



# Response to Request for Proposals for Long-Term Contracts for Offshore Wind Energy Projects

83C-RD4-RFP

Prepared for  
The Distribution Companies and Massachusetts  
Department of Energy Resources

March 27, 2024



**VINEYARD  
OFFSHORE**

**PUBLIC**

# RESPONSE TO THE REQUEST FOR PROPOSALS FOR LONG-TERM CONTRACTS FOR OFFSHORE WIND ENERGY PROJECTS

Prepared for

The Distribution Companies (Fitchburg Gas & Electric Light Company d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, each d/b/a/ National Grid, NSTAR Electric Company d/b/a Eversource Energy) and Massachusetts Department of Energy Resources

March 27, 2024

Submitted by



Vineyard Offshore LLC  
200 Clarendon Street, 18th Floor  
Boston, MA 02116  
617-362-3872

---

Certain information in this document or electronic file is non-public, proprietary, commercial, and/or financial information ("Confidential Information"), which has been redacted from the version of this proposal marked "PUBLIC." Vineyard Offshore intends for all such Confidential Information to remain confidential and for the version of this proposal marked "CONFIDENTIAL" to be treated as a non-public record that is exempt from disclosure under applicable laws and as set forth in the Request for Proposals for Long-Term Contracts for Offshore Wind Energy Projects issued on August 30, 2023.

**PUBLIC**

## Confidentiality Statement

---

Certain information in this proposal is non-public, proprietary, commercial, and/or financial information (“Confidential Information”), which has been redacted from the version of this proposal marked “PUBLIC.” Such Confidential Information is highlighted in gray and/or is clearly marked as confidential in the version of this proposal marked “CONFIDENTIAL.” Vineyard Offshore intends for all such Confidential Information to remain confidential. Further, the version of this proposal marked “CONFIDENTIAL” should be treated as a non-public record that is exempt from disclosure under applicable laws and as set forth in the Request for Proposals for Long-Term Contracts for Offshore Wind Energy Projects issued on August 30, 2023.

## TABLE OF CONTENTS

---

<b>SECTION 1</b>	<b>THE CERTIFICATION, PROJECT, AND PRICING DATA FORM</b>	<b>1-1</b>
1.1	Certification, Project, and Pricing Data Form	1-1
<b>SECTION 2</b>	<b>EXECUTIVE SUMMARY</b>	<b>2-1</b>
<b>SECTION 3</b>	<b>OPERATIONAL PARAMETERS</b>	<b>3-1</b>
3.1	Maintenance Outage Requirements	3-1
3.2	Operating Constraints	3-4
3.3	Reliability, System Safety, and Energy Security	3-5
3.4	Moderation of System Peak Load	3-7
<b>SECTION 4</b>	<b>ENERGY RESOURCE AND DELIVERY PLAN</b>	<b>4-1</b>
4.1	Energy Resource Plan	4-1
4.2	Offshore Wind Energy Generation Delivery Plan	4-13
4.3	REC/Environmental Attribute Delivery Plan	4-17
4.4	Additional Long-term Contracts with Third Parties	4-18
4.5	Energy Storage System Operations	4-18
<b>SECTION 5</b>	<b>FINANCIAL/LEGAL</b>	<b>5-1</b>
5.1	Long-term Contracts for Financing	5-1
5.2	Business Entity Structure	5-1
5.3	Financing Plan	5-5
5.4	Financing Experience	5-7
5.5	Financial Resources and Strength	5-7
5.6	Financial Track Record	5-8
5.7	Financial Assumptions	5-9
5.8	Financial Statements, Annual Reports, and Ratings	5-11
5.9	Officers, Board Members, and Trustees	5-11
5.10	Required Security	5-12
5.11	Credit Issues and Downgrade Events	5-12
5.12	Federal Tax Credits	5-12
5.13	Federal or State Tax Credit, Grant, or Subsidy Availability	5-14
5.14	Federal Domestic Content and Labor Requirements	5-14
5.15	Litigation or Disputes	5-15
5.16	Operating Life	5-20
5.17	Project Financing Status	5-20
5.18	Existing Agreements	5-21
5.19	Affiliated Entities and Joint Ventures	5-21
5.20	Bankruptcy and Reorganization	5-21
5.21	Conflicts of Interest	5-22
5.22	Offshore Wind Project Litigation, Disputes, or Complaints	5-22
5.23	Failure to Achieve Commercial Operation Dates	5-22
5.24	Distribution Company Litigation, Disputes, or Complaints	5-23
5.25	Energy Purchase/Sale Litigation, Disputes, or Complaints	5-23
5.26	Governmental Agency Investigations	5-23

## TABLE OF CONTENTS (CONTINUED)

---

5.27	Regulatory and Other Approvals	5-23
5.28	Federal Energy Regulatory Commission Compliance	5-24
5.29	Direct and Indirect Affiliations	5-25
<b>SECTION 6</b>	<b>SITING, INTERCONNECTION, AND DELIVERABILITY</b>	<b>6-1</b>
6.1	Site Plan	6-1
6.2	Real Property Rights	6-10
6.3	Zoning and Permitting	6-14
6.4	Site Description	6-16
6.5	Interconnection Facility Site Control	6-16
6.6	Interconnection Request	6-16
6.7	Joint State Innovation Partnership for Offshore Wind	6-18
6.8	Electrical System Performance	6-20
6.9	Deliverability Constraint Analysis	6-22
6.10	Additional Interconnection Requests	6-23
6.11	System and Network Upgrades	6-24
6.12	Alternative Interconnection Scenario	6-27
6.13	Electrical Models	6-27
6.14	Electrical One-line Diagram	6-28
6.15	Interconnection Facilities Description	6-28
6.16	Incremental Data Requirements	6-29
6.17	Constraints or Curtailments	6-30
<b>SECTION 7</b>	<b>ENVIRONMENTAL ASSESSMENT, PERMIT ACQUISITION PLAN AND ENVIRONMENTAL ATTRIBUTES CERTIFICATION</b>	<b>7-1</b>
7.1	Permits, Licenses, and Environmental Impact Statements	7-1
7.2	Permitting Timeline	7-10
7.3	Engagement and Environmental Track Record	7-15
7.4	Fisheries Mitigation Plan	7-16
7.5	Environmental Mitigation Plan	7-17
7.6	Environmental Justice Impact Assessment	7-17
7.7	Tracking and Reporting	7-17
7.8	Public Support and Community Engagement Plan	7-18
7.9	New Class I Eligible Resource	7-20
7.10	NEPOOL GIS Account	7-20
7.11	Claims or Litigation	7-21
<b>SECTION 8</b>	<b>ENGINEERING AND TECHNOLOGY; COMMERCIAL ACCESS TO EQUIPMENT</b>	<b>8-1</b>
8.1	Preliminary Engineering Plan	8-1
8.2	Key Equipment Suppliers	8-25
8.3	Equipment Track Record	8-25
8.4	Technology Maturity	8-26
8.5	Equipment List	8-26

## TABLE OF CONTENTS (CONTINUED)

---

8.6	Timeline for Securing Equipment	8-27
<b>SECTION 9</b>	<b>PROJECT SCHEDULE</b>	<b>9-1</b>
9.1	Project Schedule	9-1
9.2	Project Schedule Credibility	9-2
9.3	Maritime Vessels and Logistics	9-9
9.4	Status of Critical Path Items	9-12
<b>SECTION 10</b>	<b>CONSTRUCTION AND LOGISTICS</b>	<b>10-1</b>
10.1	Major Tasks and Equipment for Project Deployment	10-1
10.2	Site Control for Marine Terminal Facilities	10-5
10.3	Staging and Deployment	10-7
10.4	Responsible Parties and Roles	10-34
<b>SECTION 11</b>	<b>OPERATIONS AND MAINTENANCE</b>	<b>11-1</b>
11.1	Operations and Maintenance Plan	11-1
11.2	Site Control	11-5
11.3	Operations and Maintenance Funding Mechanism	11-6
11.4	Warranties and Guarantees	11-6
11.5	Operations and Maintenance Agreements	11-8
11.6	Operations and Maintenance Experience	11-9
<b>SECTION 12</b>	<b>PROJECT MANAGEMENT/EXPERIENCE</b>	<b>12-1</b>
12.1	Organizational Chart	12-1
12.2	Project Experience	12-2
12.3	Key Personnel	12-9
12.4	Projects and References	12-13
12.5	Project Team	12-14
12.6	Offshore Wind Expertise and Corporate Management Continuity	12-15
12.7	Proposer's Track Record	12-16
12.8	Proposer's Regulatory and Judicial Experience	12-17
12.9	Project Failures or Defaults	12-18
<b>SECTION 13</b>	<b>DEMONSTRATED, VERIFIABLE COMMITMENT TO CREATE AND FOSTER EMPLOYMENT AND ECONOMIC DEVELOPMENT AND OTHER DIRECT BENEFITS</b>	<b>13-1</b>
13.1	Jobs and Employment Opportunities	13-1
13.2	Federal and Domestic Content Labor Requirements	13-10
13.3	Economic Activity and Development	13-10
13.4	Economic Development Contractual Commitments	13-23
13.5	Section 2.2.4.1 Factors	13-26
13.6	Low-income Ratepayer Benefits	13-26
13.7	Diversity, Equity, and Inclusion Plan	13-27
13.8	Tracking and Reporting	13-28
13.9	Economic Development Summary Sheet	13-29

**TABLE OF CONTENTS (CONTINUED)**

<b>SECTION 14</b>	<b>EXCEPTIONS TO FORM PPAS</b>	<b>14-1</b>
14.1	Form PPA Redlines	14-1
14.2	Critical Milestones	14-7
<b>SECTION 15</b>	<b>EXCEPTIONS TO FORM COMMITMENT AGREEMENT</b>	<b>15-1</b>
15.1	Exceptions to Form Commitment Agreement	15-1

**List of Figures**

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Figure 6.1-1	Eligible Facility Site	6-2
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Figure 12.2-1	CIP's Senior Partners	12-3

**List of Figures (Continued)**

[REDACTED]	[REDACTED]
Figure 13.3-1 Salem Offshore Wind Terminal	13-13
[REDACTED]	[REDACTED]

**List of Tables**

Table 3.1-1	Maintenance Outage Requirements	3-1
Table 3.4-1	Estimated Average Project Output for Peak Periods	3-8
Table 4.1-1	Primary Sources Used to Assess Wind Conditions	4-4
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Table 5.2-1	CIP Funds	5-4
Table 5.9-1	Vineyard Offshore Board of Directors and Officers	5-11
Table 6.2-1	Status of Real Property Rights Acquisition	6-12
Table 6.6-1	Summary of Interconnection Request Status	6-17
Table 6.8-1	Status of Interconnection Studies	6-21
Table 6.11-1	Summary of Interconnection Upgrade Cost Estimates	6-24
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Table 7.1-1	Anticipated Federal Permits and Approvals	7-3
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Table 7.2-1	Permitting Timeline Overview	7-11
[REDACTED]	[REDACTED]	[REDACTED]
Table 8.1-2	Preliminary WTG Monopile Design	8-8
[REDACTED]	[REDACTED]	[REDACTED]
Table 8.1-4	Preliminary ESP Design	8-15
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Table 9.3-1	Maritime Vessels and Logistics	9-10



## List of Tables (Continued)

---

Table 10.1-1	Transportation and Installation Vessels and Technologies	10-2
Table 10.1-2	Major Tasks and Specialized Equipment for Deployment	10-3
Table 10.3-1	Scour Protection Transport and Installation	10-9
Table 10.3-2	Foundation Transport	10-10
Table 10.3-3	Foundation Installation	10-11
Table 10.3-4	ESP Topside Installation	10-14
Table 10.3-5	ESP Offshore Commissioning	10-15
Table 10.3-6	WTG Transport to the Staging Port	10-20
Table 10.3-7	WTG Staging Port Logistics and Pre-assembly	10-21
Table 10.3-8	WTG Transport to and Installation in the Lease Area	10-22
Table 10.3-9	Expected List of Vessels and Roles	10-26
Table 10.3-10	Approach to Compliance with US Coastwise Laws	10-33
Table 10.4-1	Parties Potentially Involved in Project Deployment	10-35
Table 11.1-1	Vineyard Wind 2 O&M Staffing Levels	11-3
Table 11.4-2	BoP Warranty Coverages	11-8
Table 11.5-1	Key O&M Agreements to be Finalized Before Commercial Operation	11-8
Table 12.2-1	Project Partners and Consultants	12-6
Table 13.1-1	Vineyard Wind 2 Job Creation Estimates (FTE Job-years)	13-2
Table 13.1-2	Development Job Examples	13-4
Table 13.1-3	Construction Job Examples	13-5
Table 13.1-4	Operations Jobs Examples	13-6
Table 13.3-1	Vineyard Wind 2 Total Economic Benefits (Nominal 2023\$)	13-11
Table 13.3-2	Vineyard Wind 2 Directly Funded Initiatives	13-15
Table 13.4-1	Vineyard Wind 2 Economic Development Contractual Commitments	13-23
Table 13.5-1	Vineyard Wind 2's Electricity Market Impacts and Other Benefits	13-26

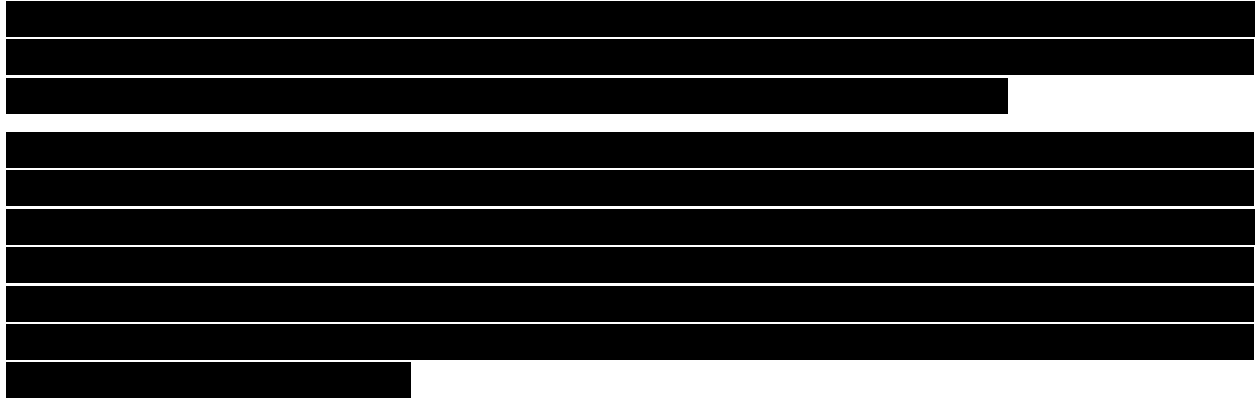
## SECTION 1

### THE CERTIFICATION, PROJECT, AND PRICING DATA FORM

---

#### 1.1 CERTIFICATION, PROJECT, AND PRICING DATA FORM

The Certification, Project and Pricing Data ("CPPD") document is a Microsoft Excel workbook that is provided on the website at [www.MACleanEnergy.com](http://www.MACleanEnergy.com).



## SECTION 2 EXECUTIVE SUMMARY

### 2.1 INTRODUCTION

Vineyard Offshore is proud to introduce Vineyard Wind 2 (the “Project”), our proposal in response to Massachusetts’ fourth and largest Section 83C (83C-IV) solicitation issued by the distribution companies in coordination with the Department of Energy Resources on August 30, 2023. We applaud the Commonwealth’s continued leadership in and commitment to standing up the offshore wind industry in the United States (US). As the developer of Vineyard Wind 1, Massachusetts’ first commercial-scale offshore wind project, we know how to deliver offshore wind projects that support New England’s vision for a clean, affordable, and reliable 21st century grid. Vineyard Wind 2 represents the next chapter in our efforts to partner with Massachusetts to achieve its nation-leading offshore wind and net zero emission goals.

Located in Lease Area OCS-A 0522 (the “Lease Area”), approximately 29 miles south of



Nantucket, our 1,200 megawatt (MW) Project will deliver more than 5,000 gigawatt-hours (GWh) of clean, reliable energy to the regional electrical grid annually—enough to power more than 650,000 Massachusetts homes—starting in 2031. The Project will also lower regional greenhouse gas emissions, improve air quality, and avoid pollution-related health costs and environmental impacts. On average, Vineyard Wind 2 will avoid 2.1

million tons of carbon dioxide (CO<sub>2</sub>) emissions from the ISO New England (ISO-NE) electrical grid each year—the equivalent of taking approximately 414,000 cars off the road. The societal value of these emission reductions is almost \$1.5 billion over 20 years.

Vineyard Wind 2 has been conceived with a focus on deliverability, achieved by mitigating supply chain risks, maximizing potential federal tax credits, utilizing a robust delivery point, and leveraging New England’s port infrastructure. With construction as well as operations and maintenance (O&M) activities based in Massachusetts, secondary steel fabrication in Rhode Island, and a delivery point in Connecticut, Vineyard Wind 2 offers the region the most economical project configuration possible while advancing the Commonwealth’s ambition to be a global leader in offshore wind.

**Vineyard Wind 2 offers the most economical project configuration possible while advancing the Commonwealth’s ambition to be a global leader in offshore wind.**

## Bolstering the Commonwealth’s Offshore Wind Economy

Vineyard Wind 2 offers an enormous opportunity to expand, strengthen, and diversify the offshore wind economy in Massachusetts. The Project will generate more than \$1.5 billion in direct economic benefits while creating an estimated 3,166 direct full-time equivalent (FTE) job-years<sup>1</sup> for the Commonwealth throughout the Project’s development, construction, and 30-year operational life. The Project is also projected to generate \$4.8 billion for Massachusetts in electricity market impacts and other benefits over a 20-year power purchase agreement (PPA) period, including nearly \$600 million from lower wholesale electricity market prices and a reduction in winter electricity price spikes.

Vineyard Wind 2’s economic benefits are secured by a series of commitments that will deliver long-term and sustainable impacts to the Commonwealth. These include the following:

- **Anchoring offshore construction in Salem:** [REDACTED]
- **Establishing an O&M base in New Bedford:** Locating O&M activities at the New Bedford Foss Marine Terminal will strengthen New Bedford’s role as a regional hub for the offshore wind industry, delivering long-term employment opportunities and diversifying the South Coast’s blue economy.
- **Using union labor:** Continuing our industry-leading efforts to create and maintain union labor jobs in offshore wind, we will negotiate one or more project labor agreements (PLAs) and/or regional labor agreements with the Massachusetts Building Trades Council and other appropriate labor union entities. [REDACTED]
- [REDACTED]
- **Investing in Massachusetts:** We will invest up to \$37.5 million in initiatives aimed at promoting a diverse and inclusive offshore wind sector, positioning the Commonwealth as a global climate innovation lab, addressing energy burdens in low- and moderate-income households, advancing robust regional research efforts, and supporting the blue economy.

<sup>1</sup> An FTE job-year represents the FTE jobs multiplied by the number of employment years. One FTE job-year is the equivalent of one person working full-time for one year (2,080 hours). Thus, two half-time employees would equal one FTE.

[REDACTED]

### **Putting Communities First**

As with Vineyard Wind 1, we will develop, construct, and operate the Project in partnership with local communities, building on the trust and relationships already established with stakeholders in Massachusetts. Unique among offshore wind developers, our community-focused approach ensures that our projects and project benefits are developed in collaboration with federal and state regulators, Tribal Nations, host communities, and other stakeholders.

With this proposal, we submit over 200 letters of support from local communities and a host of stakeholders, including labor unions, fishermen, local businesses, workforce development agencies, and environmental organizations. [REDACTED]

[REDACTED]

[REDACTED]

We have also secured or are in the process of securing key agreements with communities that further ensure the Project’s success. Most significantly, we executed a historic tribal benefit agreement for offshore wind with the Mashpee Wampanoag Tribe. The agreement establishes a Mashpee Wampanoag Tribe Offshore Wind Community Fund, which will support education, environmental and natural resources, cultural resources, and historic preservation efforts by the Tribe. Initiatives supported by the fund could include scholarships for tribal members, wastewater projects, capacity funds for the Tribal Historic Preservation Officer to engage with the offshore wind industry permitting review process, language reclamation, and workforce training programs and facilities. [REDACTED]

We have executed a Good Neighbor Agreement with the Town of Nantucket and several island organizations to mitigate potential visual impacts to the island from the Project. [REDACTED]

## Delivering On Our Promises

Vineyard Wind 2 will be delivered by a team you can trust. Vineyard Offshore is one of just a handful of developers with a documented history of putting steel in the water—and we have never terminated a PPA. Our Massachusetts-based team is made up of industry pioneers with decades of experience in the US and global offshore wind markets, and we are backed by Copenhagen Infrastructure Partners (CIP), the world’s largest greenfield renewables investment firm. Through our work on Vineyard Wind 1, we have demonstrated our ability to turn a PPA award into an offshore wind project; earn local support; and develop partnerships that realize tangible economic benefits for state and local economies. With a track record of promising only what we can deliver, and then delivering what we promise, Vineyard Offshore is a trusted partner for Massachusetts.

**Vineyard Offshore is  
a team you can trust.**

## 2.2 PROPOSAL OVERVIEW

[REDACTED]

[REDACTED]

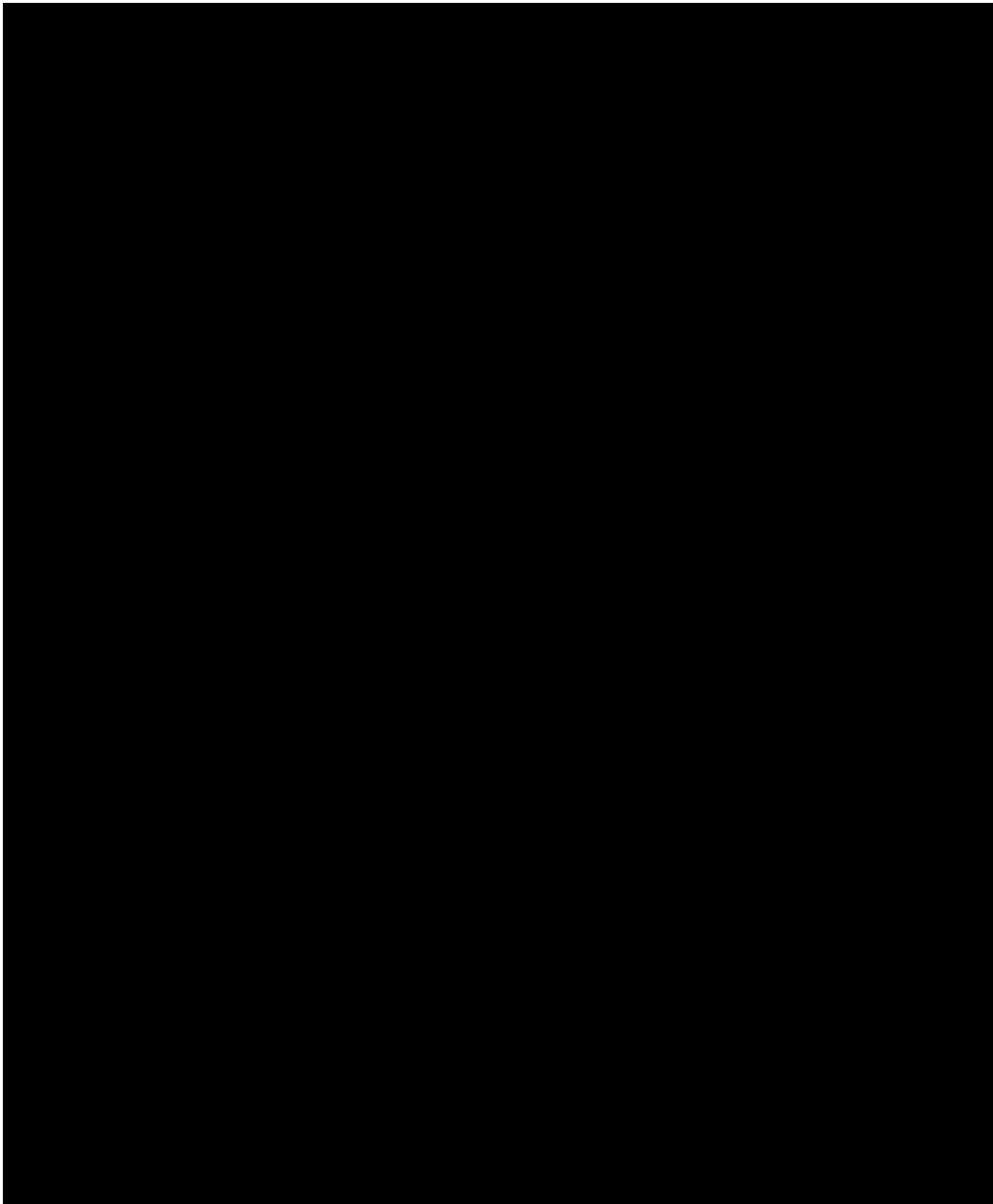
[REDACTED]

[REDACTED]

[REDACTED] Table 2.2-1 summarizes the Project’s pricing proposals, key elements, and economic and environmental benefits.

**Table 2.2-1 Vineyard Wind 2 at a Glance**

---



The Project's electricity market impacts and other benefits for Massachusetts include direct contract benefits of over \$4 billion for energy market and renewable energy certificate (REC) market impacts over a 20-year PPA period. Other benefits include \$482 million in lower wholesale market electricity prices and \$102 million from a reduction in winter electricity price spikes over the same timeframe. An additional benefit of \$212 million results from reduced renewable policy compliance costs in Massachusetts, due to lower prices in the REC market.

### 2.3 PROJECT OVERVIEW

Vineyard Wind 2 is a mature, viable, well-sited offshore wind project that Vineyard Offshore has been developing since acquiring the Lease Area in 2019. [REDACTED]

[REDACTED]

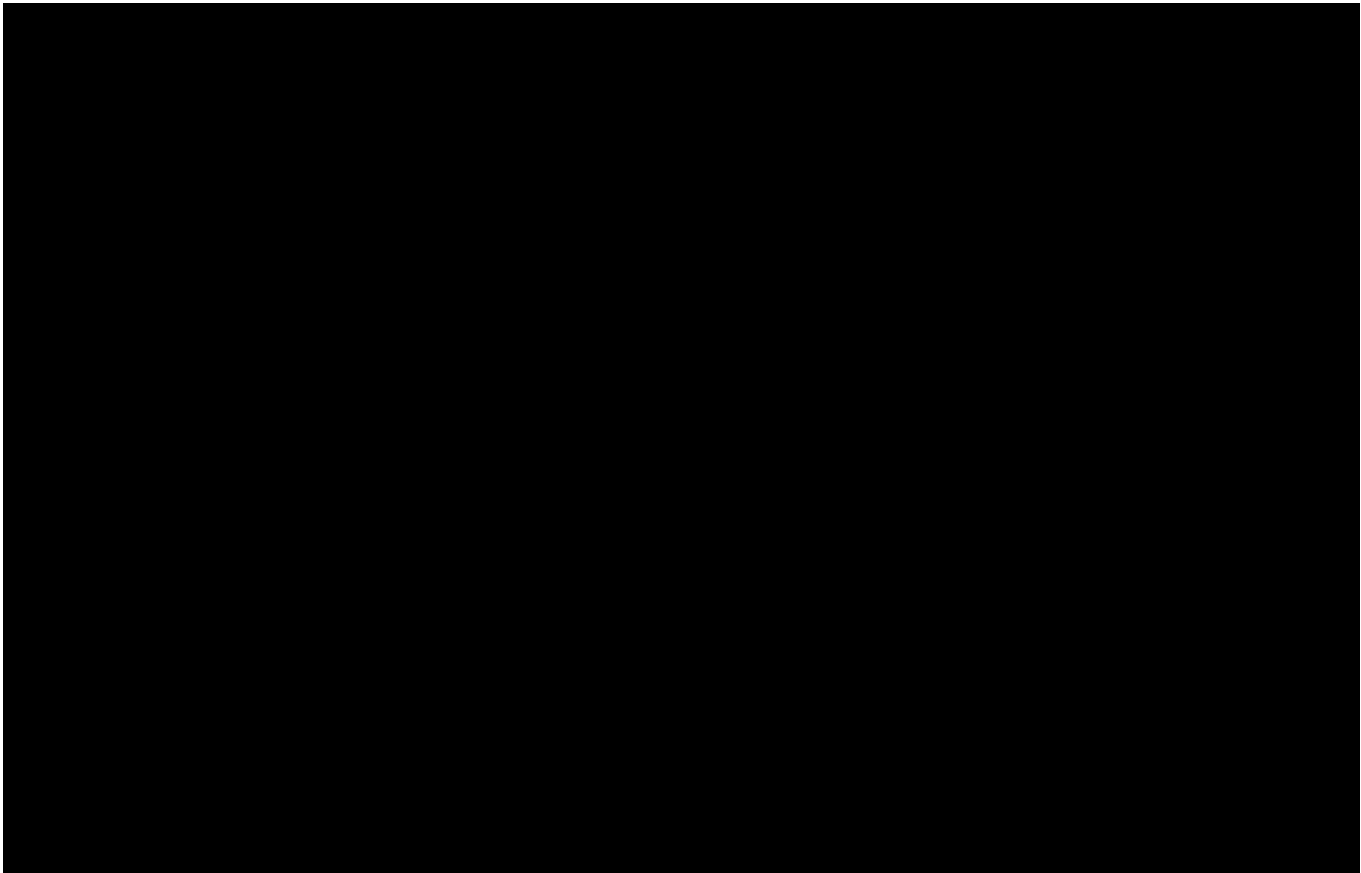
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] A [REDACTED] onshore export cable route [REDACTED]

[REDACTED] will interconnect the Project to the ISO-NE electrical grid at Eversource Energy's Montville 345 kilovolt Substation (the "Montville Substation"). The locations of Vineyard Wind 2 and the Project's primary marine terminal facilities are shown in Figure 2.3-1.



[REDACTED]



### 2.3.1 Cost and Schedule Certainty

Vineyard Offshore has taken steps in advance of PPA award to improve cost and schedule certainty for the Project. [REDACTED]

[REDACTED] Based on these and other critical steps described below, we are confident that Vineyard Wind 2 will be developed, constructed, and operated as planned.

#### 2.3.1.1 Maturing a Robust Delivery Point

Vineyard Offshore holds [REDACTED] queue positions at the Montville Substation delivery point and [REDACTED]

[REDACTED] The Montville Substation has long been anticipated as a delivery point for offshore wind in ISO-NE studies, in part, due to the existing presence of higher voltage infrastructure, which offers financial and schedule benefits to the Project. Various studies have been undertaken by both ISO-NE and Vineyard Offshore to evaluate the Project's electrical system performance and impact on the reliability of the ISO-NE electrical grid. [REDACTED]

#### 2.3.1.2 Early and Effective Permitting

The Project's permitting plan is informed by numerous consultations with federal, state, and local agencies. Agency outreach began well before the submission of the Construction and Operations Plan (COP) for Lease Area OCS-A 0522 (Vineyard Northeast [REDACTED])

[REDACTED] These consultations, along with an extensive environmental survey campaign in the Lease Area and OECC, informed our efforts to site and design the Project to avoid environmental and fisheries impacts from the outset. As the Project moves through the permitting process, we will continue to identify and employ practicable, appropriate, and adaptive design and mitigation measures that afford the highest levels of environmental protection while maintaining Project viability.

Vineyard Offshore filed the Vineyard Northeast COP with the Bureau of Ocean Energy Management (BOEM) in July 2022. We submitted a FAST-41 Initiation Notice for Vineyard Northeast under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) to expedite and coordinate the federal permitting process. BOEM issued a Notice of Intent to prepare an Environmental Impact Statement for Vineyard Northeast in March 2024 and a

Record of Decision is expected approximately 24 months thereafter. [REDACTED]

## 2.4 ECONOMIC BENEFITS

Vineyard Wind 2 is projected to deliver more than \$1.5 billion in direct economic benefits and create an estimated 3,166 direct FTE job-years for the Commonwealth throughout its development, construction, and 30-year operational life (see Table 2.4-1). Most of the Project's economic benefits will accrue within economically distressed areas, communities with low-income workers, and environmental justice communities, including Salem and New Bedford. Through the strategies outlined in our DEI Plan, we will ensure broad access to these benefits and increased opportunities for diverse and local businesses to supply the Project.

**Table 2.4-1 Vineyard Wind 2 Direct Expenditures and Job Benefits (Nominal 2023\$)**

[REDACTED TABLE CONTENT]

Vineyard Wind 2 will also create positive impacts across the region. [REDACTED]

[REDACTED] In this way, the Project represents a significant opportunity to further strengthen the offshore wind economy in Massachusetts and the region as a whole.

### 2.4.1 Bolstering the Massachusetts Offshore Wind Economy

For Vineyard Wind 2, our focus is on strengthening and diversifying the offshore wind economy on the North Shore and South Coast and aligning our investments with the Commonwealth’s stated goals and priorities. Through these commitments, we will build on existing investments and the work we started with Vineyard Wind 1 to support the Commonwealth’s efforts to position itself as a global leader in offshore wind; recruit, train, and hire diverse candidates for the Project’s workforce; and ensure that local and diverse businesses have increased opportunities to supply the Project.

#### ***Anchoring Offshore Construction in Salem***

[REDACTED]

**Figure 2.4-1 Salem Offshore Wind Terminal**



[REDACTED]

[REDACTED] Our commitment to Salem represents a significant opportunity to boost the North Shore’s emerging offshore wind ecosystem.

