-11181

The commenter did not state a position on the DPP. The commenter discussed the environmental impacts of war and the opportunity cost of spending money on the military rather than developing renewable energy technology and mitigating harm from climate change.

ViBe Creative District Nonprofit,
Kate Pittman

Document ID: BOEM-2017-0074-10999

The commenter expressed opposition to offshore drilling in Virginia, specifically in the Virginia Beach region. The commenter argued that offshore drilling would be a detriment to natural beaches, oceanfront resort areas, and the local economy.

Virginia Beach Hotel Association,
Russell Lyons

Document ID: BOEM-2017-0074-11033

The commenter opposed any offshore activity along the Virginia coastline. The commenter wrote that the risk of environmental catastrophe, though slight, was too great to assume.

Washington State Chapter Sierra Club,
Judith Akins

Document ID: BOEM-2017-0074-11177

The commenter opposed offshore drilling in the Pacific, especially off the coast of Washington State, due to potential harms to fisheries, tourism, coastal communities, and the environment. The commenter discussed the high economic and ecological costs of oil spills like Deepwater Horizon.

Waterkeeper Alliance, Larissa Liebmann
Document ID: BOEM-2017-0074-11253

The commenter opposed the DPP and the inclusion of all planning areas in the program.

The commenter stated that the DPP relies on outdated assumptions, overstates the ability to respond to disasters, and fails to consider the benefits to transition to clean and safe energy.

Wild Oceans, Pamela Lyons Gromen
Document ID: BOEM-2017-0074-10980

The commenter opposed the DPP and the inclusion of sensitive areas in the Arctic and Atlantic coastal regions. The commenter discussed risks to fishery resources and marine ecosystems and economic issues that will result from the DPP.

Wildlife Conservation Society, Colin Sheldon
Document ID: BOEM-2017-0074-10961

The commenter expressed opposition to the DPP and the inclusion of the North Atlantic, Mid-Atlantic, South Atlantic, Chukchi Seas, and Beaufort Seas from any program. The commenter discussed potential for damage to the environment and coastal economies, the harm to marine wildlife in the Atlantic, and the effects on tourism, shipping, recreational fishing, and transportation industries.

Wildlife Conservation Society, Kristen Avery
Document ID: BOEM-2017-0074-11320

The commenter opposed any expansion of offshore oil and gas leasing. The commenter was concerned about the harm testing and other activities would cause on marine life and coastal economies.

Wine & Water Watch, Janus Matthes
Document ID: BOEM-2017-0074-0606

The commenter opposed any oil and gas development in the Pacific Ocean. The commenter argued that the DPP violates several Federal laws and state policies, including NEPA and the Endangered Species Act; ignores climate impacts; and threatens the coastal economy. The commenter voiced concern over the rollbacks in safety regulations for offshore oil rigs and stated that California should have more than one public meeting.

**Women Working for Oceans,
Barbara Burgess
Document ID: BOEM-2017-0074-11035**

The commenter expressed opposition for gas or oil drilling along the East Coast. The commenter stated that renewable alternatives should be pursued, and that oil and gas represent a step backwards.

**World Wildlife Fund, Margaret Williams
Document ID: BOEM-2017-0074-10946**

The commenter opposed the DPP and the inclusion of Arctic regions in the program. The commenter discussed the challenges of cleaning up an oil spill in the Arctic, climate change and the importance of moving toward clean energy.

**Women’s International League for Peace and Freedom, Boston Branch, Eileen Kurkoski
Document ID: BOEM-2017-0074-10599**

The commenter opposed the proposed oil and gas exploration along the entire U.S. coastline. The commenter discussed past oil spills, environmental and ecological risks, safety and health hazards, and economic concerns.

A.4 FEDERAL AGENCIES

List of Commenters

Department of Commerce
Department of Defense
Department of Energy
Department of the Navy
Marine Mammal Commission
Monterey Bay National Marine Sanctuary
NASA Goddard Space Flight Center
NASA Wallops Flight Facility
National Oceanic and Atmospheric

Administration
National Park Service
Small Business Administration Office of Advocacy
United States Coast Guard
United States Environmental Protection Agency

**Department of Commerce, Wilbur Ross
Document ID: BOEM-2017-0074-11182**

The commenter expressed support for the DPP and stated that it is in the national interest to develop the Nation’s vast energy resources in a safe and environmentally responsible manner.

**Department of Energy, Audreanna Pegram
Document ID: BOEM-2017-0074-11245**

The commenter supported the DPP, and the expanded access it provides to energy. The commenter supported all planning areas but stressed that both the Atlantic and Arctic regions should be thoroughly analyzed for potential resources. The commenter also mentioned for technological advances to be included when assessing environmental impacts.

**Department of Defense, C.F. Drummond
Document ID: BOEM-2017-0074-5922**

DOD will submit separately a detailed review of mission compatibility in the DPP areas.

**Department of the Navy, Kargin Ohannessian
Document ID: BOEM-2017-0074-10896**

The Navy is developing a comprehensive assessment of the mission compatibility of oil and gas development in the OCS and supports further analysis of the established uses of the OCS prior to proposing potential lease sales.

**Marine Mammal Commission, Peter Thomas
Document ID: BOEM-2017-0074-10973**

The commenter expressed opposition to oil and gas leasing in the OCS and provided information on marine mammals that occur in each of the planning areas that BOEM has included as options. The commenter expressed concern for the impact oil and gas activities could have on marine mammals and their environments.

**Monterey Bay National Marine Sanctuary,
Margaret Webb**

Document ID: BOEM-2017-0074-10676

The commenter expressed opposition for the inclusion of any portion of the Pacific Coast OCS Planning Area in BOEM's Draft Proposed Five-Year OCS Leasing Program because the proposed offshore drilling plan threatens several NMSs and the entire California coastal economy.

**National Aeronautics and Space
Administration, Goddard Space Flight
Center, Theodore Meyer**

Document ID: BOEM-2017-0074-10513

NASA has intimate knowledge regarding possible conflicts and potential compatibility between the proposed plan and the objectives of Federal, state, and local use plans, policies, and controls for the area concerned.

**National Aeronautics and Space
Administration, Wallops Flight Facility,
William A. Wrobel, and Joshua Bundick
Document ID: BOEM-2017-0074-10855**

The commenter stated concerns regarding the potential effects of oil and gas leasing on launch

and flight operations in the Mid- and South Atlantic and the Beaufort Sea planning areas.

**National Ocean and Atmospheric
Administration, Candace Nachman
Document ID: BOEM-2017-0074-11244**

The commenter provided substantial and in-depth feedback for all leasing regions within the DPP. The commenter discussed the importance of regional analysis in the commercial fishing portion of the Programmatic EIS. The commenter provides feedback on the various evaluations for potential impacts on marine areas that BOEM will conduct for the DPP. The commenter details necessary considerations for protected resources, critical habitats, and endangered species. The commenter mentioned that BOEM needs to thoroughly analyze potential leasing regions for these concerns.

**National Park Service, Raymond Sauvajot
Document ID: BOEM-2017-0074-11164**

The commenter neither expressed opposition nor support for the DPP but requested to be a cooperating agency in the preparation of the Programmatic EIS. The commenter stated that there are 63 units of the National Park System with boundaries in state waters directly adjacent to many planning areas identified in the DPP and the NPS can provide specialized information about these parks to aid BOEM's effort.

**Small Business Administration Office of
Advocacy, Acting Chief Counsel Major Clark
Document ID: BOEM-2017-0074-10862**

The commenter expressed support for BOEM's efforts to expand the area of the OCS available for oil and gas leasing. The commenter stated that these efforts have the potential to benefit small businesses by creating new opportunities.

**United States Coast Guard, Paul F. Zunkunft
Document ID: BOEM-2017-0074-11243**

The commenter discussed the importance of the partnership between the Coast Guard and DOI in their efforts to ensure safety. The commenter

discussed the importance of early consideration given to shipping routes, to prevent undue harm to the shipping industry. The commenter also discussed the importance of environmental safety and suggested a joint agency safety inspection regime. Lastly, the commenter discussed the economic benefits of oil and gas activity, and the importance of respecting the unique qualities of each marine environment to ensure the program’s success.

**United States Environmental Protection Agency, Robert Tomiak
Document ID: BOEM-2017-0074-10603**

The commenter endorsed the general list of physical, biological, social, economic, and cultural resources provided by BOEM that will be considered during the development of the Programmatic EIS.

A.5 ENERGY EXPLORATION AND PRODUCTION INDUSTRY AND ASSOCIATIONS

List of Commenters

Alabama Petroleum Council
Alaska Oil and Gas Association
American Petroleum Institute - New York, Karen Moreau
American Petroleum Institute, Erik Milito
API, NOIA, IPAA, USOGA, AXPC, IAGC, PESA, IADC, OOC, AOGA
API PA and State Coalition Members, Stephanie Wissman
Arctic Iñupiat Offshore LLC
Arctic Slope Regional Corporation Exploration, Teresa Imm
Arena Offshore, Connie Goers
Arena Offshore, LP, Michael E. McCauley
BP Exploration & Production, Inc.
Chevron
Cook Inlet Region, Inc.
Diamond Offshore
EnVen Energy Ventures, LLC
ExxonMobil Exploration Company

Florida Petroleum Council
Florida Petroleum Council, et al.
Georgia Petroleum Council
Hornbeck Offshore Operators, LLC
Independent Petroleum Association of America
Louisiana Mid--Continent Oil and Gas Association
Louisiana Oil Gas Association
Massachusetts Petroleum Council
National Ocean Industries Association
Noble Corporation PLC
Offshore Operators Committee
Ridgewood Energy
Shell Oil Company
South Carolina Petroleum Council
Statoil
Texas Oil and Gas Association
Virginia Petroleum Council, et al.

**Alabama Petroleum Council, Dean Peeler
Document ID: BOEM-2017-0074-10875**

The commenter expressed support for the DPP, specifically the Eastern GOM. The commenter stated that oil and gas development in the Eastern GOM and exploration in other parts of the OCS will enhance the U.S. economy, bringing jobs and economic gain to Alabama, and energy security will remain strong. The commenter also stated that Alabama’s fishing

and tourism industries can coexist with offshore energy production.

**Alaska Oil and Gas Association,
Joshua Kindred
Document ID: BOEM-2017-0074-10974**

The commenter expressed support for the inclusion of the Arctic in the DPP but requested that BOEM focus on the Beaufort and Chukchi Sea and Cook Inlet areas. The commenter stated that offshore drilling can bring benefits to Alaska such as job creation, public sector

revenue, and oil and gas flowing through the TAPS.

American Petroleum Institute - New York, Karen Moreau

Document ID: BOEM-2017-0074-11225

The commenter expressed support for the DPP and stated that the Nation should take full advantage of the potential benefits of offshore drilling such as job creation, stable energy prices, increased government revenues, and greater national and energy security.

American Petroleum Institute, Erik Milito
Document ID: BOEM-2017-0074-10924

The commenter expressed support for expanded access to oil and gas development in the OCS. The commenter stated that additional OCS exploration, drilling, and production could lead to a significant increase in the Nation's GDP, create new jobs, and benefit industries. The commenter also stated that states could see significant gains to their budgets.

API, NOIA, IPAA, USOGA, AXPC, IAGC, PESA, IADC, OOC, AOGA, Andy Radford
Document ID: BOEM-2017-0074-11228

The commenter expressed support for the expansion of oil and gas development to all areas of the OCS. The commenter stated that energy efficiency improvements and alternative energy sources will not alone be sufficient to meet anticipated energy demand due to expected economic and population growth. The commenter argued that increased access to natural resources will put downward pressure on prices, increase energy security, and support new jobs. The commenter also stated that there are extensive safeguards in place to prevent accidents.

Arctic Iñupiat Offshore, Rex Rock
Document ID: BOEM-2017-0074-10977

The commenter expressed support for the inclusion of the Arctic and North Slope areas in the DPP. The commenter stressed that their

support was dependent on the responsible and sustainable development of these areas and acknowledged the potential economic benefits from oil and gas leasing for local communities. The commenter expressed support for Programmatic Option 2 for the Arctic OCS to protect cultural and subsistence uses in the region.

Arctic Slope Regional Corporation Exploration, Teresa Imm
Document ID: BOEM-2017-0074-10978

The commenter expressed support for the DPP Option 2 for Alaska, which excludes areas set aside for subsistence. The commenter stated that oil and gas exploration can proceed safely with manageable impacts on the environmental and culture. The commenter argued that Arctic OCS development would provide increased throughput levels in the TAPS, which would increase revenue for the state and provide jobs. The commenter requested BOEM conduct a review of any potential impacts resulting from resource development.

Arena Offshore, Connie Goers
Document ID: BOEM-2017-0074-10724

The commenter expressed support for the DPP but also expressed concern over the uncertainty for oil and gas lease sales in the Eastern GOM. The commenter also stated that other industries such as tourism, commercial or recreational fishing, and military training have coexisted and thrived alongside each other in the GOM.

Arena Offshore, LP, Michael E. McCauley
Document ID: BOEM-2017-0074-10724

The commenter expressed support for the DPP but also expressed concern over the uncertainty for oil and gas lease sales in the Eastern GOM. The commenter also stated that other industries such as tourism, commercial or recreational fishing, and military training have coexisted and thrived alongside each other in the GOM.

BP Exploration & Production, Inc.**Document ID: BOEM-2017-0074-27043**

The commenter supported BOEM’s decision to keep 25 of the 26 OCS planning areas in the DPP and allow each of these areas to receive the full benefit of the evaluation process. The commenter stated their encouragement by the exploration potential in the Atlantic OCS planning areas, and the Beaufort Planning Area in Alaska.

Chevron, J. Keith Couvillion**Document ID: BOEM-2017-0074-10998**

The commenter expressed support for expanding the Federal oil and gas leasing Program, specifically in the GOM. The commenter stated that hydrocarbons will continue to be the raw material for the largest share of the country’s transportation fuels and power generation needs in the future. The commenter argued that the offshore oil and gas industry can collaborate with other ocean users and suggested not eliminating any OCS planning area from the Proposed Program.

Cook Inlet Region, Inc., Jason W. Brune**Document ID: BOEM-2017-0074-11255**

The commenter supported the planning regions in Alaska. The commenter discussed the importance of the TAPS and the richness of Alaska’s energy reserves. The commenter also wrote about the importance of oil and gas jobs to Alaska.

Diamond Offshore, Marc Edwards**Document ID: BOEM-2017-0074-11208**

The commenter supported the expanded access in the GOM. The commenter discussed the economic benefits that energy access would bring in terms of job growth, greater private sector investment, increased state and Federal government revenues, and additional energy supply. The commenter also mentioned the ability of oil and gas development to coexist with other coastal activities.

EnVen Energy Ventures, LLC, Nick Gibbens**Document ID: BOEM-2017-0074-10758**

The commenter expressed support for the development of a new offshore leasing program and specifically requested BOEM include all 26 planning areas. The commenter stated that oil and gas activity in the GOM generates revenue and jobs, and revenue sharing states are thereby able to enhance coastal conservation, restoration, and hurricane protection. The commenter also stated that the energy industry has worked to develop new technology, standards, and procedures for prevention of and response to accidents.

ExxonMobil Exploration Company,**Erik J. Oswald****Document ID: BOEM-2017-0074-11266**

The commenter supported the DPP and stressed the importance of BOEM increasing bid transparency to restrict joint bidding. The commenter expressed support for a regulatory framework that balances environmental protection and development activities.

Florida Petroleum Council, David Mica**Document ID: BOEM-2017-0074-10926**

The commenter expressed support for the DPP, specifically offshore drilling off the coast of Florida. The commenter stated that offshore development is vital for the Nation’s economic and national security interests, such as lowering energy bills and creating jobs. The commenter also stated that Florida’s tourism, fishing, and military industries can coexist and thrive with offshore drilling.

Florida Petroleum Council, et al.,**Eric Hamilton****Document ID: BOEM-2017-0074-11103**

The commenter supported an all-of-the-above energy policy that includes oil and gas exploration as proposed. The commenter suggested that the U.S. take advantage of all energy sources and discussed the economic

benefits abundant energy sources will provide across the economy.

**Hornbeck Offshore Operators, LLC,
Timothy Sullivan
Document ID: BOEM-2017-0074-11219**

The commenter supported the expanded access in the GOM, as well as the broader DPP. The commenter discussed how the increased access can help with energy sector jobs, which were hurt due to past limitations and moratoria on drilling-related activities. The commenter also discussed the potential for an economic boost to the private sector.

**Independent Petroleum Association of
America, Mallori Miller**

Document ID: BOEM-2017-0074-11009

The commenter expressed support for BOEM's decision to include 25 planning areas available for leasing. The commenter stated that a robust Oil and Gas Leasing Program will help the United States keep up with growing energy needs and attain energy security.

**Louisiana Mid-Continent Oil and Gas
Association, Lori LeBlanc**

Document ID: BOEM-2017-0074-11215

The commenter supported expanded access across the GOM in the DPP. The commenter discussed the great oil and gas reserves that are currently off limits and the successful history of drilling in the GOM. The commenter stated that the success in the Gulf can serve as a blueprint for the rest of the country.

Louisiana Oil Gas Association, Don Briggs

Document ID: BOEM-2017-0074-10743

The commenter expressed support for the expansion of oil and gas drilling in the GOM and all proposed leasing regions. The commenter stated that expanded access to oil and gas is not only an issue of American prosperity but also national security. Expanded access in the GOM would increase the economic

output for the State of Louisiana in terms of jobs and state revenue.

**Massachusetts Petroleum Council,
Stephen Dodge
Document ID: BOEM-2017-0074-11142**

The commenter supported the expansion leasing program. The commenter discussed the importance of energy independence for economic and national security interests. The commenter presented the energy consumption of Massachusetts, and how offshore activity could help the average consumer. The commenter also mentioned that oil and gas development have been proven to coexist with fishing, tourism, and the military.

**National Ocean Industries Association,
Tim Charters**

Document ID: BOEM-2017-0074-10858

The commenter expressed support for oil and gas leasing in the 25 planning areas proposed in the DPP. The commenter stated that a broad comprehensive plan can help alleviate dependence on foreign energy and shortcomings in domestic infrastructure. The commenter also stated that resource development in the Pacific will end California's dependence on foreign oil through 2050. The commenter argued that oil and gas development and other ocean industries can coexist and thrive alongside each other.

Noble Corporation PLC, Julie J. Robertson

Document ID: BOEM-2017-0074-11176

The commenter expressed support for the DPP and stated that oil and gas leasing and development supports jobs, provides billions in U.S. gross domestic product, and provides millions of dollars to the Federal government. The commenter argued that it is time to explore all OCS regions to determine their oil and gas potential.

**Offshore Operators Committee,
Greg Southworth****Document ID: BOEM-2017-0074-10818**

The commenter expressed support for expanded oil and gas leasing in the Atlantic, Pacific, and Arctic areas. The commenter stated that developing offshore oil and natural gas resources will help America achieve energy dominance and economic prosperity. The commenter stated that economic benefits include new jobs and billions in private sector spending and revenue for Federal and state governments.

Ridgewood Energy, Kenneth Lang**Document ID: BOEM-2017-0074-10507**

The commenter expressed support for oil and gas leasing in the GOM and expanding to include all OCS locations. The commenter also stated that the oil and gas industry creates many high-paying jobs and that the industry has safety and responsibly drilled wells for oil and gas production. The commenter stated that the economy would collapse should Texas and Louisiana oppose oil and gas leasing.

Shell Oil Company, Bruce Culpepper**Document ID: BOEM-2017-0074-10883**

The commenter expressed support for the DPP. The commenter stated that offshore drilling will bring substantial economic, environmental, and national security benefits that can be secured in a safe and responsible manner. The commenter also stated that potential OCS use conflicts in new areas can be effectively mitigated.

**South Carolina Petroleum Council,
Mark Harmon****Document ID: BOEM-2017-0074-10856**

The commenter expressed support for the inclusion of the Atlantic planning areas in the DPP. The commenter stated that current data for energy potential in the Atlantic are outdated and advances in technology and data processing

have improved the industry's ability to locate oil and natural gas offshore. The commenter also stated that the benefits of offshore exploration and drilling include economic growth and job creation.

Statoil, Bjorn Braathen**Document ID: BOEM-2017-0074-10955**

The commenter stated that the Nation's energy policy must embrace both offshore energy sources and renewables. The commenter requested that BOEM's evaluation of OCS areas follow the multi-step process outlined in the OCS Lands Act. The commenter also stated that predictability and certainty in offshore leasing are very important factors in successful exploration and development.

Texas Oil and Gas Association, David Killam**Document ID: BOEM-2017-0074-11196**

The commenter supported the DPP and discussed the flexibility it would provide industries when it comes to energy. The commenter mentioned the ability of oil and gas development to coexist with tourism and fisheries.

**Virginia Petroleum Council, et al.,
Miles Morin****Document ID: BOEM-2017-0074-11145**

The commenter supported the expansion of the leasing program. The commenter discussed the importance of energy independence for economic and national security interests. The commenter presented the energy consumption of Virginia, and how offshore activity could help the average consumer. The commenter also mentioned that oil and gas development have been proven to coexist with fishing, tourism, and military.

