


MAY 6 | 2022

An American flag is flying on a white pole in the upper left corner. In the background, a white wind turbine is visible against a clear blue sky. The image is framed by a white curved border at the top and bottom.

Appendix DD: Section 106 Phased Identification Plan

Coastal Virginia Offshore Wind Commercial Project



Submitted by:
Dominion Energy Services, Inc.
707 E. Main Street,
Richmond, VA 23219

Prepared by:
Tetra Tech, Inc.
4101 Cox Road, Suite 120
Glen Allen, VA 23060

Submitted to:
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, VA 20166

The assessment presented herein is consistent with the Project Design Envelope considered by Dominion Energy Virginia (Dominion Energy) prior to summer 2022. Due to maturation of the Coastal Virginia Offshore Wind Commercial Project (Project) design, Dominion Energy was able to refine several components of the Project and has subsequently revised the Construction and Operations Plan (COP) as re-submitted in February 2023. The primary changes are summarized as follows:

- The Maximum Layout includes up to 202 wind turbine generators (WTGs), with a maximum WTG capacity of 16 megawatts. As the Preferred Layout, Dominion Energy proposes to install a total of 176, 14.7-megawatt capacity WTGs with 7 additional positions identified as spare WTG locations. For both the Preferred Layout and Maximum Layout, the Offshore Substations will be within the WTG grid pattern oriented at 35 degrees and spaced approximately 0.75 nautical mile (1.39 kilometers) in an east-west direction and 0.93 nautical mile (1.72 kilometers) in a north-south direction.
- Removal of Interconnection Cable Route Options 2, 3, 4, and 5 from consideration. As the Preferred Interconnection Cable Route Option, Dominion Energy proposes to install Interconnection Cable Route Option 1.

The analysis presented in this appendix reflects the initial 205 WTG position layout as well as Interconnection Cable Route Options 1, 2, 3, 4, 5, and 6 as the maximum Project Design Envelope. Reduction in the Project Design Envelope is not anticipated to result in any additional impacts not previously considered in the COP. Therefore, in accordance with the Bureau of Ocean Energy Management's Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (2018), the appendix has not been revised. Additional details regarding evolution of the Project is provided in Section 2 of the COP and details regarding the full Project Design Envelope are provided in Section 3 of the COP.

APPENDIX DD SECTION 106 PHASED IDENTIFICATION PLAN**TABLE OF CONTENTS**

DD.1	Introduction	DD-1
	DD.1.1 Undertaking	DD-2
	DD.1.1.1 Project Overview.....	DD-2
	DD.1.1.2 Federal, State, and Local Permits.....	DD-4
	DD.1.1.3 Agency and Public Outreach	DD-6
	DD.1.1.4 Surveys and Assessments.....	DD-7
	DD.1.2 Area of Potential Effects	DD-7
	DD.1.2.1 Project Design Envelope.....	DD-7
	DD.1.2.2 Visual Impact Assessment.....	DD-10
	DD.1.2.3 Aboveground Historic Resources	DD-10
	DD.1.2.4 Archaeological Resources	DD-10
	DD.1.3 Historic Properties	DD-12
	DD.1.3.1 Visual Resources.....	DD-12
	DD.1.3.2 Aboveground Historic Resources	DD-12
	DD.1.3.3 Marine Archaeological Resources	DD-12
	DD.1.3.4 Terrestrial Archaeological Resources	DD-13
	DD.1.4 Phased Identification	DD-13
DD.2	Section 106 Phased Identification Plan	DD-15
	DD.2.1 Determination of Final Project Design	DD-15
	DD.2.1.1 SCC Approval and CPCN Issuance.....	DD-15
	DD.2.1.2 Access Permissions Process.....	DD-15
	DD.2.2 Completion of Remaining Studies	DD-16
	DD.2.2.1 Visual Resources.....	DD-17
	DD.2.2.2 Aboveground Historic Resources	DD-17
	DD.2.2.3 Marine Archaeological Resources	DD-17
	DD.2.2.4 Terrestrial Archaeological Resources	DD-17
	DD.2.2.5 NRHP Eligibility Determinations.....	DD-20
	DD.2.2.6 Unanticipated Discoveries Plans	DD-20
DD.3	Schedule	DD-21
DD.4	References	DD-23

TABLES

Table DD-1.	Summary of Project Design Envelope Parameters	DD-9
Table DD-2.	Marine Archaeological Resource Assessment (MARA) Area of Potential Effects (APE)	DD-11
Table DD-3.	Terrestrial Archaeological Resource Assessment (TARA) Area of Potential Effects (APE).....	DD-11
Table DD-4	Section 106 Phased Identification Schedule	DD-21

FIGURES

Figure DD-1. CVOW Commercial Project Overview

Figure DD-2. CVOW Commercial WTG and Offshore Substation Maximum Layout

Figure DD-3. Onshore Project Area Overview (including alternative routing options)

ACRONYMS AND ABBREVIATIONS

ac	acre
ACHP	Advisory Council on Historic Preservation
APE	area of potential effects
BOEM	Bureau of Ocean Energy Management
CAMA	North Carolina Coastal Area Management Act
CFR	Code of Federal Regulations
COP	Construction and Operation Plan
CPCN	certificate of public convenience and necessity
CVOW	Coastal Virginia Offshore Wind
CZMA	Coastal Zone Management Act of 1972
CZMP	Coastal Zone Management Program
Dominion Energy	Virginia Electric and Power Company, d/b/a Dominion Energy Virginia
ECRC	Export Cable Route Corridor
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FAST	Fixing America's Surface Transportation
FPISC	Federal Permitting Improvement Steering Council
ft	feet
ha	hectare
HPEA	Historic Properties Effects Analysis
km	kilometer
Lease Area	the OCS-A 0483 Lease, located approximately 27 mi (23.75 nautical miles, 43.99 kilometers) off the coast of Virginia and includes approximately 112,799 acres (45,658 hectares) of submerged lands
LSZ	Landscape Similarity Zone
m	meter
MARA	Marine Archaeological Resource Assessment
mi	statute mile
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
nm	nautical mile
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
O&M	operations and maintenance
PDE	Project Design Envelope
Project	Coastal Virginia Offshore Wind Commercial Project
RIA	Route Inspection Authorization
ROW	right-of-way
SCC	State Corporation Commission
TARA	Terrestrial Archaeological Resources Assessment
UDP	Unanticipated Discoveries Plan
VAC	Virginia Administrative Code
VDEQ	Virginia Department of Environmental Quality
VDHR	Virginia Department of Historic Resources

VIA	Visual Impact Assessment
WTG	wind turbine generator

DD.1 INTRODUCTION

The Virginia Electric and Power Company, doing business as Dominion Energy Virginia (hereafter referred to as Dominion Energy), is proposing to construct, own, and operate the Coastal Virginia Offshore Wind (CVOW) Commercial Project (hereinafter referred to as the Project). The Project will be located in the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) (Lease Area), which was awarded to Dominion Energy (Lessee) through the Bureau of Ocean Energy Management (BOEM) competitive renewable energy lease auction of the Wind Energy Area offshore of Virginia in 2013. The Lease Area covers approximately 112,799 acres (ac; 45,658 hectares [ha]) and is approximately 27 statute miles (mi; 23.75 nautical miles [nm], 43.99 kilometers [km]) off the Virginia Beach coastline (Figure DD-1 [note: figures are at the back of this document]).

BOEM is the lead federal agency for the Project with authority to issue these leases and regulate activities that occur within them, including the authorization of a Construction and Operation Plan (COP). BOEM will also authorize an easement that will be necessary for the portion of the Offshore Export Cables that are located in federal waters outside of the Lease Area. As part of the COP approval process, BOEM must ensure that any activities approved are safe, conserve natural resources on the OCS, are undertaken in coordination with relevant federal agencies, provide a fair return to the U.S., and are compliant with all applicable laws and regulations (30 Code of Federal Regulations [CFR] § 585.102). The National Environmental Policy Act (NEPA) also requires the preparation of an Environmental Impact Statement (EIS) for any major federal action significantly affecting the quality of the human environment. The Project is subject to Section 106 of the National Historic Preservation Act (NHPA) (54 United States Code § 306108) and its implementing regulations (36 CFR Part 800). Additionally, compliance with NHPA Section 110(f) is also required when National Historic Landmarks (NHLs) are present.

Other federal agencies with regulatory authority over the Project include the U.S. Army Corps of Engineers Norfolk District; National Oceanic and Atmospheric Administration's National Marine Fisheries Service; U.S. Fish and Wildlife Service Northeast Region (Region 5); Advisory Council on Historic Preservation (ACHP); U.S. Coast Guard, Sector Virginia; U.S. Department of the Navy; Federal Aviation Administration; U.S. Department of Defense; and the U.S. Environmental Protection Agency (EPA), Region 3, Air Programs Branch.

Additionally, numerous state and local agencies have regulatory authority over the Project or can impact the final alignment of Onshore Project Components. Specifically, the State Corporation Commission (SCC) approves the Project and the final alignment of Onshore Project Components as part of issuing a certificate of public convenience and necessity (CPCN) under Virginia Administrative Code (VAC) § 56-265.2 A.1.