## Establishing an O&M Base in New Bedford

**Figure 2.4-2 New Bedford Foss Marine Terminal**



(see the terminal rendering Figure 2.4-2). The O&M base at the New Bedford Foss Marine Terminal will serve as the central location for the Project's O&M activities and guarantee long-term employment opportunities in a Gateway City.

## Using Union Labor

Vineyard Wind 2 will be constructed using union labor trained and experienced in offshore wind . We will negotiate one or more PLAs and/or regional labor agreements with the Massachusetts Building Trades Council and other appropriate labor union entities

These agreements will build upon our industry-first PLA for Vineyard Wind 1, through which we promised to deliver 500 union labor jobs to Massachusetts. In implementing the PLA, our team collaborated with union labor leadership to ensure maximum labor union job creation and identified additional scopes of work that were appropriate for the local labor union workforce. Two years into the construction phase, Vineyard Wind 1 has exceeded that target by putting 937 labor union members to work.

[Redacted]

[Redacted]

[Redacted]

### ***Investing in Massachusetts***

Vineyard Wind 2’s economic benefits package includes up to \$37.5 million of directly funded initiatives aimed at promoting a diverse and inclusive offshore wind sector, positioning the Commonwealth as a global climate innovation lab, addressing energy burdens in low- and moderate-income households, advancing robust regional research efforts, and supporting the blue economy (see Table 2.4-2).

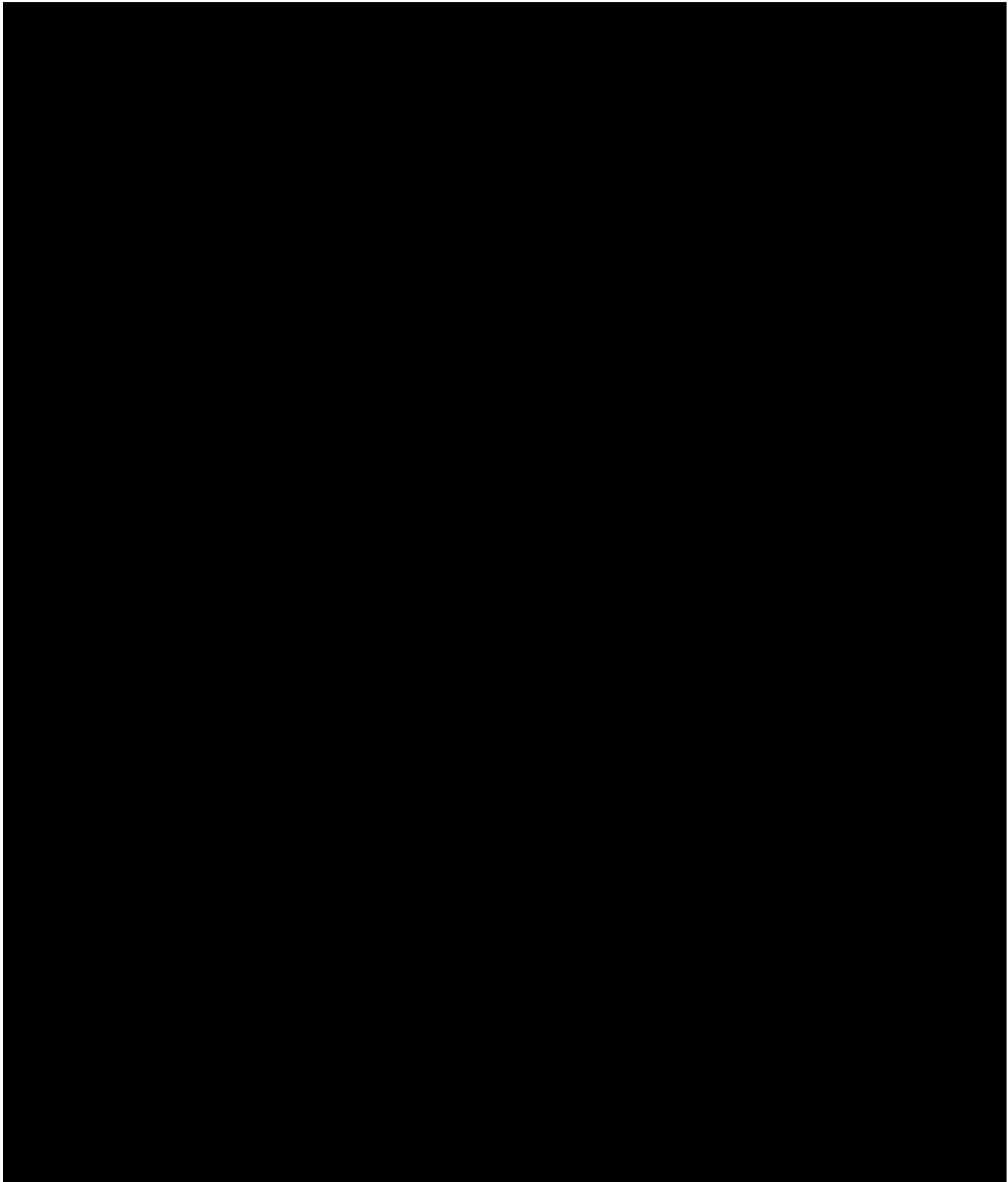
[Redacted]

**Table 2.4-2 Vineyard Wind 2 Directly Funded Initiatives**

[Redacted Table Content]
--------------------------

**Table 2.4-2 Vineyard Wind 2 Directly Funded Initiatives (Continued)**

---



## 2.5 A TEAM YOU CAN TRUST

Vineyard Offshore brings industry-leading experience to every phase of the offshore wind project development process, from conception and design to permitting, financing, and construction.

Our Massachusetts-based leadership team has decades of experience in the US and global offshore wind industry as well as energy infrastructure projects, finance, and public affairs in the Northeast and beyond (see Figure 2.5-1).

**Figure 2.5-1 Vineyard Offshore’s Leadership Team**



We are backed by CIP, the world’s largest greenfield renewables investment firm. CIP currently manages 12 funds and has raised approximately \$27 billion from more than 150 institutional investors from around the globe. CIP pioneered the buildout of offshore wind in the US with Vineyard Wind 1 and currently has approximately 50 GW of offshore wind projects in development, construction, or operation across four continents. With a long-term commitment to US offshore wind, CIP is also invested in our Excelsior Wind project in the New York Bight and the deployment of floating offshore wind in California with Lease Area OCS-P 0562.

Vineyard Offshore and CIP share a patient and disciplined approach to offshore wind project development that limits risk and ensures deliverability. CIP stood by Vineyard Wind 1 through two years of unanticipated delay and has never terminated a PPA. Thus, Vineyard Offshore brings unparalleled experience, a steadfast commitment, and reliable financial resources to Vineyard Wind 2.

## 2.6 DELIVERING FOR MASSACHUSETTS

Vineyard Wind 2 is a technically, financially, and commercially viable offshore wind project that meets or exceeds all 83C-IV solicitation requirements and maintains Massachusetts' leadership role in the nation's offshore wind industry. The Project offers competitive pricing, substantial job creation and economic development benefits, and meaningful DEI commitments while contributing to the Commonwealth's ambitious offshore wind and net zero emission goals.

The Project includes the following features, advantages, and benefits:

- **Sustained economic benefits:** Vineyard Wind 2 will deliver more than \$1.5 billion in direct economic benefits while creating an estimated 3,166 direct FTE job-years in Massachusetts. These economic and job benefits will be widely accessible and bolstered by up to \$37.5 million in investments promoting a diverse and inclusive offshore wind sector, positioning the Commonwealth as a global climate innovation lab, addressing energy burdens in low- and moderate-income households, advancing robust regional research efforts, and supporting the blue economy.
- **Cost and schedule certainty:** Our organizational experience, federal tax credit strategy, advance procurement of critical Project components, established business relationships, and commitment to use existing and planned in-state and regional infrastructure constitute a disciplined approach that provides certainty on schedule and deliverability and yields the best, most reliable pricing.
- **Putting communities first:** Vineyard Offshore's community engagement efforts have cultivated enduring support for offshore wind projects and delivered tangible benefits to state and local economies. Through our unique community-focused approach, we will work to earn the trust of communities and stakeholders, resulting in successful permitting processes and constructive relationships for the life of the Project.
- **A team you can trust:** Vineyard Offshore is the most dependable offshore wind developer in the US, backed by investors who are committed to the success of the US offshore wind industry. Vineyard Offshore earns the support of the communities that host our projects and builds partnerships to share the benefits of offshore wind. With agencies, Tribal Nations, local communities, labor unions, and stakeholders alike, we promise only what we can deliver, and we deliver what we promise.

Vineyard Offshore welcomes the opportunity to discuss our proposal with the Evaluation Team, and we thank you for your consideration.



## SECTION 3

### OPERATIONAL PARAMETERS

---

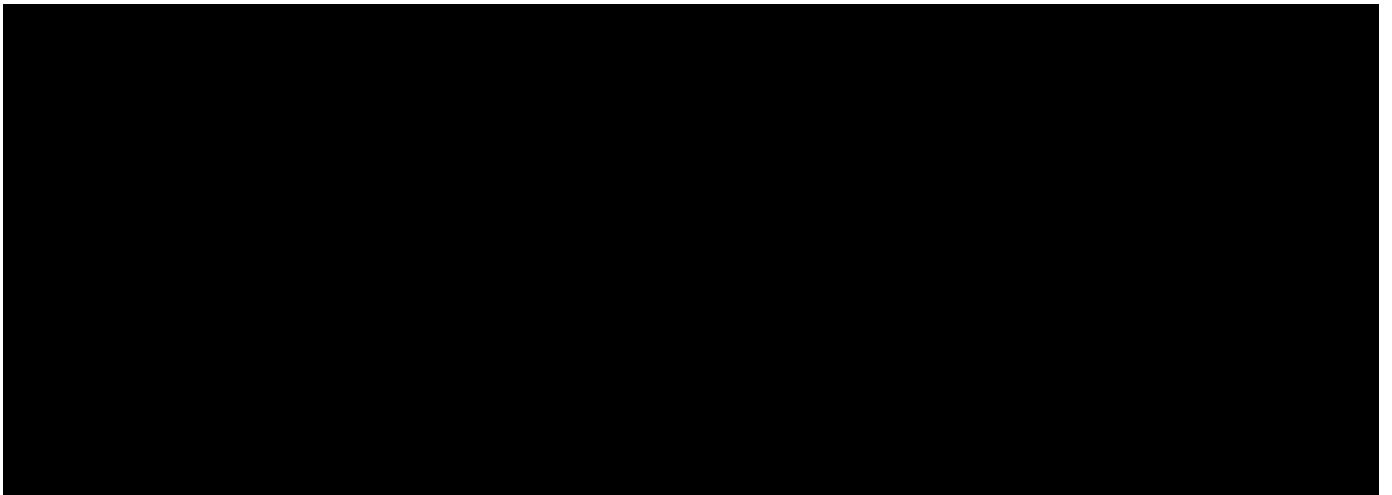
#### 3.1 MAINTENANCE OUTAGE REQUIREMENTS

Specify partial and complete planned outage requirements in weeks or days for all generation facilities and associated facilities required for the delivery of energy from the generation facilities to the delivery point. Also, list the number of months required for the cycle to repeat (e.g., list time interval of minor and major overhauls, and the duration of overhauls).

The maintenance outage requirements for Vineyard Wind 2 (the “Project”) are provided in Table 3.1-1. Regular and comprehensive scheduled maintenance will ensure the longevity and reliability of the Project’s major components, minimizing outages and supporting Vineyard Wind 2’s enhanced operation.

**Table 3.1-1 Maintenance Outage Requirements**

---



Unscheduled maintenance, which includes unscheduled repairs, the replacement of damaged components, and remote resets, can be planned to a limited extent and may take place at any time throughout the year. To avoid unscheduled maintenance and

ensure high production reliability, select Project components will be designed with Condition Monitoring Systems (CMSs) so potential faults can be detected and addressed before unexpected failures occur.

### **3.1.1 Major Project Components**

#### **3.1.1.1 Wind Turbine Generators**

[REDACTED]

[REDACTED]

#### **3.1.1.2 Inter-array Cables and [REDACTED]**

[REDACTED]

#### **3.1.1.3 Electrical Service Platform [REDACTED]**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 3.1.2 Preventive Maintenance

Preventive maintenance will reduce the need for corrective intervention. Remote monitoring is a key element of preventive maintenance as it allows continuous assessment of the technical state of a project without having to send technicians offshore. [REDACTED]

[REDACTED]

[REDACTED] Data gathered by remote monitoring will also allow technicians to improve maintenance plans and identify potential future problems when conducting maintenance. If an alarm is raised in the remote monitoring system, technicians will be notified immediately; based on the type of notice, either a remote or an onsite intervention can be planned.

The primary systems available for monitoring offshore wind projects remotely are:

- **Condition Monitoring System:** A CMS measures vibration and acceleration in specific WTG components, typically the main hub bearing, blades, main shaft, gearbox (if applicable), generator, and tower. The vibrations and accelerations are measured and sent to a centralized computer system, and when defined levels are exceeded, an alarm is issued. If necessary, the WTG will automatically initiate a forced shutdown until the root cause has been identified and mitigating actions have been completed.
- **Supervisory Control and Data Acquisition (SCADA):** SCADA is a computer system that gathers and analyzes real-time data. The system connects the WTGs, ESP, [REDACTED], and meteorological stations to a central computer and gathers information such as temperature, pressure, and location. Gathered data are continuously analyzed by trained technicians to establish monitoring routines and evaluate Project components for early indications of wear and tear or potential breakdown. If a breakdown occurs, SCADA data can be analyzed to identify its root cause.
- **Cable Condition Monitoring System:** Cable CMSs, such as distributed temperature sensing, allow offshore cables to be continuously monitored. These systems can detect and locate areas of potential damage and other anomalous conditions, which can be used to predict potential cable failure and may indicate cable exposure. If the offshore cables' CMS detects an anomalous condition, Vineyard Offshore will carefully review the data and determine whether a cable survey is necessary.

The above remote monitoring systems will be managed by local experts from the Project's operations and maintenance base or an operational control center.

### 3.2 OPERATING CONSTRAINTS

Specify all the expected operating constraints and operational restrictions for the project (e.g., limits on the number of hours a unit may be operated per year or unit of time).

The Project's operating constraints are largely determined by the technical parameters of the OWF's and transmission system's components. Importantly, offshore WTGs and associated structures are designed to withstand the harsh offshore climate to ensure a long operational life. [REDACTED]

#### 3.2.1 Weather-related Conditions

Operational constraints for the WTGs are dictated by temperature, wind speed, and sea states for safe vessel transfers. These operational constraints have been accounted for in the WTG availability calculation.

##### 3.2.1.1 Temperature

[REDACTED]

[REDACTED] It should be noted that temperatures in the offshore environment are more stable than onshore due to the slower heating of water as compared to land. [REDACTED]

##### 3.2.1.2 Wind Speed

[REDACTED]

[REDACTED]

**3.2.1.3 Sea States**

[REDACTED]

**3.3 RELIABILITY, SYSTEM SAFETY, AND ENERGY SECURITY**

Describe how the proposal would provide enhanced electricity reliability, system safety and energy security to Massachusetts, including its impact on transmission constraints.

Vineyard Wind 2’s injection of emission-free offshore wind power into the ISO-NE electrical grid will enhance the overall reliability of the electrical grid by improving resource adequacy, diversifying generator fuel mix, reducing fuel security risks, and minimizing power price volatility.

**3.3.1 Addressing Resource Adequacy**

The retirement of coal, oil, and nuclear power generation facilities has increased the region’s reliance on natural gas generating resources and strained the pipeline infrastructure that delivers fuel into the region. Heavy reliance on natural gas puts the security of the ISO-NE electrical grid at risk, particularly in the winter months during extreme weather events. It also increases price volatility in wholesale markets and increases costs to ratepayers.

More than 5.2 gigawatts (GW) of coal, oil, and nuclear power plants (e.g., Brayton Point Power Station in 2017, Pilgrim Nuclear Power Station in 2019, and the ongoing retirement of the Mystic Generating Station units) retired between 2013 and 2022, and ISO-NE estimates that another 5 GW of coal- and oil-fired generation capacity may be at risk of retirement in the coming years.<sup>1</sup>

The expected retirement of existing capacity would further exacerbate the twin threats of limited fuel diversity and over-dependency on natural gas. In periods of extremely cold weather, natural gas supply constraints have led to shortages in the electricity sector and resulted in oil-fired generation becoming the price-setting fuel in the wholesale electricity market. Oil-fired generation is significantly more expensive and polluting than natural gas-fired generation. This combination of circumstances results in significant, albeit short lived, “winter price spikes.”

---

<sup>1</sup> See: [Power Plant Retirements](#).

A key benefit of offshore wind is that it does not require fuel to operate; thus, it is not vulnerable to supply constraints or delivery failures that can interrupt supply or create grid reliability issues in the same way as fossil fuels. It also produces the most power in the winter months. The Project will deliver fixed-price, lower-cost energy that directly mitigates the factors that drive power prices and pollution higher during these months, protecting ratepayers from winter price spikes and avoiding the emissions that result from oil-fired generation during extreme weather events.

[REDACTED]

### **3.3.2 Line Loss and Transmission Constraints**

#### **3.3.2.1 Line Loss**

[REDACTED]

[REDACTED]

The Project's delivery point is located in the Central Connecticut zone, close to New England's primary load centers. [REDACTED]

[REDACTED] This allows the region to increase its deployment of non-emitting resources using the current grid infrastructure.

#### **3.3.2.2 Transmission Constraints**

[REDACTED]

[REDACTED]

### 3.4 MODERATION OF SYSTEM PEAK LOAD

Describe how the proposal would contribute to moderating system peak load requirements and provide the following information:

- i. Estimated average output for each summer period (June - September) from 3:00 - 7:00 pm
- ii. Estimated average output for each winter period (October - May) from 4:00 - 9:00 pm

Vineyard Wind 2's energy output and generation profile will moderate system peak load requirements by supplying a substantial amount of clean energy during peak load hours, as defined in the FCM, pursuant to the applicable ISO-NE tariff.

[REDACTED]

- i. [REDACTED]
- ii. [REDACTED]

[REDACTED]

#### 3.4.1 Estimated Average Output

The Project's estimated average [REDACTED] output for the summer and winter periods is provided in Table 3.4-1. [REDACTED]

[REDACTED]

**Table 3.4-1 Estimated Average Project Output for Peak Periods**

---





## SECTION 4

### ENERGY RESOURCE AND DELIVERY PLAN

---

#### 4.1 ENERGY RESOURCE PLAN

For Eligible Facilities, the bidder is required to provide an energy resource plan and a production/delivery profile for its proposed project, including supporting documentation. The energy resource and profile information should be consistent with the type of technology/resource option proposed and the term proposed. Bidders should respond to all information requests which are relevant to the bid in a timely manner.

##### All Projects

Provide a summary of all collected wind data for the proposed site. Identify when and how (e.g. meteorological mast or LiDAR - for "Light Detection and Ranging") the data was collected and by whom.

Indicate where the data was collected and its proximity to the proposed facility site. Include an identification of the location and height for the anemometers and/or "range gate" heights for sensing by LiDAR that were used to arrive at an assessment of the site generation capability.

Describe any additional wind data collection efforts that are planned or ongoing.

Provide (a) at least one year of hourly wind resource data. Real Data collected from the site is preferred, though projected data is permissible. Methodology must also be included. And (b) a wind resource assessment report for the proposed facility from a qualified unaffiliated third-party wind resource assessment firm. Include an analysis of the available wind data which addresses the relationship between wind conditions and electrical output. Provide a projection of net annual energy production, including projections of average net hourly energy production, based on the wind resource data (hourly 8760 data profile and a 12 x 24 energy projection) at both P50 and P90 levels.

Provide a site-adjusted power curve. Each curve should list the elevation, temperature and air density used.

Identify the assumptions for losses in the calculation of projected annual energy production, including each element in the calculation of losses.

Vineyard Wind 2 (the "Project") is comprised of a 1,200 megawatt (MW) Offshore Wind Energy Generation facility (OWF) that will be installed in Lease Area OCS-A 0522 (the "Lease Area").

[REDACTED]  
[REDACTED] The Project also includes a [REDACTED] transmission system and a delivery point in Montville, Connecticut.

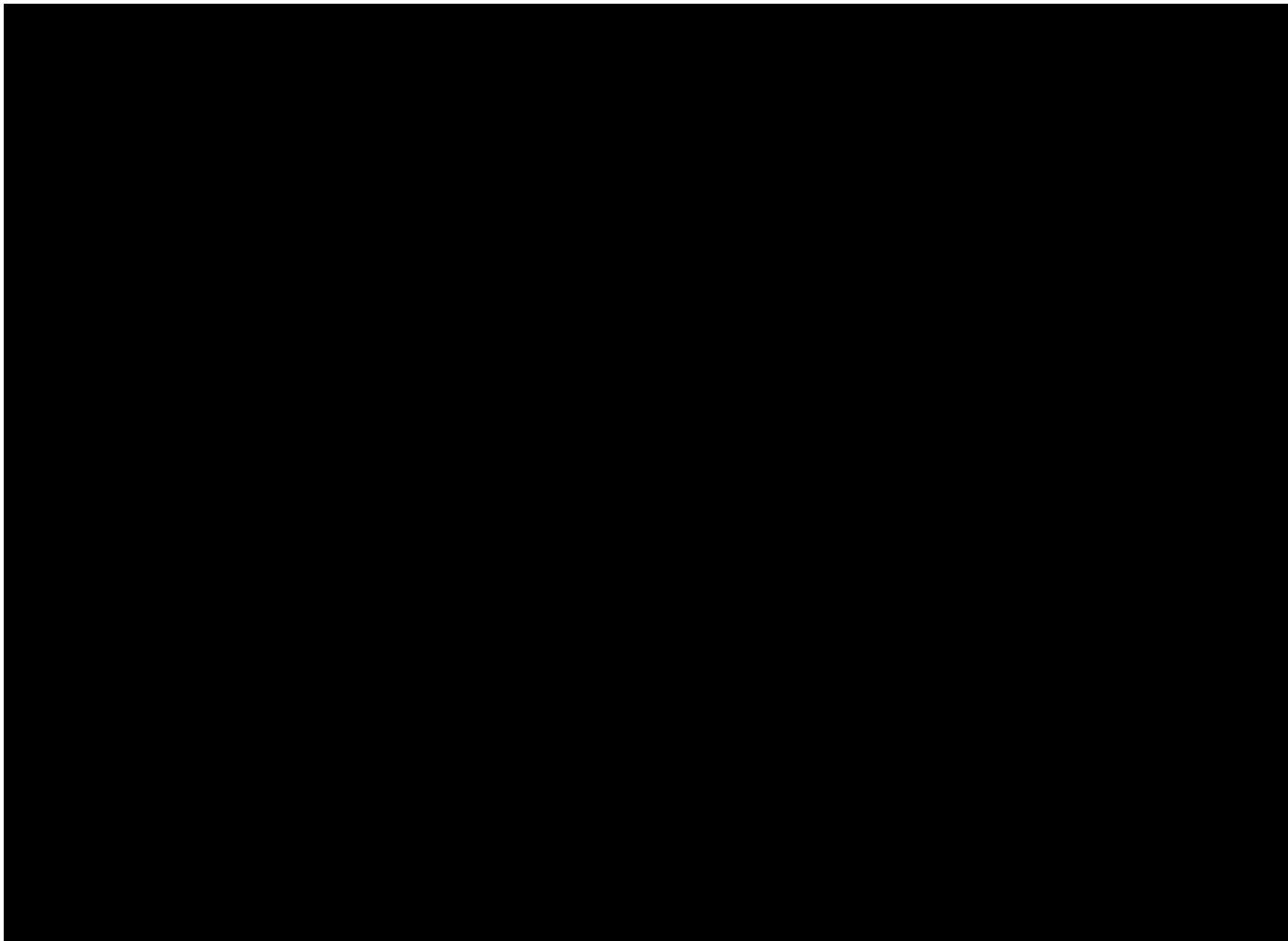
#### 4.1.1 Lease Area OCS-A 0522

Lease Area OCS-A 0522 is approximately 132,370 acres in size and is located in the open Atlantic Ocean approximately 29 miles (mi) south of Nantucket. It is one of nine lease areas in the Massachusetts Wind Energy Area (MA WEA) and Rhode Island/Massachusetts Wind Energy Area (RI/MA WEA) and abuts SouthCoast Wind's (formerly Mayflower Wind's) Lease Area OCS-A 0521 along its northwestern edge. [REDACTED]

#### 4.1.2 Wind Data



Figure 4.1-1 illustrates the wind resource data source locations for the wind datasets utilized in our analyses. Additional detail on the wind datasets, including descriptions of the individual measurement stations and mesoscale data, is provided in the wind resource assessment report included as Attachment 4.1-1. [REDACTED]



The primary data sources and methods used in the wind resource and energy production estimates are the following:

- [Redacted]

- [Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

### 4.1.3 Data Collection Summary

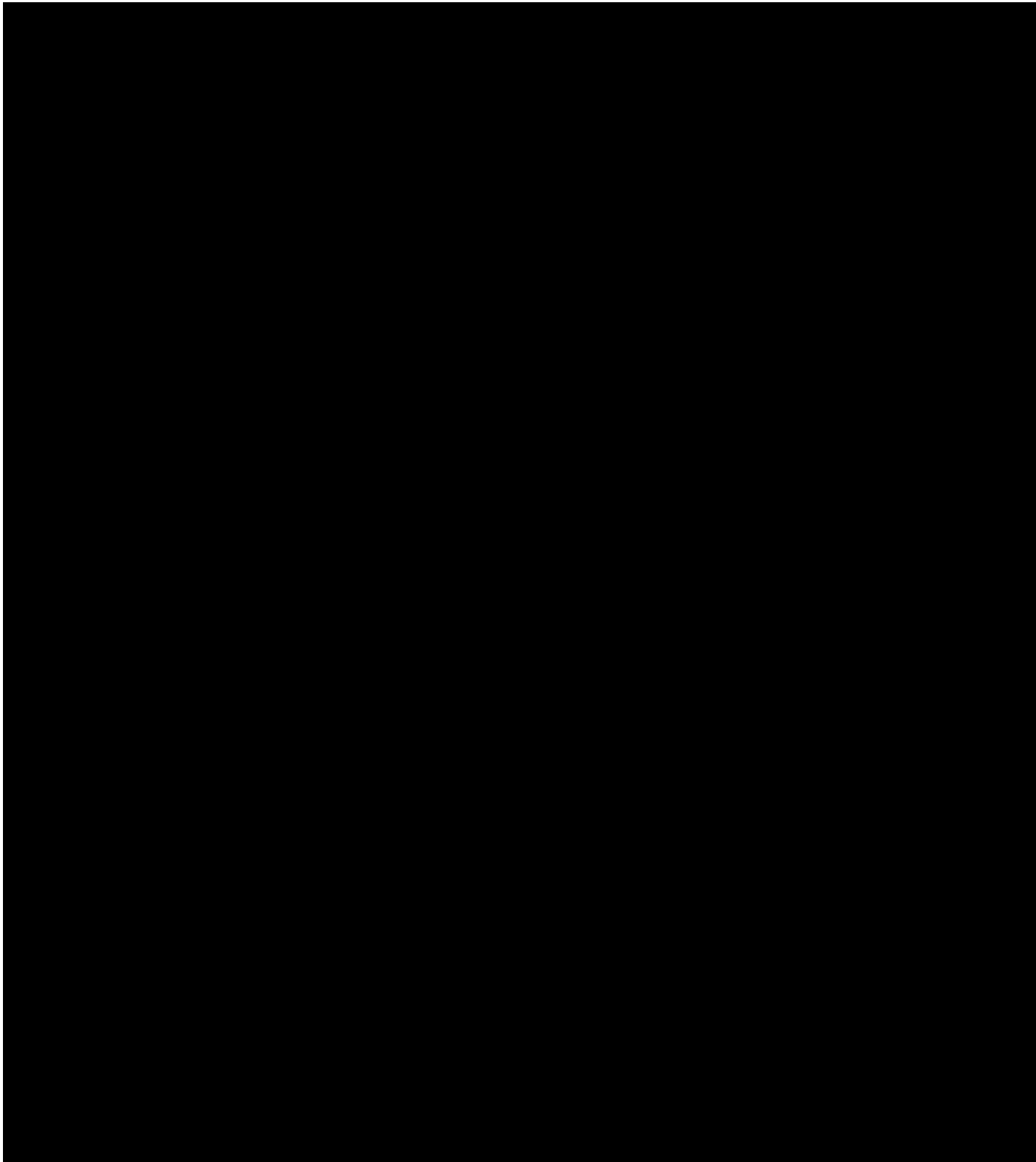
Information on the data collection points referenced above, including their proximity to the center of the Lease Area, is provided in Table 4.1-1.

**Table 4.1-1 Primary Sources Used to Assess Wind Conditions**

[Redacted Table Content]
--------------------------

**Table 4.1-1 Primary Sources Used to Assess Wind Conditions (Continued)**

---



**Table 4.1-1 Primary Sources Used to Assess Wind Conditions (Continued)**



**4.1.4 Wind Resource Assessment**

Vineyard Offshore tasked C2Wind Aps (C2Wind), an unaffiliated third-party wind resource assessment firm, with conducting a wind resource assessment for Lease Area OCS-A 0522. The resulting report is provided as Attachment 4.1-1.

C2Wind is one of the most experienced wind energy forecasting companies in the world. Their experts have been working in offshore wind since 2003 and have more than 50 years of combined experience in offshore wind resource assessment and energy yield estimation. Additionally, C2Wind's experts are working with the leading offshore wind companies globally and have been involved in more than 30 offshore wind projects worldwide.