A.6 NON-ENERGY EXPLORATION AND PRODUCTION INDUSTRY AND ASSOCIATIONS

List of Commenters

Alabama Petroleum Council	Colorado Business Roundtable
Alaska Chamber	Colorado Farm Bureau
Alaska Longline Fishermen's Association	Colorado Mining Association
Alaska Trucking Association	Connecticut Petroleum Council
Allen Construction; Environmental Defense Center	Cordova District Fishermen United
Alyeska Pipeline Service Company	Davis Block & Concrete
American Chemistry Council	Dominion Energy
American Energy Distribution	Douglass Distribution Company
American Highway Users Alliance	Dunewood Property Owners Association
American Iron and Steel Institute	E2 (Environmental Entrepreneurs)
American Petroleum Institute, Minnesota and Wisconsin	Earth Analytical Sciences, Inc.
American Petroleum institute, Ohio; Ohio AgriBusiness Association and the Ohio Cast Metals Association	Eastern Shore of Virginia Chamber of Commerce
American Real Estate	Eddie's Syndi-cut
American Wind Energy Association	Energy Industries of Ohio
Apter Industries, Inc	E-Z Mart Stores, Inc.
Arkansas Petroleum Council	Farmington Chamber of Commerce NM
Art Services North	Fishing Partnership
Associated General Contractors of Alaska	Florida Petroleum Council, David Mica
Associated Petroleum Industries of Pennsylvania	Florida Petroleum Council, et al., Eric Hamilton
Associated Petroleum Industries of Pennsylvania	Florida Petroleum Marketers Association
Atlantic Offshore Lobstermen's Association	Florida State Hispanic Chamber of Commerce,
Bagoy's Florist & Home	Forging Industry Association
Bald Head Association,	FortyTwo Contracting
Barden Construction	GATE Petroleum Company
Barneгат Bay Yacht Racing Association	Georgia Association of Convenience Stores
Barney Bishop Consulting, LLC	Georgia Petroleum Council
Barry Graham Oil Service LLC	Greater Atlantic City Chamber of Commerce
Bayou Industrial Group	Greater Iberia Chamber of Commerce
Bidarka, LLC	Greater New Orleans, Inc.
Black Pearl Exploration, LLC and Challenger Exploration, LLC	Greater Pensacola Florida Chamber of Commerce
Blueprint Alaska	Greater Port Arthur Chamber of Commerce
Business Alliance for Protecting the Atlantic Coast	Greater Tomball Area Chamber of Commerce
Business Council of Alabama	Greater Wildwoods Hotel and Motel Association
C+L Creative	Gulf Coast Business Council
Cape May Chamber of Commerce	Hagley Estates Property Owners Association
Cape May County Chamber of Commerce, New Jersey Tourism Industry Association, Business Alliance for the Protection of the Atlantic Coast	Hampton Roads Military and Federal Facilities Alliance
Cape May County Chamber of Commerce	Harvey Gulf International Marine
Caribbean Motel	Hinds Quality Fences
Cars Are Basic	Houma-Terrebonne Chamber of Commerce
Central Bering Sea Fishermen's Association	Ice House Oysters
Ceres BICEP Network	Indiana Petroleum Council
Chamber of Alaska	IndivisibleSF
Chemical Industrial Council of Illinois	International Association of Drilling Contractors
	International Association of Geophysical Contractors
	International Union of Operating Engineers Local 450
	Iowa Motor Truck Association
	Jacksonville Axemen, Drew Slover

Jeff Davis Parish Economic Development, Jeff Davis Tourist Commission, Jeff Davis Chamber of Commerce
Jefferson County Washington's Tourism Coordinating Council
Jersey Coast Anglers Association, New Jersey State Federation of Sportsmen Clubs
Jeux De Vagues
Kai Lio Ocean Sports
Kansas Petroleum Council - API; Kansas Chamber of Commerce; Kansas Manufacturing Council
KENT Distributors, Inc.
Kentucky Oil and Gas Association
KLS Engineering Inc.
Kwik Check Food Stores, Inc.
Laborers Local 341
Lime Instruments
Long Island Association
Long Island Commercial Fishing Association
Louisiana Motor Transport Association
Louisiana Oil Marketers Convenience Store Association
Maine Lobstering Union
Maine Lobstermen's Association
Manufacture Alabama
Marine & Industrial Supply
Massachusetts Fishermen's Partnership. Inc.
Massachusetts Lobstermen's Association
Metro Parks Tacoma
Mid- Gulf Shipping Company, Inc.
Minnesota Service Station & Convenience Store Association
Mississippi Economic Council
Monterey Peninsula Chamber of Commerce
Myrtle Beach Area Chamber of Commerce
Nassau Hiking & Outdoor Club, Inc.
National Association of Charterboat Operators
National Association of Manufacturers
Nevada Trucking Association
New Mexico Cattle Growers' Association
New Mexico Wool Growers, Inc.
North American Submarine Cable Association
North Start Terminal & Stevedore Co. LLC
Northeast Seafood Coalition
Ocampo, Inc.
Offshore Marine Service Association
Ohio AgriBusiness Association
Ohio Cast Metals Association
Ohio Chamber of Commerce
Ohio Chemistry Technology Council
Ohio Manufacturers' Association
Ohio Oil and Gas Association
Ohio Trucking Association
Oklahoma State Chamber of Commerce

One Acadiana
Ossabaw Island Foundation
Outer Banks Chamber of Commerce
Pacific Coast Federation of Fishermen's Associations
Perdido Key Chamber of Commerce
Pester Marketing Company/Alta Convenience
Petroleum Association of Wyoming
Petroleum Equipment & Services Association
Petroleum Marketers Association of America
Plaza Group
Point Blue Conservation Science
Research and Technical Services Company
Resource Development Council for Alaska
Rowan Companies
Seafood Harvesters of America
Seafreeze Ltd.
Security Aviation
Sheetz
Shellfish Growers of Virginia
South Carolina Association of Taxpayers
South Carolina Chamber of Commerce
South Carolina Manufacturers Alliance
South Central Industrial Association
South Louisiana Economic Council
Southern New Jersey Development Council
Spectrum Geo
Square One Markets Inc.
St. Mary Chamber of Commerce
St. Tammany West Chamber of Commerce
Superior Energy Services
Sweet Caribou
SYNERGE
Tampa Bay Beaches Chamber of Commerce
Tennessee Oil and Gas Association
Tennessee Petroleum Council, Tennessee Fuel and Convenience Store Association
Texas Association for Business
Texas Association of Manufacturers
Texas Trucking Association
The American Waterways Operators
The Business Alliance for Protecting the Pacific Coast
Thibodaux Chamber of Commerce
Tidewater Inc.
tmg Consultancy
Transocean
United Fishermen of Alaska
Utah Mining Association
Utah Petroleum Association
Virginia Beach Restaurant Association
Virginia Chamber of Commerce
Vivlamore Companies
W. D. Scott Group, Inc.
Washington Dungeness Crab Fishermen's Association

Waste Reduction and Management Institute
Wisconsin Industrial Energy Group, Inc.
Y&S Marine

Alaska Chamber, Ben Mulligan**Document ID: BOEM-2017-0074-10754**

The commenter supported resource development, provided that it is responsible and brings economic opportunity to Alaska. The commenter discussed how energy development could extend the longevity of the TAPS.

Alaska Longline Fishermen’s Association, Linda Behnken**Document ID: BOEM-2017-0074-10701**

The commenter opposed the inclusion of Arctic due to the potential adverse impacts on the fishing industry and concerns for environmental impacts such as oil spills.

Alaska Trucking Association, Aves Thompson**Document ID: BOEM-2017-0074-10689**

The commenter supported lease sales for the Alaska Arctic in both the Beaufort and Chukchi seas. The commenter suggested that these lease sales would support greater price stability, energy security, economic wellbeing, and jobs in Alaska.

Allen Construction; Environmental Defense Center, Dennis Allen**Document ID: BOEM-2017-0074-11037**

The commenter opposed the California planning region and explained the risks that oil spills pose for the construction industry. The commenter also discussed the importance of renewable alternatives.

Alyeska Pipeline Service Company, Tomas J. Barrett**Document ID: BOEM-2017-0074-10717**

The commenter expressed support for holding lease sales in the three planning areas in the Beaufort and Chukchi seas. The commenter also stated that the lease sales are important to the future sustainability of the TAPS and the

Note: Document contains summaries that were part of a public meeting transcript (BOEM-2017-0074-11238)

energy security and job prosperity of the United States.

American Chemistry Council, Owen Kean**Document ID: BOEM-2017-0074-10853**

The commenter supported the Atlantic, Pacific, and Alaska leasing areas. The commenter stated that these areas are important for a national energy policy. The commenter also urged that the GOM be included and expressed concern with the uncertainty surrounding that region.

American Energy Distribution, Shawn Bhagat**Document ID: BOEM-2017-0074-11084**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

American Highway Users Alliance, Gregory Cohen**Document ID: BOEM-2017-0074-11263**

The commenter supported leasing in planning regions and requested that they be maintained in the final program. The commenter stated that allowing access to previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

**American Iron and Steel Institute,
Thomas Gibson**

Document ID: BOEM-2017-0074-10867

The commenter supported all planned leasing regions, and the benefit that increased energy would bring. The commenter discussed the flexibility that increasing natural gas resources would provide to the steel industry.

**American Petroleum Institute, Minnesota
and Wisconsin, Erin T. Roth**

Document ID: BOEM-2017-0074-11202

The commenter supported the expanded access in the DPP and discussed the benefits increased energy access would bring to consumers.

**American Petroleum Institute Ohio, Ohio
AgriBusiness Association and the Ohio Cast
Metals Association**

Document ID: BOEM-2017-0074-11229

The commenter supported the DPP and the pursuit of a robust energy policy. The commenter discussed the far-reaching economic benefits that increased energy would provide, such as helping alleviate unemployment and poverty, boosting consumer spending on goods and services, and increasing government revenues at all levels.

**American Petroleum Institute-Pennsylvania
and State Coalition Members,
Stephanie Wissman**

Document ID: BOEM-2017-0074-11101

The commenter supported an all-of-the-above energy policy that includes oil and gas exploration as proposed. The commenter suggested that the U.S. take advantage of all energy sources and discussed the economic benefits abundant energy sources will provide across the economy.

American Real Estate, Lou Huber

Document ID: BOEM-2017-0074-11367

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter

discussed the infrastructure in place, and the economic boost that oil and gas activity would provide. The commenter also mentioned that the U.S. safety standards will help ensure environmental progress.

Apter Industries, Inc., J. Scott Apter

Document ID: BOEM-2017-0074-10762

The commenter supported the inclusion of the Atlantic planning region and urged that all planning regions be maintained. The commenter discussed the immense economic benefit that oil and gas activity will create. The commenter also expressed that the DPP will decrease reliance on foreign energy.

Art Services North, Darl Schaaf

Document ID: BOEM-2017-0074-10694

The commenter supported the inclusion of the Arctic region of the leasing plan. The commenter stated that the leasing plan would have economic development benefits to the State of Alaska.

**Associated General Contractors of Alaska,
John MacKinnon**

Document ID: BOEM-2017-0074-10791

The commenter supported the Arctic planning region and welcomed the reversal of the 2016 exclusion of the region. The commenter discussed the economic boom that energy development would create for Alaska. The commenter also discussed the strategic advantage that energy independence would create for the United States.

**Associated Petroleum Industries of
Pennsylvania, Stephanie Catarino Wissman**

Document ID: BOEM-2017-0074-11271

The commenter supported the DPP and the pursuit of a robust energy policy. The commenter discussed the far-reaching economic benefits that increased energy would provide. Specifically, the commenter focused on Pennsylvania and their economic needs, citing

the fact that the energy industry supports more than 300,000 jobs in the state.

Associated Petroleum Industries of Pennsylvania, Barbara Feidt
Document ID: BOEM-2017-0074-11141

The commenter supported the expansion leasing program. The commenter discussed the importance of energy independence for economic and national security interests. The commenter presented the energy consumption of Pennsylvania, and how offshore activity could help the average consumer. The commenter also mentioned that oil and gas development have been proven to coexist with fishing, tourism, and military.

Atlantic Offshore Lobstermen's Association, Heidi Henninger
Document ID: BOEM-2017-0074-10738

The commenter opposed the inclusion of the Atlantic Ocean in the leasing program. The commenter stated that the risks imposed on wildlife and the environment are not worth the benefits gained from the energy source.

Bagoy's Florist & Home, Chanda Mines
Document ID: BOEM-2017-0074-11368

The commenter expressed support for the leasing regions in Alaska. The commenter discussed the resources that would be available, and the economic boost that oil and gas resources would provide.

Bald Head Association, Judy Porter
Document ID: BOEM-2017-0074-10966

The commenter expressed opposition to the DPP and stated that it should not be finalized. The commenter stated that there should not be any effort to alter the leasing areas currently in place. The commenter discussed the Bald Head Island community, which will be harmed if any offshore drilling takes place in southeastern North Carolina.

Barden Construction, Lisa and Robert Barden
Document ID: BOEM-2017-0074-5909

The commenter opposed to the DPP, specifically proposed oil and gas leasing in the Pacific area off of Oregon. The commenter cited environmental concerns, adverse impacts on tourism, and global warming as reasons for opposition.

Barnegat Bay Yacht Racing Association, Ed Vienckowski
Document ID: BOEM-2017-0074-100265

The commenter opposed the inclusion of the Atlantic region for oil and gas leasing due to potential adverse impacts on tourism, property values, wildlife, and fisheries in New Jersey.

Barney Bishop Consulting, LLC, Barney T. Bishop III
Document ID: BOEM-2017-0074-10621

The commenter supported the inclusion of the Atlantic and Gulf leasing areas around Florida. The commenter stated that the inclusion will provide economic benefits to the people of Florida and that oil and gas leasing will be done in a responsible manner and will help support the Nation's energy needs.

Barry Graham Oil Service, LLC, Barry A. Graham
Document ID: BOEM-2017-0074-11209

The commenter supported the leasing program, specifically the expanded access in the GOM. The commenter discussed how expanded access will create economic benefits, which will in turn make investment in the United States more attractive. The commenter urged that all of the planning regions on the East Coast be maintained in the final program.

Bayou Industrial Group, Monique Crochet
Document ID: BOEM-2017-0074-10716

The commenter supported the inclusion of the GOM in the leasing proposal. The commenter stated that this inclusion will support energy

dominance, job growth, and general economic prosperity.

Bidarka, LLC, Caroline Higgins
Document ID: BOEM-2017-0074-11130

The commenter supported the Artic planning regions and encouraged BOEM to maintain all proposed leasing regions. The commenter discussed the energy potential in the Chukchi and Beaufort seas, and the economic boost that would be provided to the region by developing these energy resources. The commenter also mentioned that oil and gas activity would extend the longevity of the TAPS.

Black Pearl Exploration, LLC and Challenger Exploration, LLC,
R. Michael Looney
Document ID: BOEM-2017-0074-11094

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Blueprint Alaska, Sarah Erkmann Ward
Document ID: BOEM-2017-0074-11129

The commenter supported the Artic planning regions and encouraged BOEM to maintain all proposed leasing regions. The commenter discussed the energy potential in the Chukchi and Beaufort seas, and the economic boost that would be provided to the region by developing these energy resources. The commenter also mentioned that oil and gas activity would extend the longevity of the TAPS.

Business Alliance for Protecting the Atlantic Coast, Frank Knapp, Jr.
Document ID: BOEM-2017-0074-10821

The commenter requested an exemption for the Atlantic region on the grounds that drilling would hurt the tourism industries in these

Atlantic states. The commenter also requested an extension of the comment period and both open houses and oral testimonies in more coastal areas and other cities.

Business Alliance for Protecting the Atlantic Coast, Frank Knapp, Jr.
Document ID: BOEM-2017-0074-0647

The commenter requested BOEM extend the comment period by 60 days and hold additional public meetings in coastal communities across all leasing areas. The commenter also requested that the format of the public meetings be changed to formal oral testimony.

Business Alliance for Protecting the Atlantic Coast, Frank Knapp, Jr.
Document ID: BOEM-2017-0074-10527

The commenter opposed the inclusion of the Atlantic Coast in the planning regions. The commenter also asked for an extension to the comment period, and for more hearings to be conducted in coastal communities.

Business Council of Alabama,
William Canary
Document ID: BOEM-2017-0074-10916

The commenter supported the proposed leasing regions, including the expanded access to the GOM. The commenter expressed the benefits to Alabama, and their provision of energy to the country. The commenter also mentioned that the strict safety requirements in this country would help continue environmental progress.

C+L Creative, Laura and Clay Butcher
Document ID: BOEM-2017-0074-11132

The commenter supported the Artic planning regions and encouraged BOEM to maintain all proposed leasing regions. The commenter discussed the energy potential in the Chukchi and Beaufort seas, and the economic boost that would be provided to the region by developing these energy resources. The commenter also mentioned that oil and gas activity would extend the longevity of the TAPS.

**Cape May Chamber of Commerce,
Vicki Clark**

Document ID: BOEM-2017-0074-10575

The commenters are opposed to the leasing proposal off of the Atlantic Coast because of potential risks to the environment, tourism, and wildlife.

**Cape May County Chamber of Commerce,
New Jersey Tourism Industry Association,
Business Alliance for the Protection of the
Atlantic Coast, Vicki Clark**

Document ID: BOEM-2017-0074-11238

The commenter opposed the DPP and stated that spills would be inevitable. The commenter discussed the harms of spills on coastal communities and the economy.

**Cape May County Chamber of Commerce,
Vicki Clark**

Document ID: BOEM-2017-0074-5860

The commenter opposed any additional offshore drilling regions. The commenter cited low estimates of recoverable oil and gas, and high risks associated with spills. The commenter discussed the environmental and economic risks.

Caribbean Motel, Carolyn Emigh

Document ID: BOEM-2017-0074-10888

The commenter opposed the entirety of the leasing regions and requested that the proposal be withdrawn. The commenter discussed the certainty of spills, and thus the certainty of damage to the environment, economy, and climate.

Cars Are Basic, Thomas Becker

Document ID: BOEM-2017-0074-0616

The commenter expressed support for the inclusion of the Pacific Ocean in the DPP. The commenter supported the increased investment in oil and gas infrastructure to secure long-term energy generation and urged BOEM to reconsider the exemption given to Florida.

**Central Bering Sea Fishermen's Association,
Ray Melovidov**

Document ID: BOEM-2017-0074-10796

The commenter opposed the inclusion of several planning areas within Alaska. The commenter discussed Alaska's reputation for sustainable fishing, which could be compromised with drilling. The commenter urged that any sales consider what steps will be needed to maintain the health of the ocean.

Ceres BICEP Network, Anne Kelly

Document ID: BOEM-2017-0074-10880

The commenter opposed the DPP and urged for BOEM to consider fully the economic impacts of the plan. The commenter discussed fisheries, tourism, boom-and-bust cycles, and increased climate impacts.

Chamber of Alaska, Ben Mulligan

Document ID: BOEM-2017-0074-10754

The commenter supported the inclusion of the Alaska region of the proposal due to the economic benefits that oil and gas bring to the state. The commenter fears that the TAPS would be shut down if the proposal is not carried out, which would lead to devastating economic effects in the state.

**Chemical Industrial Council of Illinois,
Mark Biel**

Document ID: BOEM-2017-0074-11138

The commenter supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

Colorado Business Roundtable, Jeff Wasden
Document ID: BOEM-2017-0074-11115

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries that would benefit from access to affordable and reliable energy. The commenter argued that these benefits bring economic boosts that the country has seen in recent years.

Colorado Farm Bureau, Don Shawcroft
Document ID: BOEM-2017-0074-10702

The commenter supported all leasing areas of the proposal due to the benefits for the agriculture industry, which requires affordable energy, in Colorado.

Colorado Mining Association,
Stan Dempsey, Jr.**Document ID: BOEM-2017-0074-11123**

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in Colorado that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

Connecticut Petroleum Council,
Steven Guevyan**Document ID: BOEM-2017-0074-11144**

The commenter supported the expansion leasing program. The commenter discussed the importance of energy independence for economic and national security interests. The commenter presented the energy consumption of Connecticut, and how offshore activity could help the average consumer. The commenter also mentioned that oil and gas development have been proven to coexist with fishing, tourism, and military.

Cordova District Fishermen United,
Jerry McCune**Document ID: BOEM-2017-0074-10375**

The commenter opposed the inclusion of the Arctic area of the DPP. The commenter represented fishermen in Alaska and feared for the wellbeing of the fishing industry if oil and gas leasing were to occur in their fishing grounds.

Davis Block & Concrete, Regina Daniels
Document ID: BOEM-2017-0074-10804

The commenter supported the DPP and the inclusion of Alaska leasing regions, especially the Beaufort and Chukchi seas. The commenter stated that increased development in the Alaskan Arctic would be an economic boost to the region.

Dominion Energy, Mark Mitchell**Document ID: BOEM-2017-0074-10897**

While the commenter currently does not have a position on the use of the OCS for oil and gas development, the commenter expressed concern about the potential for multiple use challenges in the Atlantic OCS. The commenter described their initiatives to construct offshore wind turbines and develop and harness renewable offshore wind energy in the Atlantic OCS. The commenter requested BOEM consider the time and financial investments it has made in its efforts to foster the development of offshore wind.

Douglass Distributing Company Managing
Partner Bill Douglass, Bill Douglass**Document ID: BOEM-2017-0074-7568**

The commenter expressed support for the DPP, specifically expanded access in the GOM off the coast of Texas. The commenter stated that offshore drilling could provide Texas families and businesses with an economic boost and ensure a long-term domestic energy supply. The commenter also stated that the history of coexistence among various activities in the Gulf underscores this opportunity.

**Dunewood Property Owners Association,
Jim Rosenthal****Document ID: BOEM-2017-0074-10625**

The commenter opposed any new offshore activity in New York, and focused discussion on the negative economic impacts. The commenter discussed New York's economy, and its dependence on tourism and fisheries, which in turn depend on clean coastal environments.

**E2 (Environmental Entrepreneurs),
Grant Carlisle****Document ID: BOEM-2017-0074-11060**

The commenter opposed the expansion of offshore activity. The commenter discussed the economic costs of the plan, and how it would deepen the U.S. dependence on fossil fuels.

**Earth Analytical Sciences, Inc.,
William Robbins****Document ID: BOEM-2017-0074-10705**

The commenter supported the inclusion of all proposed leasing areas. The commenter stated that this policy will support stable domestic energy, increased income to families, and general economic benefits for the country.

**Eastern Shore of Virginia Chamber of
Commerce, Robert Marsh****Document ID: BOEM-2017-0074-10529**

The commenter opposed the inclusion of the Atlantic planning region. The commenter discussed the Eastern Shore of Virginia, and its dependence on tourism and aquaculture. The commenter stated that the DPP threatens the economy of the Eastern Shore of Virginia.

Eddie's Syndi-cut, Charles SchMidtke**Document ID: BOEM-2017-0074-11198**

The commenter supported the expansion of access in the GOM. The commenter discussed the importance of reliable energy, and the economic boost that expanded energy would provide. The commenter also mentioned stricter safety and regulatory standards.

Energy Industries of Ohio, Robert Purgert**Document ID: BOEM-2017-0074-2888**

The commenter supported the DPP as written, stating that the expansion of areas available for lease will help develop American energy. The commenter discussed the benefits for individuals, businesses, and the economy.

Elite Parking Services, Dane Grey**Document ID: BOEM-2017-0074-11190**

The commenter supported an all-inclusive approach to energy, which will support Florida's economy. The commenter discussed the importance of balancing energy needs with tourism and environmental concerns.

E-Z Mart Stores, Inc., Sonja Hubbard**Document ID: BOEM-2017-0074-11118**

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in Texas and Arkansas that would benefit from access to affordable and reliable energy. The commenter stated that these benefits bring economic boosts that the country has seen in recent years.

**Farmington Chamber of Commerce NM,
Audra Winters****Document ID: BOEM-2017-0074-11366**

The commenter supported a robust energy policy, which includes the DPP. The commenter mentioned the recent economic jolt from the American Energy Revolution, and the importance of energy independence.

Fishing Partnership, J.J. Bartlett**Document ID: BOEM-2017-0074-10826**

The commenter expressed opposition to oil and gas leasing in the Atlantic Ocean and requested that the entire region be exempt from the leasing program. The commenter described the economic hardship that fishermen faced after the consumer demand drop stemming from the Deepwater Horizon spill.

**Florida Petroleum Marketers Association,
Ned Bowman****Document ID: BOEM-2017-0074-11113**

The commenter supported the GOM planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the GOM, specifically in Florida. The commenter also stated that greater environmental harm would result in excluding the GOM, as it would increase dependence on foreign energy.

**Florida State Hispanic Chamber of
Commerce, Julio Fuentes****Document ID: BOEM-2017-0074-6651**

The commenter supported the expansion of leasing regions. The commenter mentioned the economic benefits that come from offshore drilling, from jobs to increased energy options.

Forging Industry Association, Jennifer Reid**Document ID: BOEM-2017-0074-10851**

The commenter supported the DPP and stressed that an all-inclusive energy policy will create jobs and spur investment in all forms of energy.

FortyTwo Contracting, John Snead**Document ID: BOEM-2017-0074-11112**

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

GATE Petroleum Company, R B Hoover**Document ID: BOEM-2017-0074-11083**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would

provide to Florida. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Georgia Association of Convenience Stores,
Angela Holland****Document ID: BOEM-2017-0074-11265**

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Georgia. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

Georgia Petroleum Council, Hunter Hopkins**Document ID: BOEM-2017-0074-10921**

The commenter expressed support for the DPP, specifically offshore drilling off the coast of Georgia. The commenter stated that including the Atlantic planning areas in the Proposed Program will help bring jobs and economic gain to Georgia and support the Nation's economic and national security. The commenter also stated that offshore energy production can coexist with tourism, commercial fishing, and military exercises.

