



September 13, 2021

Regional Supervisor
Office of the Environment
Bureau of Ocean Energy Management
760 Paseo Camarillo, Suite 102
Camarillo, CA 93010

Re: Humboldt EA

Submitted via email to: HumboldtOffshoreWind@BOEM.gov

The American Clean Power Association¹ (ACP) appreciates this opportunity to comment on the scope for the environmental assessment (EA) being prepared for the Humboldt Wind Energy Area (WEA).²

In summary, ACP appreciates the Bureau of Ocean Energy Management moving forward with the environmental review for the Humboldt WEA and strongly supports doing so to support offshore wind leasing off the California coast in 2022. ACP recognizes and applauds the close collaboration between the State of California, BOEM, and other federal partners to get to this point.

Offshore wind deployment off the coast of California is essential to help meet President Biden's offshore wind target³ to deploy 30 gigawatts by 2030 and his broader agenda to address the climate crisis.⁴ It is also critical to assisting the State of California in meeting its aggressive carbon emissions reduction targets. ACP believes the Area Identification Memo⁵ prepared by the Bureau of Ocean Energy Management (BOEM) accurately summarizes key issues to be analyzed more fully in the forthcoming EA with respect to site assessment and site characterization activities. The comments that follow provide additional details on these points.

¹ American Clean Power Association (ACP) is the national trade association representing the renewable energy industry in the United States, bringing together hundreds of member companies and a national workforce located across all 50 states with a common interest in encouraging the deployment and expansion of renewable energy resources in the United States. In California, ACP represents several developers interested in building commercial-scale offshore wind projects.

² <https://www.boem.gov/HumboldtEA>

³ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>

⁴ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

⁵ https://www.boem.gov/sites/default/files/documents/regions/pacific-ocs-region/renewable-energy/3799_CA%20Area%20ID%20Humboldt%20County%20Memo%20Final.pdf



The Importance of Offshore Wind to California, the Nation, and Global Climate

Climate change is one of the greatest threats to the economy, local communities, and wildlife. To mitigate climate change, we must decarbonize the economy, sector by sector, while still ensuring an affordable and equitable lower carbon transition. To this end, the International Renewable Energy Agency (IRENA) calls for 2,000 gigawatts (GW) of offshore wind globally, including 360 GW in North America, in order to keep global warming to within a 1.5 degree pathway.⁶

This year, President Biden has made climate change mitigation a central priority of his administration. In the climate executive order (EO), signed on January 27, 2021, President Biden called deployment of clean energy technologies, such as offshore wind, “critical for climate protection” and established that “[i]t is the policy of my Administration to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy... especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure.” The EO further called on the Administration to “accelerate the deployment of clean energy and transmission projects in an environmentally stable manner.”⁷ President Biden has announced an intent to achieve a 100% clean electric system by 2035, and an executive order directing federal departments and agencies to prioritize offshore wind, reflecting the industry’s critical importance in hitting this 100% clean energy goal. As a zero-emission energy generation source, offshore wind energy will play an important role in combatting climate change and is central to achieving the President’s climate goals.

California is acutely aware of the effects of climate change and has been at the forefront of climate change policy for decades, implementing some of the most aggressive clean energy goals in the nation. Most recently, California Senate Bill (SB) 100 established a policy for the state of California that renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045.

A California Joint Agency Study published by the California Energy Commission, California Public Utilities Commission, and California Air Resources Board in March of 2021 concluded that California needs to develop an estimated 145 GW of renewables and energy storage by 2045 to achieve 100% clean energy.⁸ The study also concluded that California needs to design and develop a diverse renewable portfolio that includes not only solar and battery storage, but also regional wind, long-duration storage, and offshore wind. The study

⁶ IRENA (2021), World Energy Transitions Outlook: 1.5°C Pathway, International Renewable Energy Agency, Abu Dhabi.

⁷ Executive Order 14008, available at <https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad>.