Dominion Energy has undertaken cultural resources assessments in support of the Section 106 process for the Project. These assessments include a Marine Archaeological Resource Assessment (MARA) in Appendix F of the COP; a Terrestrial Archaeological Resource Assessment (TARA) in Appendix G of the COP; Historic Properties Assessments including an Offshore Project Components Historic Properties Effects Analysis (HPEA) and an Onshore Historic Properties Assessment in Appendix H of the COP; and a supporting Visual Impact Assessment (VIA) in Appendix I of the COP. These assessments have been

completed for the Project design as presented in the COP submitted to BOEM in May 2022, with the exception of the TARA which is partially completed. Full completion of the TARA prior to submission of the May 2022 COP was not possible due to lack of private property access permissions for the entirety of the Onshore Project Components under consideration. Early in the SCC approval process, Dominion Energy chose to limit survey access to parcels that property owners voluntarily provided access permission. Recently, Dominion Energy has initiated formal processes to gain permission to survey parcels along the Preferred Route.

Through consultations with Dominion Energy, BOEM determined a Section 106 Phased Identification Plan was appropriate for the Project. This Section 106 Phased Identification Plan serves as a process document detailing the steps Dominion Energy will take to complete the required cultural resources surveys following the SCC's approval and issuance of the CPCN. Dominion Energy anticipates completion of the remainder of the TARA survey will be required for parcels where access was not previously gained.

If the SCC approves an alignment not currently under consideration or if there are any changes to the current Project design for either Onshore or Offshore Project Components, additional surveys to support Historic Properties Assessments, supporting VIA, and MARA may need to be completed.

DD.1.1 Undertaking

As detailed in Section DD.1.0, Introduction, Dominion Energy is proposing to construct, own, and operate the CVOW Commercial Project. The Offshore Project Components, including the wind turbine generators (WTGs), Inter-Array Cables, and Offshore Substations, would be located in federal waters within the Lease Area, while the Offshore Export Cable Route Corridor would traverse both federal and state territorial waters. The Onshore Project Components would be located within the municipalities of Virginia Beach and Chesapeake, Virginia.

The purpose of this Project is to provide between 2,500 and 3,000 megawatts of clean, reliable offshore wind energy; to increase the amount and availability of renewable energy to Virginia and North Carolina consumers; to create the opportunity to displace electricity generated by fossil fuel-powered plants, and to offer substantial economic and environmental benefits to the Commonwealth of Virginia. This Project represents a viable and needed opportunity for Virginia to obtain clean renewable energy and realize its economic and environmental goals.

DD.1.1.1 Project Overview

Dominion Energy has adopted a Project Design Envelope (PDE) approach to describe Project facilities and activities. A PDE is defined as “a reasonable range of project designs” associated with various components of the project (e.g., foundation and WTG [or wind turbine] options) (BOEM 2018). The PDE is then used to assess the potential impacts on key environmental and human use resources (e.g., marine mammals, fish, benthic habitats, commercial fisheries, navigation, etc.) focusing on the design parameter (within the defined range) that represents the greatest potential impact (i.e., the “maximum design scenario”) for each unique resource (Rowe et al. 2017). The primary goal of applying a design envelope is to allow for meaningful assessments by the jurisdictional agencies of the proposed project elements and activities while concurrently providing the Lessee reasonable flexibility to make prudent development and design decisions prior to construction. This conservative approach likely overstates the actual impact to environmental and

human use resources from the ultimate Project following alternatives refinement and implementation of any selected avoidance, minimization, and mitigation measures.

Offshore components of the Project will consist of the following:

- Up to 205 WTGs and associated WTG Monopile Foundations;
- Three Offshore Substations and associated Offshore Substation Jacket Foundations;
- Up to 300 mi (484 km) total length of Inter-Array Cables (average Inter-Array Cable length of 5,868 feet [ft]; 1,789 meters [m]) between wind turbines; and
- Up to nine buried submarine high-voltage alternating-current Offshore Export Cables.

The Offshore Project Components, including the Offshore Substations, Inter-Array Cables, and WTGs, will be located in federal waters in the Lease Area, while the Offshore Export Cable Route Corridor will traverse both federal and state territorial waters of Virginia (Figure DD-1 and Figure DD-2). The construction stage of the Project will include a temporary construction laydown area(s) and construction port(s). The operations and maintenance (O&M) stage of the Project will include an onshore O&M facility with an associated O&M Port. In the event that upgrades or a new, build to suit, facility is needed for any purpose, construction would be undertaken by the lessor and would be separately authorized, as needed.

Onshore components of the Project will consist of the following (Figure DD-3):

- One Cable Landing Location;
- Up to 27 Onshore Export Cables along one route from the Cable Landing Location to a Common Location north of Harpers Road;
- A Switching Station to be located either north of Harpers Road (Harpers Switching Station – Preferred Alternative) or north of Princess Anne Road (Chicory Switching Station);
- Triple-circuit Interconnection Cables from the Switching Station to be located either north of Harpers Road or north of Princess Anne Road to the Onshore Substation (only one switching station will be constructed; the Chicory Switching Station would only be constructed if Interconnection Cable Route Alternative 6 is selected); and
- An existing Onshore Substation that will require facility expansion/upgrades to accommodate the power generated by the Project.

The Onshore Substation is an existing substation currently owned by Dominion Energy called the Fentress Substation. Onshore Export Cables are anticipated to be constructed as underground transmission lines from the Cable Landing Location to a Common Location north of Harpers Road, while the Interconnection Cables are expected to be constructed as overhead transmission lines (Preferred Alternative) or as a combination of overhead and underground (hybrid) transmission lines from the Common Location north of Harpers Road to the Onshore Substation. The onshore components of the Project, including the Onshore Substation, Interconnection Cables, Switching Station, Onshore Export Cables, and the Cable Landing Location, will be located in the area of Hampton Roads in Virginia.

The proposed facility locations for development of the Project have been selected based upon the preliminary environmental and engineering site characterization studies that have been completed to date. The location of Project facilities will be further refined by the final engineering design as well as ongoing and continuing discussions, agency reviews, public input, and the NEPA and NHPA review processes.

DD.1.1.2 Federal, State, and Local Permits

Construction and O&M of the Project will require federal, state, and local permits and environmental reviews. Under the Outer Continental Shelf Lands Act, the Secretary of the Interior was charged with the administration of mineral exploration and development of the OCS (Title 43, Chapter 29, Subchapter I, § 1301). In 2005, the Outer Continental Shelf Lands Act was amended to authorize the Department of the Interior to issue leases, easements, and rights-of-way for alternate uses and alternative energy development on the OCS (Section 388 of the Energy Policy Act of 2005). Through this amendment and subsequent delegation by the Secretary of the Interior, BOEM has the authority to issue these leases and regulate activities that occur within them, including the authorization of a COP.

As the federal agency charged with issuing the OCS Lease and reviewing and approving the COP, BOEM will serve as the lead federal agency for the entire Project throughout the permitting process. While BOEM is the primary federal agency governing the development of a renewable energy facility within the Lease Area, given the locations of the Project components, several other federal, state, and local agencies also have regulatory authority over the Project. At this time, Dominion Energy has submitted its application to SCC (November 5, 2021) as well as its application for a Letter of Authorization to National Oceanic and Atmospheric Administration's National Marine Fisheries Service (February 16, 2022); however, Dominion Energy has not applied for other federal or state permits associated with construction and O&M of the Project, but plans to continue submitting permit applications throughout 2022.

A crossing agreement is a form of Joint Use Agreement used for the common usage of intersecting utilities. The Offshore Export Cables will cross several fiber optic communications cables, resulting in required cable crossings. The Interconnection Cables will also require several cable crossings. Dominion Energy has begun coordination with the owners of the fiber optic cables to ensure that crossing agreements are in place as early as practicable in the Project planning process and will continue to coordinate with the owners of any additional fiber optic cables that are installed. An agreement will also need to be established with appropriate entities to install onshore transmission lines across or under existing rights-of-way.

The Fixing America's Surface Transportation (FAST) Act (December 2015), which is a federal streamlining directive that applies to all COPs, is optional for applicants. Title 41 of the FAST Act (FAST-41) (42 United States Code § 4370m) was designed to improve the timeliness, predictability, and transparency of the federal environmental review and authorization process for covered infrastructure projects. FAST-41 created a new entity—the Federal Permitting Improvement Steering Council (FPISC), composed of agency Deputy Secretary-level members and chaired by an Executive Director appointed by the President. FAST-41 establishes new procedures that standardize interagency consultation and coordination practices. Importantly, FAST-41 creates a new authority for agencies to issue regulations for the collection of fees, which, if implemented, will allow the FPISC to direct resources to critical functions within the interagency review process. FAST-41 codifies into law the use of the Permitting Dashboard to track project timelines. Dominion Energy is pursuing the FAST-41 directive in support of the COP.

Dominion Energy submitted a FAST-41 Initiation Notice to the FPISC on February 1, 2021, which resulted in a determination that the Project was covered under FAST-41. FPISC hosted an interagency Coordinated Project Plan workshop on April 4, 2021 and the permitting timetable for the Project was posted to the

Permitting Dashboard on April 13, 2021.¹ Dominion Energy continues to work closely with FPISC and BOEM to address any data requests in a timely manner to ensure that timeframes indicated on the Permitting Dashboard are maintained.