**Greater Atlantic City Chamber of
Commerce, Joseph Kelly****Document ID: BOEM-2017-0074-10612**

The commenter opposed the inclusion of the Atlantic Ocean planning region. The commenter discussed New Jersey's economy and its dependence on a clean coastal environment.

**Greater Iberia Chamber of Commerce,
Janet Faulk-Gonzales****Document ID: BOEM-2017-0074-11080**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would

provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Greater New Orleans, Inc., Michael Hecht
Document ID: BOEM-2017-0074-11086**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Greater Pensacola Florida Chamber of Commerce, Todd Thomson
Document ID: BOEM-2017-0074-6636**

The commenter opposed to the proposal in the Gulf off of Florida due to the fears of an oil spill and its effects on tourism as well as impacts on the military training that occurs in the Gulf area.

**Greater Port Arthur Chamber of Commerce, William B. McCoy
Document ID: BOEM-2017-0074-11363**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide. The commenter also mentioned that the U.S. safety standards will help ensure environmental progress.

**Greater Tomball Area Chamber of Commerce, Bruce Hillegeist
Document ID: BOEM-2017-0074-10681**

The commenter opposed the inclusion of the Arctic area of the DPP. The commenter represented fishermen in Alaska and feared for the wellbeing of the fishing industry if oil and gas leasing were to occur in their fishing grounds.

**Greater Wildwoods Hotel and Motel Association, Steve Tecco
Document ID: BOEM-2017-0074-10627**

The commenter opposed offshore drilling activities in the Atlantic and expressed concern for the effect to the tourism community.

**Greater Wildwoods Hotel Motel Association, Steve Tecco
Document ID: BOEM-2017-0074-10627**

The commenter opposes the inclusion of the Atlantic region due to fears of adverse environmental impact and a negative effect on the economic wellbeing of coastal New Jersey.

**Gulf Coast Business Council, Ashley Edwards
Document ID: BOEM-2017-0074-10756**

The commenter supported the inclusion of the GOM in the leasing program. The commenter stated that the Mississippi coast economy will benefit from the program, and that the country will benefit from the expanded access to energy.

**Hagley Estates Property Owners Association, Tom Stickler
Document ID: BOEM-2017-0074-10817**

The commenter opposed the inclusion of the Atlantic area proposed in the DPP. The commenter cited environmental impact, adverse effects on tourism, and a lack of benefit to the proposal as reasons for opposition.

**Hampton Roads Military and Federal Facilities Alliance, Thomas Shepperd
Document ID: BOEM-2017-0074-4104**

The commenter opposed the inclusion of Virginia in the leasing regions. The commenter requested that a public meeting be held in Hampton, Virginia.

**Harvey Gulf International Marine, Robert Vosbein
Document ID: BOEM-2017-0074-10727**

The commenter supported the expansion of offshore oil and gas access. The commenter discussed the economic benefits that increased

U.S. energy access will bring, and the importance of energy security.

Hinds Quality Fences, Micki Hinds
Document ID: BOEM-2017-0074-11085

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Houma-Terrebonne Chamber of Commerce, Jason W. Bergeron
Document ID: BOEM-2017-0074-11189

The commenter supported the GOM planning region and discussed the economic hardship that Louisiana has recently fallen under. The commenter discussed the wide-reaching economic benefits that energy could provide, as well as the importance of developing under the U.S. stricter safety and regulatory requirements.

Ice House Oysters, Linda Small
Document ID: BOEM-2017-0074-5911

The commenter opposed to the DPP in the Atlantic area. The commenter cited environmental concerns, adverse effects on other industries such as fishing, and tourism in Maine.

Indiana Petroleum Council, Maureen Ferguson
Document ID: BOEM-2017-0074-11308

The commenter expressed support for the expansion of oil and gas exploration and development in the Eastern GOM, the Atlantic, Alaska, and the Pacific. The commenter stated that offshore oil and gas development is vital for economic growth and natural security. The commenter also stated that offshore production would help the average energy consumer, especially in Indiana.

IndivisibleSF, Remi Tan
Document ID: BOEM-2017-0074-2099

The commenter requested a 60-day extension of the comment period and additional meetings be held in California cities. The commenter also asked that the format of the public meeting be “open house” style.

International Association of Drilling Contractors, Jim Rocco
Document ID: BOEM-2017-0074-10900

The commenter expressed support for BOEM’s decision to include 25 planning areas available for leasing. The commenter stated that opening the OCS to develop oil and gas resources will provide jobs and revenue for the economy. The commenter also stated that the industry is much safer due to the evolution of safety features, revised regulations, and performance management requirements.

International Association of Geophysical Contractors, Dustin Van Liew
Document ID: BOEM-2017-0074-11002

The commenter expressed support for the DPP and suggested no other exclusions. The commenter stated that it is important for the Nation to explore potential resources with new technologies and that other ocean uses can coexist with oil and gas exploration and development.

International Union of Operating Engineers Local 450, C. L. Wiggins
Document ID: BOEM-2017-0074-11098

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Iowa Motor Truck Association,
Brenda Neville****Document ID: BOEM-2017-0074-11362**

The commenter supported a robust energy policy, which includes the DPP. The commenter mentioned the recent economic jolt from the American Energy Revolution, and the importance of energy independence.

Jacksonville Axemen, Drew Slover**Document ID: BOEM-2017-0074-100985**

The commenter supported an all-inclusive approach to energy, which will support Florida's economy. The commenter discussed the importance of balancing energy needs with tourism and environmental concerns.

**Jeff Davis Parish Economic Development,
Jeff Davis Tourist Commission, Jeff Davis
Chamber of Commerce, Marion Fox****Document ID: BOEM-2017-0074-11092**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Jefferson County Washington's Tourism
Coordinating Council, Bill Roney****Document ID: BOEM-2017-0074-10522**

The commenter is opposed to the proposal in the Pacific and stated leasing would violate Federal statutes related to the Olympic Coast NMS as well as pose cultural and economic risks to the area. The commenter stated concern that drilling would hurt fisheries and the tourism industry.

**Jersey Coast Anglers Association, New Jersey
State Federation of Sportsmen Clubs,
Tom Fote****Document ID: BOEM-2017-0074-11238**

The commenter opposed any offshore drilling and stated it would cause great harm to the angler community in New Jersey.

Jeux De Vagues, Katherine Terrell**Document ID: BOEM-2017-0074-11200**

The commenter opposed the DPP, and stated that it would cause great harm to the marine ecosystem, coastal communities, and tourism and recreation industries. The commenter also stated that the DPP contradicts findings by BOEM in previous analysis.

Kai Lio Ocean Sports, Chris Clodfelter**Document ID: BOEM-2017-0074-10679**

The commenter opposed any new offshore leasing and development. The commenter stated that the U.S. is now a net exporter of produced hydrocarbons, and new leasing and development would simply create negative effects for the economy and environment of the coastal areas.

**Kansas Petroleum Council - API; Kansas
Chamber of Commerce; Kansas
Manufacturing Council, Kent Eckles****Document ID: BOEM-2017-0074-8971**

The commenters expressed support for opening more areas to offshore exploration and development. The commenter also stated that offshore oil and gas exploration is safe, and the United States needs to take advantage of the potential benefits such as the creation of additional jobs, stable energy prices, additional government revenues, and a strengthened national security.

KENT Distributors, Inc., William B. Kent**Document ID: BOEM-2017-0074-11173**

The commenter expressed support for the DPP, specifically expanded access in the GOM off the coast of Texas. The commenter stated that offshore drilling could provide Texas families

and businesses with an economic boost and ensure a long-term domestic energy supply. The commenter also stated that the history of coexistence among various activities in the Gulf underscores this opportunity.

**Kentucky Oil and Gas Association,
James Watts**

Document ID: BOEM-2017-0074-10737

The commenter expressed support for the expansion of oil and gas leasing. The commenter stated that access to affordable and reliable energy is critical to support the Nation's economy and strengthen national security.

KLS Engineering Inc., Neil Prescott
Document ID: BOEM-2017-0074-10588

The commenter did not have an opinion on the leasing but wrote to inform about a drilling technology that allows for onshore to offshore drilling. The commenter stated that the technology could protect the environment and guard against the issues associated with offshore drilling.

Kwik Check Food Stores, Inc., Kevin Smartt
Document ID: BOEM-2017-0074-10626

The commenter supported the inclusion of the Gulf area in the leasing area due to the economic benefits it provides the people of Texas, the potential revenue for municipalities, and a decreased reliance on foreign energy suppliers.

Laborers Local 341, Joey Merrick
Document ID: BOEM-2017-0074-10985

The commenter supported the inclusion of the Artic and Cook Inlet leasing areas in the DPP. The commenter stated that Alaska itself will benefit greatly from the proposed areas, and that America can move closer to energy independence and dominance.

Lime Instruments, Rob Stewart
Document ID: BOEM-2017-0074-11365

The commenter supported the expansion of access in the GOM and requested that all leasing

regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide. The commenter also mentioned that the U.S. safety standards will help ensure environmental progress.

Long Island Association, Kevin Law
Document ID: BOEM-2017-0074-10528

The commenter opposed the inclusion of the Atlantic leasing region, as Long Island is dependent on their environment and waterways. The commenter asked that the same exemption granted to Florida be granted to the Long Island area.

**Long Island Commercial Fishing Association,
Bonnie Brady**

Document ID: BOEM-2017-0074-10958

The commenter opposed any expansion of offshore activity in the Atlantic and mentioned that the existing wind leasing areas will also impede commercial fishing in the region.

**Louisiana Motor Transport Association,
Chance McNeely**

Document ID: BOEM-2017-0074-11036

The commenter supported the proposed leasing program. The commenter stated that the trucking industry is supportive as they facilitate commerce across the country.

**Louisiana Motor Transport Association,
John Austin**

Document ID: BOEM-2017-0074-0644

The commenter provided support for the inclusion of the GOM in the DPP and urged BOEM to maintain all leasing areas in the PFP. The commenter stated that offshore development could provide an economic boost to families and business and secure national energy security.

**Louisiana Oil Marketers Convenience Store
Association, Natalie Isaacks**

Document ID: BOEM-2017-0074-10623

The commenter supported the inclusion of the Gulf leasing area because it will foster domestic

energy security and improve the economic situation for residents near the Gulf Coast. The commenter stated that strict safety standards have allowed oil and gas exploration to coexist with other industries for quite some time.

Maine Lobstering Union, Rock Alley
Document ID: BOEM-2017-0074-11149

The commenter opposed opening the Gulf of Maine and New England Coastal waters to offshore drilling. The commenter discussed the importance of the Maine lobster industry, and remembered the damage caused by the Deepwater Horizon oil spill.

Maine Lobstermen's Association,
Patrice McCarron
Document ID: BOEM-2017-0074-10816

The commenter opposed the inclusion of the Gulf of Maine and Atlantic Coast in the planned leasing regions. The commenter stressed Maine's dependence on the lobster fishing industry and stressed that any seismic activity would disturb migratory patterns of wildlife.

Manufacture Alabama, George Clark
Document ID: BOEM-2017-0074-10693

The commenter supported the inclusion of the Gulf region into the leasing plan. The commenter stated that this inclusion would support stable domestic energy, government tax revenue, and economic gains for American citizens.

Marine & Industrial Supply, Steve Barker
Document ID: BOEM-2017-0074-11082

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Alabama. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Massachusetts Fishermen's Partnership, Inc,
Edward Barrett
Document ID: BOEM-2017-0074-10919

The commenter opposed the Atlantic planning region. The commenter detailed some statistics from the BP Deepwater oil spill and discussed the harms that would fall on Georges Bank.

Massachusetts Lobstermen's Association,
Beth Casoni
Document ID: BOEM-2017-0074-3631

The commenter opposed the DPP, specifically the Atlantic region, from the perspective of fishing industries. The commenter discussed the issues currently facing the fishing industry, and the importance on keeping the ocean ecosystem intact.

Metro Parks Tacoma, Austin Andrew
Document ID: BOEM-2017-0074-6027

The commenter opposed the DPP, and any increase in offshore drilling in the Atlantic, Pacific, and Arctic oceans. The commenter stated that the DPP will have negative impacts on coastal communities and marine ecosystems.

Mid- Gulf Shipping Company, Inc.,
Cody Armes
Document ID: BOEM-2017-0074-11100

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Minnesota Service Station & Convenience Store Association, Lance Klatt
Document ID: BOEM-2017-0074-11121

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in Minnesota that would benefit from access to affordable and reliable energy. The commenter

argued that these benefits bring economic boosts that the country has seen in recent years.

**Mississippi Economic Council, Scott Waller
Document ID: BOEM-2017-0074-10803**

The commenter supported the inclusion of the GOM in the DPP and mentioned that it would create economic opportunities in Mississippi. The commenter also stated that the program would reduce our dependence on countries with more lenient energy safety regulations.

**Monterey Peninsula Chamber of Commerce,
Jody Hansen
Document ID: BOEM-2017-0074-4834**

The commenter opposed opening the Pacific Ocean to oil and gas leasing. The commenter argued that offshore development would pose a risk to the local and regional economy of the area, the health of residents, and the safety of marine wildlife.

**Myrtle Beach Area Chamber of Commerce,
Brad Dean
Document ID: BOEM-2017-0074-10850**

The commenter stressed the importance of a thorough evaluation of economic and environmental factors to be considered for the DPP. The commenter discussed the importance of tourism for Myrtle Beach, South Carolina, and expressed a desire to know more precise economic benefits for the region from oil and gas activity.

**Nassau Hiking & Outdoor Club, Inc.,
Guy Jacob
Document ID: BOEM-2017-0074-2404**

The commenter opposed any new offshore leasing regions, and proposed training workers in oil, gas, and coal to work in new clean energies. The commenter cited several concerns about the climate and environment.

**National Association of Charterboat
Operators, Bob Zales, II
Document ID: BOEM-2017-0074-0618**

The commenter supported the inclusion of all leasing areas in the DPP, including Atlantic, GOM, and Alaska. The commenter stressed the importance of offshore oil and gas development in securing long-term national energy security, supporting businesses and families, and providing increased Federal revenue.

**National Association of Manufacturers,
Rachel Jones
Document ID: BOEM-2017-0074-10950**

The commenter supported the leasing program and encouraged the expansion of leasing areas in the Eastern GOM, Pacific, Atlantic, and Alaska. The commenter described the importance of energy diversity for the U.S. energy renaissance.

**Nevada Trucking Association, Paul Enos
Document ID: BOEM-2017-0074-11116**

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in Nevada that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

**New Mexico Cattle Growers' Association,
Tom Sidwell
Document ID: BOEM-2017-0074-11119**

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in New Mexico that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

**New Mexico Wool Growers, Inc.,
Punk Cooper
Document ID: BOEM-2017-0074-11120**

The commenter supported the DPP and stated the benefits of a robust energy policy. The

commenter discussed the various industries in New Mexico that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

North American Submarine Cable Association, Kent Bressie
Document ID: BOEM-2017-0074-10956

The commenter expressed concern that the current DPP does not require any coordination with submarine cable infrastructure. The commenter stated that BOEM should ensure that the submarine cable infrastructure remains unharmed.

North Start Terminal & Stevedore Co. LLC, Steve Post
Document ID: BOEM-2017-0074-10592

The commenter supported the inclusion of the Arctic leasing area due to economic reasons. The commenter stated that oil and gas directly supports jobs at their organization and in Alaska in general due to it being the backbone of Alaska's economy. The commenter also stated that oil and gas exploration can be accomplished in an environmentally safe manner.

Northeast Seafood Coalition, Jackie Odell
Document ID: BOEM-2017-0074-10815

The commenter opposed the inclusion of the North Atlantic in the planning regions. The commenter mentioned conservation laws in the region, which fisheries are already complying with. The commenter stated that if the DPP proceeds ground fish fishery impacts should be considered.

Ocampo, Inc., Malik Yousif Ocampo
Document ID: BOEM-2017-0074-11106

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia. The commenter also stated that greater

environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

Offshore Marine Service Association, Aaron Smith
Document ID: BOEM-2017-0074-10945

The commenter supported the DPP and encouraged more explicit inclusion of the Eastern GOM. The commenter stated that an expanded energy program will decrease dependence on foreign providers who present higher risks. The commenter discussed improved safety standards, and the economic benefits of offshore drilling.

Ohio AgriBusiness Association, Christopher Henney
Document ID: BOEM-2017-0074-11137

The commenter supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

Ohio Cast Metals Association, Kevin Schmidt
Document ID: BOEM-2017-0074-11136

The commenter supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

**Ohio Chamber of Commerce,
Zachary Frymier**

Document ID: BOEM-2017-0074-10525

The commenter supported the DPP and urged BOEM to include all proposed leasing regions. The commenter stated that it is important to remove artificial barriers to developing American energy, which will increase economic activity.

**Ohio Chemistry Technology Council,
Bryan Bennett**

Document ID: BOEM-2017-0074-10910

The commenter urged that the DPP to allow more leasing, exploration, and development. The commenter discussed the chemistry industry and its dependence on energy sources.

**Ohio Manufacturers' Association,
Ryan Augsburger**

Document ID: BOEM-2017-0074-10723

The commenter supported the inclusion of all areas in the DPP. The commenter stated that this proposal will drive general economic benefits and will help protect manufacturing investment in the U.S.

**Ohio Oil and Gas Association,
Matthew Hammond**

Document ID: BOEM-2017-0074-11267

The commenter supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

Ohio Trucking Association, Thomas Balzer

Document ID: BOEM-2017-0074-10787

The commenter supported the leasing program, as progress towards an all-of-the-above energy

process. The commenter stated that the country will benefit from expanded energy access.

**Oklahoma State Chamber of Commerce,
Fred Morgan**

Document ID: BOEM-2017-0074-11199

The commenter is in support of all leasing areas in the DPP. The commenter is very interested in policy that supports affordable, reliable energy and believes that the economic benefits are strong and that this policy is key for national security.

One Acadiana, Troy Wayman

Document ID: BOEM-2017-0074-11099

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Ossabaw Island Foundation,
Elizabeth DuBose**

Document ID: BOEM-2017-0074-10876

The commenter opposed any exploration or drilling along the coast of Georgia. That commenter stated that at every step of the process Georgia's coast is exposed to potentially irrevocable harm.

**Outer Banks Chamber of Commerce,
Karen Brown**

Document ID: BOEM-2017-0074-10697

The commenter opposed the Atlantic leasing region, specifically areas along North Carolina's coast. The commenter described North Carolina's dependence on their clean environment and fishing industries, which would be put at risk with offshore drilling. The commenter also stated the consequences of oil spills.

**Outer Banks Chamber of Commerce,
Karen Brown**

Document ID: BOEM-2017-0074-10622

The commenter opposed the inclusion of the Atlantic area of the DPP. The commenter stated concerns about the tourism industry, environmental impacts, and adverse economic consequences resulting from drilling.

**Pacific Coast Federation of Fishermen's
Associations, Noah Oppenheim**

Document ID: BOEM-2017-0074-11004

The commenters opposed the DPP as written, stating that it prioritizes one industry over many others that also depend on the ocean's resources. The commenter provided several points in the DPP in which costs were miscalculated and stated that the DPP must be amended to achieve compliance.

**Pacific Coast Federation of Fishermen's
Associations, Noah Oppenheim**

Document ID: BOEM-2017-0074-11004

The commenter opposed the inclusion of the Atlantic area proposed in the DPP. The commenter cited environmental impact, adverse effects on tourism, and a lack of benefit to the proposal as reasons for opposition.

**Perdido Key Chamber of Commerce,
Jo Ann Slaydon**

Document ID: BOEM-2017-0074-10539

The commenter opposed the DPP, specifically mentioning the GOM. The commenter discussed the importance of Florida's beaches, tourism industry, and military presence. The commenter also presented the negative effects relating to a potential spill.

**Pester Marketing Company/Alta
Convenience, Rich Spresser**

Document ID: BOEM-2017-0074-11124

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries that would benefit from access to affordable and

reliable energy. The commenter argued that these benefits bring economic boosts that the country has seen in recent years.

**Petroleum Association of Wyoming,
Bruce Hinchey**

Document ID: BOEM-2017-0074-11270

The commenter supported the DPP and the pursuit of a robust energy policy. The commenter discussed the far-reaching economic benefits that increased energy would provide. Specifically, the commenter focused on Wyoming and their energy needs, citing the fact that the average consumer in the state spends nearly \$7,500 annually on energy.

**Petroleum Equipment & Services
Association, Leslie Beyer**

Document ID: BOEM-2017-0074-10941

The commenter expressed support for the DPP and expressed concern over the uncertainty regarding the availability of the Eastern GOM. The commenter stated that oil and gas resources can be obtained safely. The commenter described potential offshore drilling benefits such as job creation and billions in private sector spending and Federal and state revenues.

**Petroleum Marketers Association of America,
Rob Underwood**

Document ID: BOEM-2017-0074-11135

The commenter supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

Plaza Group, Randy Velarde
Document ID: BOEM-2017-0074-11134

The commenter supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that average citizens will experience. The commenter also mentioned the U.S. stricter safety and regulatory standards, which will ensure continued environmental progress.

Point Blue Conservation Science, Ellie Cohen
Document ID: BOEM-2017-0074-10805

The commenter opposed any expansion of offshore oil and gas leasing. The commenter stated that technology is not sufficient to prevent spills and explained the consequences.

Research and Technical Services Company, Tim Beck
Document ID: BOEM-2017-0074-10589

The commenter is unclear in position but is interested in teaching a method of spill clean-up that the commenter claims can salvage spilled oil and clean-up the substance in the water, or any environment. The commenter would like to inform the government and/or oil companies of the method.

Resource Development Council for Alaska, Carl Portman
Document ID: BOEM-2017-0074-10934

The commenter supported the inclusion of the Chukchi and Beaufort seas, and the Cook Inlet. The commenter believes these areas will be helpful in developing infrastructure within Alaska and create value for the TAPS. The commenter also mentioned that these leasing sites will move America further towards energy independence.

Rowan Companies, Michael Lawson
Document ID: BOEM-2017-0074-10725

The commenter supported the development of the proposed leasing program. The commenter discussed how offshore drilling is important as the country moves toward energy dominance.

Seafood Harvesters of America, Christopher Brown
Document ID: BOEM-2017-0074-10893

The commenter expressed concern for the DPP as written, stating that more weight needs to be given to the U.S. fishing industry. The commenter requested more public meetings per state.

Seafreeze Ltd., Meghan Lapp
Document ID: BOEM-2017-0074-10863

The commenter opposed any oil and gas exploration throughout the North and Mid-Atlantic. The commenter was concerned about the lack of coordinates in the DPP, which prevented more specific feedback. The commenter stated that their primary revenue generating fishing zones will be impacted by any drilling in these areas.

Security Aviation, Jason Ward
Document ID: BOEM-2017-0074-11131

The commenter supported the Arctic planning regions and encouraged BOEM to maintain all proposed leasing regions. The commenter discussed the energy potential in the Chukchi and Beaufort seas, and the economic boost that would be provided to the region by developing these energy resources. The commenter also mentioned that oil and gas activity would extend the longevity of the TAPS.

Sheetz, Joseph Sheetz
Document ID: BOEM-2017-0074-11105

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia.

The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

**Shellfish Growers of Virginia,
Michael Oesterling
Document ID: BOEM-2017-0074-11069**

The commenter opposed oil exploration off the coast of Virginia. The commenter discussed the benefits of the Virginian shellfish industry, and the risk that oil exploration poses.