**4.1.4.1 Methodology**

[Redacted text block]

[Redacted text block]

- [Redacted list item]
- [Redacted list item]
- [Redacted list item]
- [Redacted list item]
- [Redacted list item]

**4.1.4.2 Summary of Results**

[Redacted text block]

- [Redacted bullet point]
- [Redacted bullet point]

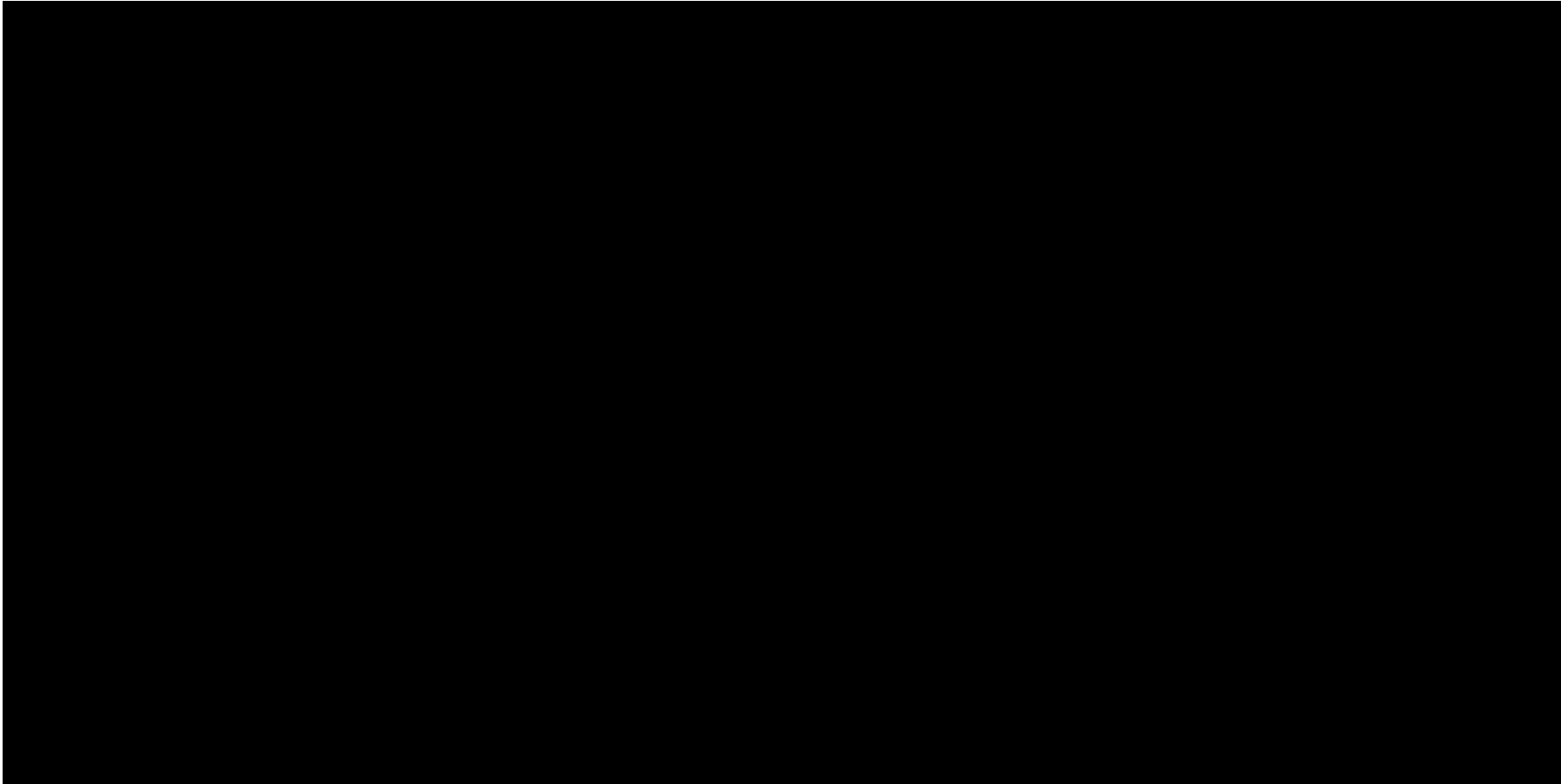
**4.1.5 Net Annual Energy Production**

[Redacted text block]

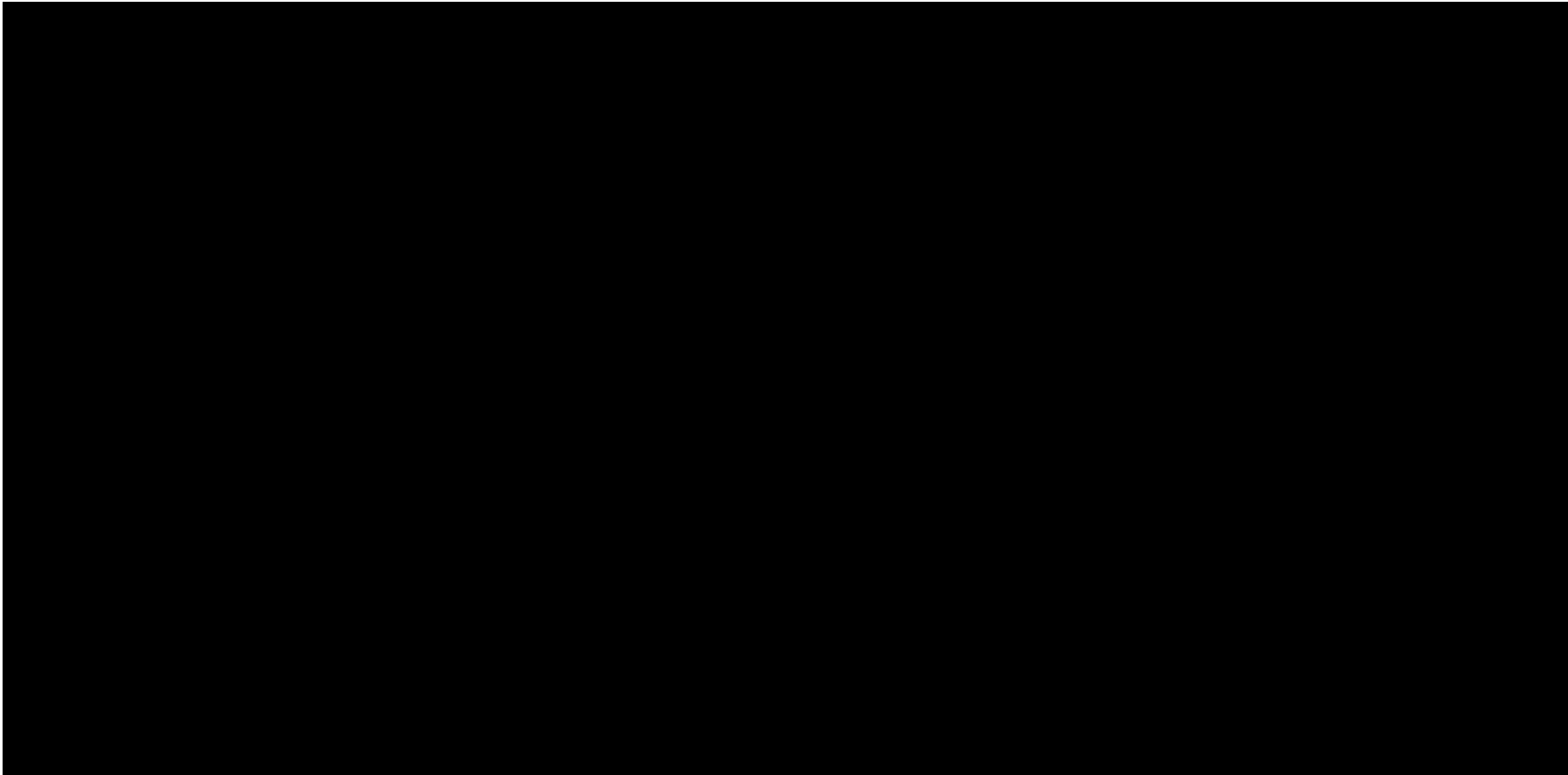
[Redacted text block]

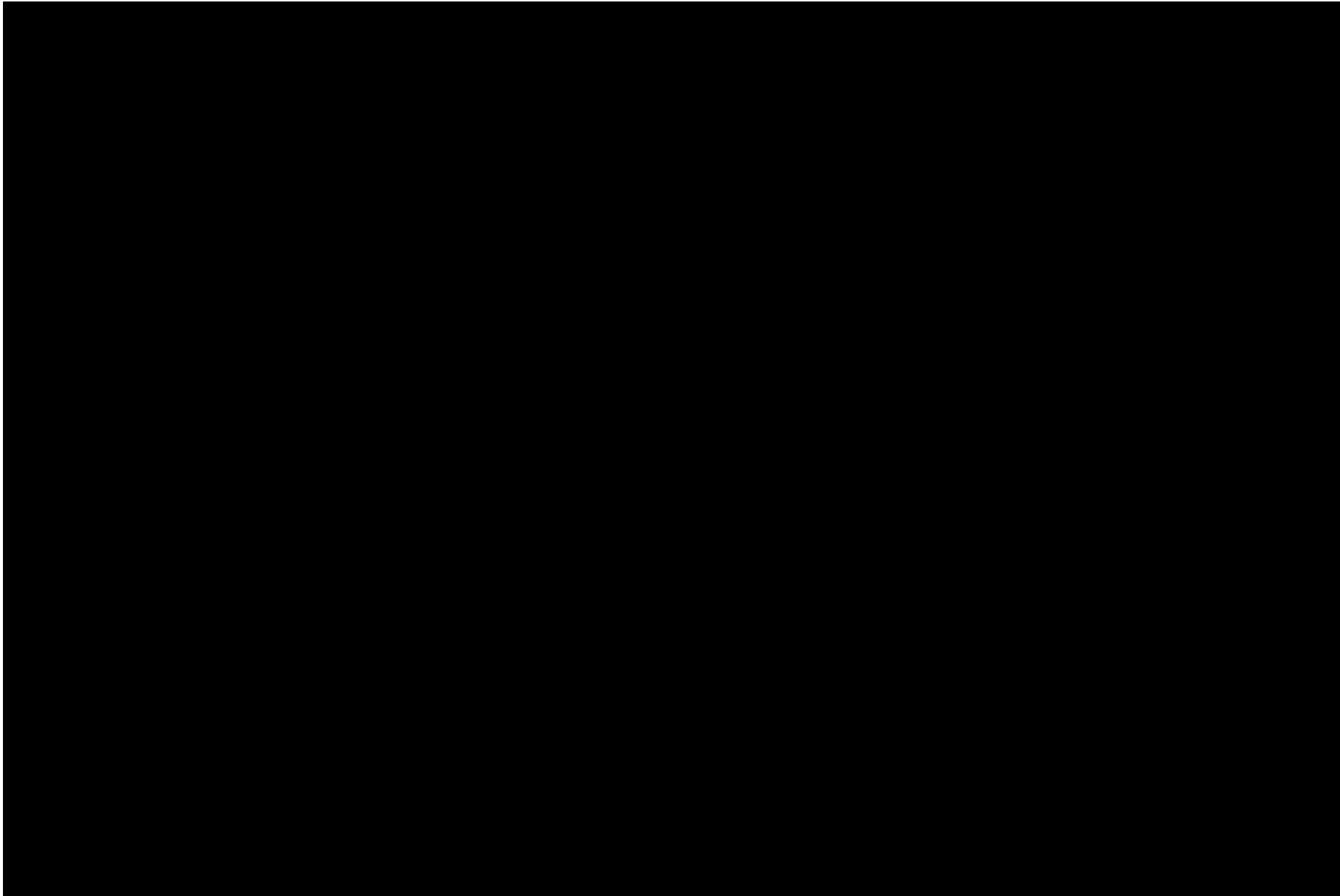
[Large redacted text block]

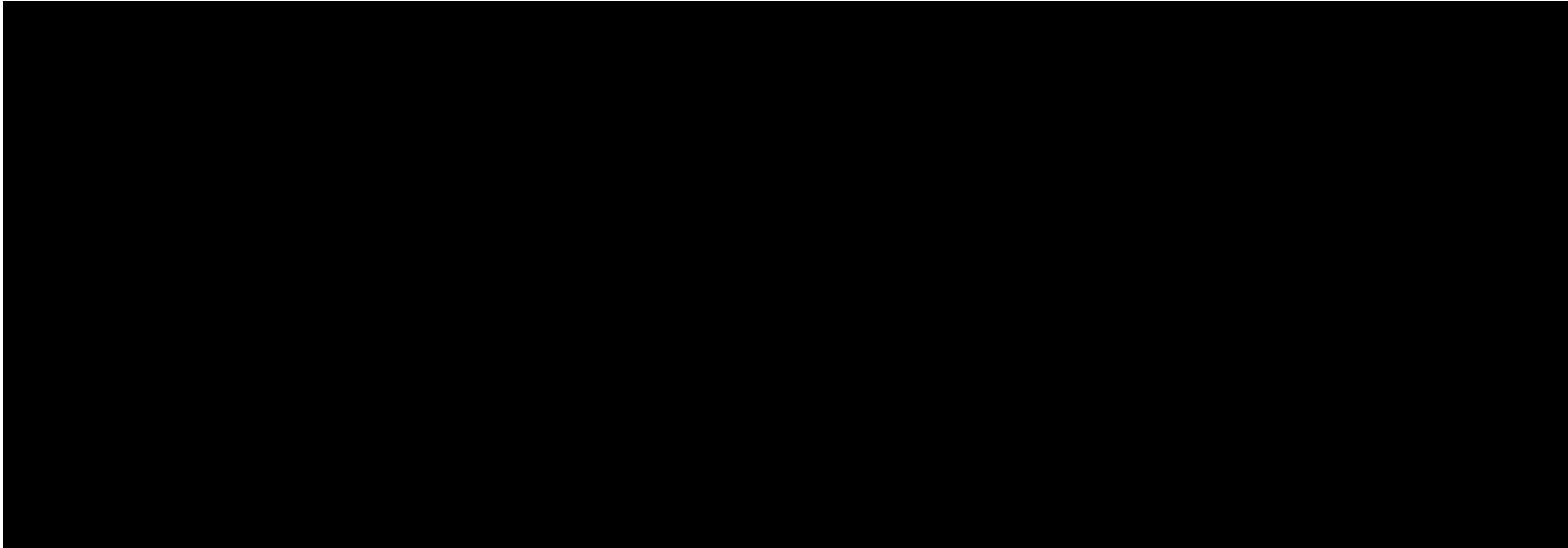
[Redacted text block]











[Redacted text block]

[Redacted text block]

#### 4.1.6 Power Curve

[Redacted text block]

[Large redacted text block]

#### **4.1.7 Loss Assumptions**

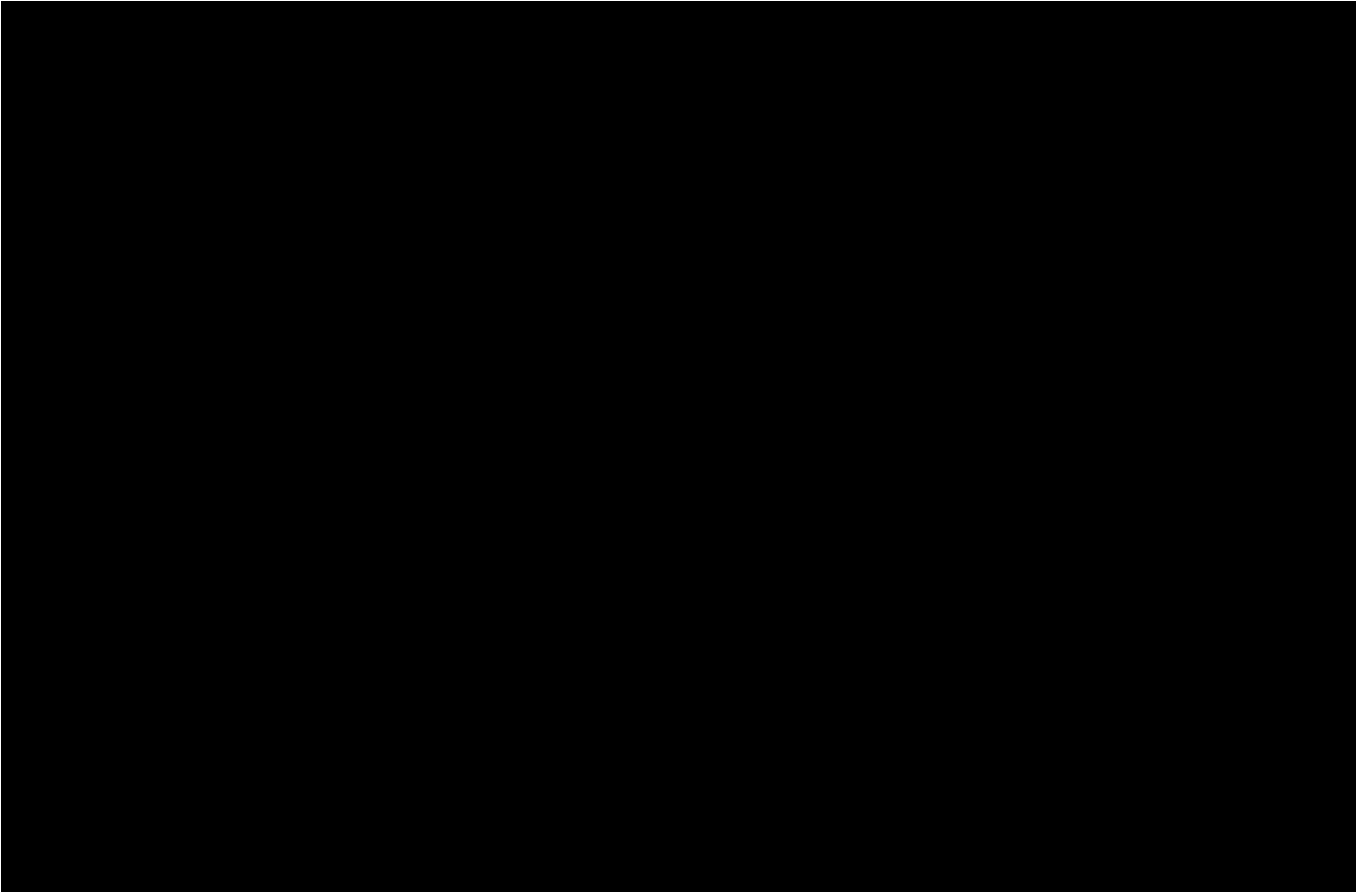
Section 6 of the energy yield assessment report provides a list of the losses and assumptions used in calculating the estimated net annual energy production figures provided in Tables 4.1-3 and 4.1-4. An overview of the losses used in the calculations is provided in Table 4.1-2. The losses are described in greater detail along with the rationale for ascribed values in the energy yield assessment report (see Attachment 4.1-3).

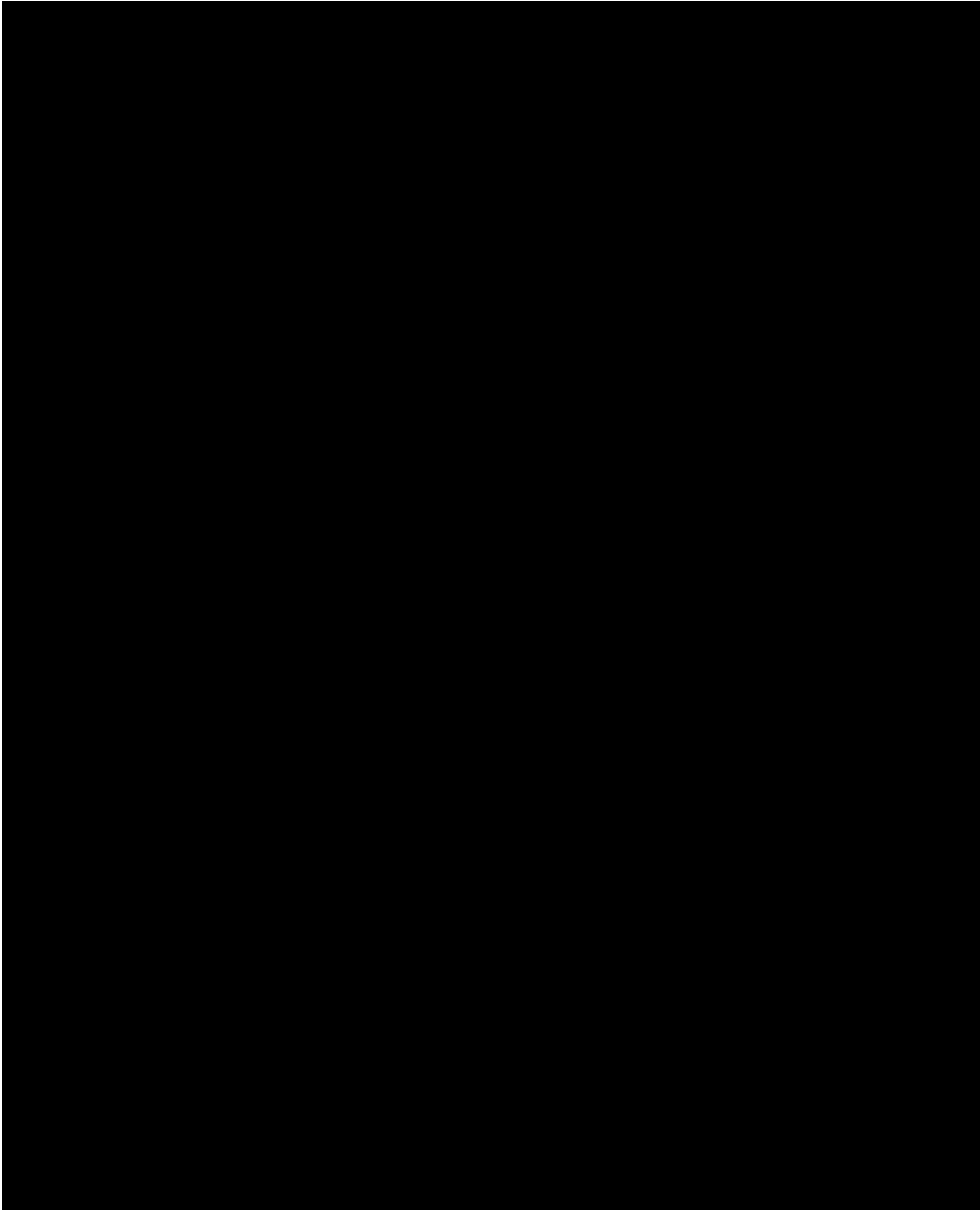
#### **4.2 OFFSHORE WIND ENERGY GENERATION DELIVERY PLAN**

Please provide an energy delivery plan and a production/delivery profile for the proposed project, including supporting documentation. The energy delivery plan and production/delivery profile must provide the expected Offshore Wind Energy Generation to be delivered into the ISO-NE market settlement system and permit the Evaluation Team to determine the reasonableness of the projections for purposes of Sections 2.2.1.3 Eligible Bids and 2.2.1.8 Capacity Requirements, and 2.2.1.9 Interconnection and Delivery Requirements of the RFP. Such information should be consistent with the energy resource plan and production/delivery profile provided above and also considering any and all constraints to delivery into ISO-NE.

##### **4.2.1 Production and Delivery Profile**

[REDACTED]





#### 4.2.2 Energy Delivery Plan

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

#### 4.2.2.1 Lead Market Participant

[Redacted]

[Redacted]



**4.2.2.2 Interconnection**

[REDACTED]

**4.3 REC/ENVIRONMENTAL ATTRIBUTE DELIVERY PLAN**

Please provide documentation and information demonstrating that the project will deliver GIS Certificates representing those RECs and any other Environmental Attributes, as applicable. Please describe whether transfer of all GIS Certificates is authorized under the current ISO-NE GIS rules and protocols, or if a rule or protocol change is required. To the extent such change is required, please provide details regarding the proposal and the process for implementing the change.

Vineyard Wind 2 is a new offshore wind generation resource located within the ISO-NE Control Area that will begin operating after December 31, 1997, and generate electricity using wind energy as its fuel source. The Project will therefore qualify as a "New Class I Renewable Portfolio Standard Eligible Resource" as defined under M.G.L. c. 25A § 11F and 225 C.M.R. 14.00. Vineyard Offshore will provide documentation demonstrating such qualification at the appropriate time as per the regulations.

[REDACTED]

Vineyard Offshore hereby certifies that it will utilize the NEPOOL GIS as the appropriate tracking system to ensure a unit-specific accounting of the delivery of unit-specific and unit-contingent energy and RECs. Vineyard Offshore is prepared to take commercially reasonable measures to ensure that no other load-serving entity, province, state, or commonwealth will claim or count the Environmental Attributes of energy generated by the Project, except only to the extent those entities have a legitimate claim to title and take delivery of NEPOOL GIS RECs associated with the energy generated by the Project.

**4.4 ADDITIONAL LONG-TERM CONTRACTS WITH THIRD PARTIES**

Please describe any commitments to enter into long-term contracts to purchase offshore wind energy with businesses, nonprofit organizations, a municipality or group of municipalities with an approved municipal load aggregation plan pursuant to section 134 of chapter 164 of the General Laws or other government entities directly or through an aggregation pursuant to section 137 of said chapter 164.

Please describe the status of the commitments with any offtakers, including any executed agreements, provided that such agreements may be contingent on the project being selected for contracting under this RFP.

[Redacted]

**4.5 ENERGY STORAGE SYSTEM OPERATIONS**

Energy Storage System Operations (if applicable).

[Redacted]

**SECTION 5**  
FINANCIAL/LEGAL

---

**5.1 LONG-TERM CONTRACTS FOR FINANCING**

Please submit information and documentation that demonstrates that long term contracts resulting from this RFP Process would either permit the bidder to finance its proposal that would otherwise not be financeable, or assist the bidder in obtaining financing of its proposal.

Vineyard Offshore and Copenhagen Infrastructure Partners (CIP) are committed to the development and construction of Vineyard Wind 2 (the "Project"). [REDACTED]

[REDACTED]

[REDACTED]

**5.2 BUSINESS ENTITY STRUCTURE**

Please provide a description of the business entity structure of the bidder's organization from a financial and legal perspective, including all general and limited partners, officers, directors, managers, members and shareholders, involvement of any subsidiaries supporting the project, and the providers of equity and debt during project development. Provide an organization chart showing the relationship between the equity and debt participants and an explanation of the relationships. For jointly owned facilities, identify all owners and their respective interests, and document the Bidder's right to submit a binding proposal.

**5.2.1 Vineyard Offshore LLC**

Vineyard Offshore LLC (Vineyard Offshore) was launched in April 2022 and is exclusively focused on the rapidly expanding US offshore wind market. It is a Delaware limited liability company registered in Massachusetts. Vineyard Offshore is CIP's dedicated offshore wind development partner in the US, leading the development and commercialization of CIP's US offshore wind projects.

[REDACTED]

[REDACTED]

Vineyard Offshore is the bidder submitting proposals in response to Massachusetts' fourth Section 83C (83C-IV) solicitation. [REDACTED]

[REDACTED]

**5.2.1.1 Board of Directors**

[REDACTED]

**5.2.1.2 Officers**

Vineyard Offshore is led by Chief Executive Officer (CEO) Alicia Barton who was CEO of FirstLight Power until December 1, 2023, and assumed her role at Vineyard Offshore on January 1, 2024. The remaining members of the leadership team are Chief Development Officer (CDO)

Rachel Pachter, Chief Commercial Officer (CCO) Ben Koffel, Chief Financial Officer (CFO) Ryan Wallace, Chief Legal Officer and Corporate Secretary Jennifer Simon Lento, and Chief External Affairs Officer Christian Scorzoni. Information about the leadership team’s experience and expertise is provided in Section 12.

### **5.2.2 Vineyard Northeast LLC**

Vineyard Wind 2 is located in Lease Area OCS-A 0522. The lease agreement for Lease Area OCS-A 0522 is held by Vineyard Northeast LLC, a Delaware limited liability company. [REDACTED]

[REDACTED]

[REDACTED]

### **5.2.3 Copenhagen Infrastructure Partners**

CIP is contributing its financial strength to Vineyard Wind 2 along with a track record of developing, financing, constructing, and operating energy projects across the globe. [REDACTED]

[REDACTED] Similar to the financing process for Vineyard Wind 1, Vineyard Offshore and CIP plan to leverage their experience and resources to secure a financing package for the Project that provides a low cost of capital.

CIP is a fund management company focused on energy infrastructure including offshore wind, onshore wind, solar photovoltaics, biomass and energy from waste, transmission and distribution, reserve capacity and storage, and other energy assets like Power-to-X. The company was established in 2012 by senior executives from the energy sector with PensionDanmark (one of the largest labor market pension funds in Denmark and one of the most experienced institutional investors in renewable energy) as the founding investor.

Today, CIP is a global leader, market pioneer, and among the largest fund managers globally within the renewable energy sector. CIP currently manages 12 funds and has raised approximately \$27 billion from more than 150 institutional investors across the globe (see Table 5.2-1). The funds represent different investment strategies with five “flagship funds,” indicated in bold in Table 5.2-1, focusing on energy infrastructure projects in Organisation for Economic Co-operation and Development (OECD) countries. On June 30, 2023, CIP reached a first close of \$5.9 billion for its fifth flagship fund, Copenhagen Infrastructure V K/S, putting it on track to reach its target fund size of \$12.6 billion and become the world’s largest dedicated greenfield renewable energy fund.

CIP takes a proactive and hands-on approach to investing and managing assets and focuses on building and maintaining an execution platform with a local presence to support active involvement in investments and assets throughout their lifecycle. [REDACTED]

[REDACTED] Additional information about CIP’s approach to investing and managing assets is provided in Attachment 5.2-1.

**Table 5.2-1 CIP Funds**

Fund Name	Fund Size	Established
<b>Copenhagen Infrastructure I K/S</b>	~€1 billion	2012
CI Artemis I K/S	€400 million	2014
<b>Copenhagen Infrastructure II K/S</b>	€2 billion	2014
<b>Copenhagen Infrastructure III K/S</b>	€3.5 billion	2017
Copenhagen Infrastructure New Markets Fund I K/S	\$1 billion	2019
CI Artemis II K/S	~€300 million	2020
<b>Copenhagen Infrastructure IV K/S</b>	€7 billion	2020
Copenhagen Infrastructure Energy Transition Fund I K/S	€800 million	2021
CI GCF I	€1 billion	2021
CI Advanced Bioenergy Fund I	€750 million	2022
<b>Copenhagen Infrastructure V K/S</b>	€5.6 billion (first close)	2023
CI Growth Markets Fund II K/S	\$3 billion (target size)	2023

### 5.3 FINANCING PLAN

Please provide a description of the financing plan for the project, including construction and term financing. The financing plan should address the following:

- i. Who will finance the project (or are being considered to finance the project) and the related financing mechanisms or mechanisms that will be used (i.e. convertible debenture, equity or other) including repayment schedules and conversion features.
- ii. The project's existing initial financial structure and projected financial structure
- iii. Expected sources of debt and equity financing
- iv. Estimated construction costs
- v. The projected capital structure
- vi. Describe any agreements, both pre and post commercial operation date, entered into with respect to equity ownership in the proposed project and any other financing arrangement.

In addition, the financing plan should address the status of the above activities as well as the financing of development and permitting costs. All bidders are required to provide this information.

Vineyard Wind 2's financing plan is summarized herein. [REDACTED]

[REDACTED]

[REDACTED]

#### 5.3.1 Project Financing

[REDACTED]

[REDACTED] Vineyard Wind 1 achieved financial close (FC) in September 2021 after CIP and joint venture partner, Avangrid Renewables, arranged approximately \$2.3 billion in financing from a group of nine US and international banks. This financing package included debt commitments from Bank of America, J.P. Morgan, BBVA, NatWest, Santander, Crédit Agricole, Natixis, BNP Paribas, and MUFG Bank. Santander and Norton Rose Fulbright respectively served as that transaction's financial advisor and lead counsel and were led by Vineyard Offshore's Chief Legal Officer, Jennifer Simon Lento. This historic achievement led to Vineyard Wind 1 being named the Global ESG Deal of the Year by Project Finance International.

In October 2023, Vineyard Wind 1 closed a \$1.2 billion first-of-its-kind tax equity package for commercial-scale offshore wind with three US banks: J.P. Morgan Chase, Bank of America, and Wells Fargo. CCA Group, Santander, and Kirkland & Ellis LLP served as financial and legal advisors in this transaction.

[REDACTED]

### 5.3.2 Financial Structure

[REDACTED]

### 5.3.3 Debt and Equity Financing

[REDACTED]

### 5.3.4 Estimated Construction Costs

[REDACTED]

### 5.3.5 Projected Capital Structure

[REDACTED]

### 5.3.6 Agreements

[REDACTED]



## 5.4 FINANCING EXPERIENCE

Provide documentation illustrating the experience of the bidder in securing financing for projects of similar size and technology. For each project previously financed provide the following information:

- i. Project name and location
- ii. Project type and size
- iii. Date of construction and permanent financing
- iv. Form of debt and equity financing
- v. Current status of the project

A list of offshore wind, onshore wind, and transmission projects for which CIP has successfully secured financing is provided in Attachment 5.4-1. Additional information about CIP's project portfolio is provided in Section 12.

## 5.5 FINANCIAL RESOURCES AND STRENGTH

Please provide evidence that the bidder has the financial resources and financial strength to complete and operate the project as planned, including contingencies for project delays or cost overruns.

CIP is a financially sound organization, capable of providing considerable resources and financial strength to complete and operate Vineyard Wind 2 as proposed. This is readily evidenced by Vineyard Wind 1, which was delayed in July 2019 after the Bureau of Ocean Energy Management (BOEM) announced that additional review was required to analyze the cumulative impacts of multiple offshore wind projects along the East Coast over the next decade. The delay extended Vineyard Wind 1's development phase by two years and required additional equity contributions from CIP and its joint venture partner to maintain the project.

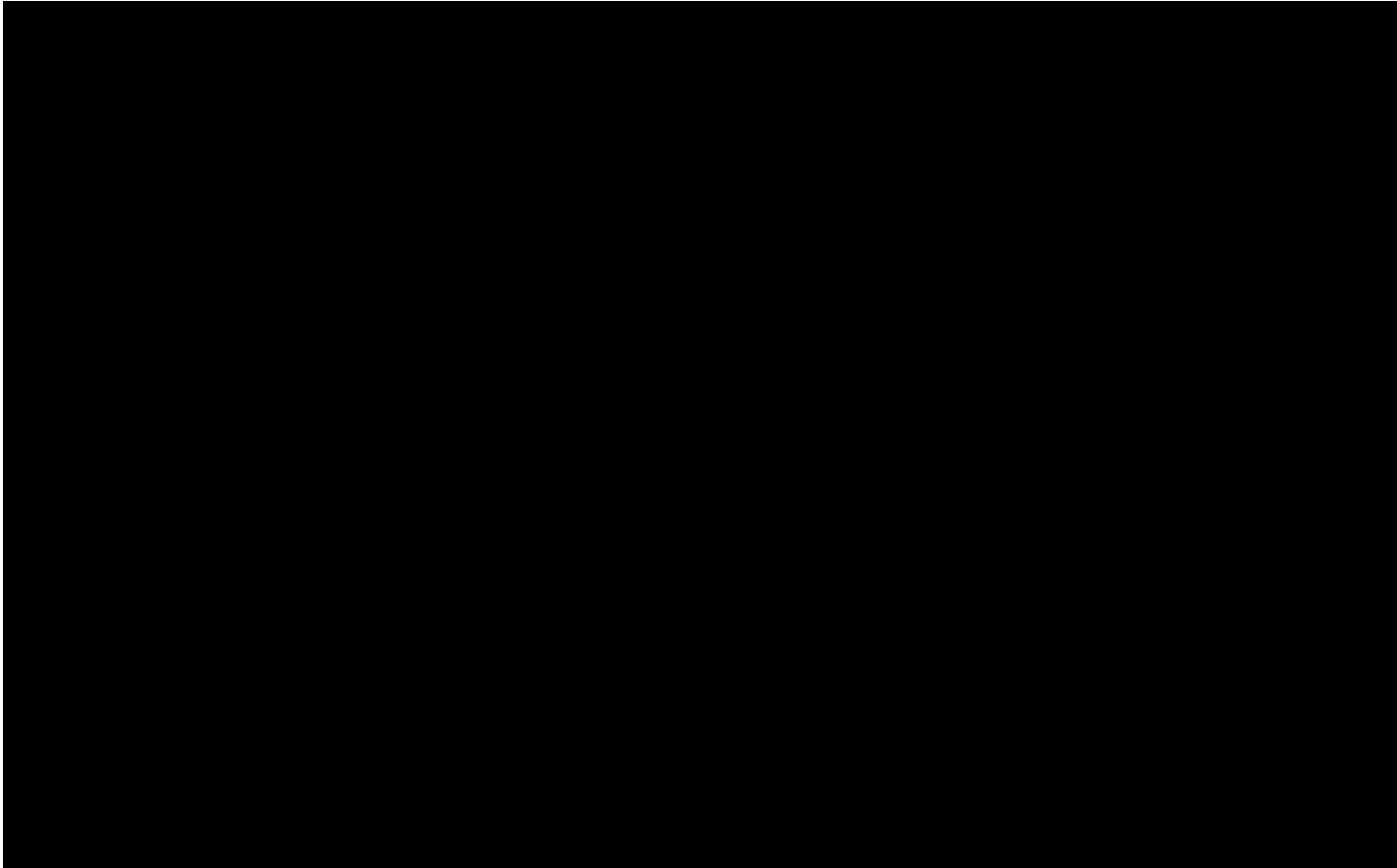
While this delay, and the challenges it presented, threatened the viability of the project, CIP remained committed to Vineyard Wind 1. Under Lars Thaaning Pedersen's leadership as CEO at the time, the project's development team, which was led by Vineyard Offshore's CDO, Rachel Pachter, worked diligently with BOEM to conclude the federal permitting process, maintain project viability, and move to FC in 2021. CIP is similarly committed to Vineyard Wind 2 as well as the long-term success of the US offshore wind sector.