As Project components are proposed in the Commonwealth of Virginia, approvals from the applicable state and local agencies will also be required. At the state level, the Virginia Marine Resources Commission will issue a Permit for the portions of the Project located over, under, or on certain state waters under the Virginia Code and regulations. The Virginia Department of Environmental Quality (VDEQ) will issue a Virginia Water Protection Individual Permit pursuant to the Code of Virginia and the Section 401 Water Quality Certification requirements of the federal Clean Water Act. The EPA also requires that the Project submit air permit applications under the Clean Air Act for marine vessels or other equipment used to construct and/or operate the Project. EPA has delegated authority to VDEQ to issue OCS air permits; however, there is not currently a regulatory avenue for EPA to delegate authority to VDEQ to implement and enforce the requirements of the OCS program beyond 25 nm (about 29 statute miles). As such, EPA will retain responsibility for processing the OCS Air Permit due to the distance of the Project offshore.

As a public utility, in order to construct and operate electric utility facilities within the Commonwealth, the Virginia Code requires Dominion Energy to obtain a CPCN under VAC § 56-265.2 A.1, as well as approval under VAC § 56-46.1, from the SCC. For purposes of the Project, these approvals are needed for the portion of the Offshore Export Cable from 3 miles offshore landward, as well as all of the Onshore Project Components. Dominion Energy also must seek other approvals from SCC, including those related to cost recovery for the Project under VAC §§ 56-585.1 A.6 and 56-585.1:11. Dominion Energy applied to the SCC for these approvals in Q4 2021 and anticipates approval in Q3 2022.

The Coastal Zone Management Act of 1972 (CZMA) requires that federal actions likely to affect any land or water use, or natural resource of a state's coastal zone, be conducted in a manner that is consistent with the state's federally approved Coastal Zone Management Program (CZMP). The Virginia CZMP was established in 1986 and is administered by VDEQ, which serves as the lead agency for the network of Virginia state agencies and local governments that administer the CZMP. The enforceable policies that make up the CZMP include:

- Fisheries Management (VAC §28.2-200 through §28.2-713 and VAC §29.1-100 through §29.1-570);
- Subaqueous Lands (VAC §28.2-1200 through §28.2-1213);
- Wetlands Management (VAC §28.2-1300 through §28.2-1320 and §62.1-44.15.5);
- Dunes Management (VAC §28.2-1400 through §28.2-1420);
- Point and Nonpoint Source Pollution Control (VAC §10.1-560 *et seq.* and §62.1-44.15);
- Shoreline Sanitation (VAC §32.1-164 through §32.1-165);
- Air Pollution Control (VAC §10-1.1300); and
- Coastal Lands Management (Chesapeake Bay Preservation Act, VAC §10.1-2117 through §10.1-2134 and regulations 4 VAC 50-90).

¹ See <https://www.permits.performance.gov/permitting-project/coastal-virginia-offshore-wind-commercial-project> for more information

Given the distance of the Lease Area to the shoreline in the State of North Carolina and the potential for visual impacts from the Project, the North Carolina CZMA has also been considered. The North Carolina Coastal Area Management Act (CAMA) establishes a cooperative coastal area management program between local and state governments. CAMA is the overarching statutory authority for: (1) the state guidelines adopted by regulations in Chapter 7 of Title 15A of the North Carolina Administrative Code, (2) local land use plans, and (3) the state permitting process for major development actions. The intention of the program is to provide a management system through policies and standards to protect, preserve, and conserve coastal natural resources while providing a balanced opportunity to use coastal resources for the purposes of economic development, recreation and tourist facilities, transportation, and historic, cultural, and scientific resources.

The North Carolina CZMP was established in 1978 and is administered by the North Carolina Division of Coastal Management, which serves as the lead agency for the network of North Carolina state agencies and local governments that administer the CZMP. Projects within North Carolina's coastal waters must comply with the key elements of North Carolina's Coastal Management Program, which include:

- The Coastal Area Management Act;
- The State's Dredge and Fill Law;
- Chapter 7 of Title 15A of the North Carolina Administrative Code;
- Regulations passed by the Coastal Resources Commission;
- Local land-use plans certified by the Coastal Resources Commission; and
- A network of other state agencies' laws and regulations.

A summary of all required permits and their status is included in Section 1 of the COP submitted to BOEM on May 6, 2022.

DD.1.1.3 Agency and Public Outreach

Starting with initial planning and subsequent execution and delivery of the Lease in November 2013, Dominion Energy has undertaken a comprehensive engagement and outreach campaign. The purpose of this program has been to solicit feedback from Project stakeholders, including federal, state and local regulatory and resource management agencies, elected officials, interest groups, and the public to advance the permitting and development process and to create positive awareness of the Project by highlighting local community, statewide, and regional benefits.

Outreach in support of development of the CVOW Pilot and Commercial Projects has been ongoing since 2011. From 2011 to 2014, Dominion Energy consulted with Virginia stakeholders during the earliest stages of development and planning. From 2015 to present, Dominion Energy has completed more than 20 required studies and surveys. In 2019, Dominion Energy began to meet with federal, state, and local officials and other stakeholders to discuss the Project. At these meetings, Dominion Energy provided background information on the Project, including the scope, proposed environmental surveys and evaluations, and the anticipated timing of the permit applications.

Dominion Energy recognizes the importance of commercial and recreational fisheries in the Hampton Roads region and brought on a dedicated Fisheries Liaison Officer in 2017, who has been coordinating with fisheries stakeholders to facilitate communications for this Project within the commercial and recreational

fishing community. Engagement with the commercial and recreational fishing community has been ongoing since 2012 through the CVOW Pilot Project, which provided stakeholders with a high degree of baseline knowledge about Dominion Energy's plans to develop offshore wind projects in Virginia. Dominion Energy will continue to build on these efforts for the life of the CVOW Commercial Project.

Dominion Energy also contacted Native American tribes to invite them to be a part of the Project process and to request information to be considered in cultural resources planning and development of the COP. Dominion Energy intends to continue tribal coordination and anticipates that this early and ongoing consultation will lead to a more streamlined and effective permitting process for the Project. Project information has also been provided to stakeholders representing various interest groups, including maritime stakeholders such as the Virginia Maritime Association, the Virginia Pilot Association, the American Waterways Operators, the Port of Virginia, Virginia Power commercial customers, State Military Reservation, the U.S. Coast Guard, the Navy, the Hampton Roads Alliance, and the Cities of Chesapeake and Virginia Beach. On November 12, 2020, Dominion Energy hosted an interagency meeting to provide a Project overview to key regulatory stakeholders. In 2022, Dominion Energy continued to engage other industry stakeholders, as well as elected officials representing the region by hosting in-person and virtual open houses in June and August 2021. In March 2022, Dominion held an open house to provide information on the Project to residents of the Indian River neighborhood, located along the Preferred Route.

DD.1.1.4 Surveys and Assessments

Dominion Energy has undertaken surveys and assessments relative to physical, biological, cultural, and socioeconomic resources within the PDE. The results of these assessments are presented in the May 2022 COP and technical reports are included as COP Appendices. Cultural resources assessments include a MARA, a TARA, Historic Properties Assessments, and supporting VIA. For each of these surveys, a survey plan detailing a proposed area of potential effects (APE) and survey methodology was submitted to BOEM for review. These surveys have been completed with the exception of the TARA which remains partially completed until private property access permissions are in place for the final route, following SCC approval and issuance of a CPCN.

DD.1.2 Area of Potential Effects

BOEM, as the lead federal agency, will determine the APE for each resource assessment. Proposed APEs or a VIA Study Area were developed for each of the resource assessments and presented in the individual survey plans reviewed by BOEM. The APEs and the Study Area were developed based on the Project design and guidelines specific to each resource.

DD.1.2.1 Project Design Envelope

Development of an offshore wind facility is an extensive and complex process spanning several years. As such, it is not possible to establish a final form of development at the time of the COP submittal. In Europe, it is an accepted practice for offshore wind farm projects to present a range of potential final design parameters through a realistic maximum design scenario approach to the assessment. This is achieved by assessing the maximum parameters for key components (e.g., WTGs, foundations, and installation methodologies) within which the Project will be limited. By assessing the realistic maximum design

scenario for each component, the environmental, cultural, and social impact assessment can be robust while allowing for flexibility further on in the development process. The term used to describe the process and set of parameters adopted for a specific project is sometimes referred to as a PDE.

The primary goal of applying a design envelope is to allow for meaningful assessments by the jurisdictional agencies of the proposed project activities while concurrently providing the Lessee reasonable flexibility to make prudent development and design decisions prior to construction. Offshore wind technologies are rapidly advancing and evolving, and the flexibility to take advantage of industry advancements and innovative technologies as a project progresses through development is critical to ensuring that the most technologically sound, environmentally appropriate, and cost-effective project is constructed. In addition, as projects progress through the permitting process and ongoing consultations, flexibility is needed to be able to effectively apply feedback, new design data, and permitting conditions placed on the project.

In an effort to analyze and apply industry-wide best practices in the U.S., BOEM funded a study titled *Phased Approaches to Offshore Wind Developments and Use of the Project Design Envelope, Final Technical Report* (Rowe et al. 2017). The study provided the foundation for BOEM's guidance document entitled *Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan* (BOEM 2018). Within this guidance, BOEM defines a design envelope as "a reasonable range of project designs" associated with various components of the project (e.g., WTGs, foundations, and installation methodologies) (BOEM 2018). The design envelope is used to assess the potential impacts on key environmental and human use resources (e.g., marine mammals, fish, benthic habitats, commercial fisheries, navigation, etc.) focusing on the design parameter (within the defined range) that represents the realistic maximum design scenario for each unique resource (Rowe et al. 2017).