**South Carolina Association of Taxpayers,
Don Weaver
Document ID: BOEM-2017-0074-10887**

The commenter supported the Atlantic planning region and viewed it as a potential source of revenue to avoid tax increases in South Carolina.

**South Carolina Chamber of Commerce,
Ted Pitts
Document ID: BOEM-2017-0074-5634**

The commenter supported the leasing program, and promoted energy independence for the U.S. The commenter discussed concerns about tourism and environmental damage but said that to refuse due diligence in identifying options is unwise.

**South Carolina Manufacturers Alliance,
Sara Hazzard
Document ID: BOEM-2017-0074-10849**

The commenter supported the exploration for oil and gas on the entirety of the OCS. The commenter expressed that any significant oil or gas deposits would be a large economic boost to the Nation.

**South Central Industrial Association,
Christy Naquin
Document ID: BOEM-2017-0074-10713**

The commenter supported oil drilling and leasing in the GOM. The commenter stated that this proposal will provide economic gains and support for jobs in surrounding areas.

**South Louisiana Economic Council,
Vic Lafont
Document ID: BOEM-2017-0074-11275**

The commenter supported expanded access in the GOM for oil and gas activities. The commenter discussed the economic benefits to Louisiana and how drilling could further boost industries such as tourism and commercial fishing. The commenter also stressed the importance of developing energy under the stricter regulatory and safety standards in the United States.

**Southern New Jersey Development Council,
Marlene Asselta
Document ID: BOEM-2017-0074-11212**

The commenter opposed the DPP and the inclusion of the Atlantic Ocean in the proposed leasing regions. The commenter stated that the drilling activities pose threats to wildlife as well as the environment.

**Spectrum Geo, Eddie Pharr
Document ID: BOEM-2017-0074-10624**

The commenter supported the inclusion of all regions in the leasing proposal. The commenter stated that this effort will support economic growth and development across the country.

**Spectrum Geo Inc., Kathryn Kelley
Document ID: BOEM-2017-0074-11128**

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

**Spectrum Geo Inc., Richie Miller
Document ID: BOEM-2017-0074-11117**

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in Texas that would benefit from access to affordable and reliable energy. The commenter

argues that these benefits bring economic boosts that the country has seen in recent years.

Spectrum Geo, Inc., Allan Willis
Document ID: BOEM-2017-0074-11127

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

Spectrum Geo, Inc., Genmeng Chen
Document ID: BOEM-2017-0074-11125

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

Spectrum Geo, Inc., Gladys Reyes
Document ID: BOEM-2017-0074-11126

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

Square One Markets Inc., Lisa Dell'Alba
Document ID: BOEM-2017-0074-11111

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

St. Mary Chamber of Commerce,
Donna Meyer
Document ID: BOEM-2017-0074-5910

The commenter supported the expansion of access to the GOM in the DPP. The commenter stated the economic benefits that would be generated by increased access to energy, and the benefits it would provide to Louisiana. The commenter discussed the benefits developing energy in the U.S. under stricter safety regulations.

St. Tammany West Chamber of Commerce,
Lacey Toledano
Document ID: BOEM-2017-0074-11096

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Sweet Caribou, James Strong
Document ID: BOEM-2017-0074-10692

The commenter supported lease sales for the Alaska Arctic area due to the benefits that oil exploration has provided the state. The commenter stated that much of the jobs and transportation infrastructure in Alaska is dependent on the oil industry and that the high-paying jobs from exploration and drilling provide a major benefit to the state.

SYNERGE, Ieva Grimm
Document ID: BOEM-2017-0074-11110

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Pennsylvania. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

**Tampa Bay Beaches Chamber of Commerce,
Robin Sollie**

Document ID: BOEM-2017-0074-10700

The commenter opposed to the proposal in the Atlantic and Gulf areas around Florida. The commenter expressed concern for the environment, tourism industry, and quality of life for the residents of Florida.

**Tennessee Oil and Gas Association,
Chuck Laine**

Document ID: BOEM-2017-00744-11246

The commenter supported the DPP and the pursuit of a robust energy policy. The commenter discussed the far-reaching economic benefits that Tennessee would receive from the plan across various industries.

**Tennessee Petroleum Council, Tennessee Fuel
and Convenience Store Association,
Mike Williams**

Document ID: BOEM-2017-0074-11102

The commenter supported an all-of-the-above energy policy that includes oil and gas exploration as proposed. The commenter suggested that the U.S. take advantage of all energy sources and discussed the economic benefits abundant energy sources will provide across the economy.

Texas Association for Business, Jeff Moseley
Document ID: BOEM-2017-0074-11078

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Texas Association of Manufacturers,
Richard Bennett**

Document ID: BOEM-2017-0074-11077

The commenter supported the expansion of access in the GOM and requested that all leasing

regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Texas Trucking Association, John D. Esparza
Document ID: BOEM-2017-0074-11364

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide. The commenter also mentioned that the U.S. safety standards will help ensure environmental progress.

**The American Waterways Operators,
Brian Vahey**

Document ID: BOEM-2017-0074-10944

The commenter expressed concern about the location of offshore drilling sites, regarding their obstruction of tugboat shipping lanes and navigational safety. The commenter expressed desire to help BOEM plan offshore locations that will not harm the shipping infrastructure.

**The Business Alliance for Protecting the
Pacific Coast, Leah Campbell**

Document ID: BOEM-2017-0074-11231

The commenter opposed opening any new areas for offshore drilling off California. The commenter mentioned California's coastal economy, and its reliance on clean waters. The commenter cited the 1969 Santa Barbara oil spill, and the damage it created on the coastline.

**Thibodaux Chamber of Commerce,
Cody Blanchard**

Document ID: BOEM-2017-0074-11201

The commenter supported the GOM planning region and discussed the economic hardship that Louisiana has recently fallen under. The commenter discussed the wide-reaching economic benefits that energy could provide, as

well as the importance of developing under the U.S. stricter safety and regulatory requirements.

Tidewater Inc., John T Rynd

Document ID: BOEM-2017-0074-10917

The commenter expressed support for the DPP but also expressed concern over the uncertainty regarding the availability of leases in the Eastern GOM. The commenter stated that offshore exploration and drilling can provide benefits such as increased private sector payments, infrastructure construction, and royalties paid on any oil and gas that is produced.

tmg Consultancy, G. M. Murphy

Document ID: BOEM-2017-0074-11109

The commenter supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

Transocean, Terry B Bonno

Document ID: BOEM-2017-0074-10775

The commenter expressed support for the DPP. The commenter stated that the offshore drilling industry provides many benefits, such as jobs and billions in U.S. GDP. The commenter stated that implementing a robust oil and gas leasing plan will help the Nation move toward energy dominance. The commenter also stated that it is very important that all 26 OCS regions are explored for oil and gas potential.

United Fishermen of Alaska, Mark Vinsel

Document ID: BOEM-2017-0074-10830

The commenter listed several leasing areas in Alaska that they stressed should be removed from future consideration. The commenter stated that these areas are of vital importance economically to Alaska. The commenter also stated that the Chukchi and Beaufort seas have

areas that should be conserved, and that any sales in Alaska should take steps to consider the health of Alaskan fisheries.

Utah Mining Association, Mark Compton

Document ID: BOEM-2017-0074-11122

The commenter supported the DPP and stated the benefits of a robust energy policy. The commenter discussed the various industries in Utah that would benefit from access to affordable and reliable energy. The commenter argues that these benefits bring economic boosts that the country has seen in recent years.

Utah Petroleum Association, Lee J. Peacock

Document ID: BOEM-2017-0074-11195

The commenter supported the expansion of offshore access and stated the importance of a robust energy policy. The commenter discussed the economic benefits of increased energy access.

Virginia Beach Restaurant Association, Aimee Taylor

Document ID: BOEM-2017-0074-11005

The commenter opposed the inclusion of Virginia in the proposed leasing regions. The commenter discussed Virginia Beach and dependence on tourism, and the fear of potential oil spills.

Virginia Chamber of Commerce, Barry E. Duval

Document ID: BOEM-2017-0074-11197

The commenter supported the DPP, specifically the inclusion of the Atlantic, and stressed the importance of reliable energy for economic competitiveness. The commenter also stressed the importance of ensuring environmental safety.

Vivlmore Companies, Bill Vivlmore

Document ID: BOEM-2017-0074-11133

The commenter supported the Arctic planning regions and encouraged BOEM to maintain all proposed leasing regions. The commenter

discussed the energy potential in the Chukchi and Beaufort seas, and the economic boost that would be provided to the region by developing these energy resources. The commenter also mentioned that oil and gas activity would extend the longevity of the TAPS.

**W. D. Scott Group, Inc., William Scott
Document ID: BOEM-2017-0074-11089**

The commenter supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Washington Dungeness Crab Fishermen’s Association, Larry Thevik
Document ID: BOEM-2017-0074-10953**

The commenter opposed the leasing plan and requested that Washington and Oregon be removed from consideration. The commenter discussed the damage caused by past spills and stated that the plan offers minimal benefit for great risks.

**Waste Reduction and Management Institute, Larry Swanson
Document ID: BOEM-2017-0074-11360**

The commenter opposed the Proposed Program, specifically in the Atlantic, and stated that oil spills are inevitable. The commenter mentioned the lengthy clean-up time associated with spills, and the damages associated.

**Wisconsin Industrial Energy Group, Inc, Todd Stuart
Document ID: BOEM-2017-0074-10852**

The commenter expressed support for expanding oil and gas leasing to all regions currently proposed. The commenter stated that Wisconsin has lost a key competitive advantage due to rising electric and natural gas rates. The commenter also stated that expanding domestic natural resources production can provide economic and environmental benefits.

**Y&S Marine, Emmet Scobel
Document ID: BOEM-2017-0074-10864**

The commenter supported the DPP as written, specifically the inclusion of the Eastern GOM. The commenter stated that opening areas to development will create many positive economic factors.

A.7 STATE-LEVEL ELECTED OFFICIALS

List of Commenters

Energy Producing States Coalition, Chuck Winder, Drew Perkins, and Steve Handy
State Elected Officials and Five Local Governments
Two Hundred Twenty-Seven State Legislators
Alabama, House of Representatives, Victor Gaston
Alabama, State Senate, Cam Ward
Alabama, State Senate, Del Marsh
Alabama, State Senate, Gerald Allen
Alabama, State Senate, Paul Sanford
Alabama, State Senate, Steve Livingston
Alaska, Fourteen State Senate Majority members
Alaska, Six Members of the Senate Resources Committee
Alaska, State Legislature, Charisse Millett
California, Senate Resolution, Kevin de Leon
Connecticut, House of Representatives, Joseph P.

Gresko
Florida, State Representative, Jason Fisher
Georgia, House of Representatives, Charles E. Martin
Louisiana, House of Representatives, Beryl Amadee
Louisiana, House of Representatives, Dodie Horton
Louisiana, House of Representatives, Jean-Paul Coussan
Louisiana, State Senate, Fred Mills
Louisiana, State Senate, Mack White
Maine, Joint Resolution, Robert B. Hunt and Heather Priest
Maryland, State Senate, James Mathias
Massachusetts, State Senate, Harriette Chandler, Michael J. Barrett, and Bruce E. Tarr
Mississippi, House of Representatives, Gary V. Staples

Mississippi, State Senate, Angela Hill
Mississippi, State Senate, Charles Younger
New Hampshire, House of Representatives, Robert Cushing
New York, Assembly, Long Island Sound Task Force
New York, Assembly, Standing Committee on Environmental Conservation
New York, Legislature, Bridget Fleming
New York, Legislature, Tom Cilmi
New York, Sixty Members of the State Assembly, Steve Englebright
New York, State Assembly, Andrew Raia
New York, State Assembly, Christine Pellegrino
New York, State Assembly, Dean Murray
New York, State Assembly, Stacey Amato
New York, State Assembly, Steve Englebright, Christine Pellegrino, and Anthony D’Urso
New York, State Assembly, Steven Otis
New York, State Senate, John E. Brooks
North Carolina, General Assembly House of Representatives, Dana Bumgardner
North Carolina, General Assembly House of Representatives, George Cleveland
North Carolina, General Assembly House of Representatives, Hugh Blackwell
North Carolina, General Assembly House of Representatives, Kelly Hastings
North Carolina, General Assembly House of Representatives, Kyle Hall
North Carolina, General Assembly House of Representatives, Mike Clampitt
North Carolina, General Assembly House of Representatives, Ted Davis
North Carolina, General Assembly, Phillip E. Berger
North Carolina, General Assembly, Ralph E. Hise, Jr.
North Carolina, House of Representatives, Jason Saine
North Carolina, Oceana on behalf of Sixty-Two

Elected Officials
North Carolina, Senate, Angela Bryant
Rhode Island, Fifty-Six State representatives
Rhode Island, House of Representatives, Carol McEntee
Rhode Island, Senate Chamber, Dawn Euer
South Carolina, House of Representatives, Bill Sandifer
South Carolina, House of Representatives, David R. Hiott
South Carolina, House of Representatives, Mike Burns and Bill Chumley
South Carolina, Nineteen State Senators, Fish, Game, and Forestry Committee
South Carolina, State Senate, Stephen Goldfinch
South Carolina, Thirty State Representatives, Agriculture, Natural Resources, and Environmental Affairs
Texas, House of Representatives, Brooks Landgraf
Texas, House of Representatives, Matt Rinaldi
Texas, House of Representatives, Dennis Paul
Texas, House of Representatives, Stan Lambert
Texas, State Representative, Wayne Faircloth
Texas, State Senate, Lois Kolkhorst
Texas, State Senate, Don Huffines
Virginia, House of Delegates, C. Matthew Fariss
Virginia, House of Delegates, Michael Webert
Virginia, House of Delegates, Terry Kilgore, et al.
Washington, Twenty State Representatives
West Virginia, House of Delegates, Rupie Phillips, Jr.

A.7.1 Multi-Region Commenters

Energy Producing States Coalition, Chuck Winder, Drew Perkins, and Steve Handy Document ID: BOEM-2017-0074-11191

A group of state legislators expressed support for the proposed leasing program, especially that it includes the Atlantic, GOM, and Arctic. The commenters discussed the unnecessary restriction of the country’s natural resources up to this point. The commenters also noted the

economic growth potential from the decreased energy costs.

State Elected Officials and Five Local Governments, Robert Greer Document ID: BOEM-2017-0074-11317

A group of state legislators and local elected officials supported the inclusion of new leasing areas in the GOM, Atlantic, and Arctic. The commenters described the financial health of communities and the security afforded through strengthening U.S. energy. The commenters also stated that the drilling technology is safer

than ever and that marine life should be protected.

Two Hundred Twenty-Seven State Legislators, Kevin Rankin
Document ID: BOEM-2017-0074-11169

A group of state legislators representing 17 coastal states opposed the DPP. The commenters discussed the risk to coastal economies that would be presented by the DPP.

A.7.2 Alaska Region

Alaska, Fourteen State Senate Majority Members, Chad Hutchinson
Document ID: BOEM-2017-0074-7662

A group of state legislators supported the Proposed Program and suggested that the strongest near-term offshore program should focus on the Chukchi Sea, Beaufort Sea, and Cook Inlet. The commenters argued that a good program will increase flow through the TAPS.

Alaska, Six Members of the Senate Resources Committee, Cathy Giessel
Document ID: BOEM-2017-0074-10720

A group of state legislators supported the DPP but urged that the program only include lease sales for the Chukchi Sea, Beaufort Sea, and Cook Inlet. The commenters discussed the long history of Alaskan oil and commended the DPP for viewing Alaska as a source of development.

Alaska, State Legislature, Charisse Millett
Document ID: BOEM-2017-0074-10636

A state representative strongly supported the inclusion of the Chukchi, Cook Inlet, and Beaufort leasing areas in the DPP. The commenter opposed the sales in several other areas in Alaska; however and encouraged an open discussion going forward to ensure maximal benefits and broad public support.

A.7.3 Pacific Region

California, Senate Resolution, Kevin de Leon
Document ID: BOEM-2017-0074-10629

A state senator opposed the inclusion of the Pacific Coast in the leasing regions. The commenter cited continued efforts by California to remove the Pacific Coast's OCS from all drilling efforts.

Washington, Twenty State Representatives, Christine Rolfes
Document ID: BOEM-2017-0074-10586

A group of state legislators opposed the program, which includes OCS lands off the Washington coast. The commenters described Washington's dependence on healthy waters for fishing, recreation, and tourism. The commenters requested that the same exemption made for Florida be made for Washington.

A.7.4 Gulf of Mexico Region⁵

Alabama, House of Representatives, Victor Gaston
Document ID: BOEM-2017-0074-11248

A state representative supported the expanded access in the GOM planning region. The commenter discussed the economic boost that Alabama will receive, as well as the growing energy needs locally and across the country. The commenter also described the benefits of stricter U.S. safety and regulatory standards.

Alabama, State Senate, Cam Ward
Document ID: BOEM-2017-0074-11097

A state senator supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Alabama. The commenter also

⁵ Comments from Florida are included in this Gulf of Mexico section.

argued that U.S. safety standards will help ensure environmental progress.

**Alabama, State Senate, Del Marsh
Document ID: BOEM-2017-0074-10635**

A state senator supported the expanded access to the GOM and urged that all leasing regions be maintained. The commenter stated that citizens of Alabama would receive an economic boost from the DPP and stressed the importance of continued provision of reliable energy to the country.

**Alabama, State Senate, Gerald Allen
Document ID: BOEM-2017-0074-11090**

A state senator supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Alabama. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Alabama, State Senate, Paul Sanford
Document ID: BOEM-2017-0074-4858**

A state senator offered support for oil and gas leasing in the GOM, explaining that there have been extensive investments in infrastructure already and there are positive economic implications for local and national economies. The commenter also stressed the importance of providing a secure energy future for the Nation.

**Alabama, State Senate, Steve Livingston
Document ID: BOEM-2017-0074-10634**

A state senator supported the expanded access to the GOM and urged that all leasing regions be maintained. The commenter stated that citizens of Alabama would receive an economic boost from the DPP. The commenter also stated that strict U.S. regulatory and safety standards will help ensure that environmental progress due to energy innovation continues.

**Florida, State Representative, Jason Fisher
Document ID: BOEM-2017-0074-10670**

A state representative supported the leasing program to ensure Floridians have access to reliable energy. The commenter stated that the policy will need a balanced approach that maintains Florida's military, tourism, and environmental interests.

**Louisiana, House of Representatives,
Beryl Amadee
Document ID: BOEM-2017-0074-11081**

A state representative supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Louisiana. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Louisiana, House of Representatives,
Dodie Horton
Document ID: BOEM-2017-0074-10534**

A state representative supported the expanded access to the GOM and urged that all proposed leasing regions be maintained. The commenter stated that Louisiana will receive an economic boost. The commenter also described a reduction in U.S. vulnerability from dependence on overseas energy.

**Louisiana, House of Representatives,
Jean-Paul Coussan
Document ID: BOEM-2017-0074-10715**

A state representative offered support for all the proposed leasing regions. The commenter stated that increasing the GOM access would provide an economic boost, assisting those in Louisiana facing poverty and unemployment challenges. The commenter also stated that development in the United States will adhere to stricter safety and regulatory requirements than in other countries and help further the environmental advances brought about by energy innovation.

Louisiana, State Senate, Fred Mills
Document ID: BOEM-2017-0074-11361

A state senator supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the existing infrastructure in place and the economic boost that oil and gas activity would provide. The commenter also argued that U.S. safety standards will help ensure environmental progress continues.

Louisiana, State Senate, Mack White
Document ID: BOEM-2017-0074-10536

A state senator supported the expanded access to the GOM and urged that all proposed leasing regions be maintained. The commenter stated that Louisiana will receive an economic boost and argued that the DPP will help provide energy across the country. The commenter also described a reduction in U.S. vulnerability from dependence on overseas energy.

Mississippi, State Senate, Angela Hill
Document ID: BOEM-2017-0074-11074

A state senator supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Mississippi. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Mississippi, House of Representatives,
Gary V. Staples
Document ID: BOEM-2017-0074-4869

A state representative offered support for oil and gas leasing in the GOM, explaining that there have been extensive investments in infrastructure already and there are positive economic implications for local and national economies. The commenter also stressed the importance of providing a secure energy future for the Nation.

Mississippi, State Senate, Charles Younger
Document ID: BOEM-2017-0074-11091

A state senator supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Mississippi. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Texas, House of Representatives,
Brooks Landgraf
Document ID: BOEM-2017-0074-11073

A state representative supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the available infrastructure in place and the economic boost that oil and gas activity would provide. The commenter also argued that U.S. safety standards will help ensure environmental progress keeps moving forward.

Texas, House of Representatives District 115,
Matt Rinaldi
Document ID: BOEM-2017-0074-0613

A state representative supported the expanded access in the GOM planning region. The commenter discussed the economic boost that Texas will receive, as well as the growing energy needs locally and across the country. The commenter also described the benefits of stricter U.S. safety and regulatory standards.

Texas, House of Representatives, Dennis Paul
Document ID: BOEM-2017-0074-11079

A state representative supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

**Texas, House of Representatives,
Stan Lambert**

Document ID: BOEM-2017-0074-0378

A state representative supported the expansion of access in the GOM and requested that all leasing regions be maintained. The commenter discussed the infrastructure in place, and the economic boost that oil and gas activity would provide to Texas. The commenter also argued that U.S. safety standards will help ensure environmental progress.

Texas, State Representative, Wayne Faircloth
Document ID: BOEM-2017-0074-10729

A state representative supported the Proposed Program and the expanded access in the GOM. The commenter stated that Texas would receive an economic boost from the Gulf access. The commenter argued that the country's strict regulatory and safety standards will help ensure continued environmental progress.

Texas, State Senate, Lois Kolkhorst
Document ID: BOEM-2017-0074-1562

A state senator offered support for the inclusion of all leasing areas in the PFP and for expanded access in the GOM. The commenter stated that growing energy needs and existing infrastructure make the Gulf an appropriate location for offshore drilling and argued the Program could ensure a long-term domestic energy supply. The commenter also cited the economic gains that offshore development could provide for Texas.

Texas, State Senate, Don Huffines
Document ID: BOEM-2017-0074-5156

A state senator provided support for the inclusion of all proposed leasing regions in the DPP, and especially the GOM. The commenter stated that accessing resources off the coast would stimulate the Texas economy, help meet growing demand for energy, and provide an economic boost to rebuilding efforts in the state following Hurricane Harvey and to other public works projects.

A.7.5 Atlantic Region⁶

**Connecticut, House of Representatives,
Joseph P. Gresko**

Document ID: BOEM-2017-0074-8913

A state representative opposed the inclusion of the Atlantic planning region in the DPP. The commenter described Connecticut's economic dependence on Long Island Sound and the danger that offshore drilling represents to that area.

**Georgia, House of Representatives,
Charles E. Martin**

Document ID: BOEM-2017-0074-11256

The commenter supported an all-inclusive approach to energy and a plan that includes oil and gas development. The commenter stated that Georgia takes a balanced approach, one that supports their tourism and commercial fishing industries as well as other interests.

**Maine, Joint Resolution,
Robert B. Hunt and Heather Priest**
Document ID: BOEM-2017-0074-10630

A state legislature opposed the inclusion of Maine in the proposed leasing regions. The commenters discussed Maine's economy and the dependence on clean coastal waters.

Maryland, State Senate, James Mathias
Document ID: BOEM-2017-0074-5915

A state senator opposed oil exploration and drilling off the Atlantic Coast, citing concern for the health of the Chesapeake Bay, other environmentally sensitive areas, and potential impacts on the economy of the state.

⁶ Comments from Florida are shown under the Gulf of Mexico section.