⁸ SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future <https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity>



selected all 10 GW of offshore wind made available to the study model as part of the ideal portfolio in a “SB 100 Core Scenario.” The report also confirmed the value of resource diversity and offshore wind specifically, finding that a portfolio that achieved SB 100 but excluded 10 GW of offshore wind would increase total annual resource costs by \$1 Billion annually. A 2019 study from E3 arrived at a similar conclusion: a resource portfolio that includes between 7 and 9 GW of offshore wind could save California customers between \$1 billion and \$2 billion (net present value) between now and 2040 when compared to a less diverse energy portfolio.⁹ The right portfolio of resources, including large-scale offshore wind, will enable and ensure reliability at the least cost to all consumers. Indeed, costs and system reliability are imperative to all ratepayers alike.

According to the Governor's July 30, 2021 emergency proclamation, California could face a shortfall of up to 3,500 MW this year during extreme weather events, and a 5,000 MW shortfall next summer, given the likelihood of extended drought, wildfire and heatwaves.¹⁰ Specifically, record-breaking heat and drought conditions have caused reservoir levels to dwindle, reducing hydroelectric power capacity by nearly 1,000 MW in summer 2021 while the heat increases demand for electricity. We recognize that offshore wind projects cannot practicably come online in time to address near-term shortfalls, but these recent developments show that California, as a state, is behind schedule in developing the clean energy resources needed to maintain a stable grid in the face of climate change.

Offshore wind is an essential addition to California’s clean power mix because of its generation profile: it typically generates during the late afternoon and evening and in the summer, when our solar-dominant renewable system is the most stretched.¹¹ By 2035, California will need to dispatch more than 18 GW *per hour* to meet its maximum 3-hour net load ramp as a result of solar production declining in the afternoon.¹² To be able to replace dispatchable resources facilities with variable renewables, the system needs resources with complimentary generation profiles to provide clean generation at all hours of the day.¹³

California will also experience substantial economic benefits due to offshore wind development along its coastline, as it would create jobs and revenue in areas of the state (e.g., the Central Coast and Humboldt County) that need these economic opportunities. A recent study from the University of Southern California and the Schwarzenegger Institute found California could see a gross domestic product increase of \$24 billion between 2020 and 2040 and job gains of up to 195,000 job-years in construction and 4,500 annual

⁹ E3, http://castlewind.com/wp-content/uploads/2019/08/2019-08-08_E3-CastleWind-OffshoreWindValueReport_compressed.pdf

¹⁰ Proclamation of a State of Emergency. 30 July 2021. <https://www.gov.ca.gov/wp-content/uploads/2021/07/Energy-Emergency-Proc-7-30-21.pdf>

¹¹ California Polytechnic Institute, <https://doi.org/10.1088/2515-7620/ab4ee1> & E3, The Economic Value of Offshore Wind Power in California, http://castlewind.com/wp-content/uploads/2019/08/2019-08-08_E3-CastleWind-OffshoreWindValueReport_compressed.pdf

¹² Energy Strategies for Western Interstate Energy Bureau, <https://westernenergyboard.org/wp-content/uploads/2019/12/12-10-19-ES-WIEB-Western-Flexibility-Assessment-Final-Report.pdf>

¹³ Brightline Defense Project, <https://www.brightlinedefense.org/news/caoffshorewind>



operation/maintenance for 40 years through development of 10 GW of offshore wind.¹⁴ Generation of these opportunities for these regions of California would therefore also further the Biden Administration's focus on addressing socioeconomic disparities through development of high paying jobs in this quickly growing industry.

Finally, the offshore wind industry recognizes California's dedication to preserving its rich natural resources. We understand and appreciate the environmental community's concerns about the need to responsibly site and construct offshore wind projects. The renewable energy development community is also committed to stewardship of the environment and looks forward to working with BOEM, the California natural resource agencies, and stakeholders to responsibly develop offshore wind off California's shores. We applaud the work of the BOEM California Intergovernmental Renewable Energy Task Force for its hard work in identifying locations in the ocean that balance its conservation and wildlife protection goals with its climate objectives. We look forward to working with the Task Force and environmental stakeholders to responsibly develop offshore wind in California.