CIP's strong financial condition is further evidenced by the financial information provided in this section. [REDACTED]

[REDACTED]

An overview of CIP's flagship fund portfolio for projects under construction or in operation is provided in Figure 5.5-1. [REDACTED]

[REDACTED]

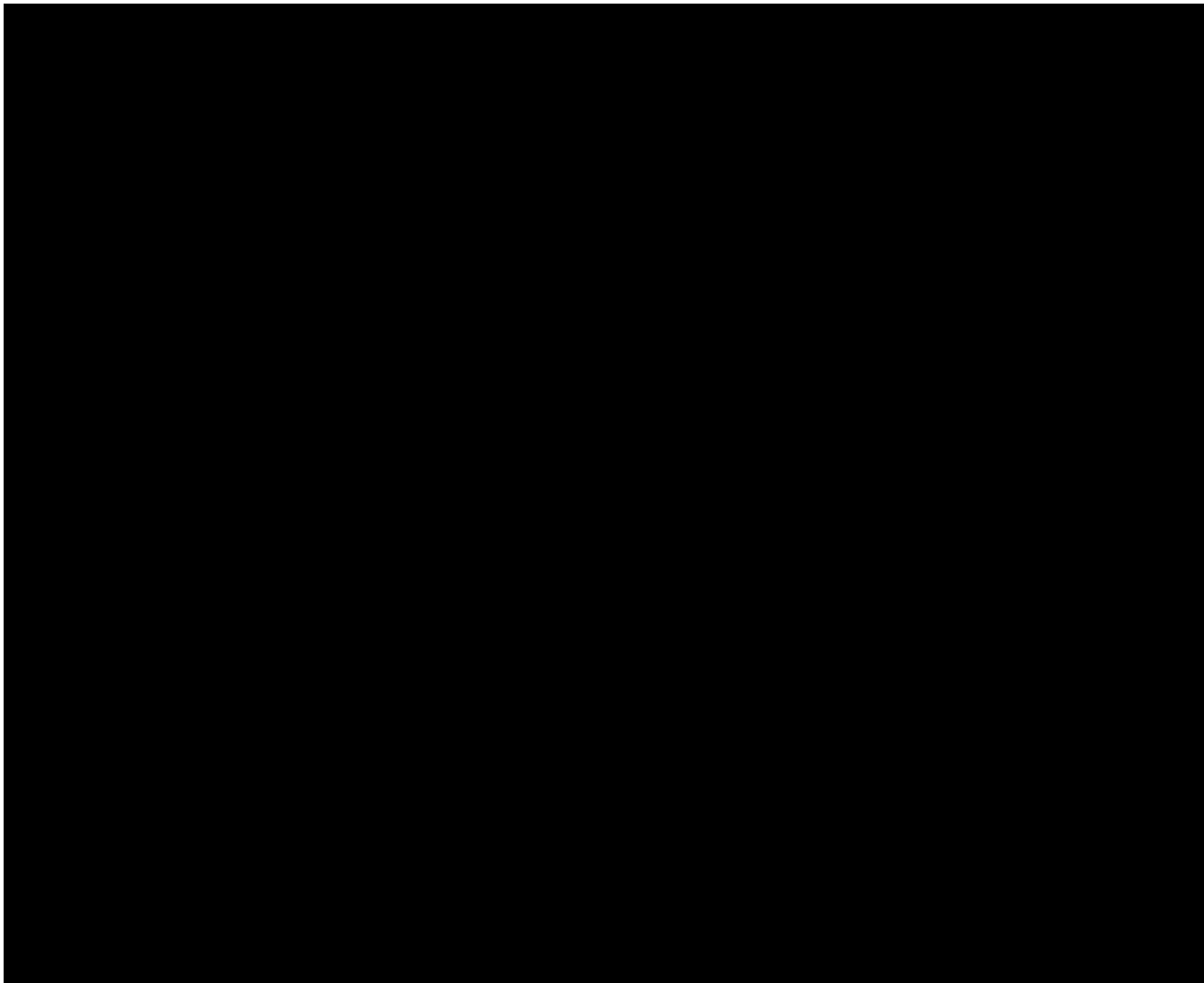


## 5.6 FINANCIAL TRACK RECORD

Please provide details of any financial difficulties by the bidder or any of its past or present affiliates which impaired the viability and/or financing of the development and construction of projects of similar type, size, and complexity of the proposed eligible project or other large scale renewable energy project, including any past terminated projects and claims of financial difficulties. Bidders must demonstrate how the proposed eligible project materially differs from any past projects and demonstrate fully the financial viability of the project as bid.

Vineyard Offshore, CIP, and past or present affiliates have not experienced financial difficulties that have impaired the viability and/or financing of the development or construction of projects similar to Vineyard Wind 2. [REDACTED]

[REDACTED]



## 5.7 FINANCIAL ASSUMPTIONS

Describe the assumptions applied by Bidder regarding forecast changes in project costs during the contract term, interest rates over the development period, key input commodity prices, and the methodology used to establish the project contingency amount. Bidder must explain why these assumptions are reasonable and describe and quantify how the project as proposed is designed to absorb sufficient risk to ensure the project can be successfully financed at the proposed price, including the Indexing Adjustment, if applicable.

Vineyard Offshore has made reasonable assumptions regarding key cost factors and has taken a conservative approach to forecasting potential changes in costs during the term of any awarded PPAs. [REDACTED]

[REDACTED]

[REDACTED] As a result, we are confident that Vineyard Wind 2 can be

developed, financed, constructed, and operated as planned. [REDACTED]  
[REDACTED]  
[REDACTED]

Assumptions made and steps taken to increase cost certainty include the following:

- [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

- [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

- [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

The above measures ensure that Vineyard Wind 2 is priced to absorb sufficient risk without compromising the Project's ability to deliver cost-effective renewable energy and economic benefits to Massachusetts.

## 5.8 FINANCIAL STATEMENTS, ANNUAL REPORTS, AND RATINGS

Provide complete copies of the most recent audited financial statement and annual report for each bidder for each of the past three years; including affiliates of the bidder (if audited statements are not available, reviewed or compiled statements are to be provided). Also, provide the credit ratings from Standard & Poor's and Moody's (the senior unsecured long term debt rating or if not available, the corporate rating) of the bidder and any affiliates and partners.

Vineyard Offshore was launched in April 2022 and is a privately held company. [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]  
 [REDACTED]

## 5.9 OFFICERS, BOARD MEMBERS, AND TRUSTEES

Please also include a list of the board of directors, officers and trustees for the past three years and any persons who the bidder knows will become officers, board members or trustees.

[REDACTED]  
 [REDACTED]

**Table 5.9-1 Vineyard Offshore Board of Directors and Officers**

Years of Appointment	Name
<b>Board of Directors</b>	
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
<b>Officers</b>	
January 1, 2024 - Present	Alicia Barton (current CEO)
2022 - December 31, 2023	Lars Pedersen (former CEO)
2022 - Present	Klaus Skoust Møller
2022 - Present	Rachel Pachter
2022 - Present	Ben Koffel
2023 - Present	Ryan Wallace
2022 - Present	Jennifer Simon Lento

**Table 5.9-1 Vineyard Offshore Board of Directors and Officers (Continued)**

Years of Appointment	Name
<b>Officers (Continued)</b>	
2023 - Present	Christian Scorzoni

[REDACTED]

**5.10 REQUIRED SECURITY**

The bidder should demonstrate its ability (and/or the ability of its credit support provider) to provide the required security, including its plan for doing so.

[REDACTED]

**5.11 CREDIT ISSUES AND DOWNGRADE EVENTS**

Provide a description of any current or recent credit issues/credit rating downgrade events regarding the bidder or affiliate entities raised by rating agencies, banks, or accounting firms.

Vineyard Offshore, CIP, and affiliate entities have not experienced any recent credit issues, credit rating downgrade events, or any other financial issues raised by rating agencies, banks, or accounting firms.

**5.12 FEDERAL TAX CREDITS**

Describe the role of the Federal Production Tax Credit ("PTC") or Investment Tax Credit ("ITC"), and any other incentives, on the financing of the project. In your response, please describe (a) your plan to qualify for the ITC/PTC and the level of the ITC/PTC for which you plan to qualify, (b) the facilities, investment in which, the ITC is expected to apply, (c) your plan to utilize the tax credits and the relationship to your financing plan, and (d) how qualification for the ITC/PTC is reflected in your proposed pricing.

**5.12.1 Federal Tax Credit Qualification and ITC Facilities**

Vineyard Offshore is one of a limited number of offshore wind developers with direct experience raising tax equity financing in the US offshore wind market. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 5.12.2 Tax Credit Financing

[REDACTED]

[REDACTED]

[REDACTED]

**5.12.3 ITC/PTC Reflected in Proposal Pricing**

[REDACTED]

**5.13 FEDERAL OR STATE TAX CREDIT, GRANT, OR SUBSIDY AVAILABILITY**

Bidders must clearly state their assumptions regarding the availability of federal or state tax credits, subsidies, or grants or other incentives, including but not limited to those available under the Inflation Reduction Act of 2022, the Infrastructure Investment and Jobs Act of 2022.

[REDACTED]

[REDACTED]

**5.14 FEDERAL DOMESTIC CONTENT AND LABOR REQUIREMENTS**

Bidders should describe any plans to meet federal domestic content and labor requirements in order to maximize federal tax credits available to the project under the Inflation Reduction Act (IRA). Bidders should also describe plans to pursue state funding available to offshore wind projects through MassCEC.

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**5.15 LITIGATION OR DISPUTES**

Bidders must disclose any litigation or disputes in the last three year period related to projects developed, owned or managed by Bidder or any of its affiliates in the United States, or related to any energy product sale agreement.

With the exceptions noted in Sections 5.15.1 and 5.15.2, neither Vineyard Offshore nor any affiliate in the US has been a named party in any material litigation or disputes in the last three-year period related to projects planned, developed, owned, or managed in the US, or related to any energy product sale agreement.

**5.15.1 Affiliates Vineyard Wind LLC and Vineyard Wind Management Company LLC**

[Redacted]

***Prior Litigation***

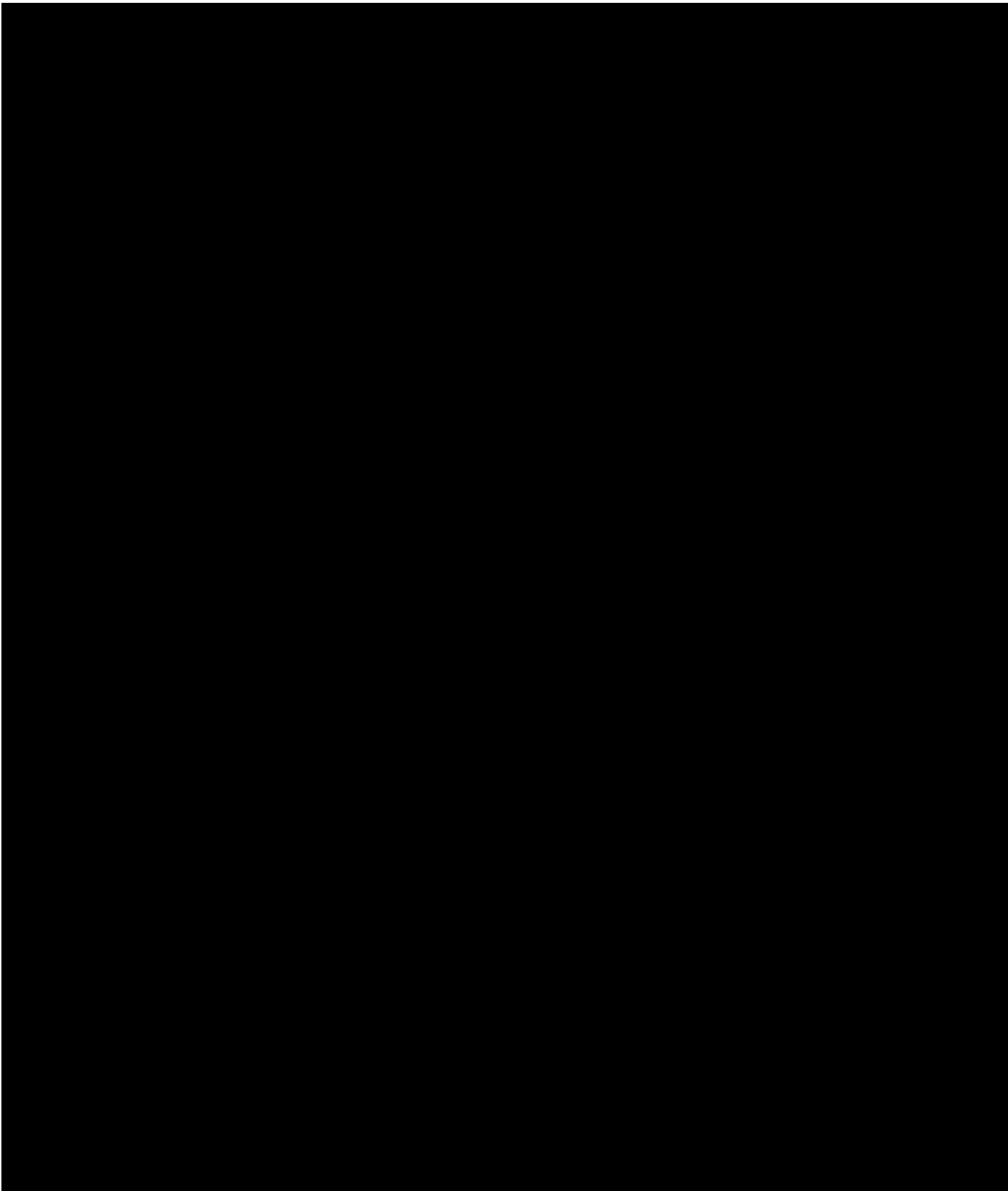
[Redacted]

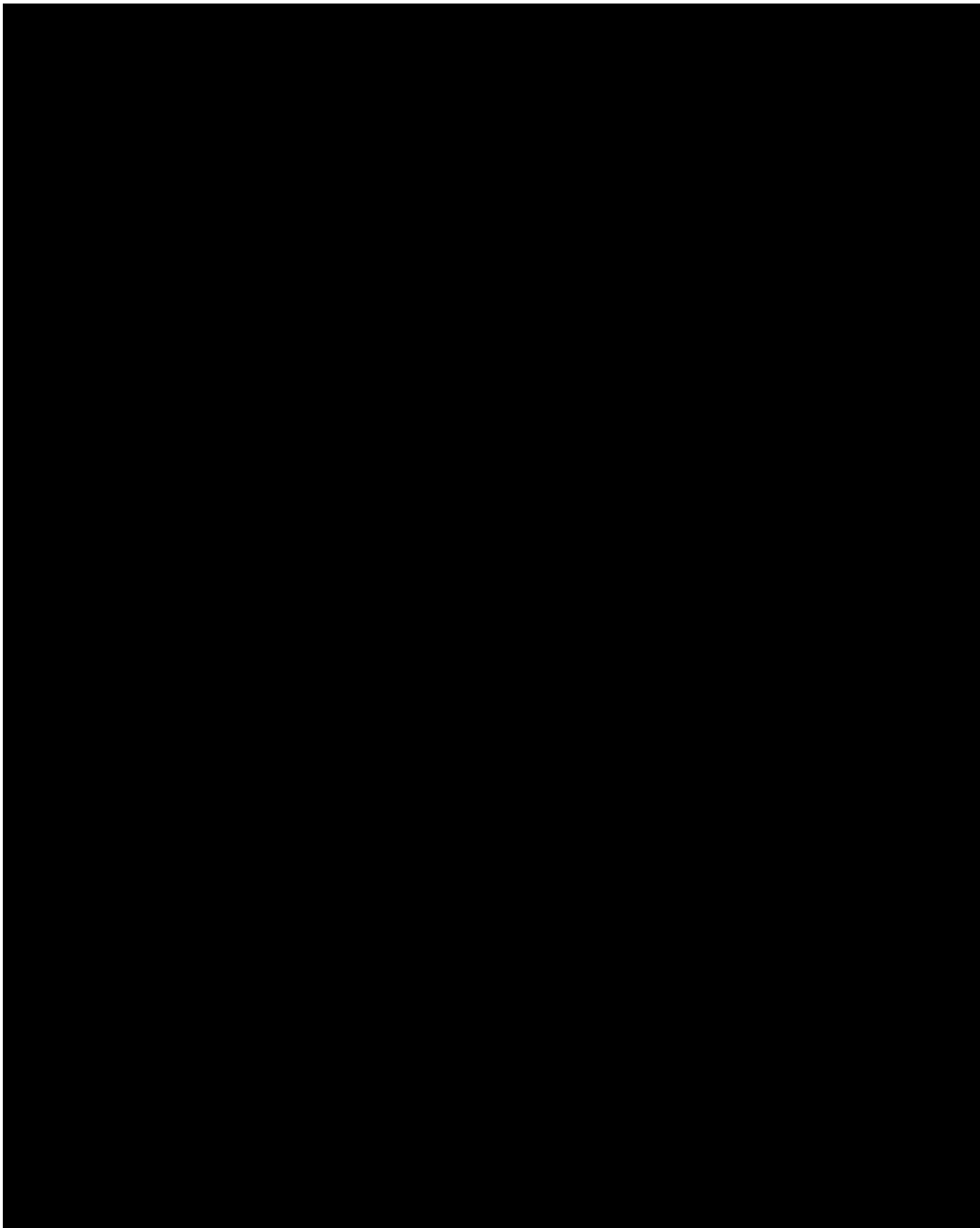
**5.15.2 Affiliate Vineyard Wind 1 LLC**

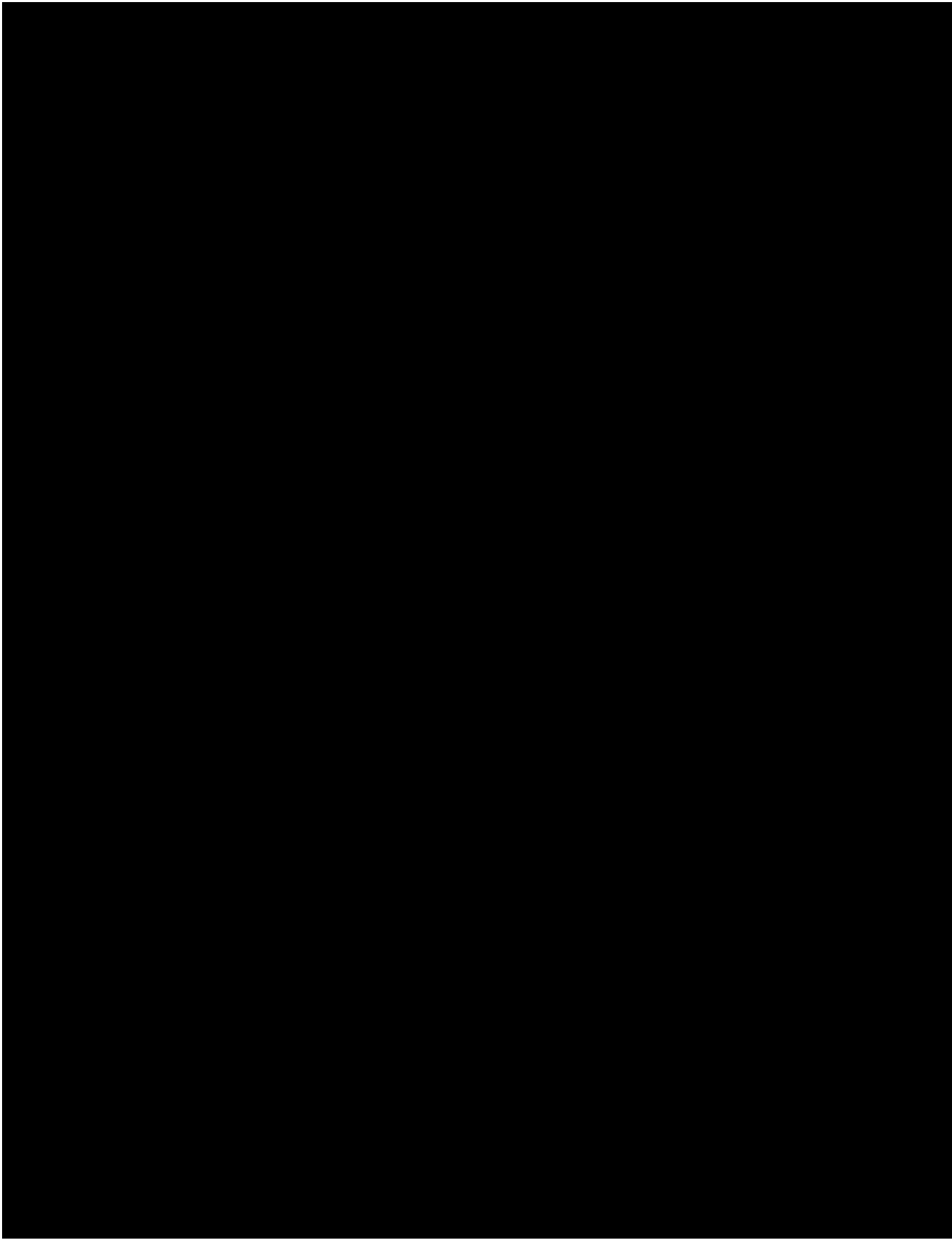
***Pending Litigation***

[Redacted]

[Redacted]







[REDACTED]

[REDACTED]

[REDACTED]

### 5.16 OPERATING LIFE

What is the expected operating life of the proposed project? What is the depreciation period for all substantial physical aspects of the bid, including generation facilities, delivery facilities to move power to the grid, and mandatory and voluntary transmission system upgrades?

Vineyard Wind 2's major project components have useful lives in excess of the term of the PPAs.

[REDACTED]

[REDACTED]

### 5.17 PROJECT FINANCING STATUS

Has the bidder already obtained financing, or a commitment of financing, for the project? If financing has not been obtained, explain how obtaining a long-term agreement as proposed will help you in obtaining financing for the proposed project, in obtaining more favorable terms for the financing of the proposed project, or in supporting the future capital investment.

[REDACTED]

[REDACTED]

**5.18 EXISTING AGREEMENTS**

State whether the bidder or its affiliates have executed agreements with respect to energy, RECs and/or capacity for the proposed project (including any agreements that have been terminated) and provide information regarding the associated term and quantities, and whether bidder has been alleged to have defaulted under or breached any such agreement. State whether the bidder or its affiliates have submitted proposals to other buyers, the status of consideration of such proposals, and the impact of such proposal(s), if they result in an executed contract or contracts, on the proposal(s) submitted in response to this RFP.

[REDACTED]

**5.19 AFFILIATED ENTITIES AND JOINT VENTURES**

List all of the Bidder’s affiliated entities and joint ventures transacting business in the energy sector.

A list of affiliated entities and joint ventures transacting business in the energy sector is provided in Attachment 5.19-1.

**5.20 BANKRUPTCY AND REORGANIZATION**

Has Bidder, or any affiliate of Bidder, in the last five years, (a) consented to the appointment of, or been taken in possession by, a receiver, trustee, custodian or liquidator of a substantial part of its assets, (b) filed a bankruptcy petition in any bankruptcy court proceeding, (c) answered, consented or sought relief under any bankruptcy or similar law or failed to obtain a dismissal of an involuntary petition, (d) admitted in writing of its inability to pay its debts when due, (e) made a general assignment for the benefit of creditors, (f) been the subject of an involuntary proceeding seeking to adjudicate that Party bankrupt or insolvent, (g) sought reorganization, arrangement, adjustment, or composition of it or its debt under any law relating to bankruptcy, insolvency or reorganization or relief of debtors?

In the last five years, neither Vineyard Offshore nor any affiliate has:

- consented to the appointment of, or was taken in possession by, a receiver, trustee, custodian, or liquidator of a substantial part of its assets;
- filed a bankruptcy petition in any bankruptcy court proceeding;
- answered, consented, or sought relief under any bankruptcy or similar law, or failed to obtain a dismissal of an involuntary petition;
- admitted in writing of its inability to pay its debts when due;
- made a general assignment for the benefit of creditors;
- been the subject of an involuntary proceeding seeking to adjudicate that party bankrupt or insolvent; or
- sought reorganization, arrangement, adjustment, or composition of it or its debt under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors.

### **5.21 CONFLICTS OF INTEREST**

Briefly describe any known conflicts of interest between Bidder or an affiliate of Bidder and any Distribution Company, or any affiliates of the foregoing.

Neither Vineyard Offshore nor an affiliate thereof has any known conflicts of interest with Fitchburg Gas and Electric Light Company d/b/a Unitil; Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid; or NSTAR Electric Company d/b/a Eversource Energy (collectively, the "Distribution Companies"), or any affiliates of the foregoing.

### **5.22 OFFSHORE WIND PROJECT LITIGATION, DISPUTES, OR COMPLAINTS**

Describe any litigation, disputes, claims, complaints or notices of violation or potential violation involving the project or other offshore wind projects involving the Bidder or an affiliate of the Bidder.

With the exceptions noted in Sections 5.15.1 and 5.15.2, neither Vineyard Offshore nor an affiliate thereof has been a named party to any litigation, disputes, claims, complaints, or notices of violation involving the Project or other offshore wind projects.

### **5.23 FAILURE TO ACHIEVE COMMERCIAL OPERATION DATES**

Describe any failures to achieve commercial operation dates under other PPAs. Bidders should also provide a credible description of how the current proposed project will avoid similar project delays or development issues.

Neither Vineyard Offshore nor an affiliate thereof has been involved in any projects that failed to achieve CODs under other PPAs.



## **5.24 DISTRIBUTION COMPANY LITIGATION, DISPUTES, OR COMPLAINTS**

Describe any litigation, disputes, claims or complaints involving the Bidder or an affiliate of Bidder, against any Distribution Company or any affiliate of any Distribution Company.

Neither Vineyard Offshore nor an affiliate thereof is currently involved in any litigation, disputes, claims, or complaints against the Distribution Companies or any affiliate thereof.

## **5.25 ENERGY PURCHASE/SALE LITIGATION, DISPUTES, OR COMPLAINTS**

Describe any litigation, disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, involving Bidder or an affiliate of Bidder, and relating to the purchase or sale of energy, capacity or renewable energy certificates or products.

Neither Vineyard Offshore nor an affiliate thereof has been a named party in any material litigation, disputes, claims, complaints, events of default, or other material failures to satisfy contract obligations, or material failures to deliver products involving and relating to the purchase or sale of energy, RECs, capacity, or other electricity products that would prohibit Vineyard Offshore, CIP, and affiliates from fulfilling any contractual obligations under any PPAs awarded in connection with the 83C-IV solicitation.

## **5.26 GOVERNMENTAL AGENCY INVESTIGATIONS**

Confirm that neither Bidder nor any directors, employees or agents of Bidder, nor any affiliate of Bidder are currently under investigation by any governmental agency, and that none of the above have in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction involving conspiracy, collusion or other impropriety with respect to bidding on any contract, or have been the subject of any debarment action (detail any exceptions).

Neither Vineyard Offshore nor CIP, nor any of their directors, employees, agents, or affiliates are currently under investigation by any governmental agency; have in the last four years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction involving conspiracy, collusion, or other impropriety with respect to bidding on any contract; or have been the subject of any debarment action.

## **5.27 REGULATORY AND OTHER APPROVALS**

Identify all regulatory and other approvals needed by Bidder to execute a binding sale agreement.

The Form PPAs contain conditions that must be met, including regulatory approvals and transmission approvals, prior to the PPAs taking effect. Such approvals consist of the Regulatory Approval and any Related Transmission Approvals, as each term is defined in the Form PPAs.

[REDACTED]

## 5.28 FEDERAL ENERGY REGULATORY COMMISSION COMPLIANCE

Describe how the project will conform to FERC’s applicable regulatory requirements, including, but not limited to, FERC requirements relating to allocation of transmission capacity and open access, the justness and reasonableness of rates, the potential for undue preference or discrimination, and affiliate dealings, if any. Describe how your proposed approach is consistent with FERC precedent and ratemaking principles.

### 5.28.1 Generation

Vineyard Offshore will ensure that it has all the necessary Federal Energy Regulatory Commission (FERC) authorizations to supply electric energy, capacity, and ancillary services at wholesale in connection with this proposal. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## 5.28.2 Transmission



## 5.29 DIRECT AND INDIRECT AFFILIATIONS

Describe and document any and all direct and indirect affiliations and affiliate relationships, contractual, financial or otherwise in the past three years between the bidder and one or more of the Distribution Companies and their affiliates, including all relationships in which one of the Distribution Companies or their affiliates has a financial or voting interest (direct or indirect) in the bidder or the bidder's proposed project. These relationships include:

- Corporate or other joint arrangements, joint ventures, joint operations whether control exists or not;
- Minority ownership (50% or less investee);
- Joint development agreements;
- Project agreements;
- Operating segments that are consolidated as part of the financial reporting process;
- Related parties with common ownership;
- Credit, debenture, and financing arrangements, whether a convertible equity feature is present or not;
- Wholly owned subsidiaries; and
- Commercial (including real property) relationships with any Distribution Company

In 2018, Vineyard Wind LLC executed arms-length PPAs with the Distribution Companies to purchase the energy and RECs generated by Vineyard Wind 1. The PPAs were assigned to Vineyard Wind 1 LLC and are active. The onshore facilities to which Vineyard Wind 1 will deliver its power are owned, operated, and maintained by, among others, New England Electric Transmission Corporation, New England Hydro-Transmission Electric Company, Inc., and New England Hydro-Transmission Corporation, which are affiliates of Massachusetts Electric Company and Nantucket Electric Company. Additionally, New England Power Company (an affiliate of Massachusetts Electric Company and Nantucket Electric Company) is an asset owner of certain transmission network facilities that required upgrades for Vineyard Wind 1 to interconnect to its delivery point.

The existence of and performance by the parties under the PPAs and in connection with the related interconnection/transmission arrangements are unrelated to the Project that is the subject of this response to the 83C-IV solicitation and create no conflict of interest for Vineyard Offshore or the Distribution Companies.

Aside from the above, over the past three years, Vineyard Offshore, CIP, and affiliates have not had any direct or indirect affiliations or affiliate relationships, financial or otherwise, with the Distribution Companies or any affiliate thereof.

## SECTION 6

### SITING, INTERCONNECTION, AND DELIVERABILITY

---

#### 6.1 SITE PLAN

Provide a site plan (or plans) including a map (or maps) that clearly identifies the location of the proposed project site, Offshore Delivery Facilities project locations, the assumed right-of-way width, the total acreage for Eligible Facilities, the anticipated interconnection point (or, if applicable, multiple interconnection points), the related onshore and offshore transmission and interconnection facilities, deployment facilities, and the relationship of the site to other local infrastructure, including transmission facilities, roadways, federal and state waters, and waterways. In addition to providing the required map(s), provide a site layout plan which illustrates the location of all major equipment and facilities described above.

Plan included? Yes  No  If not, please explain: N/A

Describe how the proposed project is sized and designed to efficiently and cost-effectively use available lease area(s), interconnection point(s), transmission cabling, and other infrastructure required for the production and delivery of the Offshore Wind Energy Generation.

Vineyard Wind 2 (the "Project") includes a 1,200 megawatt (MW) Offshore Wind Energy Generation facility (OWF) that will be installed in Lease Area OCS-A 0522 (the "Lease Area").

[REDACTED]  
[REDACTED] The Project also includes a [REDACTED] transmission system and delivery point in Montville, Connecticut.

Maps identifying the location of key Project components are included below and in Attachment 6.1-1. Although these plans are preliminary and pending final design, permitting, and further stakeholder consultation, which is typical at this stage of development, Vineyard Offshore has undertaken significant due diligence to de-risk Project delivery and to ensure the Project is delivered in line with the schedule provided in Section 9.

[REDACTED]

### 6.1.1 Eligible Facility

The Project is located in Lease Area OCS-A 0522, which is shown in Figure 6.1-1. The Lease Area is approximately 132,370 acres in size and is located approximately 29 miles south of Nantucket. It is one of nine lease areas in the Massachusetts Wind Energy Area (MA WEA) and Rhode Island/Massachusetts Wind Energy Area (RI/MA WEA) and abuts SouthCoast Wind’s (formerly Mayflower Wind’s) Lease Area OCS-A 0521 along its northwestern edge.