The definition of what is considered the realistic maximum design scenario varies based on the potentially impacted resource. Dominion Energy has ensured that only "realistic" development scenarios are considered when defining these. For example, while different sizes of foundation are included in the application, the largest foundations may not be required to support the smallest WTG. In this case, the assessment would identify and describe the greatest impact associated with the foundation type that would be installed with that size WTG. The range of options in the PDE applies for all of the Project Area.

Based on discussions with BOEM conducted in 2020, Dominion Energy has applied a PDE approach to describe Project facilities and activities. A summary of PDE parameters is provided in Table DD-1.

Table DD-1. Summary of Project Design Envelope Parameters

Project Parameter Details
General (Layout and Project Size)
<ul style="list-style-type: none"> • 176 to 205 WTGs • Anticipated to begin offshore construction in 2024 (foundations) and 2025 (WTGs) • Construction of the Project is expected to be complete within approximately 3 years
WTGs and Foundations
<ul style="list-style-type: none"> • Siemens Gamesa Renewable Energy SG 14-222 DD WTG with power boost technology • 14- to 16-megawatt WTGs characterized as “minimum” and “maximum” capacity • Rotor diameter ranging from 725 to 761 ft (221 to 232 meters [m]) • Hub height from mean sea level ranging from 446 to 489 ft (136 to 149 m) • Turbine tip height from mean sea level ranging from 804 to 869 ft (245 to 265 m) • Installation of monopiles through pile-driving • Scour protection is proposed to be installed around WTG Monopile Foundations. Installation vessels to include jack-up, platform supply, crew transfer, tugs, barges, heavy-lift vessels, fall pipe vessels, walk-to-work, and other support vessel types as necessary
Inter-Array Cables
<ul style="list-style-type: none"> • Up to 66-kilovolt cables buried 3.3 to 9.8 ft (1 to 3 m) beneath the seabed • Up to 300 miles (484 km) total length of Inter-Array Cables (average Inter-Array Cable length of 5,868 ft [1,789 m] between WTGs) • Installation by jet trenching, chain cutting, trench former, and/or other available technologies • Installation vessels to include deep draft cable lay, walk-to-work, crew transfer, trenching support, burial tool, survey, multipurpose support vessels, and other support vessel types as necessary
Offshore Export Cables
<ul style="list-style-type: none"> • Up to nine 230-kilovolt export cables buried 3.3 to 9.8 ft (1 to 3 m) beneath the seabed • Nine export cables (in a single corridor) • Up to 416.9 mi (671 km) total length of Offshore Export Cable • Installation by jet trenching, plowing, chain cutting, trench former, and/or other available technologies • Installation vessels to include pull-in support barge, tug, multipurpose support, survey, shallow draft cable lay, hydroplow, crew transfer, deep-draft, walk-to-work, trenching support, burial tool vessels, and other support vessel types as necessary • Cable protection at the cable crossings
Offshore Substations and Foundations
<ul style="list-style-type: none"> • Three Offshore Substations • Offshore Substations installed atop piled jacket foundations • Scour protection installed at all foundation locations • Installation vessels to include barge, tug, transport, heavy lift, anchor handling, jack-up vessels, platform support, and other support vessel types as necessary
Onshore Facilities
<ul style="list-style-type: none"> • Landfall of Offshore Export Cable(s) will be completed via Trenchless Installation • Maximum area of temporary disturbance for Cable Landing Location 2.8 ac (1.1 ha) maximum temporary workspace at the Nearshore Trenchless Installation Area approximately 8.8 ac (3.6 ha) • Construction work area for the Switching Station, maximum of approximately 46.4 ac (18.8 ha) • Construction work area for the Upgrades at the Onshore Substation (existing Dominion Energy Fentress substation), maximum of approximately 25.1 ac (10.2 ha) • Maximum Onshore Export Cable length of approximately 4.41 mi (10 km) • Maximum Interconnection Cable length of approximately 20.3 mi (32.7 km) • Maximum area of temporary disturbance for Onshore Export Cable Route of approximately 50.6 ac (20.5 ha) • Maximum area of temporary disturbance for Interconnection Cable Route of approximately 342.8 ac (138.7 ha)

DD.1.2.2 Visual Impact Assessment

The Offshore Visual Study Area was established based on maximum visibility under optimal viewing conditions (i.e., a clear, sunny day). Conditions that determined the Offshore Visual Study Area are wind turbine height and the maximum distance of theoretical visibility based on effects of only curvature of the earth. To support the identification of potential viewing locations, scenic areas and other visual resources that could be affected by the development of the Project within the Lease Area, a 40-mile Study Area (Offshore Visual Study Area) was applied from the WTGs. The Study Area was defined using a bare earth method based on a visibility analysis that evaluated the location and maximum height of the WTGs, curvature of the earth, and topography to identify where, and at what distance, the WTGs would be visible, in whole or in part. The Study Area was further refined through additional computer modeling and the addition of vegetation layers applying land cover data to account for large areas of tall vegetation that limit projected visibility to the Project. Data layers for building footprints and building heights then were added to account for existing development projected to screen views to the Project. These data sets imbued the viewshed analysis with greater granular detail.

The Onshore Visual Study Area includes areas within 5 mi (8 km) of aboveground Onshore Project Components (switching stations, the Fentress Substation, and aboveground Interconnection Cables), except for areas where vegetation and structures prevent views of those facilities.

DD.1.2.3 Aboveground Historic Resources

As detailed above in Section DD.1.2.2, Visual Impact Assessment, the HPEA APE was developed using a geographic information system based viewshed analysis to determine a Study Area that was further reduced to the APE with the addition of vegetation and building data layers.

The Onshore Aboveground Historic Resources Assessment APE consist of the following elements:

- A 0.5-mile (0.8-km) buffer on either side of new overhead segments; and
- Areas immediately adjacent to route segments in which an underground line is proposed, or where overhead lines will occupy existing right-of-way (ROW) and will not require removal of vegetation or construction of transmission line structures more than 20 feet, or 10 percent, taller than those of the existing line (VDHR 2018).

DD.1.2.4 Archaeological Resources

The Marine Archaeological APE includes the Offshore Project Area and any associated construction ROWs or work areas. The APE was designed to include offshore portions of the Project where marine archaeological resources may be subject to direct effects from construction, O&M, and decommissioning of the Project. The APE includes the footprint of all Offshore Project Components as well as any temporary seafloor disturbance areas. Surveyed areas include additional width to accommodate potential rerouting for Offshore Project Components or micro-siting to avoid identified cultural resources, unexploded ordnance, or other sensitive features. The components of the APE are detailed in Table DD-2.

Table DD-2. Marine Archaeological Resource Assessment (MARA) Area of Potential Effects (APE)

Offshore Project Component	Metric	MARA Maximum APE
Wind Turbine Generator (WTG) Monopile Foundations	Maximum diameter	31 feet (ft; 9.5 meters [m])
	Maximum seabed penetration	197 ft (60 m)
	Maximum scour protection (diameter)	230 ft (70 m)
	Maximum turbine work area	984 ft (300 m)
Inter-Array Cable	Maximum trench depth	9.8 ft (3 m)
	Maximum trench width	49 ft (15 m)
	Maximum trench length	up to 300 mi (484 km)
	Average length per cable	5,868 ft (1,789 m)
	Pre-lay grapnel run (inclusive of construction area)	65.6 ft (20 m) per cable
Offshore Substation	Maximum number of piles per offshore substation	4
	Maximum diameter of each pile	9.2 ft (2.8 m)
	Maximum depth of each pile	269 ft (82 m)
	Maximum scour protection per pile (diameter)	230 ft (70 m)
	Maximum construction footprint per offshore substation	217 x 256 ft (66 x 78 m)
	Temporary construction impacts per offshore substation	656 x 164 ft (200 x 50 m) adjacent to the western side of each offshore substation
Offshore Export Cable	Maximum burial depth	16.4 ft (5 m)
	Maximum total cable length	416.9 mi (671 km)
	Average cable length per cable	(9 cables) 46.3 mi (74.5 km)
	Maximum trench width	49 ft (15 m) per cable
	Maximum width of construction corridor per cable	65.6 ft (20 m)

The Terrestrial Archaeological APE consists of any area subject to direct ground disturbance from the Project, including access roads and laydown and staging areas. All Onshore Project Components will be subject to terrestrial archaeological investigations unless components are removed from consideration prior to initiating or during the investigations. If components are removed while survey is taking place, any subsurface excavations that have been completed prior to the design change will be included in the analysis and reporting for the Project. The components of the APE are detailed in Table DD-3.