ACP supports BOEM's decision to move forward with an EA for the full call area

ACP agrees with BOEM's decision to move forward with designating the full Humboldt Call area as a WEA. BOEM's rationale that doing so provides flexibility for adjustments in lease areas and/or project-specific plans and stipulations while still retaining economically developable sea-space is sound. ACP further agrees that retaining the full call area is responsive to the State's demand for renewable energy as described in detail above. Finally, ACP agrees that retaining the full 206 square mile area for leasing promotes competition as it should provide adequate sea-space for auctioning two leases. As a rule of thumb, ACP and its offshore wind developers believe economically viable lease areas for floating offshore wind off the Pacific Coast require approximately 120 square miles per lease area.^{15, 16}

Further, ACP concurs with BOEM's analysis regarding the commercial viability of the Humboldt WEA, including based on the wind speeds, water depth, proximity and access to transmission and demand for offshore wind.

Humboldt WEA and compatibility with commercial fishing

ACP is confident offshore wind and fishing industries are compatible in California. Collectively, the Morro Bay 399 and Humboldt Wind Energy Area (605 square miles) would account for only 2% of California Outer Continental Shelf out to 1,100-meter water depth. In

¹⁴ USC Schwarzenegger Institute, "California's Offshore Wind Electricity Opportunity," 2021 http://schwarzeneggerinstitute.com/images/files/OSW_Report.pdf;

¹⁵ The National Renewable Energy Laboratory recommends using a standard array density of 3-MW/km², which equates to 128.9 square statute miles per 1,000 MW for planning purposes. <https://www.nrel.gov/docs/fy16osti/66599.pdf> p. v.

¹⁶ U.S. Department of Energy. Offshore Wind Market Report: 2021 Edition. https://www.energy.gov/sites/default/files/2021-08/Offshore%20Wind%20Market%20Report%202021%20Edition_Final.pdf



comparison, commercial fishing occurs in wide and diverse areas near shore and farther from shore. In terms of potential effects on fish themselves, existing science suggests its unlikely offshore wind will have population-level impacts on fish, despite stakeholder concerns about avoidance, benthic habitat disturbance, EMF, or noise.¹⁷

However, we also understand that impacts to fishing grounds, in navigation lanes, at harbors, and around cables can be localized and differentially affect participants in the industry. There are also concerns about direct impacts from offshore wind on fishing equipment and safety concerns. The BOEM permitting process, especially at the site-specific construction and operation plan phase, can effectively assess and address these concerns.

On the Atlantic Coast, BOEM and/or the offshore wind industry has adjusted plans in response to input from the fishing industry and adjustments have been made to project layouts, turbine spacing, cable routes, cable burial/landing techniques, and other project plans to better accommodate fishing interests.¹⁸

In California, the Coastal Commission has announced its intention to develop a mitigation program related to offshore wind impacts to the fishing industry. Finally, individual developers have been in conversation with local fishing groups to understand what fishing areas are most important, identify questions and concerns, and discuss potential options for mitigation.

In combination, these approaches will ensure both industries strongly contribute to California's economic future.

With respect to the EA, given that it is limited to site assessment and site characterization activities, the expected impacts to commercial fishing will be even more negligible and essentially amount to a minimal increase in vessel traffic (and accompanying vessel noise) and temporary, localized noise from various survey techniques and technologies.

Humboldt WEA and compatibility with avian and bat species

Offshore wind developers take potential impacts on avian and bat species seriously. On the Atlantic Coast, project developers have proposed a variety of measures to reduce potential impacts on avian and bat species, including minimizing lighting to the level required to maintain aviation safety, using only Federal Aviation Administration approved red flashing

¹⁷ <https://cleanpower.org/wp-content/uploads/2021/06/OSW-Factsheet-Fisheries-Science-Behind-Coexistence.pdf>

¹⁸ The changes BOEM made prior to finalizing lease areas in the New York Bight were done in several cases to address fishing concerns. Offshore wind developers have used feedback from fishing interests to inform their project-specific plans for turbine spacing, orientation, and layout



lights that have been found to reduce avian mortality by 70 percent,¹⁹ installing anti-perching devices where it can be safely done, managing trash and debris appropriately, development of fatality monitoring and reporting plans, timing of any onshore tree clearing based on bat activity and/or focusing on already disturbed lands for onshore infrastructure, restoration of onshore habitat to the extent practicable, and adherence to Avian Power Line Interaction Committee (APLIC) suggested practices for reducing impacts from overhead transmission lines onshore, among others.