Massachusetts, State Senate, Harriette Chandler, Michael J. Barrett, and Bruce E. Tarr

Document ID: BOEM-2017-0074-10628

A group of state legislators opposed the leasing program, requesting that areas off the coast of Massachusetts and the greater New England area be protected. The commenters described the importance of the health of marine life for Massachusetts, for their fishing and tourism industries.

New Hampshire, House of Representatives, Robert Cushing

Document ID: BOEM-2017-0074-11032

A state representative opposed the Atlantic planning region, specifically drilling in the waters of New Hampshire and New England. The commenter discussed the negative impact drilling would have on New Hampshire's economy.

New York, Assembly, Long Island Sound Task Force, Anthony D'Urso

Document ID: BOEM-2017-0074-11173

A state representative opposed any offshore drilling in the Atlantic region. The commenter discussed concerns about the repercussions as it relates to Long Island's environment, economy, and culture.

New York, Assembly, Standing Committee on Environmental Conservation, Steve Englebright

Document ID: BOEM-2017-0074-11173

A state representative opposed leasing in the Atlantic region. The commenter stated that the risks associated with drilling far outweigh any benefits. Provided transcript and written testimony of a February 14 Committee hearing to examine the impacts of Federal oil and gas leasing authorization on New York's environment.

New York, Commission on Toxic Substances and Hazardous Wastes, Christine Pellegrino

Document ID: BOEM-2017-0074-11173

A state representative expressed opposition to the Atlantic leasing region. The commenter discussed the dangers to public health and the environment.

New York, Legislature, Bridget Fleming

Document ID: BOEM-2017-0074-11359

A county legislator opposed the plan and stated that tourism is just as critical to New York as it is to Florida. The legislator asked that the North Atlantic region be removed from consideration.

New York, Legislature, Tom Cilmi

Document ID: BOEM-2017-0074-11360

A county legislator opposed the DPP as a lifelong resident of Long Island. The commenter said that any proposal that threatens the vitality of the ocean should be opposed.

New York, Sixty Members of the State Assembly, Steve Englebright

Document ID: BOEM-2017-0074-10632

A group of state legislators opposed the inclusion of the Atlantic Region in the DPP. The commenters described New York's economic dependence on clean water and abundant fish and wildlife. The commenters also stated they will be holding additional meetings to get more feedback from New York's population regarding the Proposed Program.

New York, State Assembly, Andrew Raia

Document ID: BOEM-2017-0074-11173

A state representative opposed the inclusion of the Atlantic leasing region due to concerns about the environment and quality of life.

New York, State Assembly, Christine Pellegrino

Document ID: BOEM-2017-0074-11359

A state representative opposed any drilling in New York, as well as increasing offshore drilling more broadly. The commenter stressed

that the United States should focus on moving toward renewable energy.

**New York, State Assembly, Dean Murray
Document ID: BOEM-2017-0074-11360**

A state representative opposed the DPP and any offshore drilling. The commenter discussed the critical importance of the tourism industry for Long Island.

**New York, State Assembly, Stacey Amato
Document ID: BOEM-2017-0074-11173**

A state representative opposed the Atlantic leasing region, specifically drilling in New York state. The commenter discussed the residents and natural resources that would be put at risk by the plan and described the damage caused by Superstorm Sandy from which parts of the state are still recovering.

New York, State Assembly, Steve Englebright, Christine Pellegrino, and Anthony D'Urso

Document ID: BOEM-2017-0074-10532

A group of state legislators requested that BOEM appear at a public hearing their committee scheduled to explore the environmental effects of offshore drilling.

**New York, State Assembly, Steven Otis
Document ID: BOEM-2017-0074-11173**

A state representative opposed the Atlantic planning region and any drilling off the coast of Long Island.

**New York, State Senate, 8th District,
John E. Brooks**

Document ID: BOEM-2017-0074-10718

A state senator opposed drilling off the coast of Long Island. The commenter stated that it would negatively impact the environment, natural resources, and Long Island's waters.

**North Carolina, General Assembly House of Representatives, Dana Bumgardner
Document ID: BOEM-2017-0074-10631**

A state representative discussed the importance of maintaining affordable, reliable energy and preserving options for access to natural gas in the Mid- and South Atlantic. The commenter stated that North Carolina's economic and resource challenges highlight the need for thoughtful and informed discussion.

**North Carolina, General Assembly House of Representatives, George Cleveland
Document ID: BOEM-2017-0074-1563**

A state representative offered support for offshore development in the Atlantic region, stressing the importance of long-term secure access to energy. The commenter also stated that Atlantic communities could benefit from the economic boost from offshore oil and gas leasing.

**North Carolina, General Assembly House of Representatives, Hugh Blackwell
Document ID: BOEM-2017-0074-10530**

A state representative supported the inclusion of the Atlantic in the proposed leasing regions, stating that it will benefit North Carolina as well as help meet U.S. energy needs. The commenter cited projected job growth and increases in GDP. The commenter also described a potential reduction in U.S. vulnerability from dependence on overseas energy.

**North Carolina, General Assembly House of Representatives, Kelly Hastings
Document ID: BOEM-2017-0074-10533**

A state representative supported the inclusion of the Mid- and South Atlantic regions in the leasing program. The commenter stressed the importance of affordable and reliable American energy.

North Carolina, General Assembly House of Representatives, Kyle Hall**Document ID: BOEM-2017-0074-10633**

A state representative discussed the importance of affordable energy and access to natural gas in the Mid- and South Atlantic. The commenter stated that North Carolina’s economic challenges and energy needs highlight the need for thoughtful and informed discussion.

North Carolina, General Assembly House of Representatives, Mike Clampitt**Document ID: BOEM-2017-0074-10535**

A state representative discussed the importance of reliable and affordable energy and the role of access to natural gas in the Mid- and South Atlantic. The commenter stated that North Carolina’s economic concerns and energy demands highlight the need for thoughtful and informed discussion.

North Carolina, General Assembly House of Representatives, Ted Davis**Document ID: BOEM-2017-0074-10531**

A state representative requested that a meeting be held in their coastal district, in addition to the one BOEM scheduled inland in Raleigh, so that the residents most affected by offshore drilling have an opportunity to be heard.

North Carolina, Senate, Angela Bryant**Document ID: BOEM-2017-0074-5916**

A state senator opposed the inclusion of the Atlantic leasing regions in the DPP. The commenter also requested that BOEM hold additional public meetings to allow stakeholders to comment and requested a 60-day extension of the comment period.

North Carolina, General Assembly, Phillip E. Berger**Document ID: BOEM-2017-0074-10794**

A state senator supported both the Atlantic and Eastern GOM planning regions. The commenter supported an all-inclusive energy policy that

increases economic activity while protecting the environment.

North Carolina, General Assembly, Ralph E. Hise, Jr.**Document ID: BOEM-2017-0074-11247**

The commenter discussed the importance of increasing energy in the Mid- and South Atlantic regions and requested that North Carolina be kept in the conversation about potential development. The commenter stressed the potential of oil and gas in the region and urged that the dialogue regarding energy opportunities be continued.

North Carolina, House of Representatives, Jason Saine**Document ID: BOEM-2017-0074-11272**

The commenter discussed the importance of increasing energy in the Mid- and South Atlantic regions and requested that North Carolina be kept in the conversation about potential development. The commenter stressed the potential of oil and gas in the region and urged that the dialogue regarding energy opportunities be continued.

North Carolina, Oceana on behalf of Sixty-Two Elected Officials, William Fadely**Document ID: BOEM-2017-0074-10581**

A group of state legislators and local elected officials requested additional public meetings and an extension of the comment period. The commenters argued that the DPP’s unprecedented scope necessitates a longer comment period to permit more public meetings and allow members of the public enough time to file comments. The commenters described the lengthy process for the 2017–2022 Program that was developed based on stakeholder input. The commenters also requested additional public meetings in three coastal communities.

**Rhode Island, Fifty-Six State Representatives,
Carol McEntee****Document ID: BOEM-2017-0074-11283**

A group of state legislators opposed the Atlantic planning region and discussed the threats to Rhode Island's tourism and commercial fishing industries.

Rhode Island, Senate Chamber, Dawn Euer
Document ID: BOEM-2017-0074-10870

A state senator opposed the entirety of the proposed DPP. The commenter stated that there is no future in fossil fuels and argued that the plan is shortsighted. The commenter expressed concern about the environmental harm that will come from drilling.

**South Carolina, House of Representatives,
Bill Sandifer****Document ID: BOEM-2017-0074-11269**

The commenter discussed the importance of increasing energy in the Mid- and South Atlantic regions and requested that Virginia be kept in the conversation about potential development. The commenter stressed the potential of oil and gas in the region and urged that the dialogue regarding energy opportunities be continued.

**South Carolina, House of Representatives,
David R. Hiott****Document ID: BOEM-2017-0074-0597**

A state representative supported the Atlantic planning region and welcomed the reversal from the 2016 plan. The commenter discussed the economic boost and energy security to be gained from offshore activity and the ability for oil and gas activities to coexist with other activities.

**South Carolina, House of Representatives,
Mike Burns and Bill Chumley****Document ID: BOEM-2017-0074-0605**

A state representative supported the Atlantic planning region. The commenter discussed the flow of energy across the country that the Atlantic could provide and the economic relief it would provide to South Carolina.

**South Carolina, 19 State Senators, Fish,
Game, and Forestry Committee,
Chip Campsen****Document ID: BOEM-2017-0074-10800**

A group of state legislators opposed the inclusion of South Carolina in the DPP. The commenters discussed the danger of oil spills and the incompatibility of this type of energy infrastructure with coastal residential and resort economies.

**South Carolina, State Senate,
Stephen Goldfinch****Document ID: BOEM-2017-0074-0611**

A state senator supported the Atlantic planning region and welcomed the reversal from the 2016 plan. The commenter discussed the economic boost and energy security to be gained from offshore activity and the ability for oil and gas activities to coexist with other activities.

**South Carolina, 30 State Representatives,
Agriculture, Natural Resources, and
Environmental Affairs, Gregory Duckworth****Document ID: BOEM-2017-0074-10747**

A group of state legislators opposed the inclusion of South Carolina in the DPP. The commenters discussed the danger of oil spills and the incompatibility of this type of energy infrastructure with coastal residential and resort economies.

**Virginia, House of Delegates,
C. Matthew Fariss****Document ID: BOEM-2017-0074-10664**

The delegate supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

**Virginia, House of Delegates, Michael Weibert
Document ID: BOEM-2017-0074-10665**

The commenter discussed the importance of increasing energy in the Mid- and South Atlantic regions and requested that Virginia be kept in the conversation about potential development. The commenter stressed the potential of oil and gas in the region and urged that the dialogue regarding energy opportunities be continued.

**Virginia, House of Delegates,
Terry Kilgore, et al.
Document ID: BOEM-2017-0074-11107**

Six state delegates supported the Atlantic planning regions and urged BOEM to maintain all leasing regions in the final program. The commenter discussed the economic boost that energy would provide in the Atlantic, specifically in Virginia. The commenter also stated that greater environmental harm would result in excluding the Atlantic, as it would increase dependence on foreign energy.

A.7.6 Interior States

**West Virginia, House of Delegates,
Rupie Phillips, Jr.
Document ID: BOEM-2017-0074-10663**

A state delegate supported all planning regions and requested that they be maintained in the final program. The commenter stated that unlocking previously prohibited offshore areas is an important step for American energy development. The commenter discussed the economic benefits that citizens will experience. The commenter also argued that stricter U.S. safety and regulatory standards will ensure continued environmental progress.

A.8 MEMBERS OF CONGRESS

List of Commenters

Three Members of Congress
Three Members of Congress
Four Members of Congress
Four Members of Congress
Five Members of Congress
Six Members of Congress
Six Members of Congress
Seven Members of Congress
Nine Members of Congress
Fourteen Members of Congress
Fourteen Members of Congress
Fifteen Members of Congress
Sixteen Member of Congress
Sixteen Members of Congress
Sixteen Members of Congress
Twenty-Two United States Senators
Twenty-Three Members of Congress

Twenty-Three United States Senators
Twenty-Four Members of Congress
Twenty-Six Members of Congress
Thirty-Two United States Senators
Thirty-Two Members of Congress
Thirty-Six Members of Congress
Thirty-Six members of Congress
One Hundred and Fifty-One Members of Congress
House of Representatives, California, Mike Thompson
House of Representatives, California, Salud Carbajal
House of Representatives, Florida, Francis Rooney
House of Representatives, Florida, John Rutherford
House of Representatives, Georgia, Earl Carter
House of Representatives, Louisiana, Garret Graves
House of Representatives, Louisiana, Garret Graves
House of Representatives, New Jersey, Frank A LoBiondo

House of Representatives, New Jersey, Frank Pallone, Jr.
House of Representatives, North Carolina, Walter Jones
House of Representatives, Oregon, Kurt Schrader
House of Representatives, South Carolina, Jeff Duncan
House of Representatives, Virginia, A Donald McEachin
House of Representatives, Virginia, Scott Taylor
House of Representatives, Washington, Dave Reichert and Jaime Herra-Beutler
United States Senate, California, Dianne Feinstein

United States Senate, Delaware, Tom Carper
United States Senate, Florida, Bill Nelson
United States Senate, Maine, Angus King Jr. and Susan Collins
United States Senate, Maryland, Benjamin Cardin
United States Senate, Massachusetts, Edward J. Markey
United States Senate, Virginia, Mark Warner and Tim Kaine
United States Senate, Virginia, Tim Kaine
United States Senate, Washington, Maria Cantwell

A.8.1 Multi-Region Commenters

Three Members of Congress

Document ID: BOEM-2017-0074-4819

Three members of Congress opposed the inclusion of the Atlantic Ocean planning area and especially oil and gas development off the coast of New Jersey. The commenters argued that the New Jersey economy is still recovering after Hurricane Sandy and a healthy coast is vital to that recovery. The commenters also expressed concerns over the safety of offshore drilling in light of recent regulatory rollbacks.

Three Members of Congress

Document ID: BOEM-2017-0074-10560

Three members of Congress expressed their support for offshore oil and gas drilling in the Arctic. The commenters expressed strong support for the inclusion of the Chukchi and Beaufort planning areas. The commenters encouraged BOEM to maintain three leases in each area over the 2019–2024 period. Additionally, the commenters requested that BOEM maintain the two lease sales the DPP envisions in the Cook Inlet planning area to supply affordable energy to communities in south central Alaska. The commenters also stressed the importance of meaningful consultation with local communities regarding the plan.

Four Members of Congress

Document ID: BOEM-2017-0074-4821

Four members of Congress opposed oil and gas development off the coast of Rhode Island. The commenters cited concerns over the impacts on the ecology and tourism industry of the region and suggested instead that investments should be made in developing renewable energy sources. The commenters also voiced concerns over the process of granting Florida an exemption from offshore development.

Four Members of Congress

Document ID: BOEM-2017-0074-10562

Four members of Congress expressed their strong opposition to lease sales for offshore oil and gas drilling in the North Atlantic region. The commenters specifically requested that New Hampshire be exempt from consideration. The commenters cited tourism and the commercial fishing industry as reasons for opposition. The commenters stated that the proposal could jeopardize the economic livelihood of fishers in New Hampshire. Additionally, the commenters stressed America's need for a clean energy economy and how the Proposed Plan would lead the country in the wrong direction.

Five Members of Congress

Document ID: BOEM-2017-0074-11161

Five members of Congress expressed opposition to the proposed lease sales in all planning areas. The commenters expressed concern over

negative impacts that new fossil fuel production could have on the health of the environment and the economies of coastal states. The commenters discussed how the fishing, tourism, and marine recreation industries could be harmed in coastal states such as Maine and Washington.

Six Members of Congress

Document ID: BOEM-2017-0074-10891

Six members of Congress expressed their opposition to including the Atlantic in the proposed plan and requested that Virginia be removed from consideration. The commenters expressed concern about impacts on different industries, such as tourism, aquaculture, outdoor recreation, deepwater port commerce, and military infrastructure. The commenter stated these industries could be negatively affected by offshore drilling.

Six Members of Congress

Document ID: BOEM-2017-0074-11162

Six members of Congress requested a 60-day extension to the public comment period, but they did not state a clear position on the proposed plan. The commenters did express concern over the potential impacts gas and oil drilling would have on industries that rely on the Pacific Ocean, such as tourism and fishing, and stated that offshore drilling is inherently risky even under the best circumstances.

Seven Members of Congress

Document ID: BOEM-2017-0074-10577

Seven members of Congress expressed their opposition to including the Atlantic planning area in the proposed plan. Their primary concerns are the health and abundance of fish and wildlife and the clean waters of the Atlantic Ocean and Long Island Sound. Other concerns include the ocean and its marine environments and the livelihoods of small businesses and commercial fishers that depend on clean oceans. Finally, the commenters stated that this proposal

is in direct contrast with Connecticut's effort to establish a clean energy future.

Nine Members of Congress

Document ID: BOEM-2017-0074-11160

Nine members of Congress expressed their opposition to the proposed rule that would allow lease sales for offshore oil and gas drilling in the Mid-Atlantic. The commenters specifically requested Maryland be exempt from consideration in this plan. The commenters expressed concern over the livelihood of businesses and communities with interests in Maryland fisheries and tourism. Commenters also expressed concern over oil spills and the damage it could cause to commercial industries and military readiness.

Fourteen Members of Congress

Document ID: BOEM-2017-0074-4820

Fourteen members of Congress strongly opposed oil and gas development and seismic testing off the coast of New Jersey. The commenters argued that the Proposed Plan would pose economic and environmental risks to marine wildlife, fisheries, and the tourism industry.

Fourteen Members of Congress

Document ID: BOEM-2017-0074-0627

Fourteen members of Congress opposed offshore oil and gas drilling and seismic testing off the coast of New Jersey. The commenter cited several risks to the economy and the environment of coastal New Jersey, including harm to beaches that support tourism and risks to the fishing industry.

Fifteen Members of Congress

Document ID: BOEM-2017-0074-10655

Fifteen members of Congress stated their opposition to oil and gas exploration and development in the Atlantic, specifically in New Jersey. The commenters' primary concerns include New Jersey's coastal economy, environment, wildlife, and commercial and residential fishing. The commenters included

testimony on possible impacts from New Jersey residents employed in the tourism and fishing industries, which together employ nearly 370,000 people, as well as from other residents invested in the health of the state's coast.

Sixteen Members of Congress**Document ID: BOEM-2017-0074-10559**

Sixteen members of Congress expressed their strong opposition to including the Pacific Northwest in the proposed plan. They specifically requested the removal of Washington and Oregon from consideration. The commenters cited the importance of marine resources to the regional economy as a reason for their opposition. Other reasons included the threats to jobs in commercial, recreational, and tribal fisheries; employment in the seafood processing industry; and additional industries.

Sixteen Members of Congress**Document ID: BOEM-2017-0074-11151**

Sixteen members of Congress expressed their opposition to including all parts of the Atlantic and the Eastern GOM planning areas in the Proposed Program. The commenters stated their concern about possible threats to fishing, tourism, and recreation-based businesses based in those planning areas. Additionally, commenters stated their concern for military operations and readiness if oil and gas drilling were allowed.

Twenty-Two United States Senators**Document ID: BOEM-2017-0074-4816**

Twenty-two senators requested that BOEM offer to other states the same exemption offered to Florida. The commenters argued that the states in other planning areas also have vibrant coastal economies reliant on healthy fisheries and other natural resources.

Twenty-Three Members of Congress**Document ID: BOEM-2017-0074-11168**

Twenty-three members of Congress expressed support for the proposed opening of 90% of the

total OCS. The commenters stated that this change in the leasing program would benefit Americans with lower energy prices, increased employment opportunities, and enhanced national and energy security. The commenters also expressed their disappointment in restricted consideration of the Eastern GOM, which they believe hinders the U.S. from being energy dominant.

Twenty-Three United States Senators**Document ID: BOEM-2017-0074-10642**

Twenty-three senators did not state a clear position about the proposed plan, but they did indicate concern for all planning areas. The commenters requested an extension of the public comment period until at least May 8, 2018. Their primary concerns were having more public meetings in coastal communities and in all areas included in the DPP, as well as in non-coastal areas.

Twenty-Four Members of Congress**Document ID: BOEM-2017-0074-4811**

Twenty-four members of Congress opposed the inclusion of the Eastern GOM in the PFP. The commenters cited concerns over national security training facilities in the area and stressed the importance of the tourism industry in Florida.

Twenty-Six Members of Congress**Document ID: BOEM-2017-0074-10563**

Twenty-six members of Congress expressed their opposition to new oil and gas drilling leases in the North Atlantic. The commenters specifically requested that New York be exempt from consideration. The commenters cited industries that could be threatened by the proposal, such as tourism, shipping, construction, and living resources. Additionally, the commenters expressed concern for the possibility of oil spills and increased risk of exposure to toxic chemicals and metals used in offshore drilling operations.

Thirty-Two United States Senators
Document ID: BOEM-2017-0074-4812

Thirty-two senators opposed the drafting of a new leasing plan in the middle of the current 2017–2022 Five-Year Plan. The commenters argued that current oil reserves were adequate and opening ecologically fragile areas to oil and gas development would be risky and irresponsible.

Thirty-Two Members of Congress
Document ID: BOEM-2017-0074-10648

Thirty-two members of Congress expressed support for oil and gas drilling in all planning areas due to its potential positive impacts on energy independence and economic growth. The commenters emphasized the need for deliberative, science-driven analyses under the OCS Lands Act and NEPA to engender trust in the program. The commenters also discussed the compatibility between oil and gas operations and military training, tourism, and commercial and recreational fishing.

Thirty-Six Members of Congress
Document ID: BOEM-2017-0074-4814

Thirty-six members of Congress expressed strong opposition to offshore leasing sales in the Pacific. The commenters stressed the importance of ecological and coastal resources in supporting the economy and the tourism industry. The commenters also stated that California should be offered the same exemption afforded Florida.

Thirty-Six Members of Congress
Document ID: BOEM-2017-0074-10651

The commenters opposed the use taxpayer funds to issue a new leasing program during an existing and previously approved plan. The commenters suggested the Department has not considered input from constituents, scientific bodies, businesses, and local elected officials. The commenters asserted the DPP puts coastal

residents, businesses, oceans and climate at unnecessary risk.

One Hundred and Fifty-One Members of Congress**Document ID: BOEM-2017-0074-4813**

One hundred and fifty-one members of Congress urged BOEM to remove the Atlantic, Arctic, Pacific, and Eastern GOM leasing areas from the PFP. The commenters stated that expanded drilling would endanger coastal communities, economies, and ecosystems of these regions and expressed concern for possible oil spills.

A.8.2 Alaska Region

The commenters urged continued consideration of leasing in the Chukchi Sea, Beaufort Sea, and Cook Inlet, and requested removal of other areas from consideration.

A.8.3 Pacific Region**House of Representatives, California, Mike Thompson****Document ID: BOEM-2017-0074-10552**

The commenter expressed their opposition to offshore drilling in the Pacific, specifically in California. The commenter cited ocean health, recreational activities, and oil spills as reasons for concern. Additionally, the commenter expressed concern about California's earthquake prone regions and how that could increase the likelihood of spills. The commenter stated that if a spill were to occur, the rocky shorelines, cold, choppy waters, and remote communities could make clean-up more difficult.

House of Representatives, California, Salud Carbajal**Document ID: BOEM-2017-0074-4815**

The commenter opposed offshore leasing in the Pacific region. The commenter requested California be granted the same exemption offered to Florida and asked that BOEM hold a

public meeting in a coastal city impacted by oil spills.