Table DD-3. Terrestrial Archaeological Resource Assessment (TARA) Area of Potential Effects (APE)

Onshore Project Component	Maximum Length/Acreage	Width	Average Vertical Disturbance	Maximum Vertical Disturbance
Onshore Export Cable Route Right-of-Way (ROW)	4.41 mi (7.10 km)	200 ft (15.2 to 76 m)	8 ft (2.4 m)	8 ft (2.4 m)
Interconnection Cable Route ROW	20.3 mi (32.7 km)	85.6 to 200 ft (26 to 76.2 m)	13 to 80 ft (4 to 24 m)	80 ft (24 m)
Switching Station	27.5 ac (11.1 ha)	NA	3 ft (0.9 m)	50 ft (15 m)
Onshore Substation	21.5 ac (8.7 ha)	NA	3 ft (0.9 m)	50 ft (15 m)

ac = acre; ft = feet; ha = hectare; km = kilometer; m = meter; mi = mile; NA = not applicable

DD.1.3 Historic Properties

The MARA, Historic Properties Assessments, and supporting VIA have been completed. The TARA is currently partially completed due to survey access being currently limited to parcels that property owners have voluntarily provided access permission. The survey is ongoing as additional parcel assesses are gained. Following SCC approval and issuance of a CPCN and gaining private property access permissions for the final route, the TARA survey will be completed.

The following sections present a summary of identified resources for each survey.

DD.1.3.1 Visual Resources

Although some historic resources are included as representative viewpoints and assessed as part of the VIA, an evaluation of the potential impacts on historic resources is included as part of the Historic Properties Assessment, presented as Appendix H in the May 2022 COP.

Landscape Similarity Zones (LSZs) were defined by the VIA and include the Historic LSZ, which captures culturally important historic areas but also conservation areas and public open spaces. First Landing State Park and False Cape State Park in Virginia both fall within the Historic LSZ. Views from these historic/conservation areas vary depending upon the viewer's position, but views of the Project would be limited to the immediate shoreline, because of dense vegetation present. Specific historic properties assessments are included in the Historic Properties Assessment.

The findings of the VIA are presented as Appendix I in the May 2022 COP.

DD.1.3.2 Aboveground Historic Resources

The Onshore Historic Properties Assessment identified a total of 322 resources within the study area for Onshore Export Cable Route and six Interconnection Cable Route Alternatives under consideration. Of these, 13 are listed or considered eligible for inclusion on the NRHP, and could be potentially affected by the Project depending on the selected route. Because of overlap among the various route alternatives, the impact on some resources would be the same regardless of the route option selected for the Project.

The Offshore Historic Properties Assessment identified a total of 97 historic properties that have a potential to be subject to visual effects, 12 of which have both views of the ocean and a maritime setting and high sensitivity to visual effects, however these properties fall outside of the 18-to-27-mile radius of casual observer visibility. Three lighthouses were included in analysis of visible properties due to their size, scale, and locations in relation to the ocean. One lighthouse, the Chesapeake Light Tower, (DHR ID: 134-5301) located in open water, 12.83m (20.66 km) from the turbines is within the limits of casual observer visibility and may be adversely affected by the Offshore Project Components. The findings of the Historic Properties Assessment are presented as Appendix H in the May 2022 COP.

DD.1.3.3 Marine Archaeological Resources

High-resolution geophysical surveys of the Lease Area and the Offshore Export Cable Route Corridor (ECRC) identified 34,439 magnetic anomalies and 2,268 side-scan sonar contacts within the APE. Thirty-one potential cultural resources were identified during remote sensing analysis and interpretation: 18 in the Lease Area and 13 in the ECRC. Recommended minimum avoidance zones for these resources were

designed based on the extent of these potential resources gleaned from side-scan sonar, multibeam echosounder, sub-bottom profiling, seismic, and magnetometer data. In addition to seabed findings, six preserved paleolandforms were identified within the Lease Area. No paleolandforms were identified in the ECRC.

The findings of the MARA are presented as Appendix F in the May 2022 COP.

DD.1.3.4 Terrestrial Archaeological Resources

To date, the TARA survey has identified four new archaeological sites and ten isolated finds. All recovered artifacts date to post-contact time periods and have been typically limited to small deposits of architectural and domestic artifacts. Based on the low density of artifacts, the presence of recovered artifacts within the plowzone/surface stratum, and the absence of identified cultural features, none of the newly identified archaeological resources present sufficient research value to be considered a significant historic property and none are recommended as eligible for listing on the NRHP.

To date, previously identified archaeological sites within the APE reassessed as part of the Phase IB survey have either lacked any findings or identified minor amounts of non-diagnostic post-contact artifacts. None of the reassessments to date warrant the boundary expansion of a previously identified site.

The findings of the TARA to date are presented as Appendix G in the May 2022 COP.

DD.1.4 Phased Identification

Section 106 regulations (36 CFR § 800.4 (b)(2)) provide for phased identification of historic properties when circumstances may impede the completion of identification and evaluation efforts prior to project approval. Typically, phased identification is implemented for projects where alternatives under consideration consist of corridors, large land areas, or where access to properties is restricted. Phasing Section 106 adjusts the standard Section 106 timeline so that identification and evaluation of historic properties may be completed after completing an environmental review of the project, but before project implementation occurs.

Consultations between BOEM and Dominion Energy determined that due to conflicts between the NEPA and SCC permitting timeframes, the number of alternatives currently under consideration, and private property access limitations, a phased identification approach to the Project was appropriate. Discussions regarding the phased identification approach included a NEPA/SCC Alignment Discussion with BOEM, Virginia Department of Historic Resources (VDHR), and consultants on August 6, 2021, and a Phased Identification Process Document Planning Call held with BOEM and consultants on October 6, 2021.

This Section 106 Phased Identification Plan applies to all the cultural resources assessments and the VIA. Currently, the Section 106 Phased Identification Plan is most applicable to the TARA, which remains partially completed until private property access permissions are in place for the final route following SCC approval and issuance of a CPCN. However, if the SCC approves an alignment not currently under consideration or if there are any changes to the current Project design for either Onshore or Offshore Project Components that result in Project components falling outside of the previously assessed APEs for the Historic Properties Assessment or MARA, supplemental assessments will be required including updated viewshed modeling and potentially a supplemental VIA.

Dominion Energy commits to implementing this Section 106 Phased Identification Plan and the process detailed in Section DD.2 prior to construction of the Project. Dominion's anticipated Section 106 Phased Identification Plan schedule detailing permitting milestones and planned actions is presented in Section DD.3. Dominion Energy will continue outreach and engagement activities with tribes and interested parties throughout implementing the Section 106 Phased Identification Plan.

DD.2 SECTION 106 PHASED IDENTIFICATION PLAN

This Section 106 Phased Identification Plan serves as a process document detailing the steps Dominion Energy will take to complete the required cultural resources surveys following the SCC's approval and issuance of the CPCN. The Section 106 Phased Identification Plan requires several steps for completion, which are detailed below.

DD.2.1 Determination of Final Project Design

DD.2.1.1 SCC Approval and CPCN Issuance

As a public utility, in order to construct and operate electric utility facilities within the Commonwealth, Virginia Code requires Dominion Energy to obtain a CPCN under VAC § 56-265.2 A.1, as well as approval of the Project including the route from the SCC under VAC § 56-46.1. For purposes of the Project, these approvals are needed for the portions of the Project within the Commonwealth of Virginia, which includes the Offshore Export Cable from 3 miles offshore landward and all of the Onshore Project Components. Relatedly, Dominion Energy also must seek other approvals from the SCC related to cost recovery for the Project under VAC §§ 56-585.1 A.6 and 56-585.1:11. Dominion Energy applied to the SCC for these approvals on November 5, 2021.

The SCC's decisions regarding approvals related to cost recovery must, by statute, be provided within 9 months of Dominion Energy's application filing. Thus, Dominion Energy likely will not have a decision from the SCC related to cost recovery until early August 2022. The timelines for the SCC's decisions related to the CPCN and Project approval under VAC § 56-46.1 are not prescribed by statute. Typically, the SCC has provided its decisions related to these approvals along similar timelines as the cost recovery decision, when applications for each are made together. As such, while not mandated by statute, Dominion Energy would anticipate the SCC's decision on the CPCN and Project approval under VAC § 56-46.1 in temporal proximity to the SCC's decision regarding cost recovery.

On December 9, 2021, the SCC issued an order setting a procedural schedule for the matter, as well as directing various statutorily prescribed public notices. This order also sets deadlines for interested members of the public to notify the SCC of their plan to participate in the matter as a respondent, as well as for such parties to file their testimony and positions with the SCC. The order sets similar deadlines for SCC's staff and VDHR to provide its evaluation of the applications. According to the order, the deadlines for respondents' and SCC staff's testimony is March 25, 2022 and April 8, 2022, respectively, and a hearing before the SCC is scheduled for May 17, 2022. As such, Dominion would expect to know the extent of the parties' positions regarding approval of the Project, including positions related to suggested changes or additions to the Onshore Project Components under consideration. As noted, Dominion Energy anticipates decisions from the SCC in August 2022.

DD.2.1.2 Access Permissions Process

SCC staff testimony in March/April 2022 will provide an indication of the preferred alignment of the Onshore Project Components. Where access had not previously been granted, Dominion Energy began

formally requesting access to survey properties for the Preferred Route beginning in February 2022 through a Route Inspection Authorization (RIA) request.

Under Virginia state law, all condemnation proceedings are governed by VAC § 25.1. The code provides Dominion Energy with the right to enter private property to conduct surveys and examinations for a proposed transmission line route as is necessary to select the most advantageous route.