**Figure 6.1-1 Eligible Facility Site**

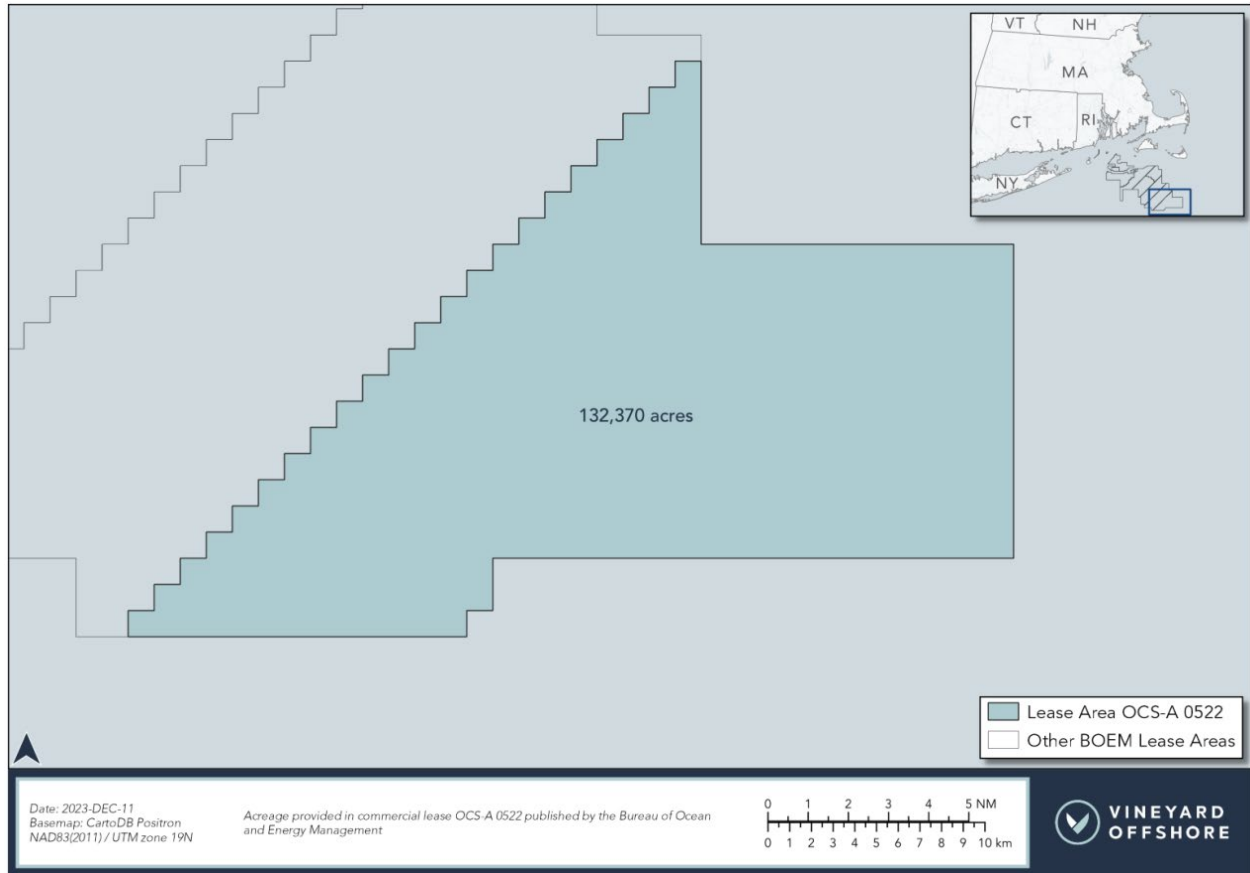
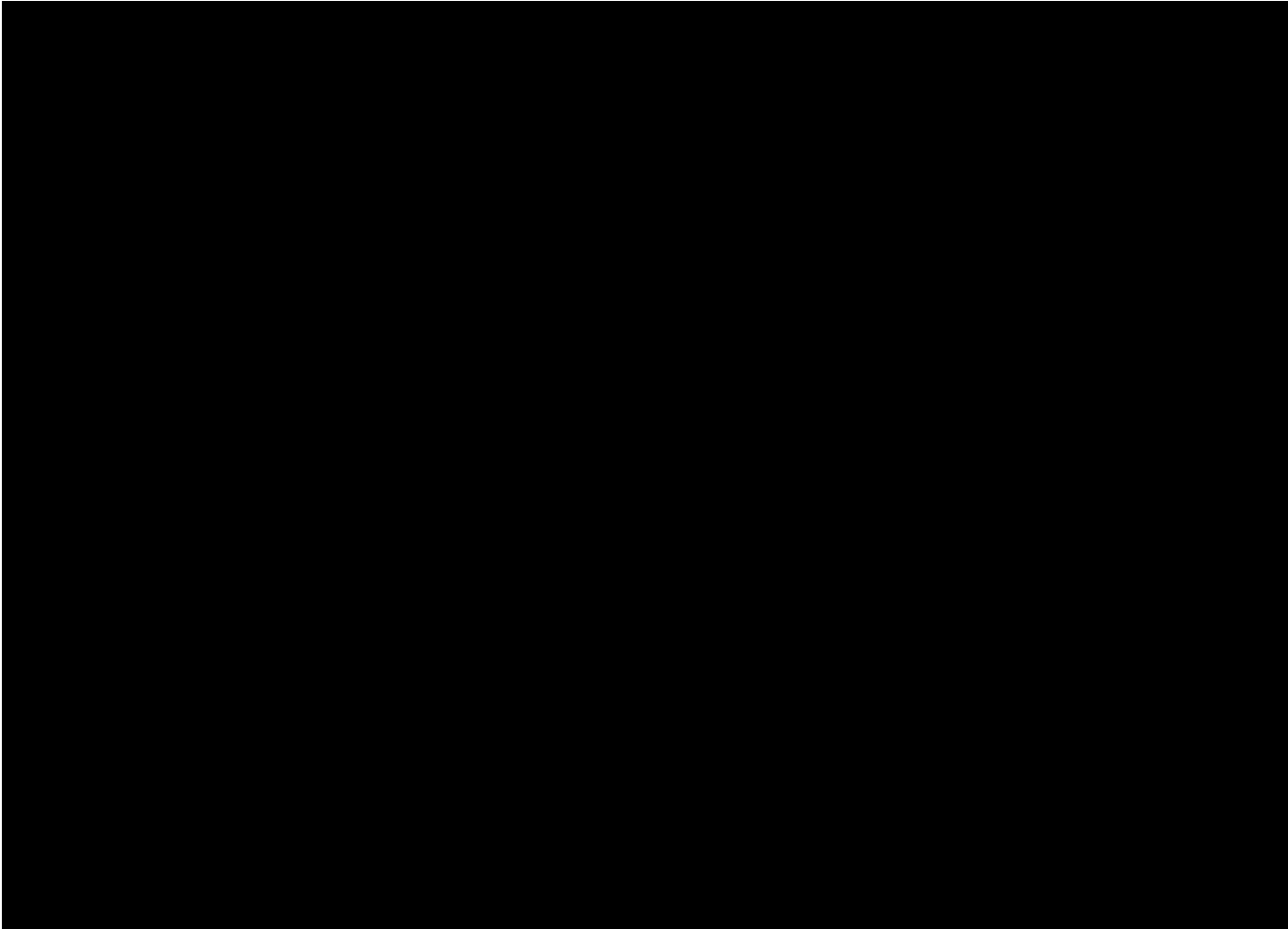


Figure 6.1-2 depicts the preliminary site plan for offshore wind energy development in the Lease Area. The indicative WTG/ESP layout is a uniform grid layout with east-to-west rows and north-to-south columns and 1 x 1 nautical mile (NM) spacing between all WTGs and ESPs. The figure below shows the full buildout of the Lease Area and is aligned with the permitting envelope for the Construction and Operations Plan (COP) for the Lease Area (referred to as the Vineyard Northeast COP; see Section 7).<sup>1</sup>

<sup>1</sup> For the purposes of federal permitting, “Vineyard Northeast” is Vineyard Offshore’s proposal to develop, construct, and operate OWFs in Lease Area OCS-A 0522, along with associated offshore and onshore transmission systems. Vineyard Wind 2 will be developed as part of Vineyard Northeast.

The site layout aligns with the 1 x 1 NM uniform grid layout voluntarily adopted by developers throughout the MA WEA and RI/MA WEA to facilitate safe transit through the lease areas and enable traditional fishing practices to continue (see Attachment 7.4-1). [REDACTED]

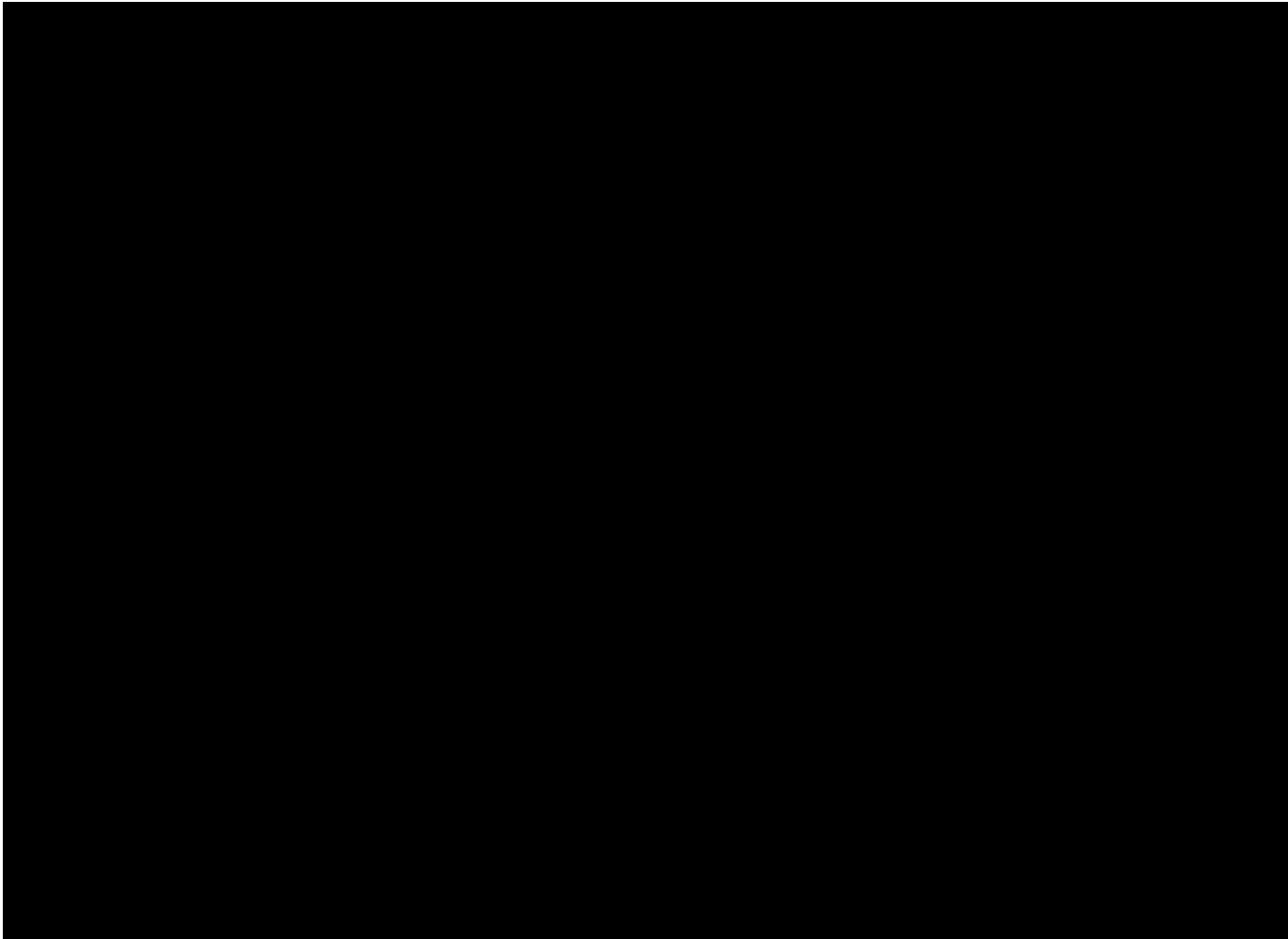
[REDACTED]



**6.1.2 Offshore Delivery Facilities**

**6.1.2.1 Offshore Export Cable Corridor**

[REDACTED]



[REDACTED]

[REDACTED] This process involved extensive analysis and consultation with federal and state agencies, fishermen, and other relevant stakeholders. As part of this process, we consistently received feedback indicating that offshore wind developers should consolidate infrastructure to the extent feasible. [REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

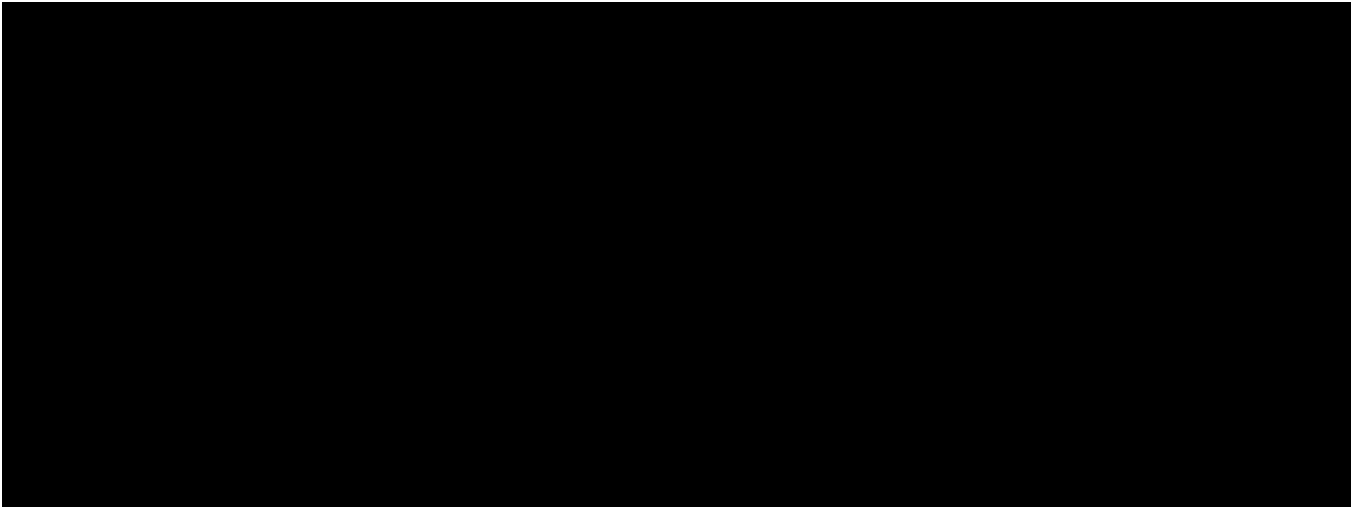
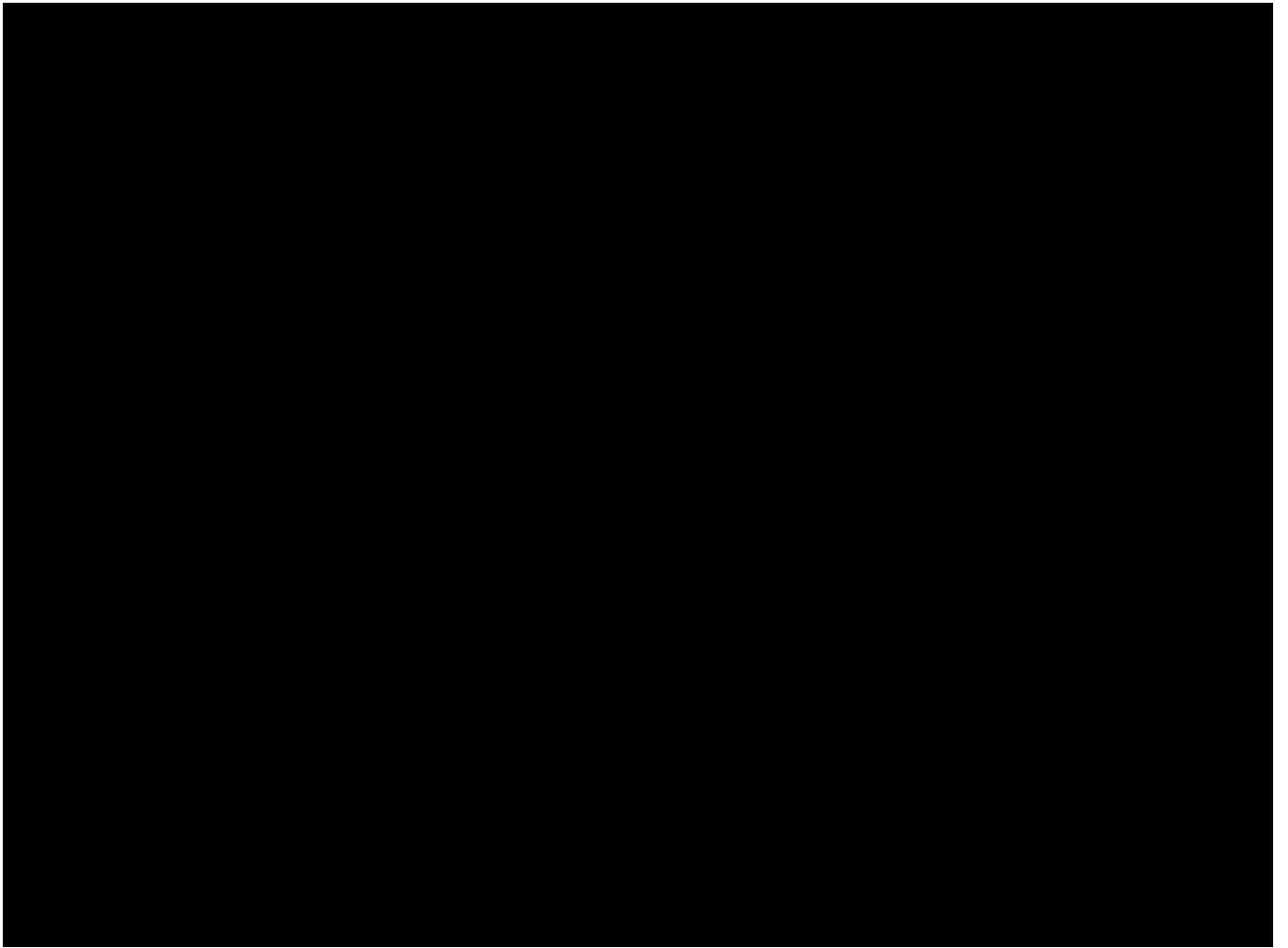
[REDACTED] These variations and landfall sites have been included in the permitting envelope for the Vineyard Northeast COP and are discussed further below.

**6.1.2.2 Landfall Site**

[REDACTED]

[REDACTED]

[REDACTED]

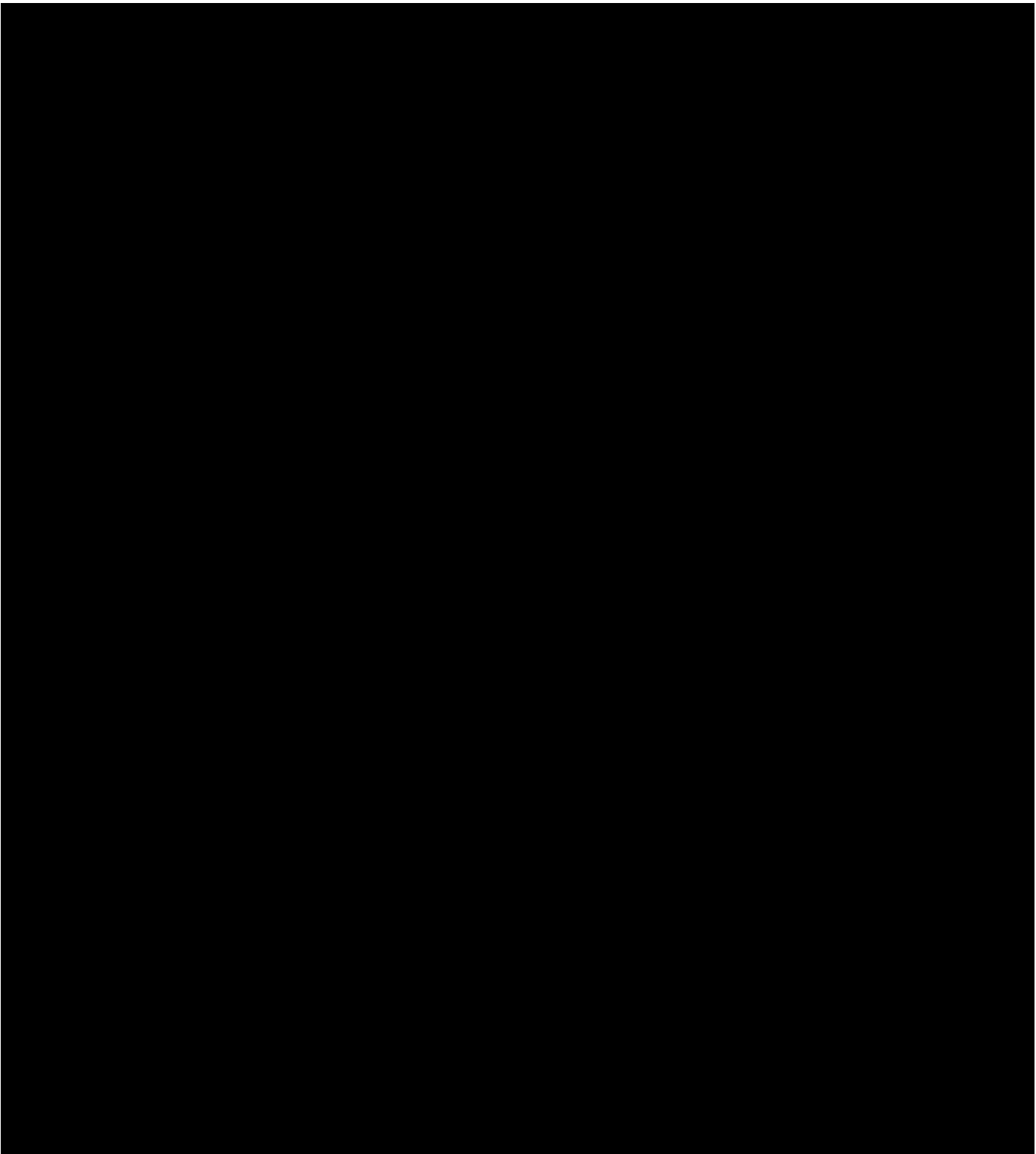


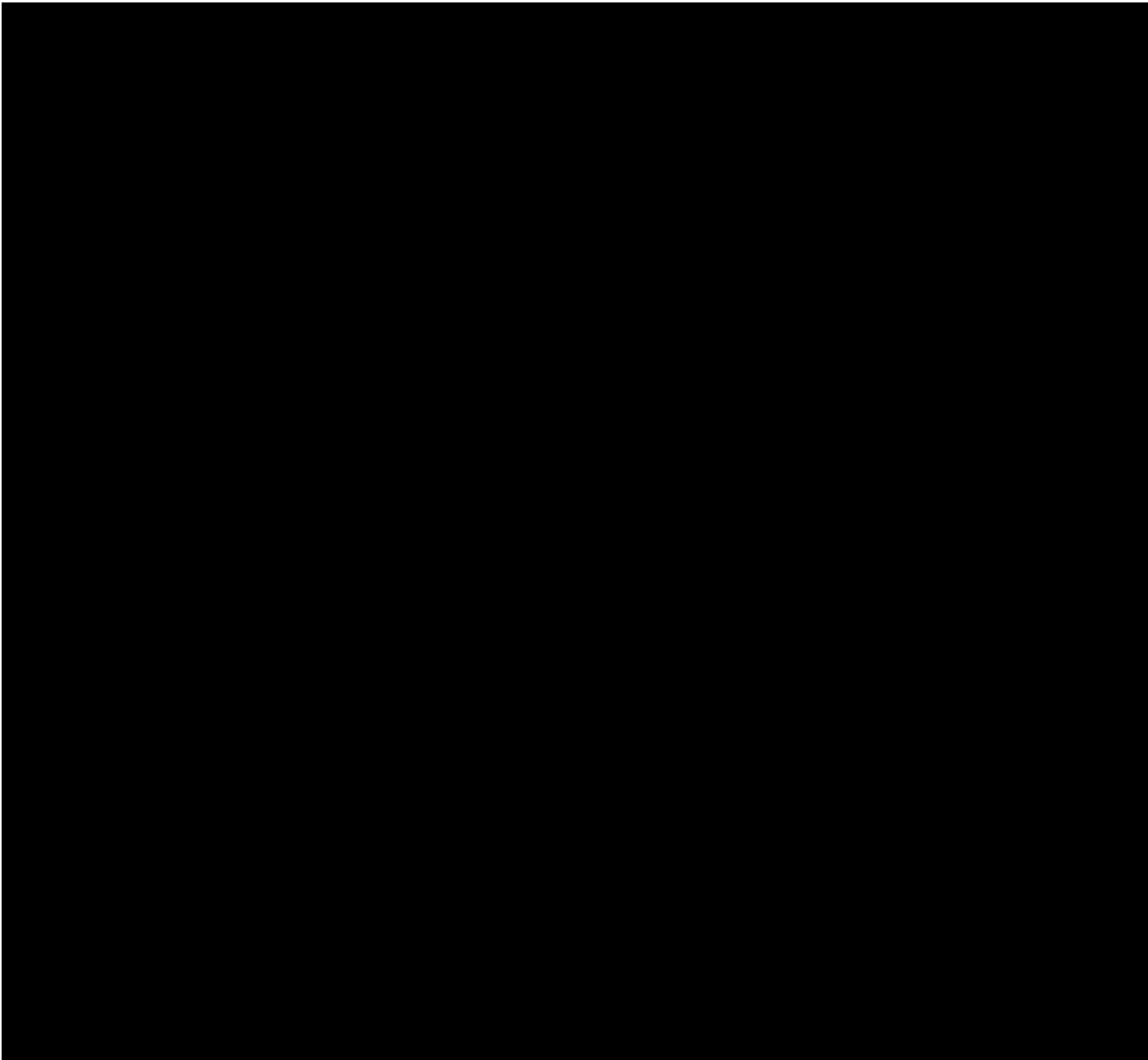
### 6.1.2.3 Onshore Export Cable Route

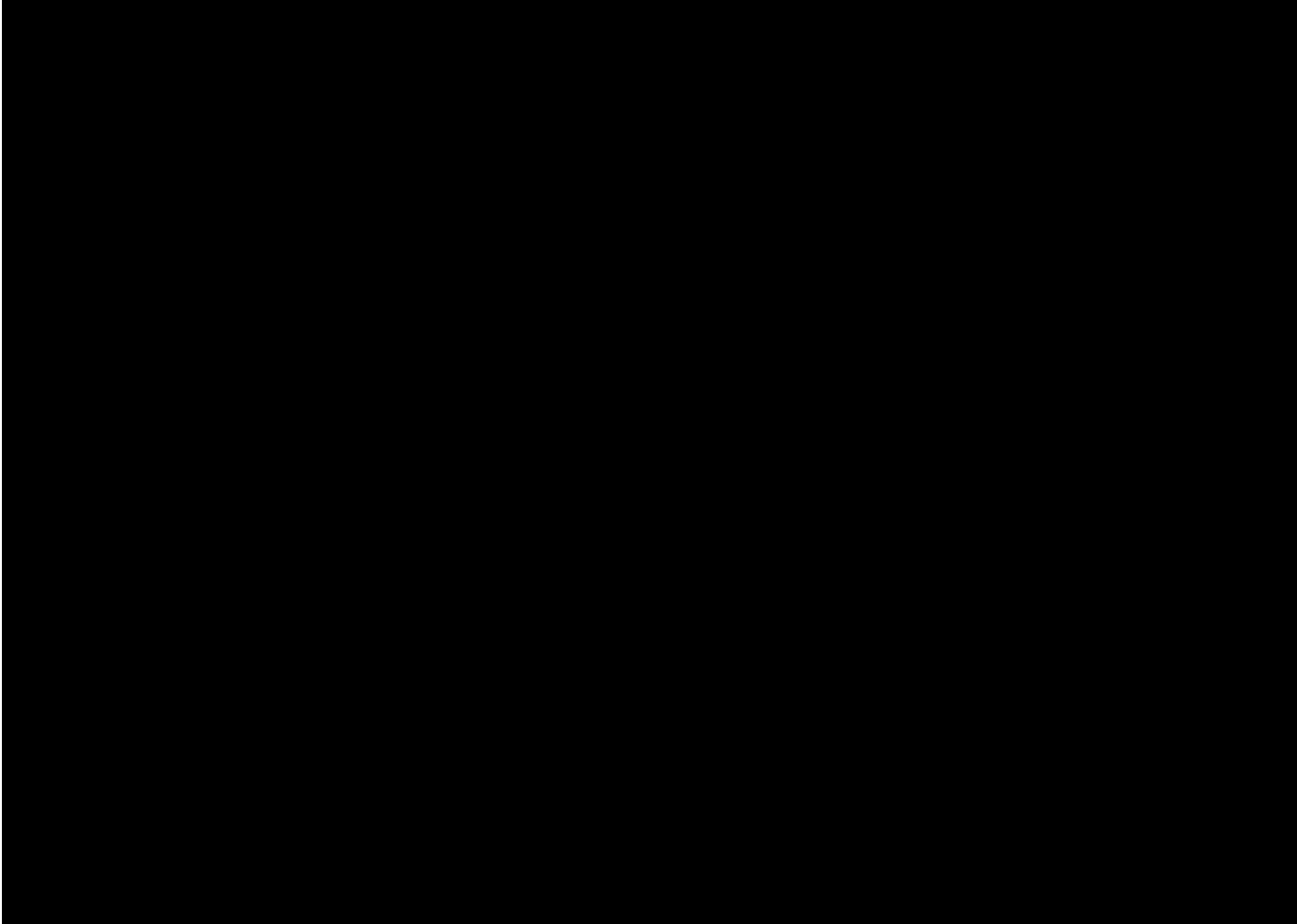
[REDACTED]

[REDACTED]

The Project's final onshore export cable route is subject to further due diligence, host community consultations, and permitting.







**6.2 REAL PROPERTY RIGHTS**

Identify any real property rights (e.g., fee-owned parcels, rights-of-way, development rights or easements or leases, or options to purchase or lease) that provide the right to use the Eligible Facility site and Offshore Delivery Facilities locations including for Eligible Facilities and any rights of way needed for interconnection.

- i. Does the project have a right to use the Eligible Facility site and/or Offshore Delivery Facilities locations for the entire proposed term of the PPA (e.g., by virtue of ownership or land development rights obtained from the owner)?

Yes  No  If not, please explain:

- ii. If so, please detail the Bidder’s rights to control the Eligible Facility site and/or Offshore Delivery Facilities and interconnection locations.
- iii. Describe the status of acquisition of real property rights, any options in place for the exercise of these rights and describe the plan for securing the necessary real property rights, including the proposed timeline. Include these plans and the timeline in the overall project timeline.
- iv. Identify any joint use of existing or proposed real property rights
- v. Provide a copy of each of the leases, agreements, including option agreements, easements, rights of way and related documents granting the right to use the Offshore Wind Energy Generation site, Offshore Delivery Facilities, and transmission and interconnection locations (and applicable letters of intent if formal agreements have not been executed)

### **6.2.1 Site Control**

As further described herein, Vineyard Offshore has the right to use the Eligible Facility site and portions of the Offshore Delivery Facilities locations for the entire term of the power purchase agreements (PPAs).

#### **6.2.1.1 Eligible Facility Site**

Vineyard Offshore’s affiliate, Vineyard Northeast LLC (formerly known as OCS-A 0522 LLC), has a valid lease agreement for Lease Area OCS-A 0522 for the purpose of offshore wind energy generation on the Outer Continental Shelf. Vineyard Northeast LLC acquired the rights to Lease Area OCS-A 0522 from Vineyard Wind LLC in late 2021. The lease agreement provides Vineyard Offshore with the exclusive right to secure all necessary permits and easements necessary to construct and operate offshore wind projects in the Lease Area and install the necessary transmission system within federal waters. The lease agreement has an operations term of 33 years, which can be extended by the Bureau of Ocean Energy Management (BOEM).

[REDACTED]

A copy of the BOEM lease agreement and assignment is included as Attachment 6.2-1.

#### **6.2.1.2 Offshore Delivery Facilities**

The lease agreement with BOEM also provides for the right to obtain one or more easements in federal waters for the purpose of installing and using offshore export cables. To exercise this right, Vineyard Offshore must obtain approval through the federal permitting process, as described in Section 7.

[REDACTED]

[REDACTED]

[REDACTED]

### 6.2.2 Acquisition

Vineyard Offshore has secured critical real property rights for the Project and will obtain others through, or after the completion of, federal, state, and local permitting processes. Any remaining real property rights will be acquired in line with the Project schedule provided in Section 9. Table 6.2-1 provides an overview of the status of the key real property rights required to construct and operate the Project.