**United States Senate, California,
Dianne Feinstein**

Document ID: BOEM-2017-0074-10824-5

The commenter is opposed to offshore oil and gas drilling in the Pacific, specifically in California. The commenter cited previous oil spills and their negative impacts as reason for concern. The commenters primary concerns are biodiverse coastline; birds, fish, and marine mammals; health of communities; and coastal economies.

**House of Representatives, Oregon,
Kurt Schrader**

Document ID: BOEM-2017-0074-10658

The commenter's position on the proposed plan is unclear, but the commenter stated that the planning area of interest to them is the Pacific. The commenter requested that BOEM extend the deadline for public comment submissions by 60 days. The commenter's primary concern is giving stakeholders an appropriate amount of time to provide a comment.

**House of Representatives, Washington,
Dave Reichert and Jaime Herra-Beutler**
Document ID: BOEM-2017-0074-4823

The commenters opposed the proposed leasing off the Pacific Coast of Washington. The commenters stressed the importance of a healthy ocean in supporting a strong state economy based on tourism, recreation, and commercial fishing.

**United States Senate, Washington,
Maria Cantwell**

Document ID: BOEM-2017-0074-4824

The commenter opposed oil and gas leasing in all proposed leasing areas. The commenter argued that the exemption given to Florida over other states was not done properly and that the Proposed Program does not follow the procedures outlined in the OCS Lands Act.

A.8.4 Gulf of Mexico Region

**House of Representatives, Florida,
Francis Rooney**

Document ID: BOEM-2017-0074-0646

The commenter opposed oil and gas development in the Eastern GOM. The commenter stated that this area is an important military training area that would be threatened by drilling. The commenter also cited concerns for the impact on the beach tourism industry in the region.

**House of Representatives, Florida,
John Rutherford**

Document ID: BOEM-2017-0074-10561

The commenter requested a 60-day extension for public comment submissions and the addition of public meetings in coastal communities that would be affected by the proposal. The commenter cited the potential impact the proposal could have on coastal communities and economies as reasons for their request and noted that the current program was developed through 3 years of stakeholder input and consultation. The commenter's position on the proposed plan is unclear, but they did state their interest in the South Atlantic and Eastern GOM planning areas.

United States Senate, Florida, Bill Nelson
Document ID: BOEM-2017-0074-10654

The commenter stated their opposition to drilling off Florida's Atlantic and Gulf coasts. The commenter's primary concern involves Florida's unsuitable shores as the state continues to clean-up and rebuild from Hurricane Irma. Additionally, the commenter stated that offshore drilling poses a direct threat to national security interests; causes damage to coral reefs, birds, and wildlife; and pollutes beach waters, which are the core of the state's tourism-driven economy.

United States Senate, Florida, Bill Nelson
Document ID: BOEM-2017-0074-0628

The commenter offered strong opposition to oil and gas development off the coast of Florida. The commenter requested clarification on several points related to the exemption granted to Florida, such as whether it will include seismic testing in addition to oil and gas drilling. The commenter expressed concern that without answers to those questions members of the public do not have enough information to comment. The commenter also requested an extension of the comment period.

House of Representatives, Louisiana,
Garret Graves
Document ID: BOEM-2017-0074-4817

The commenter offered support for the inclusion of all leasing areas in the Proposed Program and opposed the exclusion of the Eastern GOM as premature. The commenter argued that offshore drilling could provide long-term energy independence for the Nation and economic benefits to the Louisiana region, such as providing revenue for mitigation of coastal land loss.

House of Representatives, Louisiana,
Garret Graves
Document ID: BOEM-2017-0074-10772

The commenter expressed their support for offshore drilling in the Atlantic, specifically in Louisiana. The commenter cited energy independence as a benefit of approving this plan. The commenter stated that the risk of oil spills has been reduced after learning how to increase robust safety standards from previous oil spills. The commenter also stated a potential concern of reducing royalty rates. The commenter stressed it must be ensured that taxpayers are getting a fair value for their natural resources.

A.8.5 Atlantic Region

United States Senate, Delaware, Tom Carper
Document ID: BOEM-2017-0074-2196

The commenter opposed oil and gas leasing in all proposed leasing regions, stating that additional oil and gas drilling at this time is unnecessary because the current plan already makes available more than 45 million barrels of oil. The commenter cited concerns over oil spills and the impact to local economies and environmental resources, especially in Delaware, from seismic testing and oil and gas production. The commenter argued that the economic benefits of a healthy and sustainable coastal environment outweigh the lesser economic benefits of offshore drilling. The commenter also expressed concern about the decision to grant an exemption to Florida only.

House of Representatives, Georgia,
Earl Carter
Document ID: BOEM-2017-0074-0645

The commenter requested additional information on the impact of the Proposed Program to the Georgia coast. The commenter also urged BOEM to schedule a public meeting in coastal Georgia.

United States Senate, Maine, Angus King Jr.
and Susan Collins
Document ID: BOEM-2017-0074-0643

The commenters opposed offshore oil and gas drilling in the Atlantic region, and especially off the coast of Maine. The commenter expressed concern over the impacts on important fisheries and other coastal resources that support the state's economy.

United States Senate, Massachusetts,
Edward J. Markey
Document ID: BOEM-2017-0074-10590

The commenter expressed their opposition to offshore drilling in the Atlantic, specifically in Massachusetts. The commenter's primary concerns involve the potential negative impact

on commercial fishing, which provides jobs and produces significant revenue for the state. Other concerns included tourism, seafood production, and oil spill risks. The commenter also noted the lack of public meetings in the state and the few opportunities for local voices to be heard.

**House of Representatives, New Jersey,
Frank A LoBiondo**

Document ID: BOEM-2017-0074-10674

The commenter stated their opposition to including the Atlantic in the proposed plan, specifically New Jersey. The commenter expressed concern for marine species, commercial and recreational fishing, and the tourism industry and how they would be negatively affected. The commenter also expressed concern for potential environmental and economic risks posed by offshore oil and gas development in a state still recovering from Superstorm Sandy.

**House of Representatives, New Jersey,
Frank Pallone Jr.**

Document ID: BOEM-2017-0074-10591

The commenter expressed their opposition to the proposed plan to open the Atlantic Ocean to offshore oil and gas drilling. The commenter cited threats to public health, the environment, marine ecosystems, small businesses, oil spills, and the viability of Atlantic coastal communities as reasons for opposition. The commenter stated that if an oil spill were to occur, it would severely impact local industries and threaten the existence of endangered species.

**House of Representatives, North Carolina,
Walter Jones**

Document ID: BOEM-2017-0074-4818

The commenter requested that BOEM hold a public meeting in Dare County, North Carolina.

**House of Representatives, North Carolina,
Walter Jones**

Document ID: BOEM-2017-0074-11170

The commenter's position on the proposed plan is unclear, but the commenter expressed their concern for the Atlantic. The commenter requested an extension of the public comment period. The commenter stressed the importance of hearing the opinions of citizens living in coastal North Carolina before any decision is made.

**House of Representatives, South Carolina,
Jeff Duncan**

Document ID: BOEM-2017-0074-10777

The commenter expressed their support for offshore drilling in the Atlantic, specifically in South Carolina. The commenter's primary reasons for this support included energy independence, economic benefit by way of high-paying American jobs, and an increase of Federal and local government revenue. The commenter also explained how offshore drilling can benefit Americans as demand for energy independence increases.

**House of Representatives, Virginia,
A. Donald McEachin**

Document ID: BOEM-2017-0074-10972

The commenter stated their opposition to offshore drilling in the Atlantic, specifically in Virginia. The commenter expressed concern over the negative impact this proposal would have on local economies. The commenter cited Virginia's tourism industry and commercial and recreational fishing industries as being impacted. The commenter expressed concern that this proposal will encourage an apathetic attitude toward climate change and accelerate GHG emissions. The commenter stated that the Proposed Program poses significant threats to military readiness, national security, and aerospace activities. The commenter also questioned why the only public meeting in

Virginia was held 100 miles inland in Richmond and not in a coastal community.

**House of Representatives, Virginia,
Scott Taylor
Document ID: BOEM-2017-0074-11046**

The commenter expressed opposition to offshore oil drilling in the Atlantic. The commenter’s primary concerns include the military and how offshore oil rigs negatively interfere with military readiness training. Additionally, the commenter stated that through clean energy technologies, the United States can be an energy powerhouse again.

**United States Senate, Virginia,
Mark Warner and Tim Kaine
Document ID: BOEM-2017-0074-4822**

The commenters requested BOEM hold additional public meetings in coastal communities such as Hampton Roads that will be impacted by the Proposed Program.

**United States Senate, Virginia, Tim Kaine
Document ID: BOEM-2017-0074-11211**

A senator opposed the inclusion of Virginia in the planning regions. The commenter discussed tourism interests around the state, as well as the potential impact on local military installations. The commenter requested that Virginia be removed from the planning regions.

A.9 TRIBES AND TRIBAL ORGANIZATIONS

List of Commenters

Aroostock Band of Micmacs*	Native Village of Eyak*
Arctic Slope Regional Corporation	Native Villages of Elim, Koyuk, Shishmaref & Shaktoolik*
Association of Village Council Presidents	Nay’Dini’AA NA’ (Chickaloon Village) Traditional Council*
Bering Sea Elders Group	Northern California Tribal Chairman’s Association
Blue Lake Rancheria*	Ocean Protectors Coalition of Native Nations and Indigenous Peoples
Columbia River Inter-Tribal Fish Commission	Quileute Tribal Council*
Confederated Tribes of the Umatilla Indian Reservation*	Quinault Indian Nation*
Council of Trustees, Shinnecock Indian Nation*	The Confederated Tribes of Grand Ronde*
Coyote Valley Band of Pomo Indians*	Tribal Operations Committee
Federated Indians of Graton Rancheria*	Voice of the Arctic Iñupiat
Gabrieleño Band of Mission Indians	West Coast Tribal Caucus
Hoh Indian Tribe*	Yak Tityu Tityu Yak Tihn - Northern Chumash Tribe San Luis Obispo County and Region
InterTribal Sinkyone Wilderness Council	
Kawerak, Inc.	
Makah Tribe*	

Key: * = federally recognized tribe

A.9.1 Alaska Region

**Arctic Slope Regional Corporation,
Richard K. Glenn
Document ID: BOEM-2017-0074-11172**

The commenter expressed support for the DPP Option 2 for Alaska, which excludes areas set aside for subsistence. The commenter stated

that oil and gas exploration can proceed safely with manageable impacts on the environment and culture.

**Association of Village Council Presidents,
Vivian Korthuis****Document ID: BOEM-2017-0074-10695**

The commenter expressed opposition to the inclusion of the Arctic planning areas, and specifically the Bering Sea, in the DPP. The commenter also argued that BOEM should include formal Tribal consultations in Proposed Program development. The commenter expressed concern for the impacts on subsistence and cultural resources in the region and cited a lack of industry interest in the Bering Sea.

Bering Sea Elders Group, Harry Lincoln**Document ID: BOEM-2017-0074-10993**

The commenter expressed opposition to the inclusion of the Arctic planning areas, and specifically the Bering Sea, in the DPP. The commenter also argued that BOEM should include formal, individual Tribal consultations and additional public meetings in leasing areas during development of the Proposed Program.

Kawerak Inc., Melanie Bahnke**Document ID: BOEM-2017-0074-10968**

The commenter voiced opposition of offshore development in the Bering Sea. The commenter stressed the importance of the marine ecosystem of the Bering Sea to the community's subsistence hunting and fishing. The commenter requested BOEM remove the Bering Sea from the DPP and asked that BOEM incorporate traditional tribal knowledge in future policy development.

**Native Villages of Elim, Koyuk, Shishmaref
& Shaktoolik, Hal Shepherd****Document ID: BOEM-2017-0074-10938**

The commenter expressed opposition to the inclusion of the Bering Sea in the DPP. The commenter argued that the DPP exposes communities to the negative impacts of climate change and urged BOEM to participate in formal government-to-government consultation with Tribes in the Arctic region.

**Nay'Dini'AA NA' (Chickaloon Village)
Traditional Council, Rick Harrison****Document ID: BOEM-2017-0074-10637**

The commenter opposed offshore drilling in the Arctic OCS, and specifically in the Arctic National Wildlife Refuge. The commenter argued that the DPP represents a threat to traditional food sources and cultural way of life of local communities.

Voice of Arctic Iñupiat, Sayers Tuzroyluk**Document ID: BOEM-2017-0074-10572**

The commenter opposed the inclusion of the Chukchi Sea, Barrow Whaling Area, and Kaktovik Whaling Area in the Arctic OCS region in the DPP. The commenter acknowledged the benefits of sustainable resource development but requested these areas be removed from the DPP to protect cultural and subsistence uses in the area. The commenter also requested BOEM participate in consultation and coordination with tribes of the Arctic to incorporate tribal knowledge and experience into policy evaluation.

Voice of the Arctic Iñupiat, Sayers Tuzroyluk**Document ID: BOEM-2017-0074-10997**

The commenter opposed the expansion of DPP to include areas within the Bering Sea in the Arctic planning area in Option 1. The commenter supported the safe and culturally appropriate resource development in the Arctic but is concerned that the program is expanding into critical subsistence areas relied upon by tribes. The commenter stressed the importance of traditional tribal knowledge in formulating policy.

Native Village of Eyak, Darrel Olsen**Document ID: BOEM-2017-0074-11006**

The commenter opposed the inclusion of Alaskan OCS areas in the DPP. The commenter cited concerns over negative consequences from an oil spill and potential detrimental impacts on the fishing industry.

Tribal Operations Committee, Billy Maines
Document ID: BOEM-2017-0074-10976

The commenter opposed any expansion of the offshore oil and gas lease program, including in the Pacific and Arctic planning areas. The commenter argued that BOEM has a trust responsibility to protect tribal resources and treaty rights, and stressed that BOEM must conduct government-to-government consultation with tribal organizations.

A.9.2 Pacific Region**Blue Lake Rancheria, Jana Ganion**
Document ID: BOEM-2017-0074-10824

The commenter opposed the DPP, including all proposed leasing areas. The commenter stated that the DPP represents an unnecessary threat to industries such as fishing and tourism, which also rely on the ocean environment. The commenter also voiced concerns over the potential negative environmental impacts resulting from exploration or an oil spill and cited opposition from local communities and state-level officials.

Columbia River Inter-Tribal Fish Commission, Jamie Pinkham
Document ID: BOEM-2017-0074-10638

The commenter opposed the inclusion of the Pacific Planning Area in the DPP. The commenter voiced concerns over the potential negative impacts on fishing interests in the region and subsistence uses of resources. The commenter also argued that offshore oil and gas development would oversaturate the oil and gas market, given the high amount of available U.S. reserves.

Confederated Tribes of the Umatilla Indian Reservation, Carl Merkle
Document ID: BOEM-2017-0074-10969

The commenter expressed opposition to oil and gas leasing off the coast of the Pacific. The commenter stressed that BOEM should honor and uphold treaty rights of Indian tribes,

including the taking of fish. The commenter also voiced concern for the impacts on traditional food sources and potential aggravation of climate change impacts in the region.

Coyote Valley Band of Pomo Indians, Emily Luscombe
Document ID: BOEM-2017-0074-10579

The commenter voiced opposition to oil and gas leasing in the Pacific Ocean, and specifically off the coast of California. The commenter cited concerns over negative environmental impacts resulting from exploration activities, an oil spill, and impacts from climate change.

Federated Indians of Graton Rancheria, Greg Sarris
Document ID: BOEM-2017-0074-10668

The commenter opposed any development off the coast of California, specifically mentioning the tribe's land of Sonoma. The commenter requested that the entirety of the Pacific be left out of the next draft. The commenter also requested that BOEM consult with tribes for future plans.

Gabrieleño Band of Mission Indians - Kizh Nation, Ernest Salas - Teutimez
Document ID: BOEM-2017-0074-10986

The commenter expressed opposition to any proposed oil and gas leasing in the U.S. OCS. The commenter requested that BOEM conduct government-to-government consultation with tribal organizations and to consider alternative renewable energy sources.

Hoh Indian Tribe, Bernard Afterbuffalo Jr.
Document ID: BOEM-2017-0074-11281

The commenter voiced opposition to offshore oil and gas development in the Pacific Ocean as the commenter argues it poses unacceptable risks to the coastal marine environment. The commenter also requested that BOEM conduct formal consultation with tribal organizations in the region.

**InterTribal Sinkyone Wilderness Council,
Priscilla Hunter****Document ID: BOEM-2017-0074-11008**

The commenter opposed oil and gas lease sales in all proposed planning areas, and specifically off the Pacific Coast. The commenter stressed the importance of the coastal environment to the cultural way of life and subsistence living of local tribes and urged BOEM to consider the Tribes' unique knowledge of the Pacific Coast in policy development. The commenter provided several aspects to consider during the EIS, including the impact of oil spills and climate change.

Makah Tribe, Katie Wrubel**Document ID: BOEM-2017-0074-10732**

The commenter opposed oil and gas leasing in the Pacific Ocean. The commenter stated that the DPP did not appropriately account for tribal treaty rights, subsistence or ceremonial fisheries within Washington State. The commenter also argued that offshore oil and gas development could place the Pacific Coast in greater danger of an earthquake and associated infrastructure would damage the cultural and scenic value of the land.

**Northern California Tribal Chairman's
Association, Garth Sundberg****Document ID: BOEM-2017-0074-10824-3**

The commenter opposed offshore leasing in the Pacific Ocean, and specifically off the coast of California. The commenter argued that the risks from a spill posed by oil and gas development were too high and would damage the fragile ecosystem upon which the tribe depends. The commenter stated that the need for energy and economic growth would be better met through renewable energy. The commenter also requested that BOEM participate in formal government-to-government consultation with tribes on an individual basis.

**Ocean Protectors Coalition of Native Nations
and Indigenous Peoples,****Angela Mooney D'Arcy****Document ID: BOEM-2017-0074-11261**

The commenter expressed opposition to oil and gas leasing in all proposed planning areas, and specifically off the Pacific Coast. The commenter stressed the reliance of indigenous people on the coast and voiced concern over potential environmental impacts from oil spills.

Quileute Tribal Council,**Douglas Woodruff Jr.****Document ID: BOEM-2017-0074-11204**

The commenter opposed the inclusion of the Pacific Planning Area in the DPP. The commenter cited reasons for the exclusion of the Pacific in the past, including lack of industry interest in the region and opposition by coastal governors. The commenter also requested BOEM participate in government-to-government consultation with local tribes during the Proposed Plan development process.

Quinault Indian Nation, Fawn R. Sharp**Document ID: BOEM-2017-0074-4877**

The commenter requested BOEM participate in government-to-government consultation to protect treaty rights in the Pacific Ocean during the OSC Program development.

Quinault Indian Nation, Karen Allston**Document ID: BOEM-2017-0074-10965**

The commenter voiced opposition to oil and gas leasing in the Pacific Ocean, and specifically off the coast of Washington. The commenter stated that the DPP would conflict with Tribal treaty rights in the area and questioned the need for a new leasing program and the use of fossil fuels to meet the Nation's energy needs. The commenter also cited concerns over the impacts of fossil fuel production on climate change aggravation.

**The Confederated Tribes of Grand Ronde,
Meagan Flier**

Document ID: BOEM-2017-0074-10707

The commenter expressed opposition to oil and gas leasing in the Pacific Ocean and requested BOEM exclude this planning area from the Proposed Program. The commenter explained the importance of coastal resources to the daily life and economies of tribes. The commenter also voiced concerns for environmental impacts from the Proposed Program including impacts on cultural landscapes and endangered species.

**West Coast Tribal Caucus, 17 Tribal
Organizations**

Document ID: BOEM-2017-0074-11171

The commenter opposed offshore oil and gas leasing in the Pacific Ocean. The commenter stressed the importance of tribal involvement, including incorporating treaty rights and formal government-to-government consultation, in developing the Proposed Plan.

**yak tityu tityu yak tihn - Northern Chumash
Tribe San Luis Obispo County and Region,
Mona Tucker**

Document ID: BOEM-2017-0074-10769

The commenter opposed offshore leasing off the Pacific Coast. The commenter voiced concerns over detrimental environmental impacts from oil spills and other development activities that could jeopardize traditional uses of coastal resources.

A.9.3 Gulf of Mexico Region

No comment letters from GOM Region tribes or tribal organizations were submitted in response to the DPP.

A.9.4 Atlantic Region

**Aroostock Band of Micmacs,
Chief Edward Peterpaul**

Document ID: BOEM-2017-0074-10537

The commenter opposed offshore oil and gas leasing in the Atlantic Ocean. The commenter stressed the importance of a clean and healthy

coastal environment to tribal fisherman as a source of economic growth.

**Council of Trustees, Shinnecock Indian
Nation, Kelly Dennis**

Document ID: BOEM-2017-0074-11173

The commenter voiced opposition to offshore leasing in the Atlantic Ocean, arguing that such development would aggravate the impacts of climate change and harm the coastal environment. The commenter stressed that tribal treaties and rights must be accommodated in the Proposed Plan.

**Council of Trustees, Shinnecock Indian
Nation, Randy King**

Document ID: BOEM-2017-0074-11173

The commenter opposed the inclusion of the Atlantic OCS in the DPP. The commenter voiced concern over the impacts of oil and gas development on the coastal marine environment and tribal fishing waters.