The right to enter requires Dominion Energy to first obtain permission from the property owner and/or provide proper notice to the property owner as required by VAC § 25.1. Dominion Energy will obtain permission from the property owner via a Route Inspection Authorization (RIA) form to conduct preliminary studies. The RIA form will be accompanied by an introductory letter stating the Project information and the need for the surveys and/or studies. The form will need to be signed, dated, and include the contact information provided to Dominion Energy by the property owner.

If the RIA is not returned or the property owner refuses to sign the RIA, Dominion Energy will send a letter entitled “Request for Permission to Inspect.” The purpose of this letter is to provide formal notice to the property owner regarding Dominion Energy’s intent to perform studies and surveys. This letter also serves as evidence of providing proper notice to the property owner in the event Dominion Energy needs to use its condemnation authority.

The “Request for Permission to Inspect” letter serves as the first formal notice to the property owner that Dominion Energy plans to enter the property pursuant to VAC § 25.1. This letter provides the property owner with the ability to grant permission even though it is not required. In addition, the letter provides the property owner with information pertaining to type of studies, dates of the studies and/or assessments, names of Dominion Energy’s agents set to perform the studies, and other pertinent information. The “Request for Permission to Inspect” letter must be sent at least 15 days prior to entry and must be sent via certified mail or by courier.

If the property owner fails to sign the “Request for Permission to Inspect” letter and further contact cannot be made, Dominion Energy will send a second letter entitled “Notice of Intent to Enter Property.” The purpose of this letter is to provide the property owner notice that Dominion Energy will exercise its right to enter the property. This letter provides the property owner with information pertaining to the type of studies, specific dates of the studies and/or assessments, names of Dominion Energy’s agents performing the studies and will also include copies of all the previous letters/forms sent to the property owner. The “Notice of Intent to Enter Property” must be sent at least 15 days prior to entry and must be sent via certified mail or by courier.

Following this notification process, Dominion Energy will authorize its agents to access properties where field studies remain to be completed.

DD.2.2 Completion of Remaining Studies

Dominion Energy anticipates completion of the remainder of the TARA survey will be required for parcels where access was not previously gained following SCC approval and issuance of a CPCN. Additionally, if the SCC approves an alignment not currently under consideration or if there are any changes to the current Project design for either Onshore or Offshore Project Components that result in project components falling

outside of the previously assessed APEs for the Historic Properties Assessment or MARA, supplemental assessments will be required potentially including updated viewshed modeling and a supplemental VIA.

DD.2.2.1 Visual Resources

If needed in support of cultural resources surveys, supplemental visual resources assessments such as revised viewshed modeling will be undertaken. Dominion Energy anticipates the PDE used for the Project and the VIA Study Area covers a geographic area large enough to account for minor design or route changes without additional viewshed modeling. In such cases, supplemental assessments for historic properties could be undertaken using the existing viewshed model and VIA simulations.

If supplemental visual assessments are required, they would be undertaken following the survey methodology provided in Appendix I, Visual Impact Assessment, submitted to BOEM in June 2021.

DD.2.2.2 Aboveground Historic Resources

If the SCC approved route or design changes to the Onshore or Offshore Project Components results in new portions of the Project falling outside of the Offshore or Onshore Historic Resources Assessment APEs, supplemental assessments will be undertaken to account for the revised Project layout.

The supplemental aboveground historic resources assessments would be undertaken in accordance with the Onshore Aboveground Historic Resources Survey Plan approved by BOEM on May 4, 2021, and by VDHR on May 12, 2021, and the Offshore Aboveground Historic Resources Survey Plan approved by BOEM with the addition of a methodology for assessing previously identified historic properties with no NRHP eligibility status agreed to during a planning call on May 13, 2021.

Following the completion of supplemental assessments, a revised Offshore Project Components HPEA report and Onshore Historic Properties Assessment report will be submitted to BOEM. As detailed in the Phased Identification Schedule in Section DD.3, supplemental studies are planned for completion in December 2022 and reporting in January 2023.

DD.2.2.3 Marine Archaeological Resources

If the SCC approved route or design changes to the Offshore Project Components result in new portions of the Project falling outside of the MARA APE, supplemental surveys and assessments will be undertaken to account for the revised Project layout.

The supplemental MARA and supporting surveys would be undertaken in accordance with the Site Assessment Plan and Construction and Operations Survey Plan approved by BOEM (last modified March 2021). Following the completion of supplemental assessments, a revised MARA report will be submitted to BOEM. As detailed in the Phased Identification Schedule in Section DD.3, supplemental studies are planned for completion by December 2022 and reporting by January 2023.

DD.2.2.4 Terrestrial Archaeological Resources

Following the SCC's approval and issuance of the CPCN anticipated in August 2022 and Dominion Energy's notification process for access to private properties not yet subject to survey, completion of the Phase IB portion of the TARA will be initiated. Any changes to the Onshore Project Components will be

accounted for in a revised APE that will include any area subject to direct ground disturbance from the Project, including access roads, laydown and staging areas.

The TARA will proceed under the current Terrestrial Archaeology Survey Plan submitted to BOEM and VDHR on April 1, 2021, and subsequently revised following comments from both agencies and resubmitted on September 27, 2021. Any proposed changes to the current methodology would be submitted in a revised survey plan for approval by BOEM and VDHR prior to implementation.

Following the completion of Phase IB portion of the TARA, a final TARA report will be submitted to BOEM. The final report will include proposed avoidance, minimization, and mitigation plans as appropriate. As detailed in the Phased Identification Schedule in Section DD.3, the Phase IB survey is planned for completion by December 2022 and reporting by January 2023.

DD.2.2.4.1 Additional Studies

Following the Phase I TARA, additional studies such as site-specific Phase II or III investigations may be required for the Project. Additional studies would be undertaken in accordance with:

- BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (BOEM 2020);
- The Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation*, as amended (48 *Federal Register* 44716); and
- The VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (VDHR 2011).

A research design would be developed and submitted to BOEM and VDHR for review and comment prior to undertaking any additional investigations.

Phase II Investigations

If archaeological sites are identified during the Phase I investigation that exhibit potential for listing in the NRHP and cannot be avoided by the Project, Phase II investigations of such sites are typically required. Phase II investigations, also referred to as intensive surveys or site examination surveys, serve to target sites found in Phase IB surveys and include a more intensive level of excavation consisting of both shovel tests and larger test units. The purpose of a Phase II investigation is to collect sufficient archaeological data to evaluate the NRHP eligibility of an identified site. A Phase II investigation defines the boundaries of identified archaeological sites, which is required for NRHP determination. The site boundaries determined through Phase II testing also provide the ability to design around NRHP-eligible sites. If sites are identified but determined not potentially eligible for the NRHP, typically the project can proceed as designed.

If Phase II investigations are determined to be needed, the investigations will be tailored to the specific sites to be evaluated. Sites will be evaluated in their entirety, not just within the APE of the Project. Phase II investigations will be performed in accordance with the VDHR's *Guidelines* (2011). Consultation with BOEM and VDHR will take place prior to initiating any Phase II investigations and, as determined appropriate, an overarching research design or site-specific research designs will be developed prior to undertaking Phase II investigations.

In accordance with VDHR guidelines, Phase II investigations will include:

- Background research, which expands upon and refine the research conducted during the Phase I investigation;
- Developing a testing strategy/methodology, which takes into account the results of the Phase I investigation, background research, and site conditions;
- Field documentation, which meets or exceeds VDHR's requirements for shovel test and test unit, site map, and photo documentation;
- Analysis of the site, including recovered artifacts and features;
- Curation of recovered cultural materials and original data; and
- Reporting.

As appropriate, Phase II investigations will also include specialized technical studies such as radiocarbon dating, flotation analysis, and geophysical analysis.

Phase III Investigations

Phase III investigations, also known as data recovery, take place when consultation determines avoidance of an NRHP-eligible site is not possible. Within the Section 106 process, data recovery is defined as an adverse effect. As such, any Phase III investigations for the Project would be considered an adverse effect and require a memorandum of agreement be developed in consultation with BOEM, VDHR, and consulting parties. The scope of a Phase III data recovery effort would be determined by the parties consulting on the Project.

A Data Recovery Plan would be developed in accordance with VDHR's *Guidelines* (2011) and provided for review and comment to BOEM, VDHR, and as appropriate consulting parties. Any required permits would be obtained before initiating the Phase III data recovery.

Human Remains and Cemeteries

If human remains or cemeteries are identified during field surveys, survey of the area will immediately stop, the appropriate authorities and contacts will be informed (e.g., law enforcement/county coroner, VDHR, landowner, client), the site's condition will be photo documented, and the site will be protected and monitored until an appropriate plan of action is developed.

Evaluation of human burials requires special consideration during archaeological recovery and evaluation for inclusion on the NRHP. Archaeological investigation and removal of human remains and/or grave goods requires a permit from the VDHR, in accordance with VAC § 10.1-2305. Additionally, a specific research design must be developed and reviewed by the VDHR. On federal or tribal lands, the removal of human remains or grave goods must proceed in accordance with the Native American Graves Protection and Repatriation Act. A Plan of Action must be developed and include:

- Steps to contact tribal officials at the time of excavation or inadvertent discovery of cultural items;
- Information on the kinds of objects that are considered cultural items;
- Information used to determine custody;
- The planned treatment, care and handling of the cultural items, including traditional treatments;

- The recording and analysis planned for the cultural items and the nature of reports to be prepared; and
- The planned disposition of the cultural items.

The Plan of Action should be coordinated with a VDHR research design, which would also be required.