**Table 6.2-1 Status of Real Property Rights Acquisition**

Property Right Required	Status	Remarks
<b>Eligible Facility Site</b>		
To install Project components in Lease Area OCS-A 0522	<b>Secured</b>	Vineyard Offshore's affiliate, Vineyard Northeast LLC, has a lease agreement for Lease Area OCS-A 0522 (see Attachment 6.2-1).
<b>Offshore Export Cable Corridor</b>		
To install the offshore export cable in federal waters	<b>Secured</b>	The right to install and locate the offshore export cable in federal waters is included in the lease agreement per 30 Code of Federal Regulations § 585.200(b). The cable easement will be issued upon approval of the COP and will be recorded as an addendum to the lease agreement for Lease Area OCS-A 0522. The width of the easement will be determined as part of the COP Approval process.



**Table 6.2-1 Status of Real Property Rights Acquisition (Continued)**

Property Right Required	Status	Remarks
<b>Offshore Export Cable Corridor (Continued)</b>		
To install the offshore export cable in state waters	[REDACTED]	[REDACTED]
<b>Landfall Site</b>		
To install the offshore and onshore export cables at the landfall site	[REDACTED]	[REDACTED]
<b>Onshore Export Cable Route</b>		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

**Table 6.2-1 Status of Real Property Rights Acquisition (Continued)**

Property Right Required	Status	Remarks
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

**6.2.3 Joint Use**

[REDACTED]

[REDACTED]

**6.3 ZONING AND PERMITTING**

Provide evidence that the Eligible Facility site and Offshore Delivery Facilities and interconnection locations are properly zoned or permitted. If the Eligible Facility site and Offshore Delivery Facilities and interconnection locations are not currently zoned or permitted properly, identify present and required zoning and/or land use designations and permits and provide a permitting plan and timeline to secure the necessary approvals.

Detail the zoning and permitting issues: See below and Sections 7.1 and 7.2.

Permitting plan and timeline: See Sections 7.1, 7.2, and 9.

Start Date: [REDACTED] End Date: [REDACTED]

### 6.3.1 Zoning

#### 6.3.1.1 Eligible Facility Site

The Lease Area is entirely in federal waters and is subject only to federal jurisdiction. Thus, there are no zoning requirements for the Eligible Facility site.

#### 6.3.1.2 Offshore Delivery Facilities

Zoning for the Offshore Delivery Facilities locations is as follows:

- **Offshore export cable corridor:** [REDACTED]  
[REDACTED]
- **Landfall site:** [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]
- **Onshore export cable route:** [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]
- [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]

### **6.3.2 Permitting**

Information about the Project's permitting plan and timeline are provided in Sections 7.1, 7.2, and 9.

## **6.4 SITE DESCRIPTION**

Provide a description of the area surrounding the Eligible Facility site and Offshore Delivery Facilities and interconnection locations (including landfall), including a description of the local zoning, flood plain information, existing land or waterway use, and setting.

The Eligible Facility site and Offshore Delivery Facilities locations are described in Section 6.1, with additional information available in Attachments 6.1-1, 6.1-2, and 7.1-2.

## **6.5 INTERCONNECTION FACILITY SITE CONTROL**

If the bidder does not have interconnection facilities site control describe the status of the plan to obtain that control.

Site control for the Project's Offshore Delivery Facilities locations is described in Section 6.2.

## **6.6 INTERCONNECTION REQUEST**

Please provide documentation to show evidence of the interconnection request to ISO-NE, the applicable New England Transmission Owner, or any neighboring control areas, to interconnect at the Capacity Capability Interconnection Standard. Please describe the status of any planned interconnection to the grid.

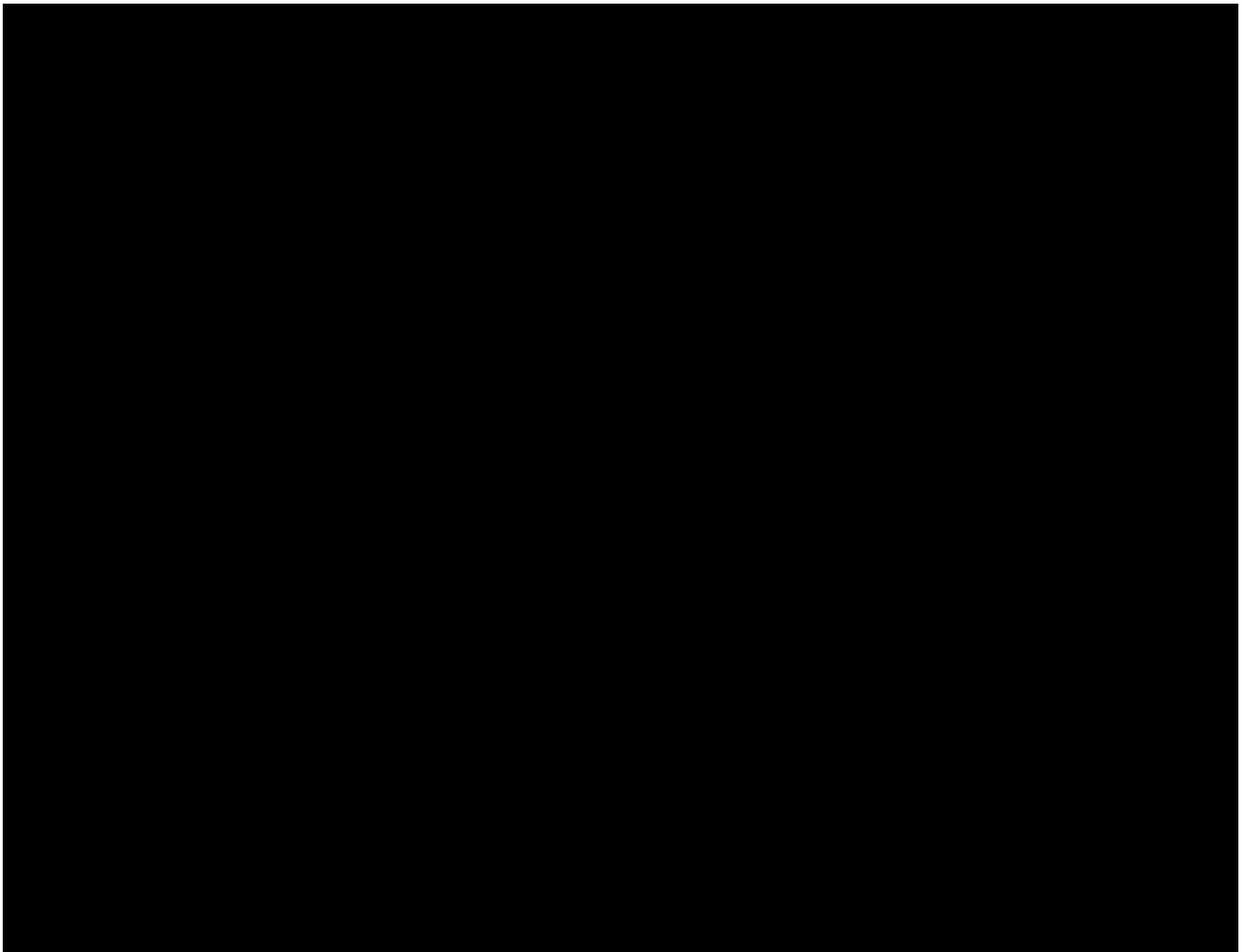
Vineyard Offshore has investigated multiple delivery points for interconnection to the ISO-NE electrical grid within a technically and commercially feasible distance to the Lease Area, with a focus on minimizing interconnection risk and optimizing grid interconnection. Through consideration and careful balancing of the following factors, Vineyard Offshore has selected the Montville Substation as the Project's delivery point:

- technical, commercial, and development risks associated with siting, permitting, and constructing the infrastructure necessary to access potential delivery points;
- interconnection upgrade costs at various delivery points to identify cost-effective options that would limit ratepayer impact;
- injection capability/headroom at potential delivery points;
- potential impacts and/or benefits to host communities;
- availability and cost of [REDACTED] property within reasonable proximity to potential delivery points or associated cable routes; and
- ability to use a mature queue position (QP) in the interconnection process.

As a major 345 kV substation located near the southern New England coast, the Montville Substation has long been anticipated as a delivery point for offshore wind in ISO-NE studies. For example, the *2019 Economic Study: Offshore Wind Integration*<sup>2</sup> and the *Draft 2050 Transmission Study*<sup>3</sup> analyze the implications of offshore wind integration at the Montville Substation as part of future transmission planning efforts.

Information on the studies conducted to date is provided in response to Section 6.8.

**Table 6.6-1 Summary of Interconnection Request Status**



<sup>2</sup> See: [NESCOE 2019 Economic Study - 8,000 MW Offshore Wind Result](#).

<sup>3</sup> See: [Draft 2050 Transmission Study](#).

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

**6.7 JOINT STATE INNOVATION PARTNERSHIP FOR OFFSHORE WIND**

Please describe how the project aligns with the transmission goals of the Joint State Innovation Partnership for Offshore Wind.

[Redacted]

The Joint State Innovation Partnership for Offshore Wind is a collaborative effort between the New England states, transmission providers, and offshore wind developers, working closely with ISO-NE. It was formulated with the goals of:

- selecting an initial portfolio of one or more HVDC transmission lines and associated onshore system upgrades;
- unlocking the region’s significant offshore wind potential;
- improving grid reliability and resiliency;
- facilitating innovative regional cost allocation models (multistate collaboration);
- reducing innovative technology risk;
- advancing diversity, equity, and inclusion;
- investing in job growth and quality; and
- lowering costs, thereby reducing the cost impacts of the states’ offshore wind goals for ratepayers.

These goals are born out of New England’s shared objective of minimizing the cost of a reliable, sustainable energy system that protects our citizens and natural resources from climate change without shifting costs or overburdening ratepayers. These goals are shared by Vineyard Offshore and were considered in developing the Vineyard Wind 2 proposal. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Vineyard Offshore supports continued efforts to explore opportunities to coordinate transmission improvements that realize the full potential of offshore wind resources off the coast of New England and the broader Northeast. [REDACTED]

## 6.8 ELECTRICAL SYSTEM PERFORMANCE

Provide studies that describe the Project’s electrical system performance, its impact to the reliability of the New England Transmission system, how the project would satisfy ISO NE’s I.3.9 requirements, and how the project will interconnect at an equivalent to the Capacity Capability Interconnection Standard. Projects that do not have I.3.9 approval from ISO-NE must include technical reports or system impact studies that approximate the ISO-NE interconnection process, including but not limited to clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions. All projects must also provide analysis that approximates the ISO-NE CCIS interconnection analysis as defined in Planning Procedure 10. Please also provide the status and expected completion date of any additional interconnection studies already underway with ISO-NE and/or the transmission owner. All studies must follow the current ISO-NE interconnection procedures and detail any assumptions regarding resources ahead of the Project in the ISO- NE interconnection queue. All network upgrades identified in these studies must be clearly documented and included in the bid price. Provide a copy of an interconnection agreement, if any, executed by the bidder with respect to the proposed project. If an interconnection agreement has not been executed, please provide the steps that need to be completed before an interconnection agreement can be executed and the associated timeline.

Performance and its impact:

Attachments:

Copy of completed I.3.9 approval or I.3.9-equivalent study attached:

If none, please explain: See response below.

Copy of completed CCIS-equivalent study attached:

If none, please explain:

Copy of Interconnection Agreement attached:

If none, please explain: See response below.

Additionally, any other studies undertaken by ISO-NE or the bidder must be provided.

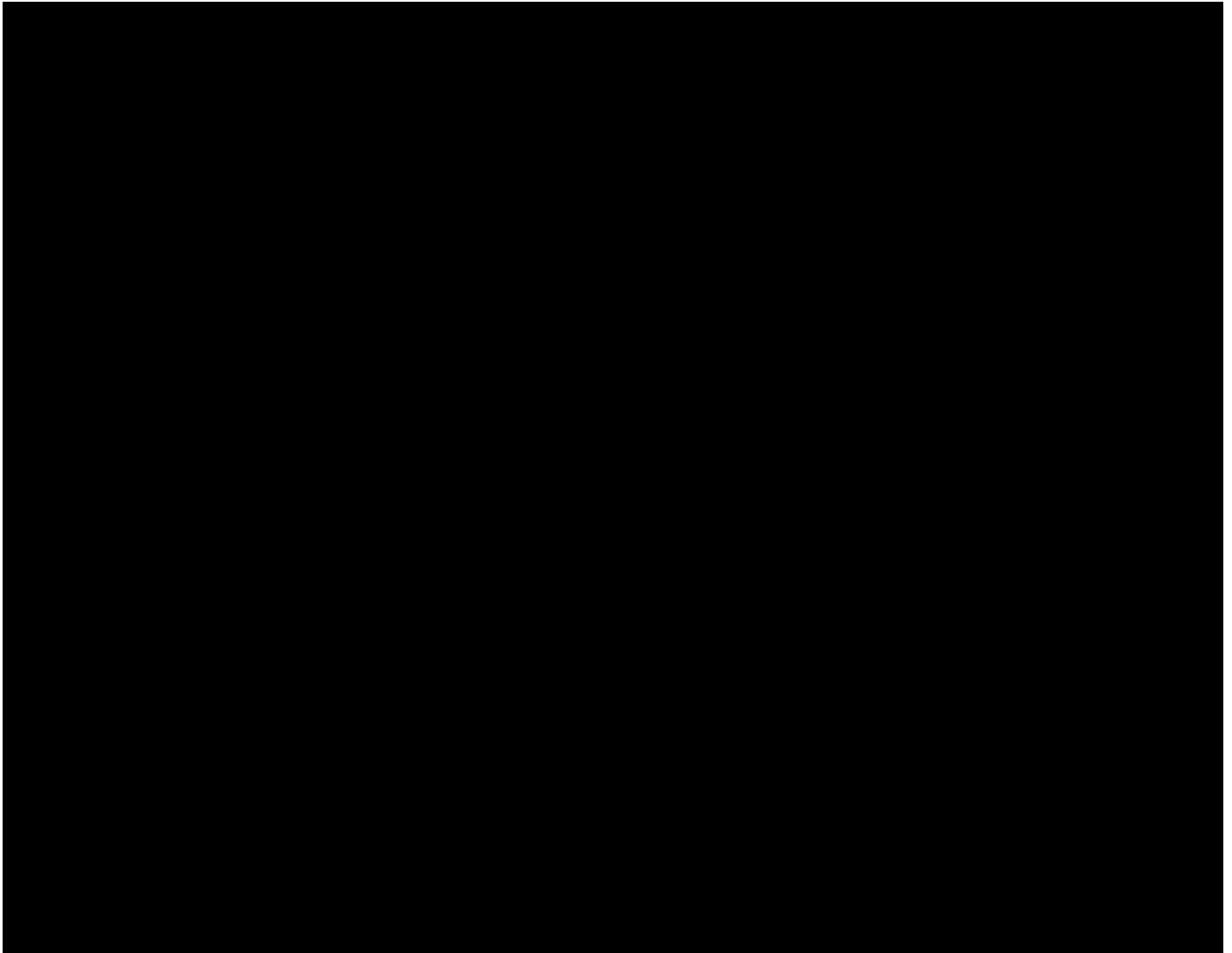


### 6.8.1 Interconnection and System Planning Studies

A number of studies have been undertaken to confirm the Project's electrical system performance, its impact on the reliability of the ISO-NE electrical grid, and how it will meet the Network Capability Interconnection Standard (NCIS) and CCIS (see Table 6.8-1). Additional information is provided in the discussion that follows. The Project's broader reliability benefits are detailed in Section 3.3.

**Table 6.8-1 Status of Interconnection Studies**

---



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## 6.9 DELIVERABILITY CONSTRAINT ANALYSIS

Please provide documentation of the deliverability constraint analysis set forth in Appendix I to the RFP. Provide a description of the findings of the deliverability constraint analysis, including but not limited to a list of thermal overloads and voltage violations identified.

Attachments:

Copy of completed deliverability constraint analysis:

If the deliverability constraint analysis was performed as a portion of a separate study, please explain and provide the study:

[REDACTED]

[REDACTED]

[REDACTED]

**6.10 ADDITIONAL INTERCONNECTION REQUESTS**

If multiple interconnection requests have been made, please specify all such active requests which have not been superseded by subsequent requests and information regarding the status of each. Provide copies of any requests made and studies completed.

Vineyard Offshore has diligently explored alternative delivery points for Lease Area OCS-A 0522 given technical, commercial, and development considerations, as outlined in Section 6.1.

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

## 6.11 SYSTEM AND NETWORK UPGRADES

Please provide cost estimates for any necessary network upgrades identified in the studies identified in Section 6.7

Preliminary cost estimates for necessary system and network upgrades are provided in Table 6.11-1.

**Table 6.11-1 Summary of Interconnection Upgrade Cost Estimates**

[Redacted table content]

### 6.11.1 System Upgrades

[Redacted]

- [Redacted]

- [Redacted]

- [Redacted]

### 6.11.2 Network Upgrades

[Redacted]

[Redacted]

- [Redacted]

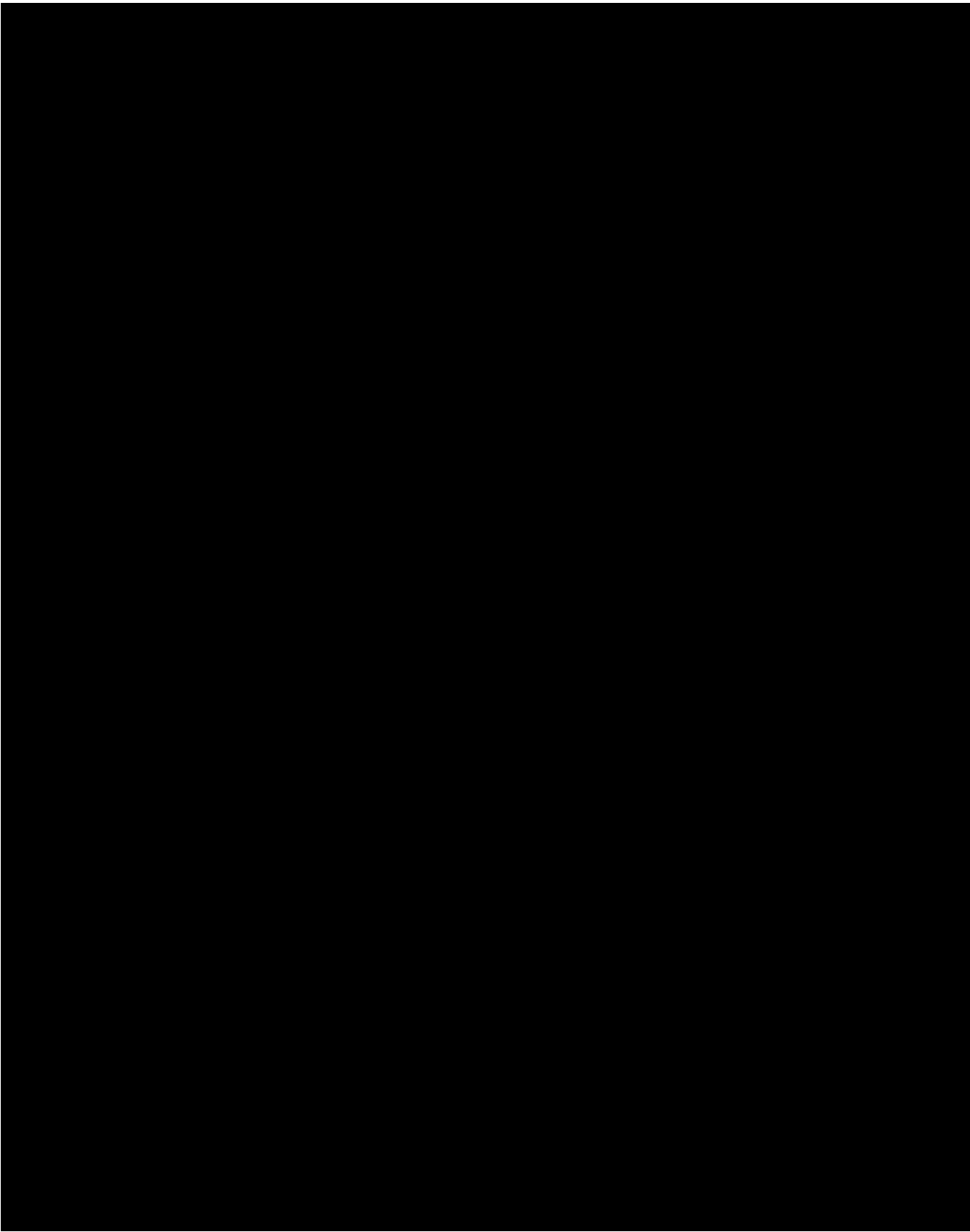
- [Redacted]

- [Redacted]

- [Redacted]

[Redacted]

[Redacted]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**6.12 ALTERNATIVE INTERCONNECTION SCENARIO**

To the extent that you provide an alternative interconnection scenario based on ISO- proposed interconnection process changes, you must also include studies using the proposed ISO-NE process. Any such studies must be accompanied with clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions.

[REDACTED]

**6.13 ELECTRICAL MODELS**

Provide the electrical models of all energy resources supporting the proposed project in accordance with the filing requirements of the ISO-NE Tariff Schedule 22 and 23.

Electrical models attached:  If none, please explain: See response below.

Electrical models can be made available upon request to individuals who hold the appropriate non-disclosure agreement and ISO-NE Critical Energy Infrastructure Information permissions, compliant with ISO-NE's information policy.

#### **6.14 ELECTRICAL ONE-LINE DIAGRAM**

Provide a copy of an electrical one-line diagram showing the interconnection facilities, the relevant facilities of the transmission and/or distribution provider, and any required network upgrades identified in the studies required in section 6.9 of this document.

Electrical one-line diagram attached:  If none, please explain:

The following single-line diagrams (SLDs) are provided in Attachment 6.14-1:

[REDACTED]

[REDACTED]

[REDACTED]

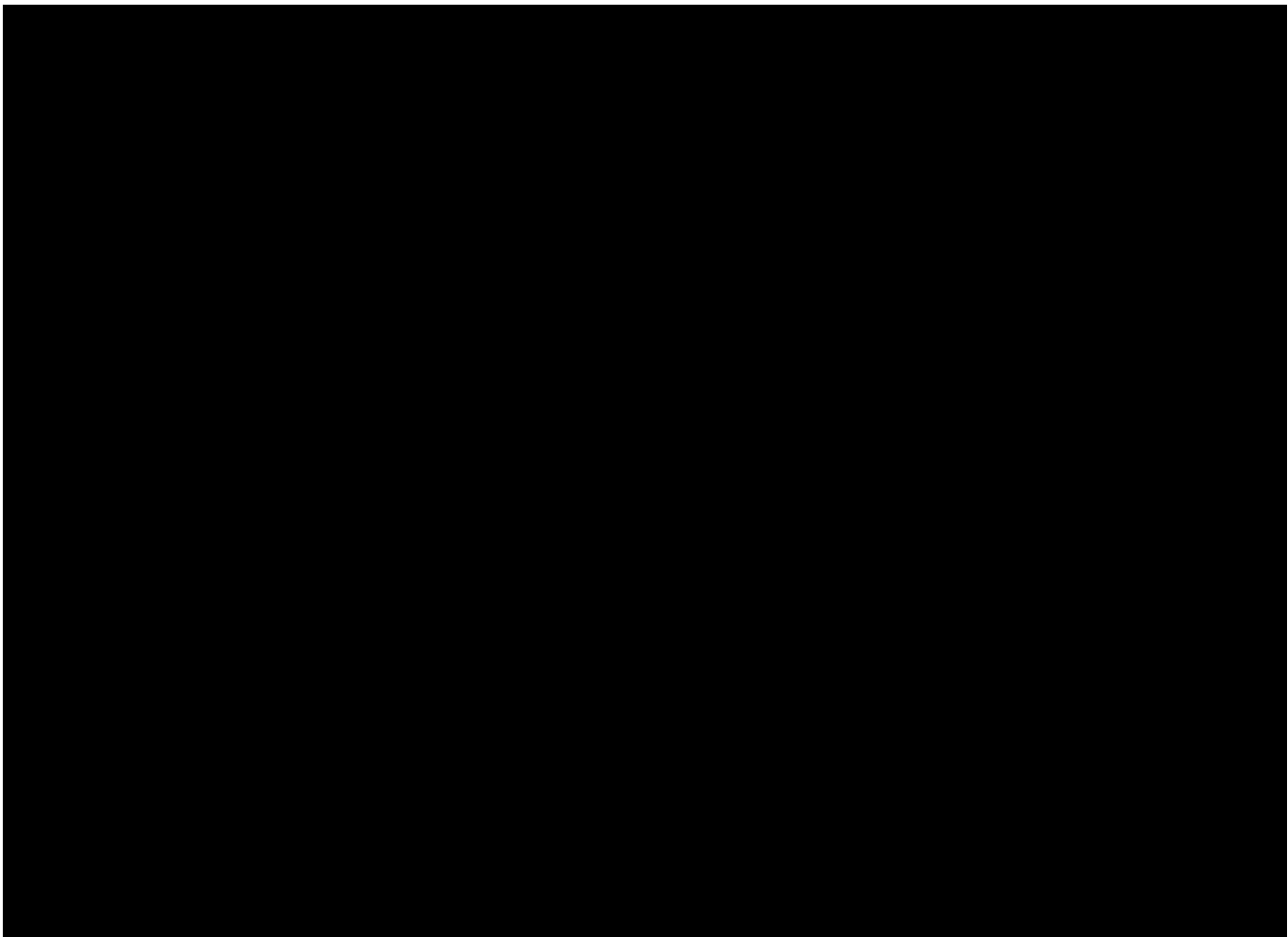
#### **6.15 INTERCONNECTION FACILITIES DESCRIPTION**

Specify and describe the current or new interconnection facilities (lines, transformers, switching equipment, system protection and controls, etc.) that bidder owns or is intending to construct or have constructed in order to deliver the proposed energy.

[REDACTED]

[REDACTED]





## 6.16 INCREMENTAL DATA REQUIREMENTS

1. IDV file(s) in PSSE v32 format modeling all upgrades to the transmission network identified in the studies required in section 6.7 of this document.  If none, please explain:
2. If the Bidder does not use PSSE, provide in text format necessary modeling data as follows:
  - Line Data:  
Voltage                      Thermal Ratings Impedances (r, X and B)  
Line Length: from                      to (bus numbers and names)
  - Transformer data (including Phase shifting transformers if applicable):  
Terminal Voltages      Thermal Ratings  
Impedance  
From                      To  
(bus numbers and names)
  - Reactive compensation models as necessary

- Other changes to the model that would occur due to a Project such as terminal changes for lines/transformer/generator leads/loads etc.

[Redacted]

**6.17 CONSTRAINTS OR CURTAILMENTS**

Please detail with supporting information and studies (as available) that the production/delivery profile contemplated in your proposal reflects constraints or curtailments, if any, after the upgrades that are expected to take place pursuant to interconnection at an equivalent to the CCIS. If you are planning to make voluntary upgrades beyond those associated with the CCIS-equivalent standard, as more fully described in the RFP, please describe the transmission network upgrades necessary, their estimated cost (for which the bidder would have cost responsibility), and the impact on the proposed generation schedule by reducing remaining constraints or curtailments.

[Redacted]

[Redacted]

## SECTION 7

### ENVIRONMENTAL ASSESSMENT, PERMIT ACQUISITION PLAN AND ENVIRONMENTAL ATTRIBUTES CERTIFICATION

---

#### 7.1 PERMITS, LICENSES, AND ENVIRONMENTAL IMPACT STATEMENTS

Provide a list of all the permits, licenses, and environmental assessments and/or environmental impact statements required to construct and operate the project. Along with this list, identify the governmental agencies and States that are responsible for issuing approval of all the permits, licenses, and environmental assessments and/or environmental impact statements. If a bidder has secured any permit or has applied for a permit, please indicate this in the response.

Vineyard Offshore continues to lead the rapidly growing United States (US) offshore wind sector using the experience gained permitting multiple, coincident offshore wind projects. Having worked closely with Bureau of Ocean Energy Management (BOEM) staff and other federal agencies since 2017, we have the experience, knowledge, and resources needed to support successful federal permitting and review processes. The Vineyard Offshore team led the successful effort to secure all federal, state, and local permits for the first commercial-scale offshore wind project—Vineyard Wind 1—and is using the same industry-leading approach to develop and permit Vineyard Wind 2 (the “Project”). Our permitting activities are supported by a suite of environmental consultants with the experience and expertise required to successfully permit offshore wind projects (see Section 12).

The federal permitting process for the Project is already underway. In July 2022, Vineyard Offshore submitted the Vineyard Northeast Construction and Operations Plan (COP) to BOEM. For the purposes of federal permitting, “Vineyard Northeast” is Vineyard Offshore’s proposal to develop, construct, and operate Offshore Wind Energy Generation facilities (OWFs) in Lease Area OCS-A 0522 (the “Lease Area”) along with associated offshore and onshore transmission systems. The permitting envelope for the COP includes 160 total wind turbine generator (WTG) and electrical service platform (ESP) positions within the Lease Area. Up to three of those positions will be occupied by ESPs, and the remaining positions will be occupied by WTGs.

[REDACTED]

[REDACTED]

[REDACTED] Vineyard Wind 2 will be developed as part of Vineyard Northeast [REDACTED]

[REDACTED]

[REDACTED]

Our permitting plan is informed by numerous consultations with federal, state, and local agencies. One of the key lessons learned from previous projects was to engage with agencies well before starting the permitting process. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Our frequent and early engagement with agencies during the COP planning process enabled Vineyard Offshore to incorporate agency feedback into the siting and design of the facilities; methodologies for resource assessments; survey strategies; and proposed avoidance, minimization, and mitigation measures. [REDACTED]

[REDACTED]

A list of the permits, licenses, and environmental assessments or environmental impact statements required for the Project is provided in Tables 7.1-1 through 7.1-3.

### **7.1.1 Federal Permitting Process**

Vineyard Northeast, which includes Vineyard Wind 2, is a covered project under Title 41 of the Fixing America’s Surface Transportation Act (FAST-41). FAST-41 is designed to improve the timeliness, predictability, and transparency of the federal environmental review and authorization process for covered infrastructure projects. FAST-41 establishes procedures that standardize interagency consultation and coordination practices. For FAST-41 covered projects, the federal agencies create a Coordinated Project Plan and use a Permitting Dashboard to track the project’s progress.<sup>1</sup> The Permitting Dashboard is accessible to federal agencies, project developers, and the public to provide improved coordination, transparency, and accountability.

Table 7.1-1 lists the expected federal permits and approvals required for the Project and their status. The timelines for each permit/approval are discussed in Section 7.2.

---

<sup>1</sup> The Permitting Dashboard and permitting timetable for Vineyard Northeast can be found at: <https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/vineyard-northeast>.

**Table 7.1-1 Anticipated Federal Permits and Approvals**

Agency/Regulatory Authority	Permit/Approval <sup>1</sup>	Status
Bureau of Ocean Energy Management	Site Assessment Plan (SAP) Approval	[REDACTED]
	COP Approval	COP initially filed with BOEM in July 2022.
	National Environmental Policy Act (NEPA) review and Record of Decision (ROD)	Initiated by BOEM.
	Consultation under Section 106 of the National Historic Preservation Act (NHPA), consultation with NMFS under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), consultation under Section 7 of the Endangered Species Act (ESA) with NMFS and USFWS, and government-to-government tribal consultations	Initiated by BOEM.
Environmental Protection Agency	[REDACTED]	[REDACTED]
	Outer Continental Shelf (OCS) Air Permit	TBF
US Army Corps of Engineers	Clean Water Act (CWA) Section 404 Permit [REDACTED]	TBF
	Rivers and Harbors Act of 1899 Section 10 Individual Permit (for all offshore structures)	
National Marine Fisheries Service	Incidental Take Regulation (ITR) and an associated Letter of Authorization (LOA)	TBF
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

Note:

1. This table does not include permits that vessel operators or construction firms will need to obtain.

### **7.1.1.1 Bureau of Ocean Energy Management**

BOEM is the lead federal agency for Vineyard Northeast, which includes the Project. The agency has jurisdiction under the Outer Continental Shelf Lands Act to issue leases, easements, and rights-of-way for the development of renewable energy on the Outer Continental Shelf (OCS). BOEM authorizes development on the OCS through its review and approval of a project's Site Assessment Plan (SAP) and COP pursuant to 30 Code of Federal Regulations (CFR) Part 585.

A SAP describes the initial activities to characterize a site (e.g., installation of meteorological towers and meteorological and oceanographic ["metocean"] buoys). [REDACTED]

[REDACTED]

Vineyard Offshore initially submitted the Vineyard Northeast COP on behalf of the leaseholder, Vineyard Northeast LLC, on July 29, 2022. Excerpts of Volume II of the COP, which assesses the benefits and potential impacts of Vineyard Northeast to physical, biological, socioeconomic, visual, and cultural resources and our proposed measures to avoid, minimize, and mitigate those potential impacts, are provided in Attachment 7.1-2. BOEM determined that the Vineyard Northeast COP meets the requirements of the Notice of Intent (NOI) Checklist on February 7, 2024. BOEM then issued the NOI to prepare an Environmental Impact Statement (EIS) in March 2024.