A.10 FORM LETTER CAMPAIGNS

Below is a list of form letter campaigns received during the DPP comment period. The list includes the campaigns, including the originating organization (if identified), the total number of submissions in the campaign, and a brief summary of the information provided as part of the campaign.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-0230	Tracy Wade	5	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas.
BOEM-2017-0074-0400	Peter Smith	1,455	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all planning areas. • The potential for an oil spill places valuable coasts, industries, and coastal communities at risk.
BOEM-2017-0074-0644	Louisiana Motor Transport Association, John Austin	15	<ul style="list-style-type: none"> • Expressed support for expanded offshore development in the GOM. • An increase in domestic energy supply will create jobs, grow the economy, and increase energy security.
BOEM-2017-0074-0659	Lara Pertel-Ashouwak	6	<ul style="list-style-type: none"> • Opposed oil and gas drilling in Atlantic Ocean, especially off the coast of Maine. • Offshore development will threaten natural resources and damage fishing and tourism industries.
BOEM-2017-0074-10051	Jeremy Favier	15	<ul style="list-style-type: none"> • Requested the removal of the Pacific OCS from future offshore development plans. • Oil spills could devastate the coastal environment, tourism, recreation, and the local economy. • Supported the transition to cleaner, renewable energy.
BOEM-2017-0074-10160	Scott Stewart	11	<ul style="list-style-type: none"> • Supported expanded development access to the Arctic OCS. • Increased oil and gas drilling will maintain the integrity of the TAPS. • Leasing in the Arctic will help secure the long-term energy and economic security of Alaska and the Nation.
BOEM-2017-0074-10587	Town of Kure Beach, NC, Craig Bloszinsky	4	<ul style="list-style-type: none"> • Requested extension of the public comment period and additional meetings held in coastal communities.
BOEM-2017-0074-10593	Russian River Watershed Protection Committee, Brenda Adelman	28	<ul style="list-style-type: none"> • Opposed inclusion of the Pacific OCS in the DPP. • The tourism and fishing industries that support a clean, coastal economy would be threatened. • The DPP fails to offer adequate public meetings and comment period, or take into account local and state laws, goals, and policies.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-10595	Coastal Carolina Riverwatch, Crystal Coast Waterkeeper, White Oak-New Riverkeeper Alliance, Larry Baldwin		<ul style="list-style-type: none"> • Requests the exclusion of North Carolina's coast from offshore leasing. • Expected oil and gas resources in the Atlantic are minimal and would place an unnecessary risk on valuable coastal economies.
BOEM-2017-0074-10599	Women's International League for Peace and Freedom, Boston branch, Eileen Kurkoski	2	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all planning areas. • Offshore development produces has negative impacts on humans and the marine ecosystem, including oil spills, water pollution, and human health impacts from burning fossil fuels.
BOEM-2017-0074-1527	Suzanne Bompensa	36	<ul style="list-style-type: none"> • Expressed concern over the threat of oil spills to marine mammals and coastal habitats.
BOEM-2017-0074-1534	Gail Grivois	40	<ul style="list-style-type: none"> • Opposed offshore oil and gas leasing in all U.S. waters. • Sea turtles and other marine wildlife would be put at risk from oil spills, seismic surveys, and building development infrastructure.
BOEM-2017-0074-1988	Tony Kay	5	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all regions, and especially off the coast of California. • Oil spills would devastate coastal fisheries, tourism and recreation.
BOEM-2017-0074-2695	Veronica Bourassa	37	<ul style="list-style-type: none"> • Oil and gas leasing and seismic surveys would harm endangered marine mammals and threaten coastal economies.
BOEM-2017-0074-2703	Brian Jacobson	9	<ul style="list-style-type: none"> • Opposed the DPP and expressed concern about climate change impacts of fossil fuels.
BOEM-2017-0074-3078	Heather Smurthwaite	6	<ul style="list-style-type: none"> • Expressed opposition to offshore oil and gas leasing and advocated for protecting ocean environments.
BOEM-2017-0074-3487	Oscar Revilla	23	<ul style="list-style-type: none"> • Opposed the inclusion of North Carolina's coast. • Oil and gas drilling threatens existing businesses and ecologically sensitive areas along the coast.
BOEM-2017-0074-3990	Julia DePalma	6	<ul style="list-style-type: none"> • Opposed offshore leasing in the Atlantic OCS, including the coast of Rhode Island. • Oil and gas exploration and production will harm marine life, pollute beaches and water, and the coastal economy.
BOEM-2017-0074-4840	Oceana, et al., Diane Hoskins	139	<ul style="list-style-type: none"> • Requested an extension of the public comment period to provide additional, informed feedback. • Requested additional public meetings held in coastal communities.

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BOEM-2017-0074-4879	Attorney General of North Carolina and 11 Other States, Joshua Stein	12	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all coastal waters and voiced concern over the development process of the DPP. • Economic and natural resources would be placed at risk of an oil spill and other detrimental impacts. • The exclusion process for individual states must be carried out equally and fairly.
BOEM-2017-0074-5926	Audubon Society of Corvallis, Chris Matthews	40	<ul style="list-style-type: none"> • Opposed oil and gas leasing off the coast of Oregon. • Offshore development would risk ecological damage and the economic livelihoods of coastal communities.
BOEM-2017-0074-6760	University of California, San Francisco, UCSF Sustainability Office	14	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all planning areas. • Requested a renewed focus on transitioning the Nation's energy supply to renewable sources.
BOEM-2017-0074-8360	Catarina Totten	14	<ul style="list-style-type: none"> • Opposed offshore oil and gas leasing in the North Atlantic Planning Area, especially off the coast of Rhode Island. • The regional economy relies on a clean and vibrant coast, supporting tourism and maritime industries. • Critical habitat and feeding grounds for marine mammals in the area must be protected.
BOEM-2017-0074-8464	Laura Hanks	7	<ul style="list-style-type: none"> • Opposed all offshore leasing in coastal waters, and particularly in the Pacific OCS. • The Pacific Coast boasts unique natural resources and supports booming tourism, recreation, and fishing industries.
BOEM-2017-0074-8971	Kansas Petroleum Council - API; Kansas Chamber of Commerce; Kansas Manufacturing Council, Kent Eckles	2	<ul style="list-style-type: none"> • Supported the inclusion of all proposed planning areas. • Economic activity would increase as a result of offshore leasing. • The U.S. should take full advantage of the potential benefits that continued and expanded offshore development can bring.
BOEM-2017-0074-8990	Laurie Kirkpatrick	6	<ul style="list-style-type: none"> • Opposed offshore development in all proposed planning areas. • Oil spills could have negative impacts on wildlife and coastal communities. • Oil supplies in the OCS are likely low and not worthwhile to pursue.
BOEM-2017-0074-12430	Joshua Tilton	780	<ul style="list-style-type: none"> • Opposed offshore oil and gas leasing in the Atlantic OCS and particularly off the coast of Maine. • Oil spills, seismic testing, and exploratory drilling will have negative impacts on valuable fisheries and local economies.

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BOEM-2017-0074-12431	Jillian Finker	34	<ul style="list-style-type: none"> • Opposed all offshore oil and gas leasing in the OCS. • The risks to marine habitats and mammals outweigh the benefits of oil and gas drilling.
BOEM-2017-0074-12432	Joseph Stark	5,121	<ul style="list-style-type: none"> • Opposed any and all offshore oil and gas leasing. • Public opposition from coastal states, including governors, has been expressed previously. • Expanding offshore development into currently unleased areas will harm residents, businesses, and the coastal environment.
BOEM-2017-0074-12433	Anonymous Campaign 1	13	<ul style="list-style-type: none"> • Supported the expansion of oil and gas leasing in all planning areas, including those previously under moratorium. • Expanded energy resources will provide opportunities for U.S. businesses and ensure a robust source for domestic energy.
BOEM-2017-0074-12434	Michelle Dunn	52	<ul style="list-style-type: none"> • Supported the expansion of oil and gas leasing in all planning areas, including those previously excluded. • Resource potential in the planning areas will support a growing U.S. economy and increase national security.
BOEM-2017-0074-11193	Choose Clean Water Coalition, Chante Coleman	41	<ul style="list-style-type: none"> • Opposed offshore leasing in the Atlantic Ocean. • Oil spills could devastate economically important marine species such as crab and other fisheries. • Offshore development could disrupt commercial shipping and military activities in the Mid-Atlantic region.
BOEM-2017-0074-12435	Luke Guillory	1,393	<ul style="list-style-type: none"> • Supported expanded access to the Eastern GOM. • Offshore leasing in the Eastern GOM will provide additional jobs and support new businesses.
BOEM-2017-0074-12436	Anonymous Campaign 2	11	<ul style="list-style-type: none"> • Opposed all offshore oil and gas leasing and urged a transition towards renewable energy.
BOEM-2017-0074-11199	Oklahoma State Chamber, Fred Morgan	5	<ul style="list-style-type: none"> • Supported oil and gas leasing in all proposed leasing areas. • Access to affordable and reliable domestic energy is critical to support the economy.
BOEM-2017-0074-12437	Marie Lefton	7	<ul style="list-style-type: none"> • Opposed offshore drilling in North Atlantic region. • New England's economy, marine wildlife, and water would be placed at risk of an oil spill.
BOEM-2017-0074-12438	Julie Godbe	7	<ul style="list-style-type: none"> • Opposed all offshore leasing and urged a renewed focus on renewable energy.

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BOEM-2017-0074-12439	Kevin McDonald	15	<ul style="list-style-type: none"> Opposed all oil and gas leasing in the OCS and requested a robust analysis of the cumulative impacts of offshore development.
BOEM-2017-0074-12440	Michelle Hamner	5	<ul style="list-style-type: none"> Opposed oil and gas development in the Atlantic OCS, and particularly off the coast of Georgia. Energy reserves off Georgia are minimal and not worth the risk to coastal habitats and species.
BOEM-2017-0074-12441	Tim Eichenberg	6	<ul style="list-style-type: none"> Opposed all oil and gas leasing in the OCS, as offshore development could put coastal communities, ecosystems, and local economies at risk.
BOEM-2017-0074-12442	Marta Schulenburg	21	<ul style="list-style-type: none"> Opposed all oil and gas leasing in the OCS, and argued local economies and marine species would be harmed by an oil spill.
BOEM-2017-0074-12443	Andrea Wasserman	16	<ul style="list-style-type: none"> Opposed the replacement of the current leasing plan, which was developed with significant public input.
BOEM-2017-0074-12444	Mason Somers	20	<ul style="list-style-type: none"> The DPP poses unnecessary risks to marine and coastal environments and economies.
BOEM-2017-0074-11206	Ocean Conservancy, Andrew Hartsig	36,687	<ul style="list-style-type: none"> Opposes opening any additional planning areas to offshore oil and gas leasing. Impacts from oil spills and other development activities would harm coastal communities and ecosystems.
BOEM-2017-0074-12445	Alan Sibert	17	<ul style="list-style-type: none"> Opposed all offshore oil and gas leasing and urged a national transition towards renewable energy.
BOEM-2017-0074-12446	Francisco Restrepo	8	<ul style="list-style-type: none"> Opposed all offshore oil and gas drilling, including lease sales in California. The impact on ocean and coastal environments and industries would be detrimental. The U.S. should focus on renewable energy and conservation.
BOEM-2017-0074-12447	Ian Shelley	19,636	<ul style="list-style-type: none"> Opposed offshore oil and gas leasing in all planning areas to protect against inevitable oil spills.
BOEM-2017-0074-11213	CALPRIG Students, Jenn Engstrom	617	<ul style="list-style-type: none"> Opposed offshore oil and gas leasing in all planning areas to protect against inevitable oil spills that would damage coastal livelihoods and the environment.
BOEM-2017-0074-12448	Stacy Grossman	12	<ul style="list-style-type: none"> Sea otters and other marine mammals would be put at risk of oil spills.
BOEM-2017-0074-11214	Gulf Restoration Network, Christian Wagley	65	<ul style="list-style-type: none"> Opposed oil and gas leasing off the coast of Florida and requested the removal of the Eastern GOM. Seismic testing and other development activities would harm the state's environment on which the economy depends.

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BOEM-2017-0074-12449	Judith Hedstrom	6	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling off the coast of California.
BOEM-2017-0074-12450	Paul L.	12	<ul style="list-style-type: none"> • Oil and gas exploration and development off the coast of Massachusetts would have severe impacts on fisheries, wildlife habitat, and geological resources.
BOEM-2017-0074-12451	Kathleen Post	9	<ul style="list-style-type: none"> • Opposed offshore leasing in the Mid-Atlantic OCS and particularly in South Carolina. • Seismic testing would harm marine mammals that migrate to waters in the Atlantic. • Expected resources in the Mid-Atlantic region are minimal and would pose an unnecessary risk to the coastal environment.
BOEM-2017-0074-12452	Laura Lynch	9	<ul style="list-style-type: none"> • Opposed offshore leasing in the Atlantic OCS, particularly in New Jersey. • Offshore drilling and seismic testing threaten marine wildlife and coastal communities.
BOEM-2017-0074-12453	Diane Kopan	19,971	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all planning areas due to potential interfere with military and other uses.
BOEM-2017-0074-12454	Kelly McConnell	19,249	<ul style="list-style-type: none"> • Opposed offshore oil and gas leasing in all planning areas. • Offshore drilling threatens marine wildlife and coastal communities, and exacerbates climate change.
BOEM-2017-0074-12455	Mary Todesca	6	<ul style="list-style-type: none"> • Opposed oil and gas leasing in the Atlantic OCS, including off the coast of Georgia. • The Proposed Program would only benefit oil companies while putting coastal economies and environments at risk.
BOEM-2017-0074-12456	Shane Farnor	14,950	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all proposed planning areas and urged the protection of all National Parks. • Oil and gas development in fragile and remote locations will exacerbate the impacts of an oil spill.
BOEM-2017-0074-12457	Michael Sickles	58	<ul style="list-style-type: none"> • Opposed all oil and gas leasing in the OCS. • Expanded oil and gas development will increase the likelihood of an oil spill that will harm local economies.
BOEM-2017-0074-11306	Mandate Media, Suvi Chisholm	186,543	<ul style="list-style-type: none"> • Opposed all oil and gas leasing in the OCS. • Drilling increases the threat of devastating oil spills, all while driving climate change and threatening our clean energy future.
BOEM-2017-0074-10804	Davis Block and Concrete, Regina Daniels	5	<ul style="list-style-type: none"> • Supported the inclusion Alaska OCS, including those previously closed to leasing. • Energy development in the Arctic will provide an economic boost and ensure the longevity of TAPS.

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BOEM-2017-0074-11340	NC Conservation Network, Molly McKinley	5,117	<ul style="list-style-type: none"> Requested the removal of the North Carolina coast from the Proposed Program. Public opposition to oil and gas leasing in the region has previously been expressed. Offshore drilling will threaten existing industries that generate billions of dollars in annual revenue.
BOEM-2017-0074-12458	All Coasts Campaign	48	<ul style="list-style-type: none"> Opposed new oil and gas leases in the OCS. The expansion of oil and gas drilling would cause unnecessary negative impacts on the marine ecosystem, coastal communities, and vital recreation and tourism industries.
BOEM-2017-0074-12459	Barnegat Bay Campaign	2	<ul style="list-style-type: none"> Opposed oil and gas development in the OCS. The local community and industry rely on a clean ocean and coastline and any pollution would have negative impacts.
BOEM-2017-0074-12460	No Offshore Drilling	2	<ul style="list-style-type: none"> Opposed any new offshore oil and gas leases and voiced concern over climate change.
BOEM-2017-0074-12461	Protect the Coast	7	<ul style="list-style-type: none"> Oil and gas drilling threatens North Carolina's beaches and tourism industry.
BOEM-2017-0074-12462	Anonymous Campaign 3	47	<ul style="list-style-type: none"> Requested the removal of South Carolina from the Proposed Plan. Offshore development would require the industrialization of the coast that would damage the tourism industry.
BOEM-2017-0074-11307	Surfrider Foundation	50	<ul style="list-style-type: none"> Opposed the inclusion of the all OCS in the DPP. Industries that generate significant revenue for coastal states would be severely impacted and put at risk for oil spills. The previous leasing plan was developed with significant public input.
BOEM-2017-0074-12643	Rachel Wood	6	<ul style="list-style-type: none"> Requested that safety regulations be retained to protect the Nation's coasts from potential oil spills.
BOEM-2017-0074-12648	Coastal Conservation League, Sandra Kluttz	12	<ul style="list-style-type: none"> Opposed oil and gas leasing in the Atlantic and requested that South Carolina be removed. The minimal recoverable resources in the Atlantic are not worthwhile to pursue given the risks posed to marine mammals.
BOEM-2017-0074-12651	Elena Lledo	83	<ul style="list-style-type: none"> Opposed any and all offshore oil and gas drilling.
BOEM-2017-0074-12653	Sarah Winn	8	<ul style="list-style-type: none"> Opposed oil and gas drilling in the Atlantic OCS, including off the coast of Virginia. The coast economies of the state will be put at risk of an oil spill and other industrialization of the coast will harm the tourism industry.

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BOEM-2017-0074-11309	Audubon Washington, Trina Bayard	20	<ul style="list-style-type: none"> • Opposed oil and gas leasing in all planning areas and especially in the Pacific OCS. • Natural resources and the industries that rely on them would be threatened by offshore development.
BOEM-2017-0074-11312	Pacific Environment 1, Clara Bonaventura	620	<ul style="list-style-type: none"> • Public opposition to offshore oil and gas leasing in the OCS was previously expressed. • Offshore development would solely benefit oil companies and the U.S. should focus on renewable energy.
BOEM-2017-0074-11310	Pacific Environment 2, Clara Bonaventura	115	<ul style="list-style-type: none"> • Opposed offshore oil drilling in the Alaska OCS. • The regional ecosystem is still recovering from previous oil spills and native communities' access to subsistence resources would be threatened.
BOEM-2017-0074-11311	Pacific Environment 3, Clara Bonaventura	73	<ul style="list-style-type: none"> • Opposed the inclusion of the California coast in the DPP. • Commercial fisheries, tourism, coastal ecosystems would be harmed by offshore oil and gas development. • The DPP is in direct contradiction of California's state goals and policies on offshore oil and gas development.
BOEM-2017-0074-12656	Kathryn Sanwick	178	<ul style="list-style-type: none"> • Opposes expanding oil and gas leasing to additional planning areas. • An oil spill could cause severe impacts to the economies of coastal communities, disrupt recreational and commercial fishing, and harm marine wildlife.
BOEM-2017-0074-12661	Murray Morrissey	24	<ul style="list-style-type: none"> • The risks from offshore development, such as oil spills, are exacerbated by climate change impacts such as increased severity of storms.
BOEM-2017-0074-11313	Heal the Bay 1, Talia Walsh	124,326	<ul style="list-style-type: none"> • Opposed oil and gas leasing in the Pacific OCS. • California has experienced the consequences of oil spills in the past.
BOEM-2017-0074-11314	Heal the Bay 2, Talia Walsh	1,724	<ul style="list-style-type: none"> • Opposed any new oil and gas leasing in all planning areas. • Oil spills will damage marine ecosystems and impact local economies.
BOEM-2017-0074-12664	Cheryl Sarno	29	<ul style="list-style-type: none"> • Opposed any new oil and gas leasing in the OCS. • Coastal economies will be harmed by inevitable oil spills.
BOEM-2017-0074-12667	Lily May	11,207	<ul style="list-style-type: none"> • Opposed expanded oil and gas drilling in planning areas. • Coastal communities are vulnerable to negative impacts from offshore development, such as oil spills. • The previous program should not be reversed.

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BOEM-2017-0074-11315	National Religious Partnership for the Environment, Cassandra Carmichael	310	<ul style="list-style-type: none"> • Opposed expanded oil and gas leasing and seismic testing in the OCS. • Oil spills devastate coastal communities and marine wildlife. • Renewable energy should be pursued as an alternative to fossil fuels.
BOEM-2017-0074-11316	Alaska Wilderness League, Leah Donahey	11,088	<ul style="list-style-type: none"> • Opposed oil and gas leasing in the Arctic OCS. • The Arctic environment is incredibly fragile and an oil spill would be extremely difficult to clean-up, given the remote location.
BOEM-2017-0074-12672	Carlene Woodward	66,071	<ul style="list-style-type: none"> • Opposes offshore oil and gas leasing in any and all oceans. • Offshore drilling threatens marine wildlife and coastal communities, and exacerbates climate change.
BOEM-2017-0074-12678	Robert Kushner	87	<ul style="list-style-type: none"> • Opposed offshore oil and gas development off the North Carolina coast. • Drilling in the Atlantic OCS will jeopardize critical ecosystems and economies and contradict efforts to attract renewable energy.
BOEM-2017-0074-11318	Chesapeake Climate Action Network, Kiquanda Baker	103	<ul style="list-style-type: none"> • Requested the removal of the Atlantic OCS from the DPP. • Investment in renewable energy like wind power will double the number of jobs and energy than oil in the Atlantic region. • Offshore development would impede military and NASA operations off the Virginia coast.
BOEM-2017-0074-12683	Oregon Wild, Arran Robertson	886	<ul style="list-style-type: none"> • Opposed oil and gas leasing off the coast of Oregon. • The cumulative impacts of climate change and environmental degradation from oil and gas development would harm the state's coastal landscape and communities.
BOEM-2017-0074-12690	Gulf Restoration Network, Raleigh Hoke	1,353	<ul style="list-style-type: none"> • Opposed the expansion of oil and gas drilling across all planning areas. • The proposed plan is in direct opposition to the public opinion demonstrated during the previous comment period. • Safety measures and other regulations must be imposed to protect against oil spills.
BOEM-2017-0074-12710	World Wildlife Fund, Dave Aplin	101,694	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in the Arctic. • Continued development of offshore resources will promote continued reliance on fossil fuels. • Oil spills could have major impacts on the Arctic's environment and wildlife.
BOEM-2017-0074-12722	American Littoral Society, Sarah Winter Whelan	277	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas.

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BOEM-2017-0074-11319	Turtle Island Restoration Network, Peter Fugazzotto	4,299	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in the GOM. • Offshore oil and gas drilling in the oceans will increase risks to endangered and threatened sea turtles.
BOEM-2017-0074-11320	Wildlife Conservation Society, Kristen Avery	27,986	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in the U.S. OCS. • Healthy oceans are vital to maintaining a strong U.S. economy.
BOEM-2017-0074-11321	FreedomWorks Foundation, Patrick Hedger	3,886	<ul style="list-style-type: none"> • Supported expanded opportunities for offshore oil and gas exploration and production. • Increasing free market access to energy and bolstering domestic energy production will provide energy security. • Environmental protections and stewardship have improved so that oil and gas activities will not harm the ecosystem.
BOEM-2017-0074-12735	Clean Water Action, Andrew Grinberg	6,774	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • Drilling will lead to oil spills that pollute beaches, kill wildlife, and harm coastal and marine economies.
BOEM-2017-0074-11322	New Jersey League of Conservation Voters, Kristin Zilcosky	5,995	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • Increased offshore development will increase carbon pollution and worsen storms and floods.
BOEM-2017-0074-11323	Conservation Voters of Pennsylvania, Kristin Zilcosky and Josh McNeil	1,136	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • The coastline is a major economic driver in the region and cannot be put at risk.
BOEM-2017-0074-11324	NC Conservation Network, Molly McKinley	3,146	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in North Carolina waters.
BOEM-2017-0074-11325	Oceana, et al, Diane Hoskins	140	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • The U.S. should transition towards renewable energy to meet energy needs and mitigate climate change. • Oil and gas drilling represents a threat to coastal and marine environments, as well as the local economies that depend on them.
BOEM-2017-0074-12788	NRDC Action Fund 1, Michelle Bright	129,602	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • Offshore oil and gas leasing threatens coastal communities, whales and other marine life.

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BOEM-2017-0074-12830	NRDC Action Fund 2, Michelle Bright	7,284	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • Coastal communities, whales and other marine life are put at risk by offshore development.
BOEM-2017-0074-12839	Public Citizen, Allison Fisher	10,349	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all leasing areas. • Offshore drilling will exacerbate the climate crisis, fueling extreme weather events and rise in sea level.
BOEM-2017-0074-11326	Center for Biological Diversity, Cybele Knowles	32,183	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Offshore oil and gas drilling has the potential to destroy coastal communities and devastate marine life.
BOEM-2017-0074-12843	Ramona Blankinship	10	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Drill rigs damage sensitive habitats and ecosystems.
BOEM-2017-0074-11327	Southern Alliance for Clean Energy, Chris Carnevale	294	<ul style="list-style-type: none"> • Opposed offshore drilling and seismic blasting. • Offshore development puts the environment and coastal tourism economy at risk.
BOEM-2017-0074-11348	Friends of the Earth, Marcie	61,864	<ul style="list-style-type: none"> • Opposed any effort to allow additional offshore drilling.
BOEM-2017-0074-11328	National Audubon Society, Elizabeth Pomper	27,304	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Increased drilling will put American communities and businesses at risk.
BOEM-2017-0074-11329	Environmental Action, Sally King	20,053	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Continued offshore development risks coastal communities, sea animals and the ocean ecosystem.
BOEM-2017-0074-11330	Surfrider Foundation, Pete Stauffer	325	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed leasing areas. • Oil and gas drilling will cause significant damage to the environment, marine wildlife, and coastal economies.
BOEM-2017-0074-11331	Sierra Club, Kathryn Lee	580	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas.
BOEM-2017-0074-11341	Greenpeace USA, Mary Sweeters	44,918	<ul style="list-style-type: none"> • Opposed any effort to allow more offshore drilling. • Oil spills would negatively affect local economies, public health, subsistence hunting and fishing.
BOEM-2017-0074-11332	Clean Ocean Action, Amanda Wheeler	198	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in the Atlantic Ocean.