The evaluation of cemeteries and burial places for listing on the NRHP will be performed in accordance with the National Park Service's National Register Bulletin 41, *Guidelines for Evaluating and Registering Cemeteries and Burial Places* (Potter and Boland 1992).

DD.2.2.5 NRHP Eligibility Determinations

In the event that a qualified Consulting Party objects to an NRHP determination of eligibility or a recommendation for eligibility, BOEM, as lead federal agency, shall consult with the objecting party to resolve the dispute. If BOEM determines, within 30 days, that such objections cannot be resolved, BOEM will:

1. Forward all documentation relevant to the dispute to the ACHP in accordance with 36 CFR 800.2(b)(2) and Appendix A(3) to Part 800. Upon receipt of adequate documentation, the ACHP shall review and advise BOEM on the resolution of the dispute within 30 days. Any comment provided by the ACHP, and all comments from qualified Consulting Parties, including interested Native American tribes, will be considered by BOEM in reaching a final decision regarding the dispute; and
2. If the ACHP does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, BOEM may render a decision regarding the dispute. In reaching its decision, BOEM will consider all comments regarding the dispute from all consulting parties.

DD.2.2.6 Unanticipated Discoveries Plans

Dominion Energy will develop Unanticipated Discoveries Plans (UDPs) for both marine and terrestrial cultural resources that will provide a protocol for responding to the unplanned discovery of cultural resources, including archaeological deposits, human remains, and other evidence of past human activities, during the construction and operation of the Project. These UDPs will be provided to BOEM and VDHR for review and comment prior to their implementation. A draft UDP for terrestrial cultural resources has been developed and is included as an attachment to Appendix G, Terrestrial Archaeological Resources Assessment, of the October COP filing; the draft will be revised following agency reviews and contacts identified in the UDP will be verified before its implementation.

DD.3 SCHEDULE

Dominion Energy has developed the following schedule of anticipated permitting timeframes and associated tasks required to complete the Section 106 Phased Identification Plan (Table DD-4).

Table DD-4. Section 106 Phased Identification Schedule

Milestone	Date	Notes
Notice of Intent (NOI) Issuance	July 2021	Complete
Construction and Operation Plan (COP) Supplement Submission	October 2021 December 2021 May 2022	The May 2022 COP Supplement will include appendices for all cultural survey reports: offshore Historic Properties Effects Analysis (HPEA), onshore HPEA, Marine Archaeological Resource Assessment (MARA), and Terrestrial Archaeological Resource Assessment (TARA). The TARA will present work completed to date. The remaining reports will be complete, with the exception of any additional onshore areas requiring survey following the State Corporation Commission (SCC) route approval.
Virginia State Corporation Commission (SCC) Filing	November 2021	Dominion Energy will submit an application to obtain a Certificate of Public Convenience and Necessity (CPCN) for Onshore Project Components within state jurisdiction.
Preferred Route Cultural Resource Surveys Continue	February 2022	Where access had not previously been granted, Dominion Energy began more formally requesting access to survey properties for the Preferred Route beginning in February 2022 through a Route Inspection Authorization (RIA) request.
Request for Permission to Inspect Preferred Route (Cultural Resource Surveys Continue)	April 2022	Where property access had not yet been granted, Dominion Energy has proceeded with a formal permission to inspect process pursuant to Virginia Administrative Code (VAC) § 25.1. A "Request for Permission to Inspect" letter was sent which provides the property owner with the ability to grant permission on their own accord.
Notice of Intent to Enter Property (Remainder of Properties to be Surveyed)	May 2022	If the property owner fails to sign the "Request for Permission to Inspect" letter and agreement or further contact cannot be made, Dominion Energy will send a second letter entitled "Notice of Intent to Enter Property" 15 days after the "Request for Permission to Inspect" letter. The purpose of this letter is to provide the property owner notice that Dominion Energy will exercise its right to enter the property. This will be issued 15 days prior to entry. Any remaining properties will then be surveyed.
Draft Environmental Impact Statement (DEIS) Published ^a	August 2022	
SCC Route Approval	August 2022	The Virginia SCC is anticipated to issue a CPCN in August 2022. This will dictate the final Onshore Export Cable and Interconnection Cable Route alignment. Following issuance of the CPCN, all remaining properties will be surveyed.
Completion of Cultural Resources Surveys	December 2022	
Submission of Cultural Resources Reports	January 2023	

Milestone	Date	Notes
Final Environmental Impact Statement (FEIS) Published ^a	May 2023	
Section 106 Process Complete	June 2023	
Record of Decision (ROD) Issued ^a	June 2023	
USACE Permit Issuance ^a	August 2023	
Onshore Construction Begins	Q3 2023	Construction of the Onshore Export Cable, Interconnection Cable, Switching Station, and upgrades to the existing Fentress Substation will begin upon issuance of all required permits and approvals.

^a [Coastal Virginia Offshore Wind Commercial Project | Permitting Dashboard \(performance.gov\)](#), as of April 25, 2022

DD.4 REFERENCES

- BOEM (Bureau of Ocean Energy Management). 2018. *Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan*. Accessed October 2021. Available online at: <https://www.boem.gov/sites/default/files/renewable-energy-program/Draft-Design-Envelope-Guidance.pdf>.
- BOEM. 2020. *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. Bureau of Ocean Energy Management, Office of Renewable Energy Programs. May 27, 2020. Available online at: <https://www.boem.gov/sites/default/files/documents/about-boem/Archaeology%20and%20Historic%20Property%20Guidelines.pdf>
- Potter, Elisabeth Walton; and Beth M. Boland. 1992. *Guidelines for Evaluating and Registering Cemeteries and Burial Places*. National Register Bulletin 41. U.S. Department of the Interior National Park Service, Interagency Resources Division, National Register of Historic Places. Available online at: <https://www.nps.gov/subjects/nationalregister/upload/NRB41-Complete.pdf>
- Rowe, J., A. Payne, A. Williams, D. O’Sullivan, and A. Morandi. 2017. *Phased Approaches to Offshore Wind Developments and Use of Project Design Envelope*. Final Technical Report to the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2017-057. 161 pp. Available online at: <https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/Phased-Approaches-to-Offshore-Wind-Developments-and-Use-of-Project-Design-Envelope.pdf>. Accessed January 14, 2020.
- VDHR (Virginia Department of Historic Resources). 2011. *Guidelines for Conducting Historic Resources Survey in Virginia*. Accessed October 2021. Available online at: http://www.dhr.virginia.gov/pdf_files/Survey%20Manual-RevOct.2011Final.pdf
- VDHR. 2018. *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia*. Available online at: https://www.dhr.virginia.gov/wp-content/uploads/2018/08/DHR_Guidelines_for_Transmission_Line_Assessment.pdf. Accessed October 2021.