With respect to the EA, ACP expects the site characterization and site assessment activities to have an even more limited impact on avian and bat species than construction and operation of offshore wind facilities. ACP agrees with BOEM that any specific concerns related to avian and bat species that may be identified in the EA related to site characterization and site assessment activities can be addressed through mitigation measures in project-specific site assessment plans (SAPs).

Humboldt WEA and compatibility with marine mammals and sea turtles

Similarly, offshore wind developers take potential impacts to marine mammals and sea turtles seriously and have proposed measures tailored to the specific risks and species potentially in an area. For example, with respect to marine mammals and sea turtles on the East Coast, developers have agreed to vessel speed restrictions, use of protected species observers, noise attenuation measures, and time of year restrictions on certain activities. While the species, survey and site characterization methods, and construction methods and activities may be different for floating offshore wind turbines in the Pacific than we've seen in the Atlantic, offshore wind developers interested in projects off the west coast will also be proactive in helping identify opportunities to limit impacts.

In the EA, ACP encourages BOEM to investigate and consider the differences in the site survey and characterization technologies and methods that will be deployed given the water depth in the Pacific Ocean vis-à-vis what we've seen in the Atlantic Ocean for offshore wind. ACP agrees with BOEM that any project-specific concerns or mitigation measures for marine mammals and sea turtles resulting from site assessment and site characterization activities (such as vessel speed restrictions or protect species observers) can be considered by BOEM and project developers in individual SAPs.

Humboldt WEA and compatibility with safe vessel navigation

ACP is also confident that offshore wind will be compatible with safe vessel navigation. As demonstrated in BOEM's Humboldt Area Identification Memo,²⁰ navigation of various types of vessels (cargo, tug and tow, commercial and recreational fishing etc.) is a key

¹⁹ See: <https://www.fws.gov/daphne/towers/Communication%20Tower%20Lighting%20Fact%20Sheet.pdf>, <https://www.faa.gov/news/updates/?newsId=85204&cid=TW413>, <https://www.fws.gov/migratorybirds/pdf/management/patterson2012.pdf>

²⁰ https://www.boem.gov/sites/default/files/documents/regions/pacific-ocs-region/renewable-energy/3799_CA%20Area%20ID%20Humboldt%20County%20Memo%20Final.pdf, Pages 25-27.



consideration in where WEAs are established. The Coast Guard is a “cooperating agency” during BOEM’s permitting process and the accompanying environmental review under the National Environmental Policy Act (NEPA).

The Coast Guard’s Navigation and Inspection Circular 01-19 describes their engagement in more detail when saying, “The Coast Guard plays an important role in assisting the LA [lead agency], whose licensing and permitting activities may affect Coast Guard missions. The Coast Guard will evaluate applications and make recommendations to the LA concerning the potential impacts of the OREI [offshore renewable energy installation].” The circular goes on to explain, “...the Coast Guard’s role remains that of assisting the LA as described in paragraph 2.b by providing recommendations necessary to reduce the potential impacts of an OREI on the MTS [marine transportation system], navigation safety, and Coast Guard missions.”²¹

There are numerous examples off the Atlantic Coast in which BOEM has adjusted proposed lease areas to respond to Coast Guard concerns. To cite just one recent example, on March 29, 2021, BOEM published five final WEAs off the Coast of New York: Fairways North, Fairways South, Hudson North, Hudson South, and the Central Bight.²² BOEM significantly adjusted the final areas from those originally proposed as call areas, and even from the draft WEAs proposed in November 2018, after more than three years of consideration and stakeholder input. Several of the changes made were to address vessel navigation concerns.²³

Figure 1 below from BOEM’s slide deck²⁴ presented during the Intergovernmental Renewable Energy Task Force Meeting for the New York Bight on April 14, 2021, shows how the areas were reduced in size from the original call areas to the draft WEAs to the final WEAs. The original call areas are outlined in black. The draft WEAs contain the diagonal lines. And the final WEAs are shaded green:

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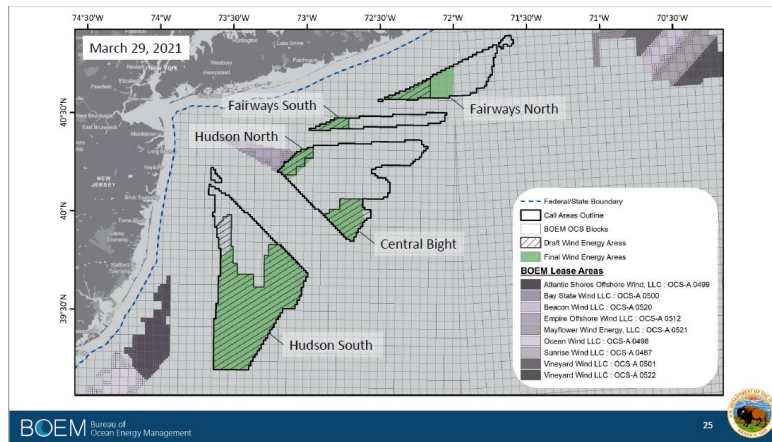
²¹ Navigation and Inspection Circular 01-19, August 1, 2019, available at: <https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/5ps/NVIC/2019/NVIC%2001-19-COMDTPUB-P16700-4-dtd-01-Aug-2019-Signed.pdf?ver=2019-08-08-160540-483>

²² Summary of the WEAs is available on the BOEM website here: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NYBight-Wind-Energy-Areas-Summary.pdf>. GIS shape files of the WEAs are available here: <https://www.boem.gov/renewable-energy/state-activities/wind-energy-area-shape-files>

²³ Available at: <https://www.boem.gov/sites/default/files/documents/renewable-energy/Memorandum%20for%20Area%20ID%20in%20the%20NY%20Bight.pdf>

²⁴ Available at: <https://www.boem.gov/renewable-energy/state-activities/luke-feinberg-outer-continental-shelf-wind-energy-leasing>

Figure 1. BOEM slide showing evolution of wind energy areas to leasing areas



In addition, BOEM has announced they do not plan to hold auctions for Fairways North and Fairways South at this time to allow for additional consideration of potential conflicts, including those related to navigation.²⁵

With respect to California, the Coast Guard announced²⁶ on July 29, 2021, plans to conduct a Pacific Coast Port Access Route Study (PACPARS). As the Coast Guard notes, “A primary purpose” of a PARS and the stakeholder engagement and coordination that leads to its publication “is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as construction and operation of renewable energy facilities and other uses of the Pacific Ocean in the study area.” Among the possible outcomes for the PACPARS are: (1) Maintain the current vessel routing measures; (2) modify the existing traffic separation schemes; (3) create one or more precautionary areas; (4) create one or more inshore traffic zones; (5) establish area(s) to be avoided; (6) create deep-draft routes; (7) establish Regulated Navigation Areas (RNA) with specific vessel operating requirements to ensure safe navigation near shallow water; (8) identify any other appropriate ships’ routing measures; (9) use this study for future decisions on routing measures or other maritime traffic considerations.

It has been ACP’s experience on the Atlantic Coast that the Coast Guard and BOEM processes (area identification, PARS, fairways proceedings, and project-specific navigation safety risk assessments that are a part of construction and operation plan reviews) provide thorough analysis of potential vessel navigation issues and have resulted in balanced recommendations that provide for navigation safety while still allowing for the deployment of offshore wind.

²⁵ *Federal Register*, Vol. 86, No.112, page 31526, Proposed Sale Notice for the New York Bight, June 14, 2021. Available at: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/86-FR-31524.pdf>

²⁶ <https://www.federalregister.gov/documents/2021/07/29/2021-15923/port-access-route-study-the-pacific-coast-from-washington-to-california>



With respect to the EA, the navigation safety issue to be considered is primarily the modest increase in vessel traffic at sea and in/out of the Port of Humboldt Bay or other ports to engage in the site assessment and site characterization activities, including vessels for buoy deployment, environmental surveys, geophysical surveys, geotechnical surveys, safety vessels and scout vessels.

Humboldt EA and visual impact assessment

Visual impacts, and related impacts to tourism etc., from offshore wind farms are often over-estimated on the negative side when research is generally finding neutral to positive impacts.