In reviewing the COP and preparing the EIS, BOEM must comply with its obligations under the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and the Endangered Species Act (ESA). To fulfill these obligations, BOEM will coordinate and consult with numerous other federal agencies during the review process, including the Bureau of Safety and Environmental Enforcement (BSEE), NMFS, US Coast Guard, USFWS, EPA, Department of Defense (DoD), Federal Aviation Administration (FAA), and USACE. BOEM will also conduct government-to-government consultations with federally recognized tribes/Tribal Nations that may be affected by Vineyard Northeast.

As described below, several other federal agencies (e.g., NMFS, USACE, and EPA) will issue permits for Vineyard Northeast, but will rely on BOEM's EIS and/or consultations to support their decision making.

### **7.1.1.2 US Army Corps of Engineers**

Section 10 of the Rivers and Harbors Act of 1899 prohibits the unauthorized obstruction or alteration of any navigable water of the US.<sup>2</sup> A Section 10 permit from the USACE is needed for the installation of the Project's WTGs, ESP, and their associated foundations, the placement of scour protection and cable protection (if/where needed), and the installation of offshore cables.

[REDACTED]

[REDACTED] Similar to BOEM, the USACE must comply with its obligations under NEPA, NHPA, MSA, and ESA. However, to avoid duplication of effort, the USACE is a cooperating agency with BOEM through the NEPA process.

### **7.1.1.3 Environmental Protection Agency**

The OCS Air Regulations at 40 CFR Part 55, which implement Section 328 of the Clean Air Act, establish air pollution control requirements for OCS sources (i.e., certain vessels and equipment located in federal waters with the potential to emit air pollutants). Vineyard Offshore will obtain an OCS Air Permit for OCS sources used during the offshore construction and operation of the Project.

[REDACTED]

For [REDACTED] the OCS Air Permit, EPA is expected to coordinate with BOEM to satisfy its obligations under the ESA, MSA, and other relevant statutes.

### **7.1.1.4 National Marine Fisheries Service**

Authorization under the Marine Mammal Protection Act is necessary for activities that may affect (by harassment, injury, or mortality) marine mammals. During construction of the Project, marine mammals may be affected by pile driving noise, geophysical survey work, and other noise-generating activities and are at risk of interaction with transiting vessels. Because these activities will occur over multiple years, Vineyard Offshore will request an Incidental Take Regulation (ITR) and associated Letter of Authorization (LOA) from NMFS for the incidental take of small numbers of marine mammals (by harassment), which would be valid for five years.

---

<sup>2</sup> USACE's authority to prevent obstructions to navigation in navigable waters of the US was extended to artificial islands, installations, and other devices located on the seabed, to the seaward limit of the OCS, by Section 4(f) of the OSCLA of 1953 as amended (43 US Code [USC] § 1333(e) and 33 CFR § 320.2)

**7.1.1.5 Federal Aviation Administration**

[REDACTED]

The Project’s WTGs are outside of the FAA’s jurisdiction (which extends 12 NM from the US coastline). However, for the portions of the Project that lie outside of US territorial airspace and in BOEM jurisdiction, BOEM will consult with the FAA regarding airspace impacts.

**7.1.1.6 Coastal Zone Management Act**

The Coastal Zone Management Act (CZMA) gives states the authority to review federal actions that affect their coastal uses and/or resources to ensure that such actions are consistent with a state’s federally approved coastal zone management program and policies. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



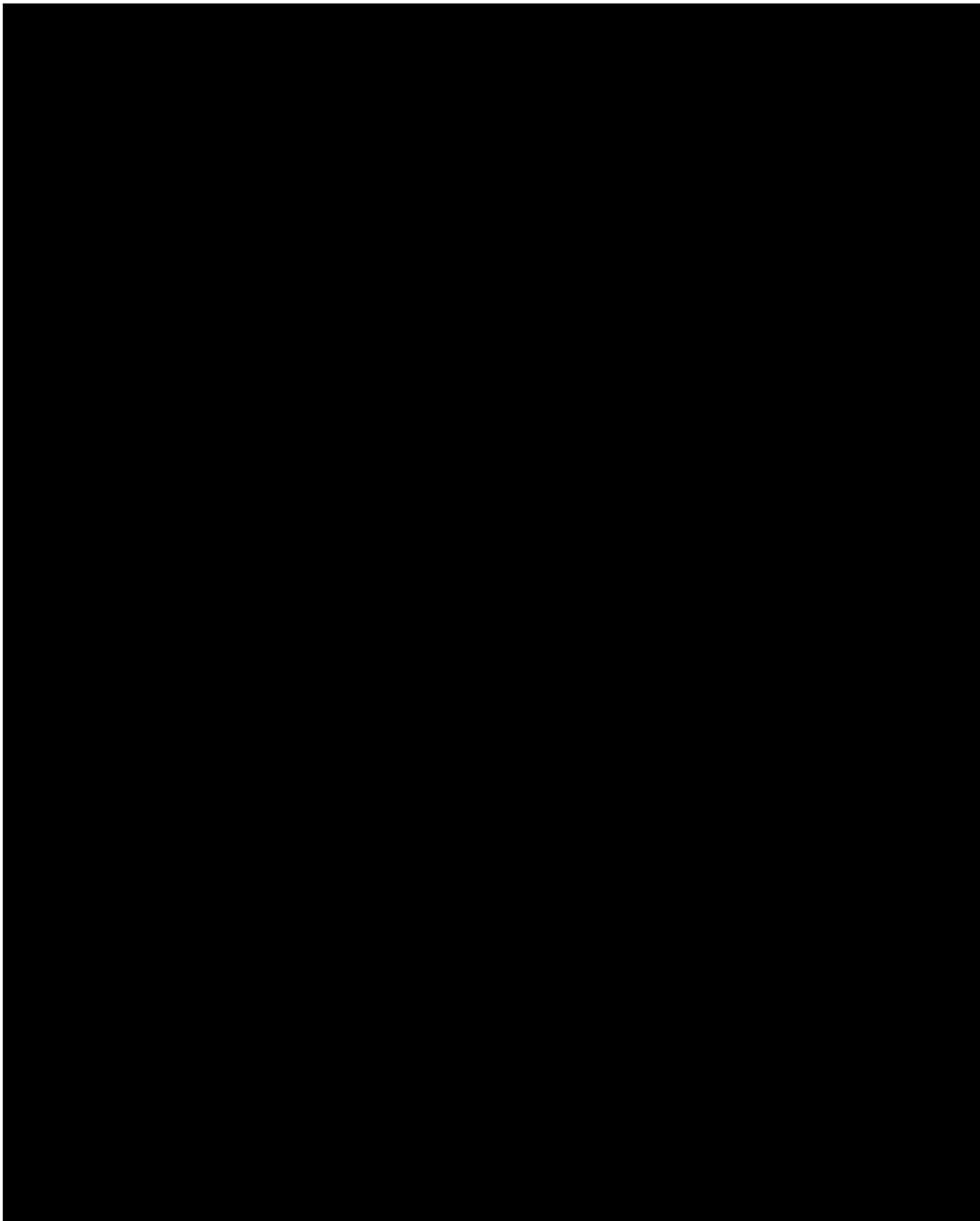
**7.1.1.7 Additional Reviews/Authorizations**

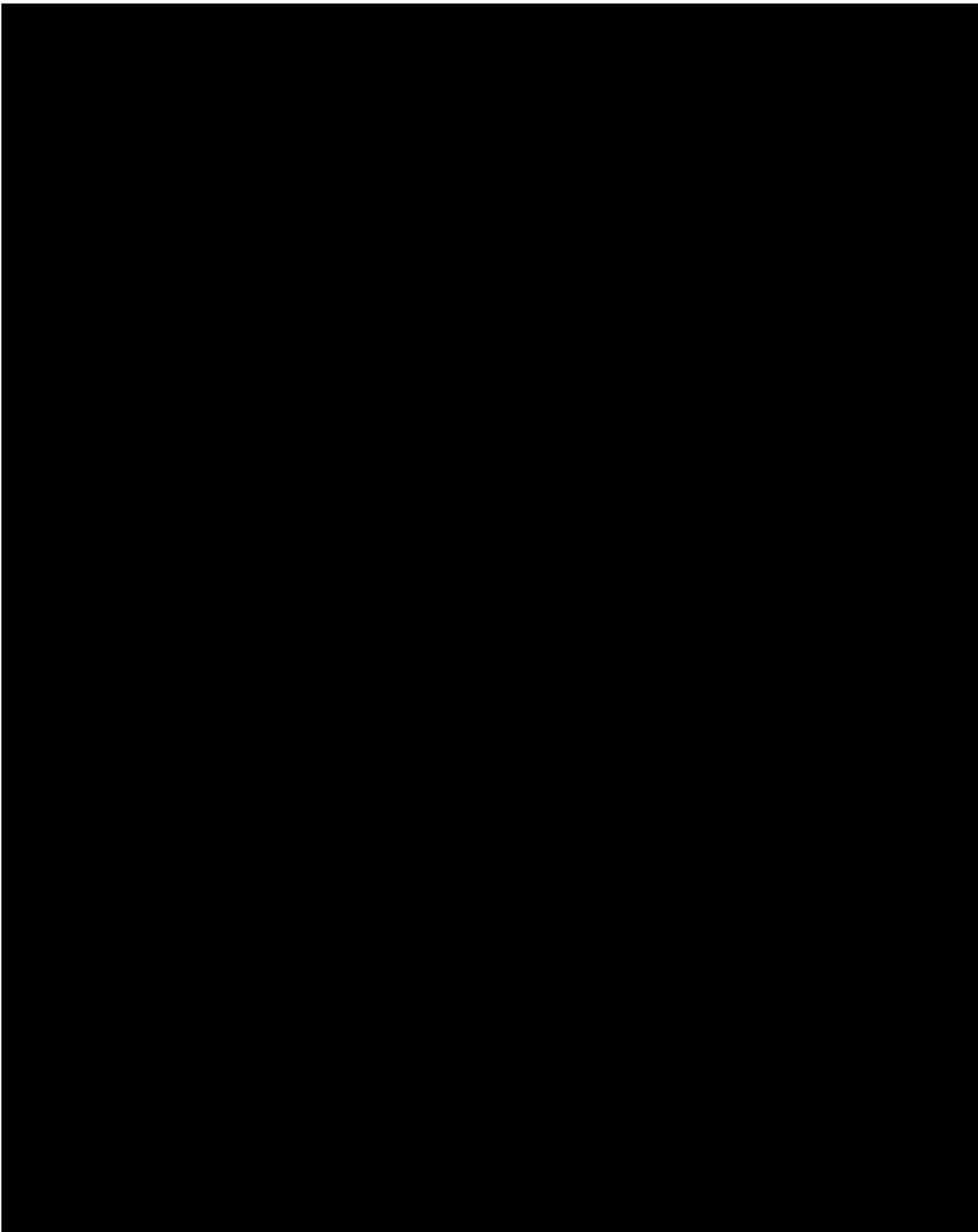
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]





[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## 7.2 PERMITTING TIMELINE

Provide the anticipated timeline for seeking and receiving the required permits, licenses, and environmental assessments and/or environmental impact statements. Include a project approval assessment which describes, in narrative form, each segment of the process, the required permit or approval, the status of the request or application and the basis for projection of success by the milestone date. All requirements should be included on the project schedule in Section 9.

Vineyard Offshore has planned and designed a robust and prudent schedule that ensures on-time delivery of the Project. An overview of the Project’s permitting timeline is provided in Table 7.2-1, and major permitting milestones have been included in the Project schedule detailed in Section 9. [REDACTED]

[REDACTED] The Project’s permitting schedule incorporates lessons learned from permitting the Vineyard Wind 1 project.

**Table 7.2-1 Permitting Timeline Overview**

---



## 7.2.1 Federal Permitting Timeline



### 7.2.1.1 Bureau of Ocean Energy Management

As described in Section 7.1.1.1, [REDACTED] Vineyard Offshore submitted the Vineyard Northeast COP to BOEM in July 2022. In March 2024, BOEM issued the NOI to prepare an EIS, which will be followed by a series of public scoping meetings. [REDACTED]

[REDACTED] Based on the current FAST-41 permitting timetable, BOEM is expected to issue the Record of Decision (ROD) in Q1 2026. BOEM would then issue the COP Approval within 90 days of the ROD in Q2 2026.

### 7.2.1.2 US Army Corps of Engineers

Vineyard Offshore expects to file draft permit applications with the USACE in Q4 2024. The USACE is expected to serve as a cooperating agency during BOEM’s development of the EIS. The USACE will coordinate its review with BOEM’s NEPA process and is expected to issue a joint ROD with BOEM and NMFS. The USACE is expected to issue its permits within approximately 90 days of the ROD, [REDACTED]

### 7.2.1.3 Environmental Protection Agency

The OCS Air Permit process begins with the submission of an NOI to EPA. Within 18 months of submitting the NOI, Vineyard Offshore will submit the initial OCS Air Permit application, which is anticipated to occur in Q4 2024. EPA will review the application for completeness within approximately 30 days. Once the application is deemed complete, EPA will prepare a draft permit and fact sheet. The draft permit is then available for public comment for approximately 30 days. Following the close of the comment period, EPA addresses comments and issues a final permit. The permit typically becomes effective approximately 30 days after it is finalized.



In issuing the OCS Air Permit [REDACTED] EPA has an obligation to comply with the ESA, MSA, and other relevant statutes. However, to avoid duplication of effort, EPA typically relies upon BOEM's consultations. Thus, the final OCS Air Permit [REDACTED] will be issued after BOEM's ROD in Q2 2026.

**7.2.1.4 National Marine Fisheries Service**

Vineyard Offshore will seek an ITR and associated LOA from NMFS for the incidental take of small numbers of marine mammals. This regulatory process takes approximately 19 months from the time a complete application is received by NMFS. Vineyard Offshore expects to submit a complete application by the end of Q4 2024. NMFS is expected to serve as a cooperating agency during BOEM's development of the EIS. NMFS will coordinate its review with BOEM's NEPA process and is expected to issue a joint ROD with BOEM and USACE. The final LOA decision is expected to be rendered in Q2 2026.

**7.2.1.5 Federal Aviation Administration and US Coast Guard**

Both the FAA and US Coast Guard will be involved in the project development process and ongoing permitting activities with Vineyard Offshore and through coordination with BOEM.

**7.2.1.6 Coastal Zone Management Act**

[REDACTED]

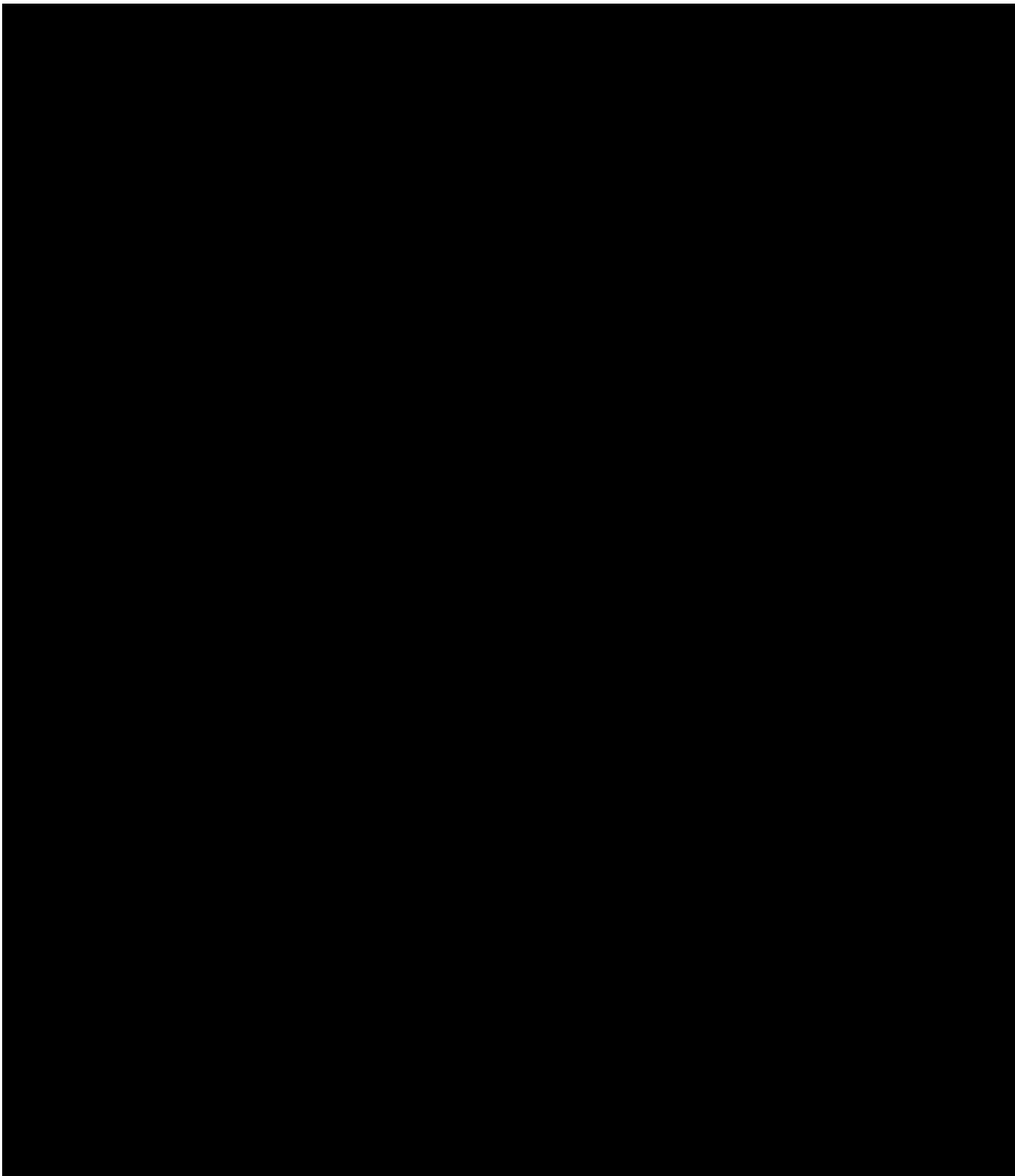
**7.2.2 State and Local Permitting Timelines**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]





## **7.3 ENGAGEMENT AND ENVIRONMENTAL TRACK RECORD**

Provide information (a) demonstrating past and current productive relationship with environmental, commercial and recreational fishing, federally recognized and state acknowledged tribes, Environmental Justice, and onshore stakeholders; and (b) demonstrating your track record of avoiding, minimizing, and mitigating environmental, fishing, tribal, environmental justice, and onshore impacts from projects similar to the proposed project.

### **7.3.1 Stakeholder Engagement**

Vineyard Offshore’s approach to stakeholder engagement, pioneered on the Vineyard Wind 1 project, has cultivated enduring support for our offshore wind projects and delivered tangible benefits to state and local economies. This approach is stakeholder-driven and centered on a collaborative process whereby projects and project benefits are developed in partnership with federal and state regulators, Tribal Nations, host communities, and other stakeholders.

We understand that each community and stakeholder group we engage with is unique and may have different perspectives and goals regarding offshore wind’s benefits and potential impacts. Our ongoing stakeholder engagement efforts are grounded in building trust with people and organizations who live in, are representative of, and work in potentially affected communities to allow us to better understand their goals and desired outcomes in relation to our projects.

Information regarding our ability to cultivate productive relationships with a diverse array of stakeholders is provided in the Vineyard Wind 1 achievements summary included as Attachment 7.3-1; the Vineyard Wind 1 case studies provided as Attachment 7.3-2; and the letters of support included in Attachment 7.8-1. Information about our approach to stakeholder engagement is provided in the Community Engagement Plan included as Attachment 7.8-4.

### **7.3.2 Avoiding and Minimizing Impacts**

Vineyard Offshore is committed to developing, constructing, operating, and decommissioning well-sited offshore wind projects with minimal impacts. Significant efforts were made to avoid, minimize, and mitigate potential impacts associated with the construction and operation of Vineyard Wind 1, and we intend to continue our industry-leading efforts to proactively conserve and protect threatened and endangered species while considering changing technologies, the best available data, and lessons learned from other offshore wind projects.

Our track record of avoiding, minimizing, and mitigating potential impacts is most readily demonstrated through our receipt of the Vineyard Wind 1 COP Approval. This document contains 79 pages of Terms and Conditions that provide a comprehensive suite of protective measures related to navigational and aviation safety, national security, protected species and habitat, commercial fisheries, for-hire recreational fishing, environmental justice (EJ), and cultural resources. Notably, the Vineyard Wind 1 COP Approval includes well over 50 avoidance, minimization, and mitigation measures to protect marine mammals and sea turtles,

such as seasonal and temporal restrictions on pile driving, vessel speed restrictions, and pile driving soft-start. These conditions represent the culmination of over four years of extensive coordination with BOEM, other federal, state, and local agencies, Tribal Nations, environmental organizations, and stakeholders to develop innovative measures that afford the highest levels of environmental protection while maintaining project viability.

Several significant measures were adopted on Vineyard Wind 1 to avoid, minimize, and mitigate potential impacts to commercial fishermen. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Onshore, we avoided impacts to EJ communities by removing the New Hampshire Avenue landfall site from the Vineyard Wind 1 COP. Elimination of this landfall site avoided impacts to marine-dependent businesses in Lewis Bay and Hyannis Harbor, reducing potential impacts on employment and services in the surrounding EJ communities. We also established the \$15 million Resiliency and Affordability Program, in partnership with Citizens Energy and Vineyard Power Cooperative, to deliver direct benefits to low-income ratepayers in communities potentially impacted by the Vineyard Wind 1 project.

Additional information regarding our track record of avoiding, minimizing, and mitigating project impacts is provided in the Vineyard Wind 1 achievements summary included as Attachment 7.3-1 and the Vineyard Wind 1 case studies provided as Attachment 7.3-2.

#### **7.4 FISHERIES MITIGATION PLAN**

Please provide information on any fisheries mitigation measures designed to avoid, minimize and mitigate impacts on the commercial fishing industry, including but not limited to addressing all criteria specified under Fishing Impacts and Fisheries Mitigation Plan in Appendix J.

A Fisheries Mitigation Plan is provided as Attachment 7.4-1. The Fisheries Communication Plan for Lease Area OCS-A 0522 is provided as Attachment 7.4-2. Vineyard Wind's and American Clean Power's comments on BOEM's draft *Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585* are provided as Attachment 7.4-3.

## **7.5 ENVIRONMENTAL MITIGATION PLAN**

Provide a preliminary environmental characterization of the site and project, including both construction and operation. In addition, the bidder should identify environmental impacts associated with the proposed project and any potential impediments to development. A plan to avoid, minimize, or mitigate such impacts or impediments should also be included. The analysis should address all criteria specified under Environmental Impacts and Environmental Mitigation Plan in Appendix J.

An Environmental Mitigation Plan is provided as Attachment 7.5-1.

## **7.6 ENVIRONMENTAL JUSTICE IMPACT ASSESSMENT**

Please provide information on potential impacts on Environmental Justice Populations and host communities, including but not limited to addressing all criteria specified under Environmental Justice Impacts in Appendix J.

An EJ Impact Assessment is provided as Attachment 7.6-1. Our Native American Tribes Communication Plan for Lease Area OCS-A 0522 is provided as Attachment 7.6-2.

## **7.7 TRACKING AND REPORTING**

Please propose a strategy plan to track and report on the status of environmental justice impacts, and engagement and employment (training, recruitment and hiring goals) opportunities based on the template provided in the Form MOU with DOER and MassCEC and any other supplemental plans for tracking and reporting.

Please provide a marked version of the Form MOU with DOER and MassCEC for this solicitation (see Appendix L) showing any specific proposed changes to the Form MOU. Bidders are discouraged from proposing any material changes or conditions to the Form MOU and any such changes will be considered in the Stage Two Qualitative Evaluation.

### **7.7.1 Impacts**

As demonstrated by the EJ Impact Assessment, Vineyard Wind 2 is not anticipated to result in disproportionately high or adverse impacts to EJ communities. The potential impacts from Project siting and construction will continue to be assessed and evaluated during the Project's multi-year federal and state permitting process. [REDACTED]

[Redacted]

### 7.7.2 Engagement

[Redacted]

### 7.7.3 Employment

Strategies to track and report on the status of employment opportunities (i.e., training, recruitment, and hiring goals) for EJ communities and other stakeholders are further described in Section 13.

### 7.7.4 Form MOU

A redlined version of the Form MOU is provided as Attachment 13.8-1.

## 7.8 PUBLIC SUPPORT AND COMMUNITY ENGAGEMENT PLAN

Provide documentation identifying the level of public support for the project including letters from public officials, newspaper articles, etc. Include information on specific localized support and/or opposition to the project of which the bidder is aware. Provide copies of any agreements with communities and other constituencies impacted by the project. Provide a stakeholder map and a plan for community engagement activities and targeted stakeholder outreach.

### 7.8.1 Public Support

[Redacted]

[Redacted]

[Redacted]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

**7.8.2 Agreements**

[Redacted text block]

[Redacted text block]

### **7.8.2.2 Good Neighbor Agreement**

Vineyard Offshore has entered into a Good Neighbor Agreement with the Town of Nantucket and several island organizations that applies to Vineyard Wind 1 as well as any offshore wind projects developed in Lease Area OCS-A 0522 (see Attachment 7.8-3). The Good Neighbor Agreement memorializes agreements on design features to minimize potential visual impacts to the island as well as collaboration and financial support for the community to pursue climate adaptation and coastal resiliency projects. As part of the Good Neighbor Agreement, the Town has pledged to work with Vineyard Offshore to enhance our community engagement efforts on Nantucket as we pursue regulatory approvals at the local, state, and federal levels.

### **7.8.3 Community Engagement Plan**

A Community Engagement Plan, which includes a stakeholder map, is provided as Attachment 7.8-4. Vineyard Offshore is currently implementing the plan as evidenced by the community engagement and related activities we have conducted in support of Vineyard Wind 2 (see Attachment 7.8-5).

## **7.9 NEW CLASS I ELIGIBLE RESOURCE**

Provide documentation demonstrating that the project will be qualified as New Class I Renewable Portfolio Standard Eligible Resource under M.G.L. c. 25A, § 11F, and 225 CMR 14.00.

Vineyard Wind 2 is a new offshore wind energy generation resource located within the ISO New England Control Area that will begin operating after December 31, 1997, and will generate electricity using wind energy as its fuel source. The Project will therefore qualify as a Class I renewable energy generating source as defined under Massachusetts General Laws (MGL) c. 25A § 11F and in accordance with 225 Code of Massachusetts Regulations (CMR) 14.00. Vineyard Offshore will provide documentation demonstrating such qualification at the appropriate time per the regulations.

## **7.10 NEPOOL GIS ACCOUNT**

All bidders must include sufficient information and documentation that demonstrates that the bidder will utilize an appropriate tracking system to ensure a unit-specific accounting of the delivery of Offshore Wind Energy Generation, to enable the Department of Environmental Protection, in consultation with DOER, to accurately measure progress in achieving the commonwealth's goals under chapter 298 of the acts of 2008 or Chapter 21N of the General Laws. The RECs associated with Offshore Wind Energy Generation must be delivered into the Distribution Companies' NEPOOL GIS accounts.

Vineyard Offshore will utilize the New England Power Pool Generation Information System (NEPOOL GIS) as the tracking system to ensure a unit-specific accounting of the delivery of offshore wind energy generation to enable the Massachusetts Department of Environmental Protection, in consultation with DOER, to accurately measure progress in achieving the

Commonwealth's goals under chapter 298 of the acts of 2008 or Chapter 21N of the General Laws. Additionally, Vineyard Offshore hereby certifies that the renewable energy certificates associated with the Project's offshore wind energy generation will be delivered to the Distribution Companies' NEPOOL GIS accounts according to the terms specified in any power purchase agreements.

## **7.11 CLAIMS OR LITIGATION**

Identify any existing, preliminary or pending claims or litigation, or matters before any federal agency or any state legislature or regulatory agency that might affect the feasibility or timing of the project or the ability or timing to obtain or retain the required permits for the project.

There are no existing, preliminary, or pending claims or litigation, or matters before any federal agency or any state legislature or regulatory agency, that might affect the feasibility of the Project or the ability to obtain or retain the required permits for the Project.

## SECTION 8

### ENGINEERING AND TECHNOLOGY; COMMERCIAL ACCESS TO EQUIPMENT

---

#### 8.1 PRELIMINARY ENGINEERING PLAN

Provide a reasonable but preliminary engineering plan which includes the following information:

- i. Type of generation and delivery technology
- ii. Major equipment to be used (including nacelle, hub, blade, tower, foundation, delivery facilities structures and platforms, electrical equipment and cable), including the primary and alternative turbine equipment and their expected capacity rating.
- iii. Manufacturer of each of the equipment components listed above as well as the location of where each component will be manufactured.
- iv. Status of acquisition of the equipment components, including whether orders are in place and/or production slots secured
- v. Whether the bidder has a contract for the equipment. If not, describe the bidder's plan for securing equipment and the status of any pertinent commercial arrangements
- vi. Equipment vendors selected/considered
- vii. Track record of equipment operations
- viii. If the equipment manufacturer has not yet been selected, identify in the equipment procurement strategy the factors under consideration for selecting the preferred equipment

Vineyard Wind 2 (the "Project") is comprised of a 1,200 megawatt (MW) Offshore Wind Energy Generation facility (OWF) that will be installed in Lease Area OCS-A 0522 (the "Lease Area").

[REDACTED]  
[REDACTED] The Project also includes a [REDACTED] transmission system and delivery point in Montville, Connecticut.

The preliminary engineering plan for Vineyard Wind 2 reflects Vineyard Offshore's experience developing Vineyard Wind 1, the nation's first commercial-scale offshore wind project, as well as Copenhagen Infrastructure Partners' (CIP's) expertise across an almost 50 gigawatt (GW) global offshore wind portfolio. Vineyard Offshore's technical, procurement, and commercial teams developed the Project concept and procurement strategy presented herein, which incorporate lessons learned from Vineyard Wind 1, technological innovations, and site-specific factors.

Our confidence in the technical and commercial viability of Vineyard Wind 2 is underpinned by the following:



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As further detailed herein, Vineyard Wind 2 is designed to be cost-competitive, low risk, and technically and commercially viable while ensuring delivery in line with the Project schedule provided in Section 9.

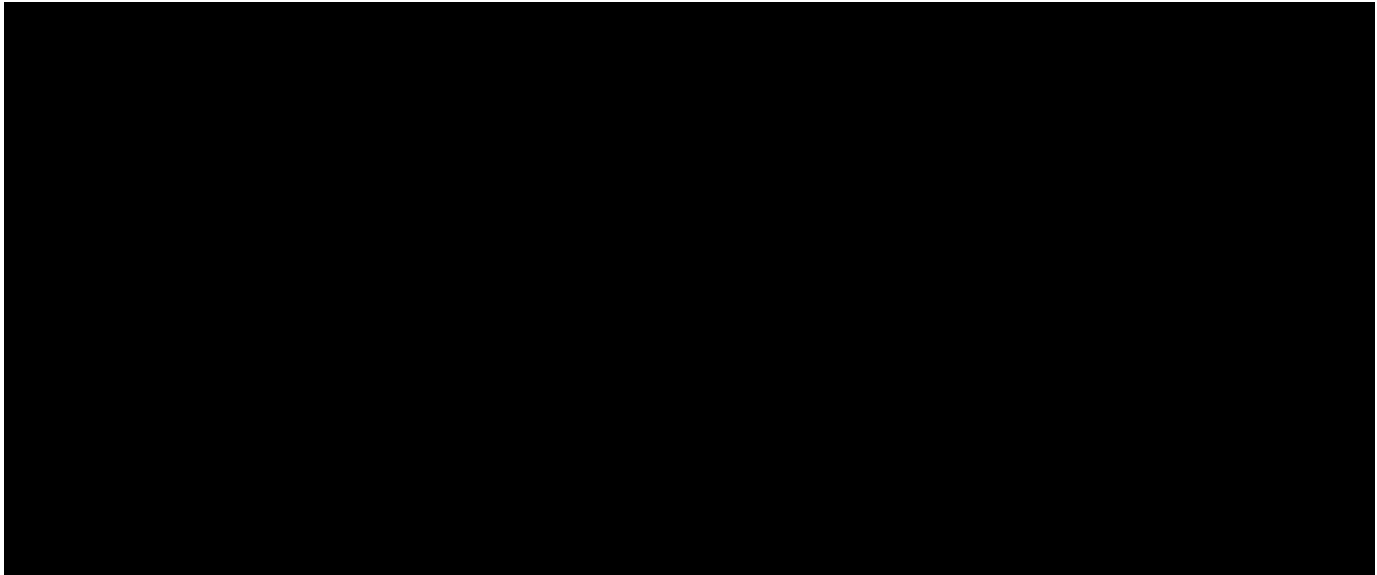
### 8.1.1 Type of Generation and Delivery Technology

[REDACTED]

[REDACTED]

### 8.1.2 Major Equipment Groups

The major equipment groups that comprise the Project are the WTGs, foundations, inter-array cables, ESP, offshore export cable, onshore export cables, and [REDACTED] which are illustrated in Figure 8.1-1 and described below.