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BOEM-2017-0074-11333	Environment America 1, Kelsey Lamp	331	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Offshore development will increase the likelihood of dangerous oil spills which would threaten the ocean ecosystems vital to the survival of endangered species.
BOEM-2017-0074-11334	Environment America 2, Kelsey Lamp	35,184	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Offshore development endangers marine life and ecosystems, and could be detrimental to coastal economies.
BOEM-2017-0074-11335	198 methods, Andrew Hudson	14,217	<ul style="list-style-type: none"> • Opposed increased offshore oil and gas drilling in all proposed planning areas.
BOEM-2017-0074-11336	ClimateTruth.org, Amanda Mourant	11,423	<ul style="list-style-type: none"> • Opposed increased offshore oil and gas drilling in all proposed planning areas. • The DPP is antithetical to the Department of the Interior's mission.
BOEM-2017-0074-11337	Oceana, Diane Hoskins	37,631	<ul style="list-style-type: none"> • Opposed increased offshore oil and gas drilling in all proposed planning areas. • Increased risk of oil spills will impact beaches, wildlife, ecosystems, and communities that depend on a clean coast.
BOEM-2017-0074-11338	Oil Change International, M. Maiorana	8,283	<ul style="list-style-type: none"> • Opposed increased offshore oil and gas drilling in all proposed planning areas. • The DPP is in direct contradiction to the Department of the Interior's mission.
BOEM-2017-0074-12873	South Coast Neighbors United, Wendy Graca	4	<ul style="list-style-type: none"> • Opposed to the further exploration of offshore oil and gas drilling and requested extension of comment period. • Expressed concern for the effect an oil spill could have on the environment and economy.
BOEM-2017-0074-12878	Sierra Club Chesapeake Bay Group, Ann Creasy	1,999	<ul style="list-style-type: none"> • Opposed to the exploration of offshore oil and gas drilling in the Atlantic planning area. • Virginia's economy and communities, especially in coastal areas, depend on clean and healthy beaches.
BOEM-2017-0074-11339	Clean Ocean Action, American Littoral Society, Food Water Watch, Hackensack Riverkeeper, New Jersey Sierra Club, NY/NJ Baykeeper, Surfers Environmental Alliance, and Waterspirit, Cindy Zipf, et al.	7	<ul style="list-style-type: none"> • Opposed to the further exploration of offshore oil and gas drilling and requested extension of comment period. • The proposed oil and gas operations threaten the coastal and marine habitat and waters of the entire region.
BOEM-2017-0074-12892	Committee for Green Foothills, Helen Wolter	66	<ul style="list-style-type: none"> • Opposed to the further exploration of offshore oil and gas drilling along the Pacific Coast.

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BOEM-2017-0074-12909	Email Campaign 1	467	<ul style="list-style-type: none"> Opposed to the further exploration of offshore oil and gas drilling.
BOEM-2017-0074-12918	New Jersey Mail Campaign	702	<ul style="list-style-type: none"> Opposed to the further exploration of offshore oil and gas drilling along the New Jersey coast.
BOEM-2017-0074-12957	You Spill Campaign	5	<ul style="list-style-type: none"> Opposed increased offshore oil and gas drilling in all proposed planning areas. The consequences of offshore oil and gas exploration and development are serious and threaten environmental and economic assets of the region.
BOEM-2017-0074-12966	Man Made Campaign	10	<ul style="list-style-type: none"> Opposed to the further exploration of offshore oil and gas drilling along the New Jersey coast. Oil spill impacts have a high cost, both economically and environmentally.
BOEM-2017-0074-12975	ReClam the Bay Campaign 1	5	<ul style="list-style-type: none"> Opposed to further exploration of offshore oil and gas drilling. Exploring, developing and producing oil or gas has a history of diminishing air and water quality and harming ecosystems.
BOEM-2017-0074-12981	Choose a Healthy Ocean Campaign	7	<ul style="list-style-type: none"> Opposed to the further exploration of offshore oil and gas drilling. A comprehensive and environmentally sustainable energy plan should include energy conservation, rather than increased fossil fuels.
BOEM-2017-0074-12987	Clean Water Action	139	<ul style="list-style-type: none"> Opposed to the further exploration of offshore oil and gas drilling. Offshore oil and gas drilling risks the livelihoods of communities that rely on tourism, fishing, recreation and boating.
BOEM-2017-0074-13009	Don't Drill NC Campaign	249	<ul style="list-style-type: none"> Opposed all offshore oil and gas drilling and exploration off the coast of North Carolina.
BOEM-2017-0074-13142	Eastside Audubon	9	<ul style="list-style-type: none"> Opposed any new offshore oil and gas leases. Additional oil and gas development places the environment at risk and potential damage to wildlife habitat and contamination of critical shoreline areas.
BOEM-2017-0074-13145	Interfaith Power & Light	1,673	<ul style="list-style-type: none"> Opposed all offshore oil and gas drilling and exploration. Economic benefits would more likely be achieved through renewable energy investments.
BOEM-2017-0074-13152	League of Conservation Voters	202	<ul style="list-style-type: none"> Opposed all offshore oil and gas drilling and exploration. Puts communities, jobs, and ecosystems in danger.
BOEM-2017-0074-13155	NC Residents Opposed Campaign	199	<ul style="list-style-type: none"> Opposed all offshore oil and gas drilling and exploration.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-14025	No Offshore Drilling Campaign	253	<ul style="list-style-type: none"> • Opposed any new offshore oil and gas leases. • Excessive GHGs in our atmosphere cause marine devastation and habitat loss.
BOEM-2017-0074-14027	Ocean Ecosystem Campaign	22	<ul style="list-style-type: none"> • Opposed all offshore oil and gas drilling and exploration. • Negative impacts of oil and gas drilling include impacts on marine life and fishing industries.
BOEM-2017-0074-14028	Anonymous Campaign 4	1,567	<ul style="list-style-type: none"> • Opposed the expansion of oil and gas exploration off the coast of California. • Oil and gas exploration could cause potential risks to the protected and sensitive marine environment.
BOEM-2017-0074-14030	Anonymous Campaign 5	287	<ul style="list-style-type: none"> • Opposed the expansion of oil drilling in all planning areas. • Oil drilling threatens marine and coastal environments, economies and climate.
BOEM-2017-0074-14034	Protect the Coast Campaign	38	<ul style="list-style-type: none"> • Opposed the expansion of oil drilling off the coast of North Carolina. • Additional oil drilling will negatively affect the thriving tourism economy.
BOEM-2017-0074-14036	ReClam the Bay Campaign 2	28	<ul style="list-style-type: none"> • Opposed the expansion of oil drilling off the coast of the U.S. • Exploration, development or production of oil or gas will diminish air and water quality, harm ecosystems, and more.
BOEM-2017-0074-14040	Sierra Club	85,648	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas.
BOEM-2017-0074-14043	Sierra Club, NH League of Conservative Voters, Surfrider	30	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • The Nation's coastal communities, beaches, surf breaks, and marine ecosystems will be at serious risk of catastrophic oil spills, and subsequent economic and environmental decimation.
BOEM-2017-0074-14047	Anonymous Campaign 6	3	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling along the coast of South Carolina. • Potential threat to the multi-billion dollar revenues generated by tourism, as well as tens of thousands of local jobs and our commercial and recreational fishing industries.
BOEM-2017-0074-14049	Surfrider Foundation Campaign 1	6	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • Oil and gas drilling could cause significant damage the environment, marine wildlife, and coastal economies and ways of life.
BOEM-2017-0074-14052	Surfrider Foundation Campaign 2	53	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • Oil and gas drilling puts coastal economies, communities, and natural resources at risk.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-14057	Virginia Beach Garden Club	63	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling along the coast of Virginia.
BOEM-2017-0074-14062	Virginia League of Conservation Voters	1,345	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • Oil and gas drilling are major threats to public health, the economy, and military operations based in Virginia.
BOEM-2017-0074-14068	Lori Romick Campaign 1	74	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • Oil and gas drilling increase GHG emissions and unnecessary waste.
BOEM-2017-0074-14073	Lynn Signorelli	171	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • The Department has ignored inevitable damage to sensitive marine life and important fisheries, while disregarding the tragic lessons of past incidents such as the 2010 BP Deepwater Horizon.
BOEM-2017-0074-14076	Heide Coppotelli	310	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • Oil and gas drilling increase risks to endangered and threatened sea turtles, tourism and fishing industries.
BOEM-2017-0074-14078	Lisa Jester	19	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling along the Oregon coast. • Oil and gas drilling have negative impacts on the Nation's marine ecosystems, coastal communities, and recreation and tourism industries.
BOEM-2017-0074-14080	Thomas Kieckhefer	694	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling along the California coast.
BOEM-2017-0074-14089	Helen Hays	57	<ul style="list-style-type: none"> • Opposed further offshore oil and gas drilling in all planning areas. • Risk of spills threatens income and jobs from tourism and fishing industries that rely on a healthy ocean.
BOEM-2017-0074-14091	James Ridgway	25	<ul style="list-style-type: none"> • Opposed increased offshore oil and gas drilling in all proposed planning areas. • The consequences of offshore oil and gas exploration and development are serious and threaten environmental and economic assets.
BOEM-2017-0074-14095	Linda Heath	114	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Oil and gas drilling could have devastating impacts on coastal communities, oceans, and climate.
BOEM-2017-0074-14096	Sofia Okolowicz	46,484	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • New offshore oil drilling would lock us into decades of fossil fuel production and exacerbate climate disruption.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-14194	Jim Steitz	14	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Existential need to shift toward renewable energy. • Oil and gas drilling would decreased quality of life of Americans and destroy coastal ecosystems.
BOEM-2017-0074-14103	Anonymous Campaign 6	35,497	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Expanding offshore drilling could damage precious marine ecosystems, as well as industries such as coastal tourism, recreation, and fishing.
BOEM-2017-0074-14105	Anonymous Campaign 7	5,244	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Requested extension of comment period. • Marine life and the economies of coastal communities at risk.
BOEM-2017-0074-14107	David Sanderson	848	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in the Atlantic planning area, especially off the coast of Maine. • Underwater seismic testing and exploratory drilling could harm fish populations.
BOEM-2017-0074-14111	Larry McDonald	1,370	<ul style="list-style-type: none"> • Supported further offshore oil and gas drilling in all planning areas. • Supported the development of domestic energy supplies to help strengthen energy independence.
BOEM-2017-0074-14113	Liz Tymkiw	58	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Oil spills at sea devastate ecosystems and fishery- and tourism-based economies.
BOEM-2017-0074-14115	Cliff Newman	16,059	<ul style="list-style-type: none"> • Supported further offshore oil and gas drilling in all planning areas. • Advanced technology has made offshore energy development safer. • Expanded oil and gas drilling would create hundreds of thousands of American jobs.
BOEM-2017-0074-14117	Deborah Starkel	6	<ul style="list-style-type: none"> • Opposed developing a new National OCS Oil and Gas Leasing Program off the coast of Connecticut.
BOEM-2017-0074-14118	Caroline Mosley	8,286	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling specifically in the Arctic Ocean. • Oil and gas drilling will negatively affect Alaska Native villages, coastal communities throughout the Nation, commercial and recreational industries, and the environment.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-14120	Katie Block	244	<ul style="list-style-type: none"> Supported further offshore oil and gas drilling. Will allow for the safe and responsible development of domestic energy resources, in turn increasing energy independence and economic security.
BOEM-2017-0074-14122	Lauren Mendez	610	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling along the Washington coast. Offshore oil and gas puts unnecessary risk on endangered species of whales and salmon and could damage tribal communities' resources.
BOEM-2017-0074-14124	Stacey Meinzen	21	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling along the California coast. Oil and gas drilling could damage coastal ecosystems vital to California's tourism and fishing industries.
BOEM-2017-0074-14126	David Jackson	10	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling in all proposed planning areas. Would be more beneficial to move towards renewable energy as a means to avoid further climate change.
BOEM-2017-0074-14127	Danessa Piyat	9	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling along the Georgia coast.
BOEM-2017-0074-14129	Kari Davis	5	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling in the Atlantic planning area.
BOEM-2017-0074-14133	Connie Boole	3	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling along the Georgia coast.
BOEM-2017-0074-14134	Anonymous Campaign 8	6	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling along the California coast.
BOEM-2017-0074-14142	Claire Best	6	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling in all proposed planning areas.
BOEM-2017-0074-14146	Anonymous Campaign 9	3	<ul style="list-style-type: none"> Opposed all efforts to further fossil fuel exploration and expansion.
BOEM-2017-0074-14152	Annette Quinting	19	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling along the East Coast. Negative effects on sea turtles.
BOEM-2017-0074-14156	Pacia Dewald	79	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling in all proposed planning areas. Oil and gas drilling could destroy coastal communities and devastate marine life.
BOEM-2017-0074-14159	Beth Bayley	2	<ul style="list-style-type: none"> Opposed offshore oil and gas drilling as well as air gun testing. Oil and gas drilling impacts the ability of whales and dolphins to communicate with each other or find food.
BOEM-2017-0074-14161	Nancy Norris	651,284	<ul style="list-style-type: none"> Supported further offshore oil and gas drilling. Expanded offshore oil and gas drilling has the potential to create jobs, grow our economy and increase American energy security.

Form Letter Document ID	Organization/ Commenter Name	Total Submissions in Campaign	Summary of Submission Letter
BOEM-2017-0074-14186	Kathleen Estevez	437	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • It is illogical to pursue drilling in the Arctic because of the strong public opposition, extreme costs, risks, and difficulty of doing so.
BOEM-2017-0074-14171	Betty Gilmore	22	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas.
BOEM-2017-0074-14175	Lori Romick 2	74	<ul style="list-style-type: none"> • Opposed the expansion of oil drilling off the coast of the U.S. • An oil spill would devastate coastal communities and wildlife. • Increased fossil fuel access will increase GHG emissions and unnecessary waste.
BOEM-2017-0074-11284	Cascadia Wildlands, Gabriel Scott	86	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Drilling would affect global climate change, ocean health, worker safety, and the tourism industry in coastal regions.
BOEM-2017-0074-14179	Christine Schmidt, et al.	6	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling along the New Jersey coast. • Offshore development will have a negative effect on the tourism industry, real estate prices, and the health of residents.
BOEM-2017-0074-11342	Verdugo Hills Group, Angeles Chapter, Sierra Club	16	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas.
BOEM-2017-0074-11343	Glenridge Green Team	22	<ul style="list-style-type: none"> • Opposed offshore oil and gas drilling in all proposed planning areas. • Offshore development harms America's oceans, coastal economics, public health, and marine life.
BOEM-2017-0074-11344	Ocean County Sierra Club	166	<ul style="list-style-type: none"> • Opposed any plan to drill for oil and gas over the North Atlantic Ocean. • Oil and gas drilling has a negative impact on a number of endangered and threatened species as well as any other living marine creature.
BOEM-2017-0074-11345	Barney Bishop	11	<ul style="list-style-type: none"> • Supported an increase in leasing, exploration and development of potential U.S. offshore oil. • With better technology, offshore drilling is safer than ever. • Nation's economy will reap the positive benefits of abundant energy sources.

A.11 GENERAL PUBLIC

A.11.1 General Comments from Individuals Not Specific to OCS Program Areas

Approximately 2,020,570 submissions were received from individuals, of which approximately 1,991,980 were submitted as part of form letter campaigns. Approximately 672,870 (or 34%) of the form letter submissions from individuals expressed general support for the 2019–2024 Program, while approximately 1,029,260 (or 52%) of the form letter submissions from individuals expressed general opposition. Of the unique submissions received from individuals, numerous submissions provided general comments with regard to the National OCS Program and impacts on the environment, tourism, economy, and increase in the Nation’s energy independence.

Numerous individuals expressed general support for BOEM’s offshore leasing program, suggesting that continued and expanded exploration and development of U.S. resources, including in areas like the Atlantic, GOM, Pacific, and Alaska, will lead to greater domestic offshore oil and natural gas production, reduced dependence on foreign imports, job creation, economic prosperity, and increased energy security for the Nation and local communities. Numerous commenters expressed support for an energy policy that allows for more leasing, exploration, and development of potential U.S. offshore oil and natural gas resources. Several commenters argued it would be premature to remove any areas from consideration for drilling prior to completing a full environmental analysis.

Numerous individuals expressed opposition to developing a new offshore leasing program, explaining that new offshore drilling jeopardizes fragile coastal marine ecosystems and coastal economies and puts communities at risk. Several commenters urged BOEM to maintain current protections and exclude the Atlantic, Pacific, and Arctic Oceans and the Eastern GOM and all national marine protected areas from potential lease sales. Commenters expressed disappointment in BOEM’s decision to reopen the offshore drilling planning process prior to the expiration of the current 2017–2022 Program in which millions of Americans expressed their support for permanent protections to the Arctic, Atlantic, and Pacific oceans.

Commenters in opposition to offshore oil and gas development cited environmental concerns including oil spills, leaks, and air and water pollution resulting in negative effects on public health, marine resources, and the impacts on recreation and tourism industries. Some commenters expressed concern for the effects that noise from seismic testing could have on marine wildlife. Several suggested that increased storm severity and sea level rise due to climate change would increase the risks of oil spills, accidents, and other environmental harms associated with offshore drilling. Many commenters were concerned about the impact a loss of well control could have on coastal economics, commercial and recreational fisheries, beaches and shorelines, as well as birds, fish, and marine mammals, and suggested that impacts from offshore oil spills can last for decades. Many individuals expressed concern about the consequences to the tourism industry from an oil spill. Some commenters stated that an oil spill would pollute beaches, devastate tourism and recreation, and could result in a loss of industry jobs in coastal communities. Some commenters suggested that many planning areas under consideration for new leasing lack the infrastructure necessary to support offshore oil and gas operations, including remote and dangerous waters off the coast of Alaska, such as the Bering Sea and Arctic Ocean.

Several commenters suggested increased oil and gas drilling would contribute to carbon pollution and would slow the Nation’s transition to clean energy sources. Commenters encouraged the use of

alternative energy sources such as wind or solar to move beyond dependence on fossil fuels. A few commenters suggested using the OCS for offshore wind development instead of oil and gas drilling. Some commenters stated the suggested program is not in the best interests of the general public and primarily benefits industry.

A.11.2 Comments from Individuals Specific to Program Areas

Numerous individuals provided comments on environmental concerns specific to the Alaska, Atlantic, Pacific and GOM program areas. Individuals urged BOEM to reject the plan to reopen the Arctic and Atlantic oceans, stating that expanding offshore drilling threatens marine life and puts coastal communities at risk. Individuals expressed concern that oil spills in the Arctic, Atlantic, Pacific, and GOM would impact wildlife refuges, marine protected areas, endangered and protected species, critical habitat, and other marine wildlife and fish populations, many of which have not recovered from past oil spill events or are under stress from other activities. Other individuals expressed concern about effects on marine life in the Arctic, Atlantic, and GOM program areas due to the toxicity of oil. Commenters discussed the negative impact oil and gas activity would have on tourism, stating that most coastal communities in all planning areas are dependent on the revenue from tourism. Similarly, commenters requested the National Parks off the Atlantic and Pacific coasts be protected from oil spills, noting visitors to these parks contribute billions of dollars to local economies, support thousands of jobs, and protect marine wildlife. Many commenters discussed the potential exemption Florida was given due to the value of pristine beaches and tourism economy and requested similar protections for their states. Commenters also suggested that opening new drilling sites in each the Alaska, Atlantic, Pacific, and Eastern GOM program areas would prolong the country's dependence on fossil fuels at the expense of the environment.

Several commenters, however, urged BOEM to include all OCS planning areas in the initial phase of the 2019–2024 Program. These commenters referenced several benefits of oil and gas development, including how the billions of barrels of oil equivalent in the undiscovered areas could contribute to the Nation's oil and natural gas needs for decades. Commenters cited the economic gains experienced by GOM states and coastal communities with the increase in GOM offshore oil and gas activity, including an increase in gross domestic product and public revenue. Commenters also stated that new OCS development will allow America to sustain an energy renaissance and preserve the Nation's energy security.

Commenters stated that offshore drilling in the Atlantic could cause injury or death to marine wildlife including whales, sea turtles, and dolphins, and endangered and threatened species like the North Atlantic right whale. Individuals also expressed concern that seismic airgun surveys in the Atlantic Ocean would threaten species in the area. Some commenters requested that BOEM deny all seismic testing permit requests for the Atlantic, noting that peer-reviewed studies, including those conducted by the Department of the Interior, concluded that seismic airgun blasting results in displacement of fish, reduced catch rates of some fish species, and disrupts the feeding and breeding behaviors in marine mammals. A few commenters discussed the DOD restrictions on offshore drilling due to incompatibility with the maintenance of military readiness, military activities, and safety concerns. According to a commenter, the DOD had previously determined that no oil and gas activity could occur in portions of the Atlantic. The commenters noted the millions of comments received from individuals, small business owners,

tourism authorities, anglers, and elected officials requesting offshore drilling in the Atlantic planning area be removed or delayed until 2022.

Several commenters supported offshore oil and gas drilling in the Atlantic, stating the activity would create jobs and generate revenue for the coastal states. Some commenters noted seismic surveys have not been conducted on the Atlantic Coast in more than 30 years and should be performed to understand how much oil and gas reserves exist in the Atlantic OCS. A few commenters cited Louisiana's thriving commercial fishing industry and evidence that different offshore activities can happen concurrently and safely.

Several commenters requested that BOEM not allow risky oil and gas drilling in highly sensitive Arctic waters without essential scientific information and an effective plan to clean-up an oil spill in the Arctic's extreme conditions. Commenters discussed the Exxon Oil Spill of 1989 in Prince William Sound and the devastation it caused to the local economy and the environment. Several commenters supported re-opening more portions of the Arctic Sea for drilling, stating that oil and gas development is critical to Alaska's economy. Commenters also noted the strong support from state and local elected officials to continue oil and gas development in the region. Some commenters noted the TAPS has been operating below its potential capacity for several years, causing it to deteriorate.

Numerous commenters expressed their opposition for oil and gas activity in the Pacific OCS. Commenters discussed the impacts of the 1969 oil spill off Santa Barbara California and the resulting implementation of restrictions. Several commenters also discussed the Refugio Beach Oil Spill of 2015 and its negative impacts on the water quality in central California. Some commenters argued oil and gas activity would have a negative impact on fish and marine wildlife, such as the North Pacific right whale, which migrates through the Pacific Ocean. Commenters argued that California's proximity to the San Andreas Fault and frequent earthquakes could impact oil and gas activity and increase the likelihood of an oil spill. Many commenters argued that oil spills could deteriorate the tourism and beach industries of the West Coast.

Some commenters opposed ending the moratorium for oil and gas activity in the Eastern GOM. Commenters noted that the Eastern GOM Program Area is critical to the DOD due to the number of military testing and training activities conducted in the region. Some commenters supported drilling in the Eastern GOM, citing the revenue it has brought to neighboring states in the Gulf, including Texas and Louisiana. Commenters stated that the Eastern GOM is estimated to have some of the largest oil reserves available to the U.S., and using this potential would help advance energy security and energy independence in the U.S.



U.S. Department of the Interior

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.



Bureau of Ocean Energy Management

The mission of the Bureau of Ocean Energy Management is to manage development of U.S. Outer Continental Shelf energy and mineral resources in an environmentally and economically responsible way. The bureau promotes energy independence, environmental protection, and economic development through responsible management of these offshore resources based on the best available science.