FIGURES

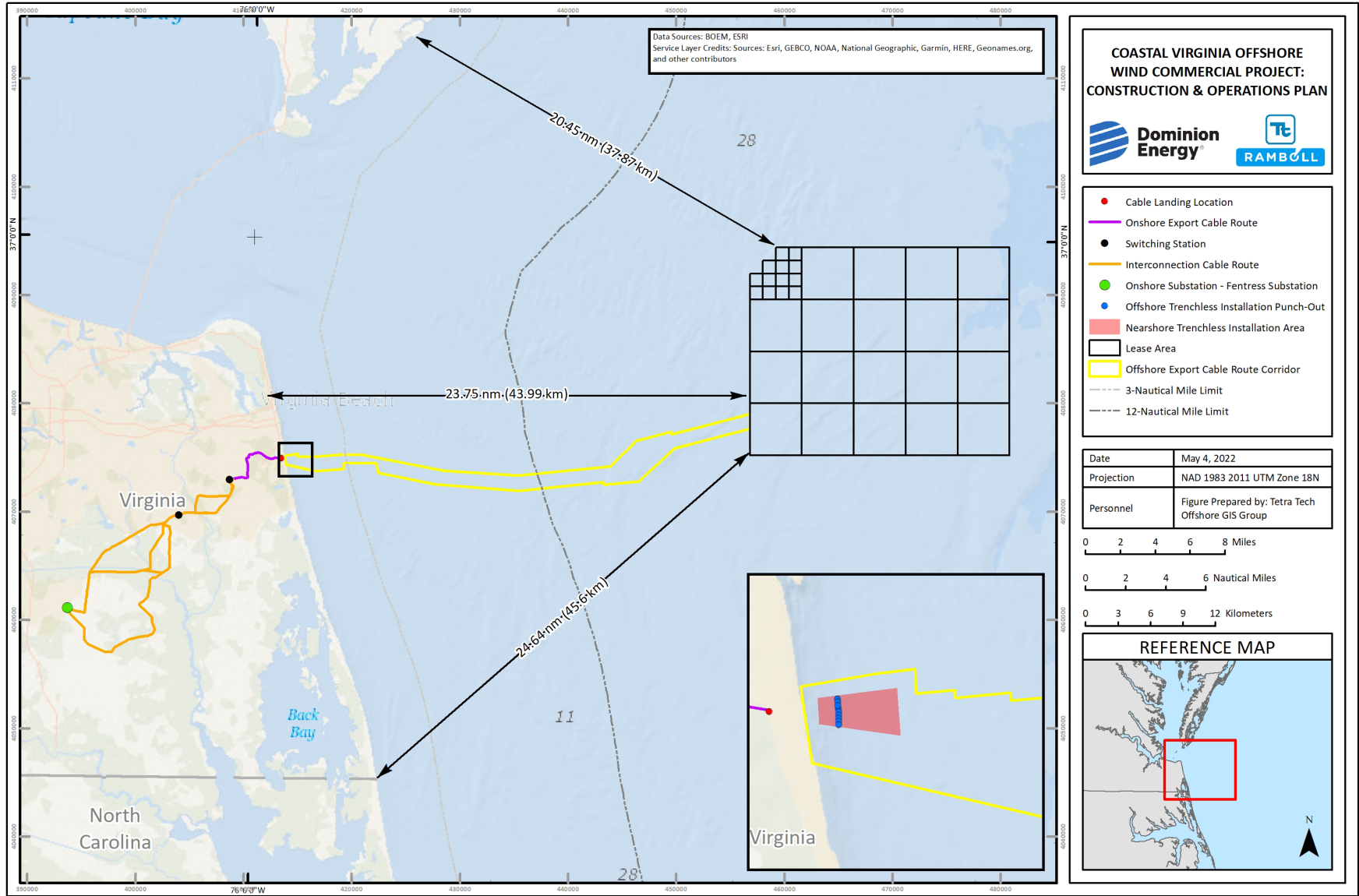


Figure DD-1. CVOW Commercial Project Overview

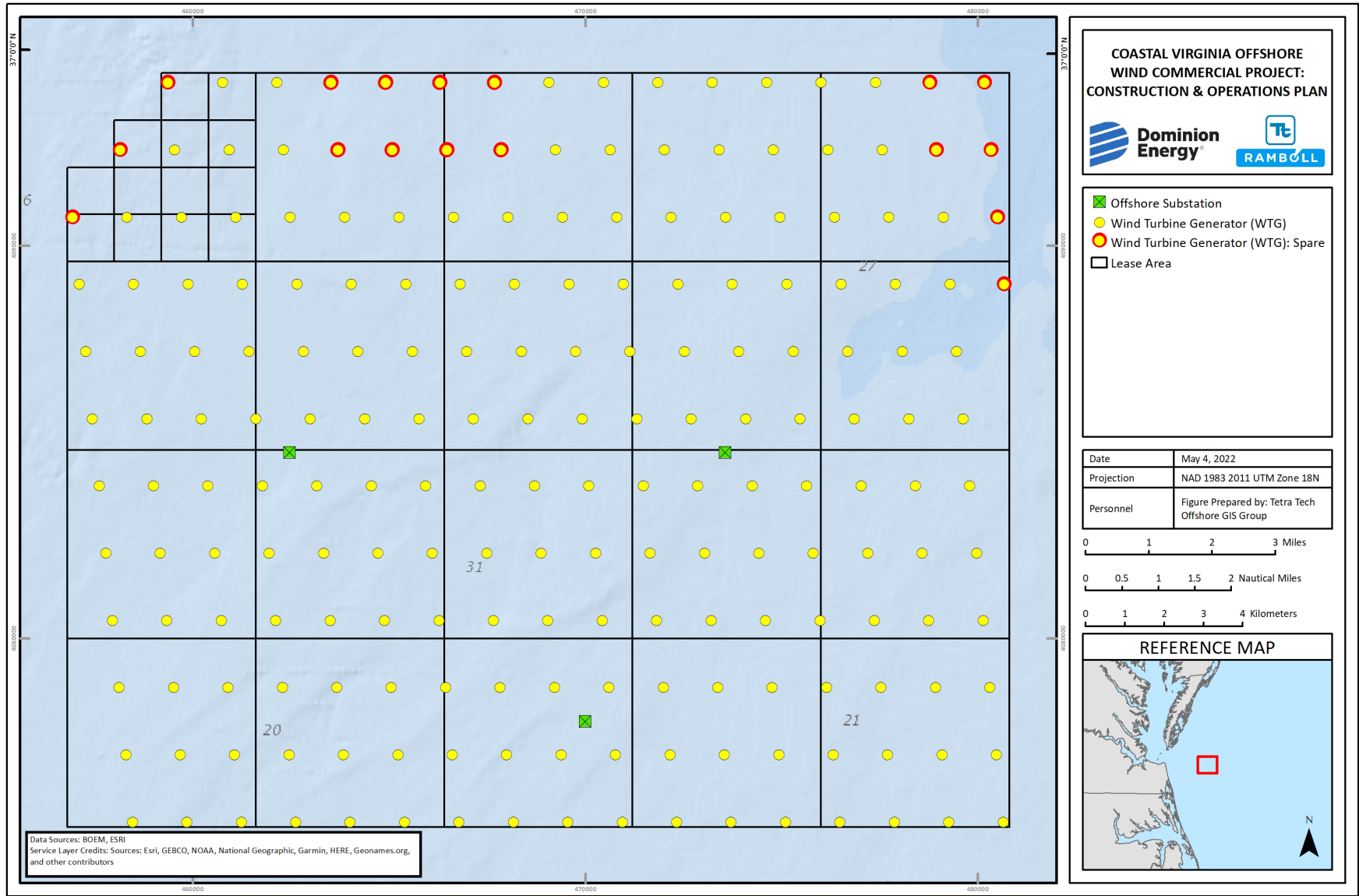


Figure DD-2. CVOW Commercial WTG and Offshore Substation Maximum Layout

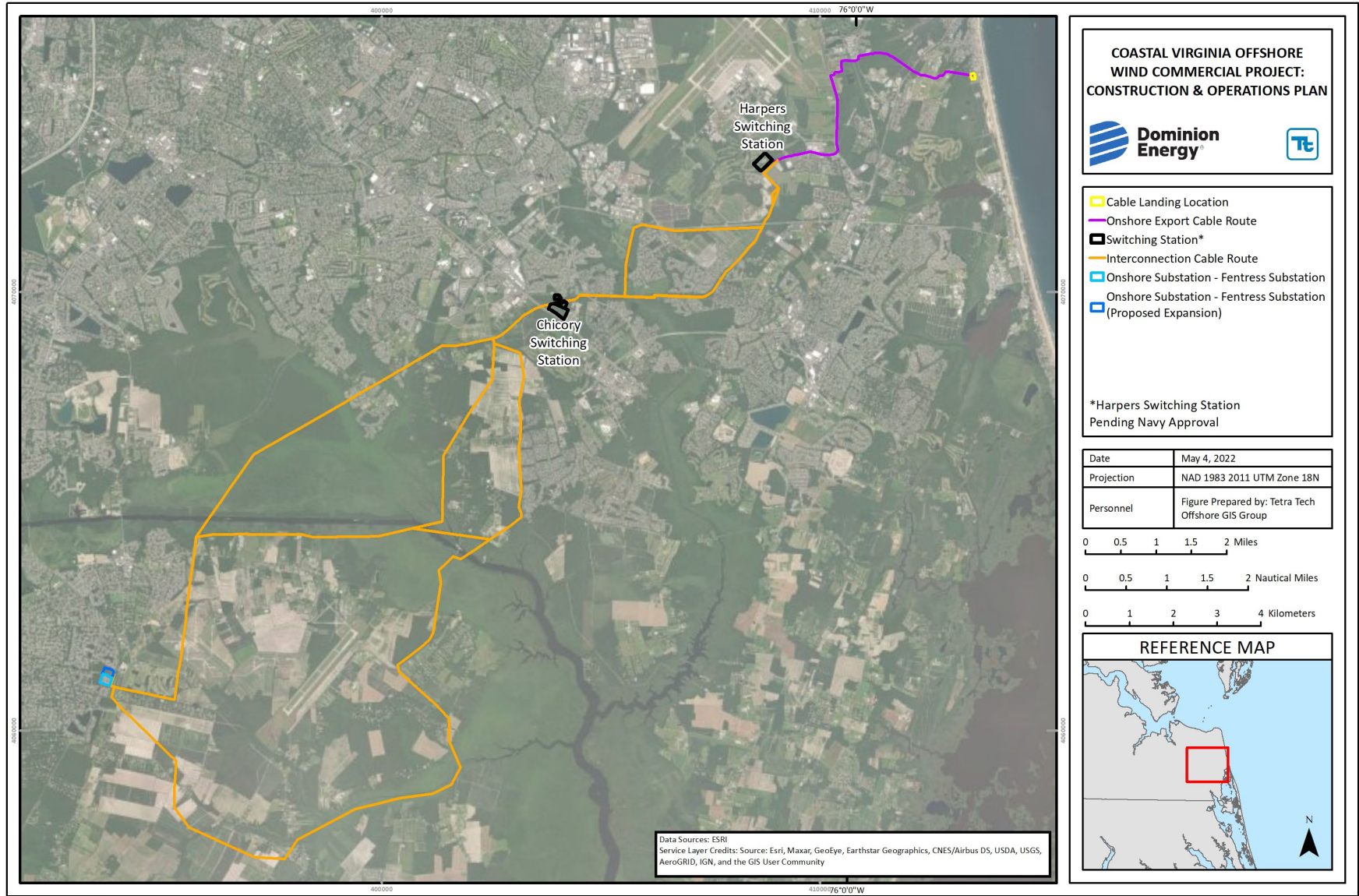


Figure DD-3. Onshore Project Area Overview (including alternative routing options)