For example, an assessment²⁷ of the impacts of the five turbine Block Island Wind Farm (BIWF) off the Coast of Rhode Island “revealed neutral to positive interest in the BIWF from visitors and recreationalists in the region,” and noted “The BIWF acts as an ‘attractant’ for some tourists. Visitors to the wind farm site, or sites where the wind farm is visible, regularly engage with the wind farm as its own destination or as an auxiliary attraction to other recreationist or tourist activities.”

Similarly, a peer reviewed study²⁸ found an increase in reservations in the vicinity of the Block Island Wind Farm compared to other communities. The key conclusion states, “Our results suggest that construction of the Block Island Wind Farm caused a significant increase in nightly reservations, occupancy rates, and monthly revenues for Airbnb properties in Block Island during the peak-tourism months of July and August, but had no effect in other months. The findings indicate that offshore wind farms can act as an attractive feature of a location, rather than a deterrent.”

A 2017 Goucher poll found the potential for offshore wind farms off the coast of Maryland made no difference to 75 percent of Marylanders with respect to whether they would vacation in Ocean City, 12 percent said it made it more likely they would visit and only 11 percent said it made it less likely.

A September 2020 article²⁹ in the journal *Energy Policy* found only 5 percent of beachgoers would be unlikely to go to a particular beach if there was an offshore wind farm 20 miles offshore. For comparison, the Humboldt WEA “begins at 21 miles offshore the City of Eureka in northern California” according to the BOEM Area Identification Memo, which suggested minimal visual impact or impact to tourism.

This is particularly true for the site assessment and site characterization activities that are within the scope of the planned EA given these activities are often done even further from

²⁷ https://epis.boem.gov/final%20reports/BOEM_2018-068.pdf

²⁸ <https://www.sciencedirect.com/science/article/abs/pii/S0928765518302902?via%3Dihub>

²⁹ <https://www.sciencedirect.com/science/article/abs/pii/S030142152030389X?via%3Dihub>



shore, are temporary and of limited duration, and do not involve vessels or structures anywhere near the height of an installed wind turbine.

Humboldt EA and compatibility with military activities

As suggested in the Area Identification Memo, offshore wind and military activities appear compatible in the Humboldt WEA. Ample experience demonstrates the Military Aviation and Installation Assurance Siting Clearinghouse (“Clearinghouse”) generally, and BOEM’s area identification and project-specific review processes for offshore wind specifically, ensure compatibility between offshore wind (and other renewable energy projects) and Department of Defense (DOD) missions, operations, and facilities. This is true with respect to site assessment and characterization activities as well as construction and operations.

The Clearinghouse was established in the Fiscal Year 2011 National Defense Authorization Act³⁰ (NDAA) as a one-stop-shop to facilitate DOD reviews of proposed energy and transmission projects to ensure they do not impinge on national security interests. The Clearinghouse manages the Mission Compatibility Evaluation (MCE) Process,³¹ a timely, transparent, mission-specific, project-specific (and in the case of BOEM calls and WEA designations, area-specific), and science-based analysis of potential impacts to military operations. The process secures the input of military stakeholders from individual military bases to Pentagon-level military commands and services on proposed energy and transmission projects. Analysis is done on potential impacts to military operations, research, development, testing, training, and readiness. DOD considers potential impacts to radars, low-level flight routes and training areas, and vessel navigation, among other issues. The Clearinghouse consolidates the DOD input and provides the official DOD position to Federal agencies like BOEM, state and local permitting authorities, and project proponents.

For projects on the Outer Continental Shelf (i.e. beyond 12 nm), which is where the offshore wind projects in development today are located, the review process³² involves Clearinghouse coordination with BOEM as potential lease areas are identified and finalized, as well as on project-specific reviews if a lease is awarded to a developer.³³

From its inception in 2011 through the end of 2020, the Clearinghouse has conducted more than 35,000 reviews—many of which were reviews of onshore wind turbines. During the Clearinghouse review process, if a military branch or base identifies potential concerns with a wind energy project, the Clearinghouse will act as the liaison between the project and military entity to facilitate mitigation discussions. Conversations between developers and the Clearinghouse have resulted in project developers making changes to their projects, DOD deploying technical mitigations paid for by industry, and in some cases even

³⁰ The statutory provisions governing the Clearinghouse and the DOD review process can be found at [10 United States Code Section § 183a](#).

³¹ The DoD MCE process is detailed in [32 Code of Federal Regulations Part 211](#).

³² DoD Instruction 1480.02, Section 3.5f. Available at: <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/418002p.pdf?ver=2019-02-28-122045-640>

³³ <https://www.boem.gov/renewable-energy/regulatory-framework-and-guidelines>



abandoning projects when a compromise with DOD has not been feasible—though most projects require limited to no mitigation. To date, no projects have been built over the objection of DOD, and the Clearinghouse has brokered dozens of mitigation agreements with project proponents – more than 40 of which are posted on the Clearinghouse website.³⁴

While the U.S. offshore wind industry is in its infancy—only seven turbines have been built in U.S. waters as of August 2021, all of which underwent DOD review, including for their site assessment and characterization activities—proposed lease areas and specific proposed offshore wind projects are thoroughly reviewed by DOD and BOEM to ensure compatibility with military needs. Importantly, Federal law directs both developers and Federal agencies to assess and mitigate impacts of turbines on a wide range of governmental and commercial activities.³⁵ Focusing specifically on national security, Federal law allows DOD to raise concerns if a proposed energy project (individually or on a cumulative basis) may have any adverse impact on military operations and readiness, defined as adverse impacts to “flight operations, research, development, testing, and evaluation, and training that is demonstrable and is likely to impair or degrade the ability of the armed forces to perform their warfighting missions.”³⁶ Given DOD’s extensive use of sea- and airspace over the Outer Continental Shelf,³⁷ offshore wind projects should expect careful evaluation of all nearby military activities.

Led by the Clearinghouse, DOD entities participate in State Task Forces to help BOEM identify Wind Energy Areas and highlight any DOD stipulations that BOEM should include in its lease sale agreement with the project proponent. DOD will then remain engaged as a cooperating agency throughout project development, construction, and operation.³⁸

With respect to the Humboldt EA, the Area Identification Memo notes only the potential need for stipulations to limit interference on a North American Aerospace Defense Command (NORAD) radar.³⁹ Based on ACP’s experience with land-based wind energy, depending on the specific radar model at issue in the Humboldt WEA situation, there may already be technical mitigations available on the radar side to address NORAD’s concerns. Further, NORAD, with the support of the wind industry and cooperation from other Federal partners including the Clearinghouse, Department of Energy and the Federal Aviation Administration continue to evaluate additional mitigation options to reduce the potential for interference, more than one of which will hopefully be validated and ready for deployment well before offshore wind construction in the Humboldt EA.

³⁴ <https://www.acq.osd.mil/dodsc/about/library.html>

³⁵ See 10 U.S.C. § 183a (providing for DoD review of proposed energy projects that may pose an adverse impact on military operations and readiness); 30 C.F.R. 585 (requiring BOEM to develop measures to mitigate adverse impacts, including lease stipulations).

³⁶ 10 U.S.C. § 183a(h)(1).

³⁷ See, for example:

https://www.acq.osd.mil/dodsc/downloads/20160408_R2508_RAIMORA_Nationwide_MTR_Review_01_v7.pdf

³⁸ See, for example, [30 C.F.R. § 585.102](#) (5) and (6), which mandate “[c]oordination with relevant Federal agencies” and “[p]rotection of National security interests of the United States.”

³⁹ BOEM Area ID Memo at 28.



Given all the aforementioned statutory protections, process protections, and collaboration between Federal entities and with industry, there is no reason to expect that the site assessment and site characterization activities that will be included in the EA will raise any concerns for military operations.

Conclusion

ACP appreciates the opportunity to comment on Humboldt EA scoping and looks forward to continuing engagement with BOEM and offshore wind stakeholders going forward.

Sincerely

A handwritten signature in black ink, appearing to read "Tom Vinson".

Tom Vinson
VP, Policy and Regulatory Affairs
American Clean Power Association (ACP)

A handwritten signature in black ink, appearing to read "Danielle Osborn Mills".

Danielle Osborn Mills
Director
ACP - California