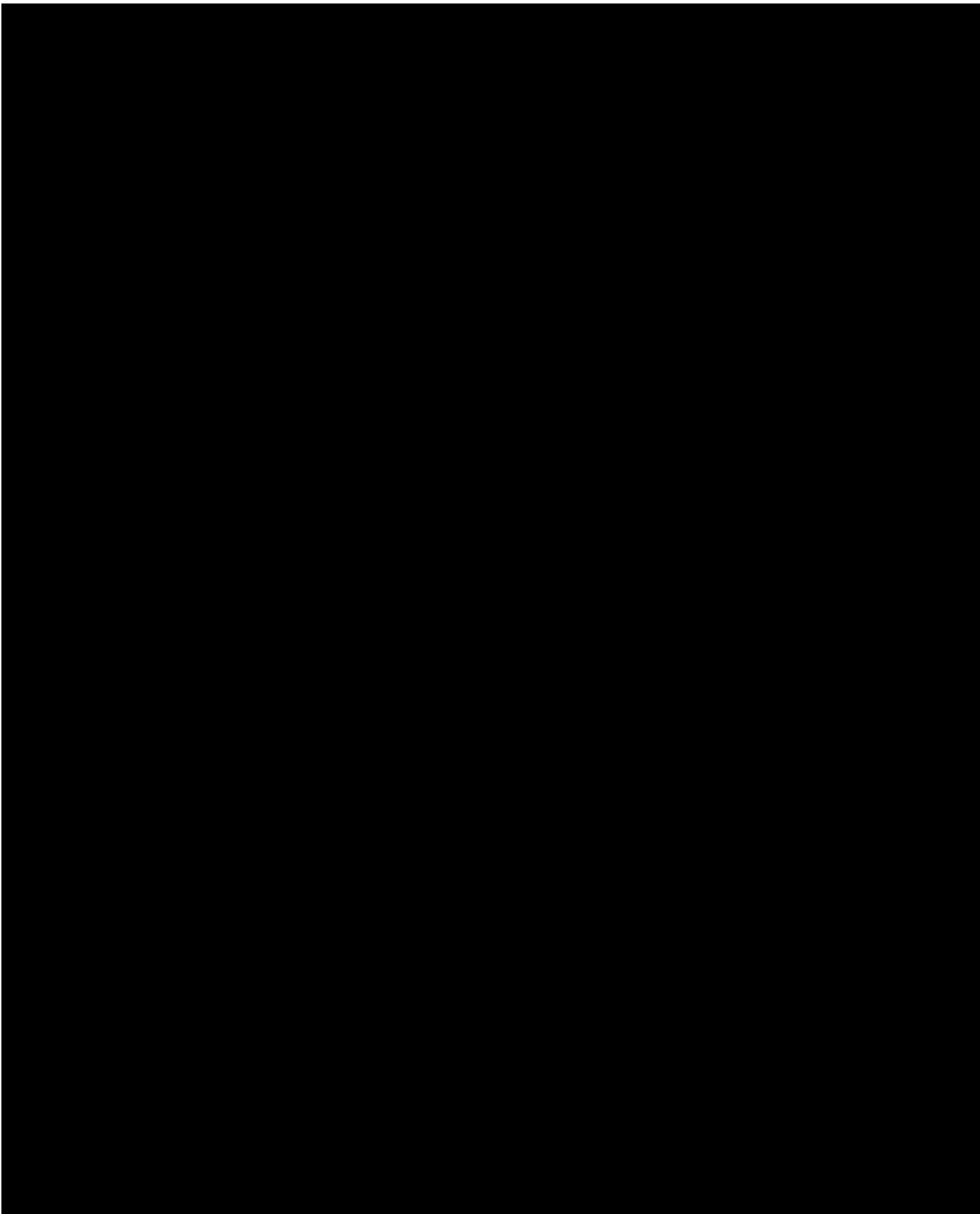


#### 8.1.2.1 Wind Turbine Generators

As described in Section 8.1.5, Vineyard Offshore has not selected a preferred WTG model for Vineyard Wind 2 at this time. [REDACTED]

Each WTG will consist of a tower, a nacelle, and a three-bladed rotor connected at the hub. The steel tower is bolted to the top of the foundation (see Section 8.1.2.2 for a description of WTG foundations). The hub is connected to the nacelle, and the nacelle is mounted on top of the WTG tower. The nacelle contains the electrical generator, drivetrain, brake, electric motors that yaw and pitch the WTG, and workspace. The nacelle also contains a full array of instrumentation, controls, fire protection systems and other safety equipment, ventilation and cooling systems, and ancillary equipment. Wind sensors mounted on top of the nacelle automatically control the yaw and pitch systems. The yaw system turns the nacelle to maximize power production and to maintain the WTG's safety in high winds. The blade pitch controllers adjust the angle of the blades to optimize power production while mitigating loads under existing weather conditions.

[REDACTED]





██████████ To further aid safe navigation within the Lease Area, the WTGs and their foundations will be lit and marked in accordance with Federal Aviation Administration, United States (US) Coast Guard, and BOEM guidelines. All WTGs will include a nighttime aviation obstruction lighting system, which will be controlled by an Aircraft Detection Lighting System (ADLS) or similar system. The use of an ADLS would substantially reduce the amount of time that the aviation obstruction lights are illuminated.

**8.1.2.2 WTG Foundations**

The selection of a foundation concept is one of the most crucial decisions made in offshore wind project design with regard to structural resiliency. Vineyard Offshore assessed the feasibility of various foundation concepts for the Project based on the following:

- **Technical considerations:** We evaluated potential foundation types' ability to support the size of WTGs under consideration based on site-specific geological, meteorological, and oceanographic conditions (including water depths).
- **Logistical considerations:** We assessed trends in vessel size and crane capacity as well as vessel availability. We also considered the availability of suitable ports within reasonable proximity to the Lease Area as well as the fabrication requirements for each foundation type.
- **Commercial considerations:** We assessed the commercial availability and cost of each potential foundation type as well as the maturity of the supply chain (within the US and internationally).
- **Environmental considerations:** We considered the potential environmental impacts (e.g., noise generated during installation, area of seafloor disturbance) and benefits associated with each foundation type.



[REDACTED]

[REDACTED]

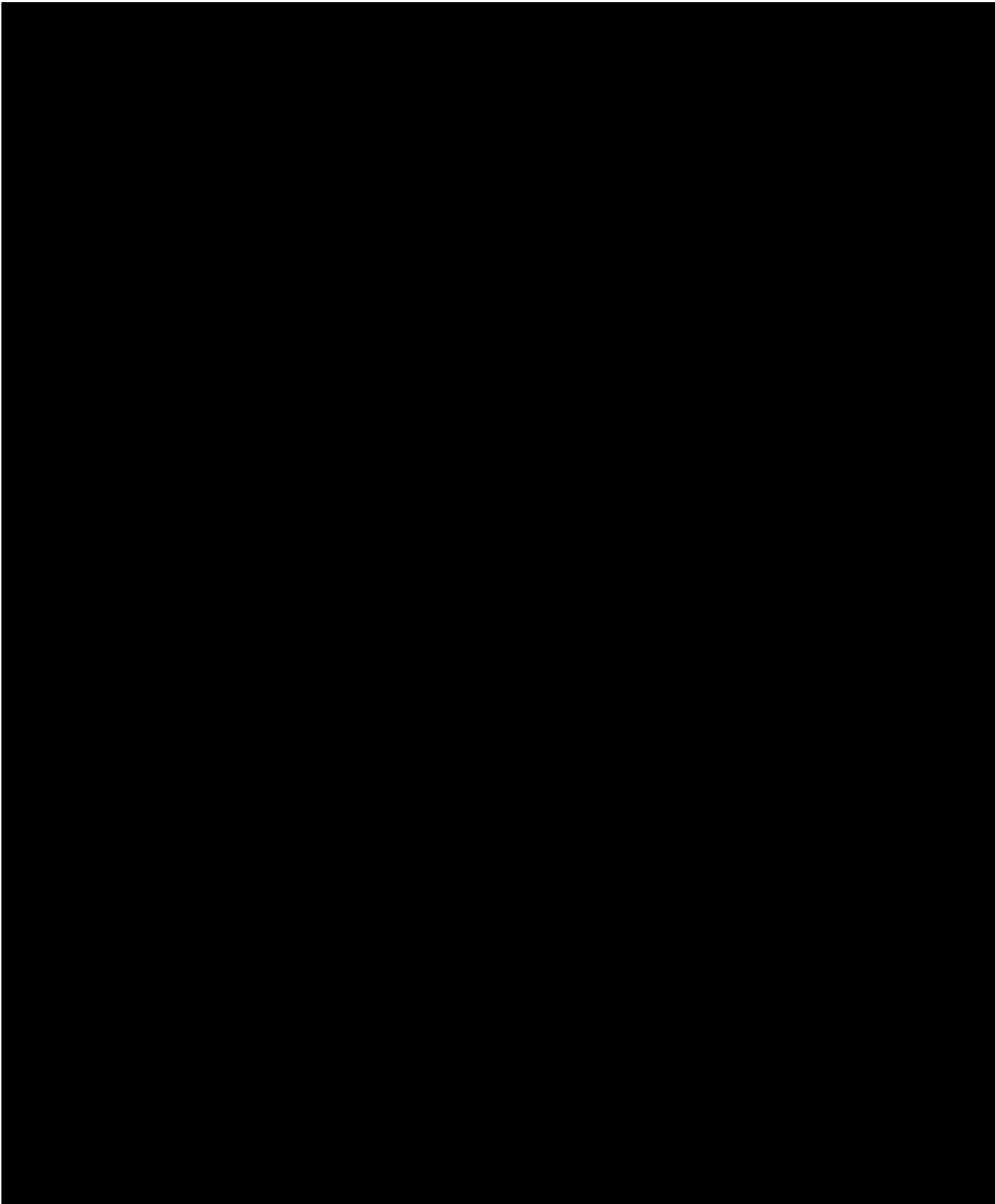
[REDACTED] Other foundation types that were considered but are not currently proposed for Vineyard Wind 2 are described in Section 8.1.2.2.3.

The final selection of foundation type(s) will be made once more detailed assessments of the seabed and other load conditions have been completed and will depend on the supply chain, market conditions, and transportation and installation considerations.

8.1.2.2.1 Monopile Foundations

A monopile is a single, hollow cylindrical steel pile that is driven into the seabed. A separate transition piece (TP) may be mounted on top of the monopile to facilitate the connection between the top of the monopile and the WTG tower. The TP would be secured to the monopile using grout, bolts, a slip joint or other mechanical joint, or a combination of these methods. Alternatively, the top of the monopile can be directly connected to the WTG tower without using a TP; this design is commonly referred to as a “TP-less monopile.” [REDACTED]

Both monopile foundation concepts (with and without TPs) are illustrated in Figure 8.1-3.

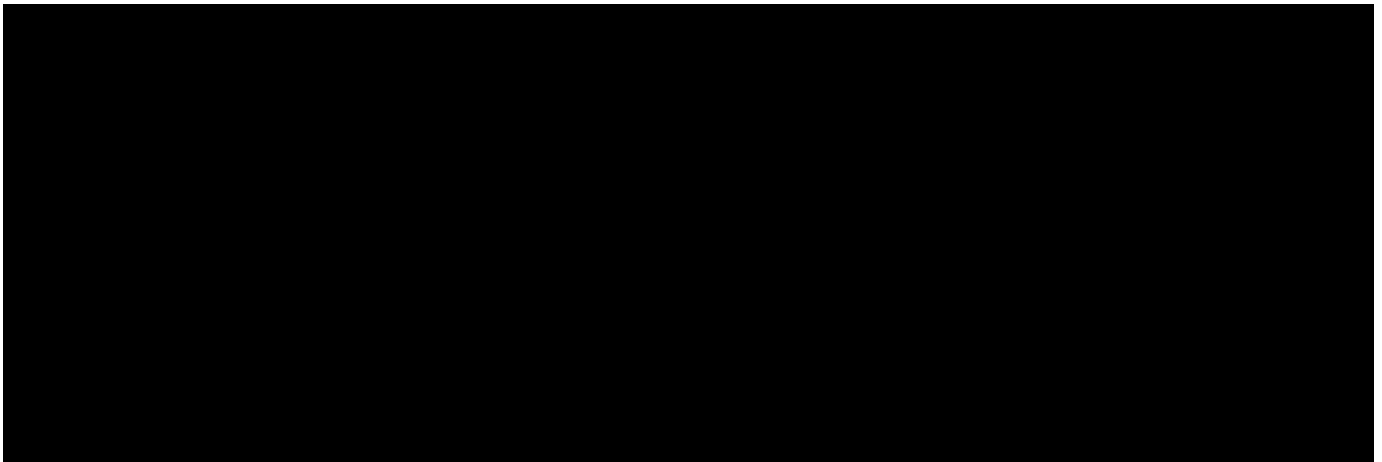


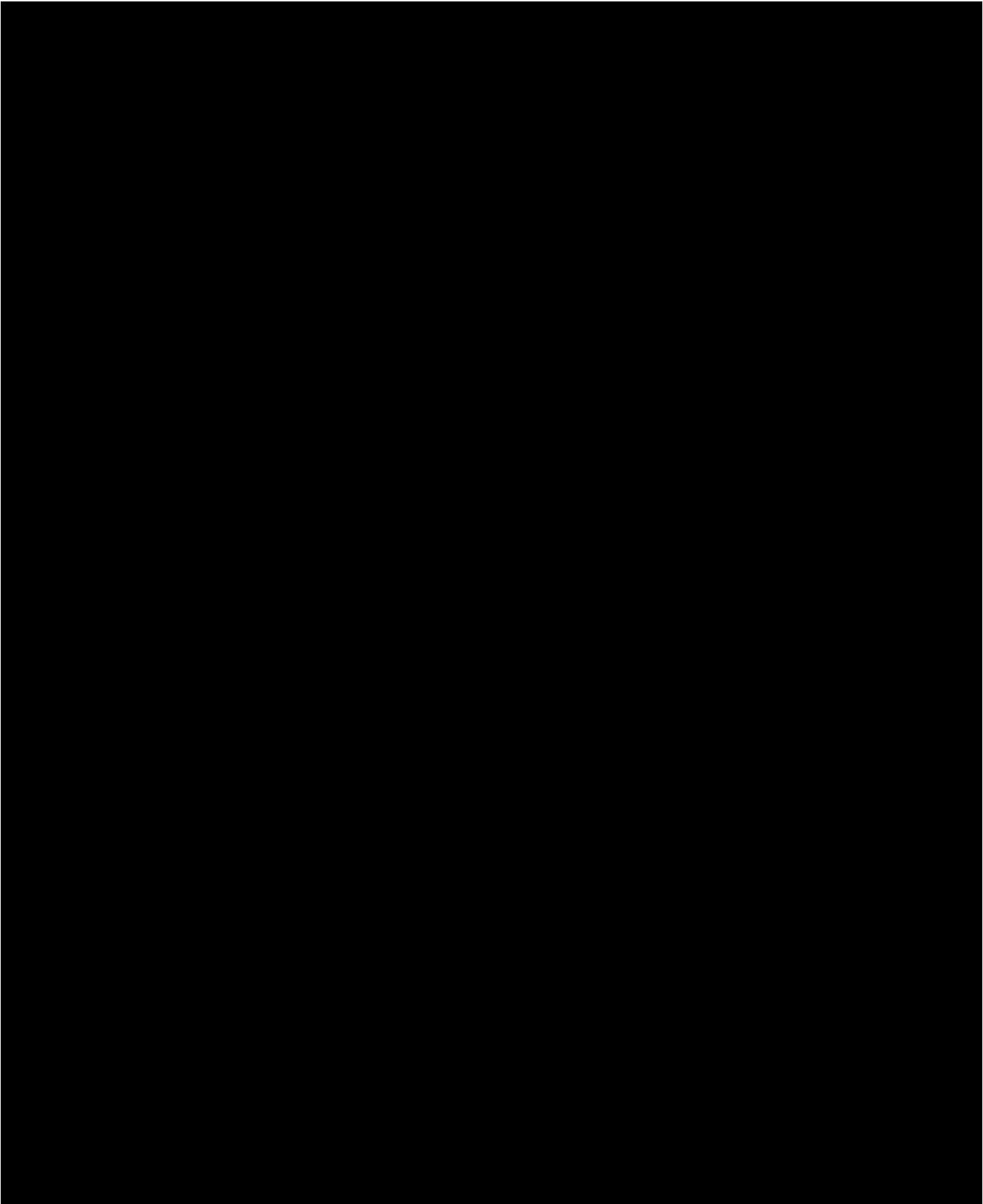
Beyond the primary structural components described above, the monopile foundation also includes the following: inter-array cable hang-off supports, an anode cage (for corrosion protection), external and internal platforms (scaffolding), a ladder and boat landing for accessing the WTG, a Davit crane(s) to lift tools and parts from the service vessel, marine navigation aids (e.g., identification marking and lights), and various electrical components. Scour protection may be installed around the base of each WTG foundation to minimize sediment transport and erosion (i.e., scour development) caused by water currents.

Anticipated monopile dimensions and weights based on preliminary foundation designs are provided in Table 8.1-2.

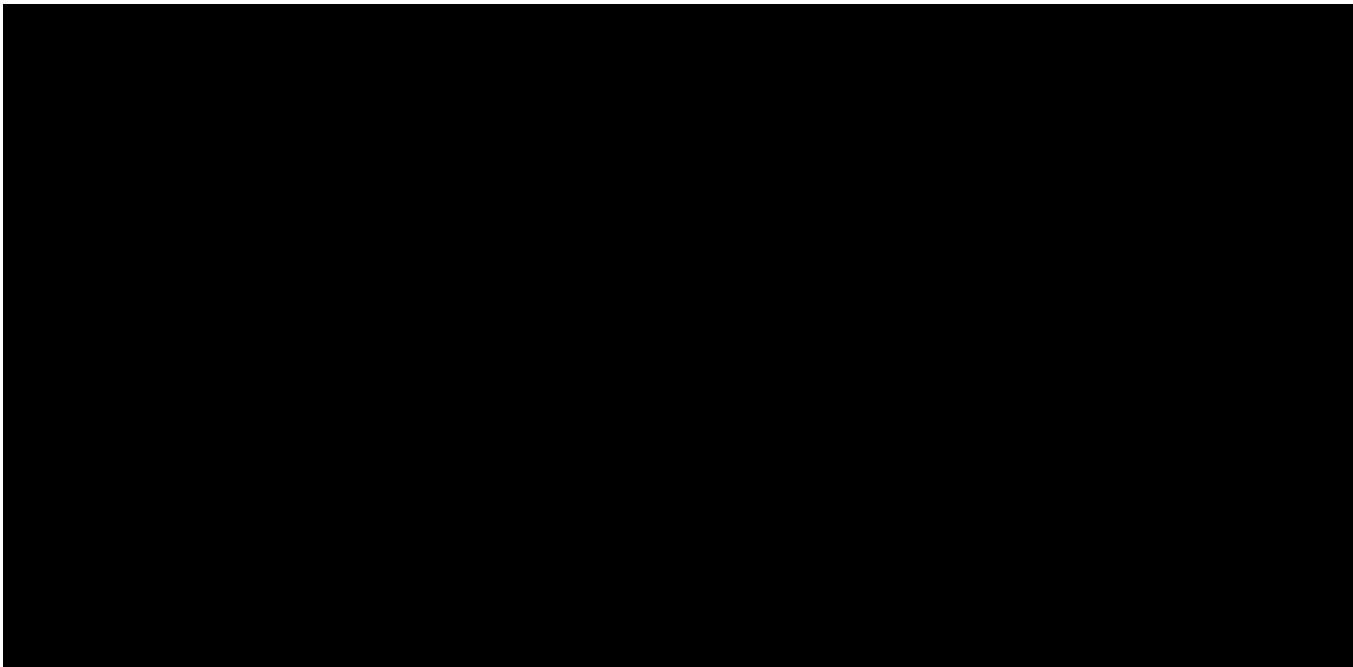
**Table 8.1-2 Preliminary WTG Monopile Design**

---









8.1.2.2.3 Foundation Technologies Not Under Consideration

As described above, Vineyard Offshore assessed the feasibility of several foundation concepts based on numerous technical, logistical, commercial, and environmental considerations. After careful evaluation, we determined that [REDACTED] gravity base foundations, and floating foundations are not feasible for the Project.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

#### 8.1.2.2.3.2 Gravity Base Foundations

Gravity base foundations, which are typically much larger than piled or suction bucket foundations, are stable simply due to their weight and design and require no piles or suction buckets. The installation of gravity base foundations would require substantial dredging to remove soft sediments, which are prevalent throughout the Lease Area, followed by leveling and the installation of a large gravel bed to provide a strong flat surface to support and distribute the foundation's considerable weight. Relative to piled foundations, gravity base foundations have less acoustic impacts during installation but require more seafloor disturbance and a larger scour protection area. Like suction buckets, gravity base foundations are more difficult to site because they are wider and require a large and level seafloor surface.

Given their size and weight, gravity base foundations would likely need to be assembled at a US staging port and transported by barge or floated out to the Lease Area using tugboats. Once at the Lease Area, gravity base foundations would be ballasted into position. Staging gravity base foundations from a US port would require an extremely large laydown area proximate to the shoreline with sufficient load bearing capacity. Existing ports on the East Coast would likely require substantial upgrades to accommodate gravity base foundation staging. Floating gravity base foundations to the Lease Area using tugboats would also require staging areas with a deep quayside and access to the ocean via a wide and deep channel. Transporting gravity base foundations by barge would require the use of cranes with an extremely high lifting capacity. It is uncertain whether even the largest cranes in existence today would be able to lift the size of gravity base foundations that would be required for Vineyard Wind 2. Overall, there would be significant lead times and excessive costs to establish suitable port facilities and transport gravity base foundations to the Lease Area.

Additionally, gravity base foundations are not commercially feasible given their significant cost relative to other foundation types. Gravity base foundations have a very complex and globally untested logistics solution, especially when compared to monopiles. Of the ~59 GW of offshore wind capacity operating at the end of 2022, only ~816 MW (1.4% of the global

capacity) were installed on gravity base foundations.<sup>3</sup> These gravity base foundations were primarily installed during the early years of the offshore wind energy industry to support relatively small WTGs at shallow sites in benign wave climates, particularly in the Baltic Sea. Since then, their use has become less frequent as the economic and practical benefits of other foundation types (particularly monopiles) have become more widely appreciated. Because gravity base foundations have had limited application, particularly in recent years, supply chains are not readily available. Furthermore, gravity base foundations have only been used in water depths of up to approximately 98 feet (ft), whereas the Lease Area is relatively deep, with water depths ranging from approximately 105 to 210 ft.

For all these reasons, Vineyard Offshore concluded that gravity base foundations are neither technically nor commercially viable for the Project.

This is consistent with the findings of other offshore wind developers. For example, as described in the Empire Offshore Wind Final Environmental Impact Statement, “Empire has continued to review the feasibility of the GBS [gravity base structure] foundation type and has recently determined that the GBS foundation is not a viable option for the [Empire Wind] Projects and will not be pursued further due to significant complexity and cost increases identified for GBS foundations. BOEM conducted an independent review of the GBS foundation type and concurred with Empire’s determination that [the] use of the GBS foundation was not economically feasible or practical due to a substantial increase in cost associated with GBS foundations, as well as concerns about other Project risks including component supply chains for GBS.”<sup>4</sup>

#### 8.1.2.2.3.3 *Floating Foundations*

Floating foundations consist of a buoyant platform secured to the seafloor using mooring lines and anchors. Floating foundations are a relatively immature technology and have not been widely deployed for commercial-scale offshore wind projects. By the end of 2022, the global floating offshore wind energy capacity (~123 MW) only represented 0.2% of the ~59 GW of offshore wind projects installed worldwide.<sup>5</sup> The majority of floating WTG foundations installed thus far have been prototypes or pilot projects. These prototypes and pilot projects are being designed and tested primarily for water depths over ~200 ft where fixed foundation types (e.g., piled foundations, gravity base foundations) become less feasible because of their required weight and size. Floating foundations are significantly more expensive than fixed foundations. Because floating foundations are still in the early stages of development and because water depths in the Lease Area are too shallow to justify the additional engineering and costs associated with the foundation type, floating foundations are neither technically nor commercially viable for the Project.

---

<sup>3</sup> US Department of Energy. 2023. [Offshore Wind Market Report: 2023 Edition](#).

<sup>4</sup> BOEM. 2023. [Empire Offshore Wind Final Environmental Impact Statement Volume 1, September 2023](#).

<sup>5</sup> US Department of Energy. 2023. [Offshore Wind Market Report: 2023 Edition](#).

### 8.1.2.3 Inter-array Cables

Inter-array cables will transmit electricity from groups of WTGs to the ESP. [REDACTED]

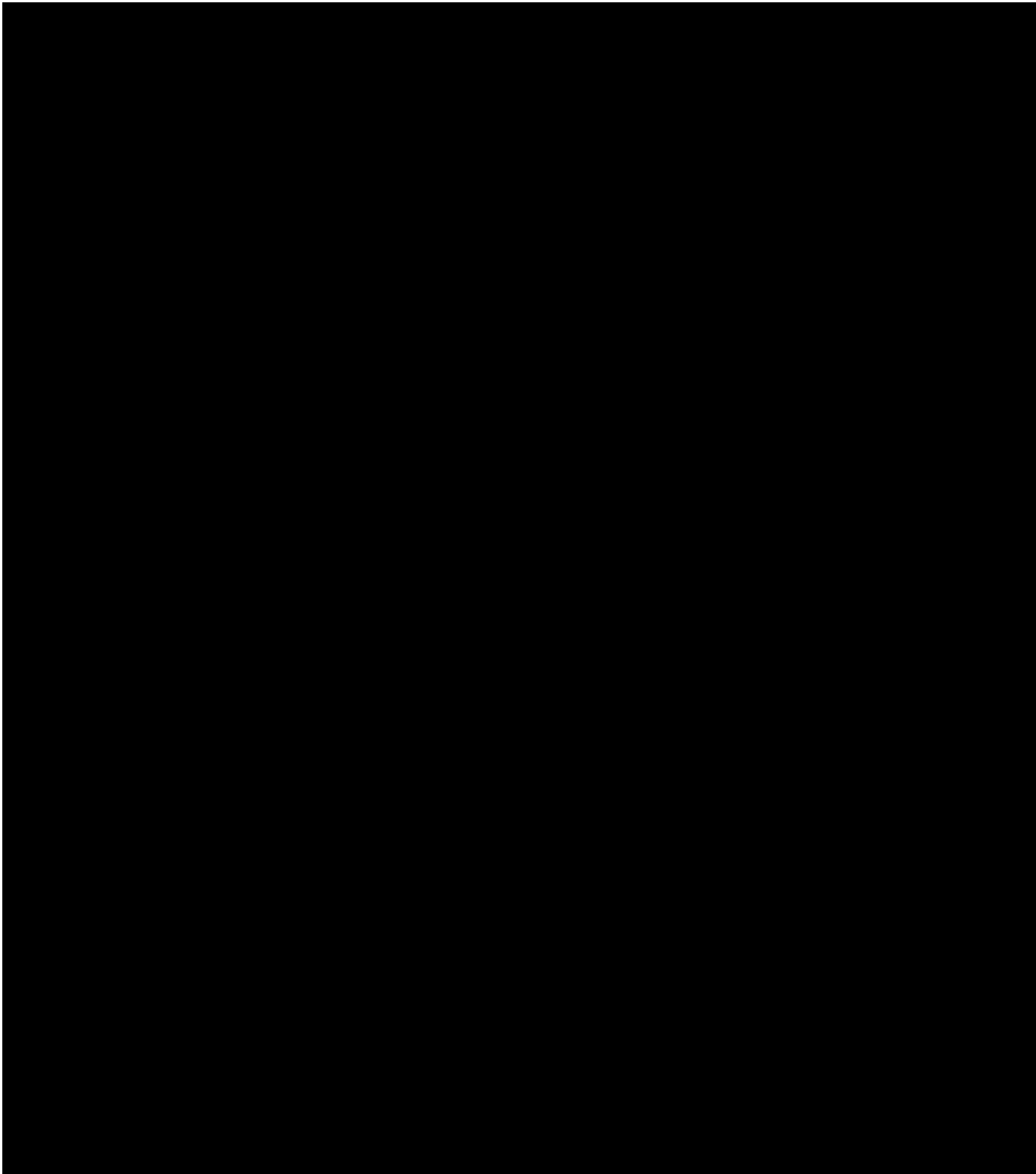
### 8.1.2.4 Electrical Service Platform

The ESP will collect power generated by the WTGs and transform it to a higher voltage for transmission to shore. The ESP is comprised of two primary components: (1) the topside, which houses the electrical equipment, and (2) the foundation, which supports the topside and is mostly below water (see Figure 8.1-5).

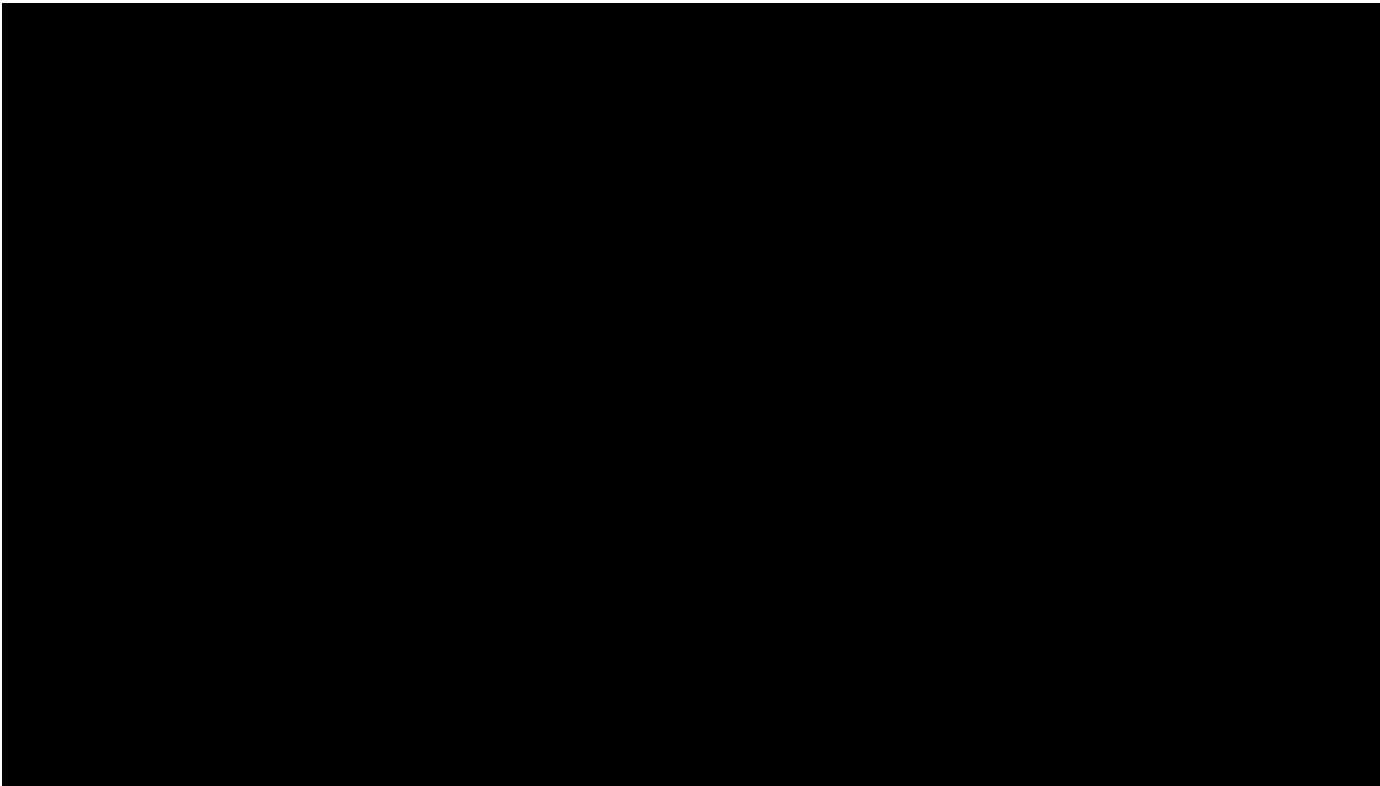
Within the topside, the inter-array cables will connect to switchgear and transformers, which will increase the electricity's voltage to match the offshore export cable's voltage. The topside will also include electrical equipment (e.g., converter transformers, reactors, and valve stacks) to convert the power from alternating current to direct current. Subject to final design, the ESP topside may also include:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED] Preliminary ESP topside and foundation dimensions and weights are provided in Table 8.1-4. [REDACTED]



**Table 8.1-4 Preliminary ESP Design**



**8.1.2.5 Offshore Export Cable**



### 8.1.2.6 Onshore Export Cables

The Project's offshore export cable will transition onshore at the landfall site, which is described in Section 6. At the landfall site, the offshore export cable will connect to the onshore export cables within an underground transition vault. [REDACTED]

[REDACTED]

[REDACTED]

As described further in Section 10, the onshore export cables are expected to be installed underground within a duct bank or within directly buried conduit(s) along the selected onshore export cable route. See Section 6 for a description of the onshore export cable route.

[REDACTED]

[REDACTED]

### 8.1.3 Equipment Manufacturers

Vineyard Offshore has completed extensive engineering assessments and investigations of supply chain capabilities in New England, the US, and abroad. [REDACTED]

[REDACTED]

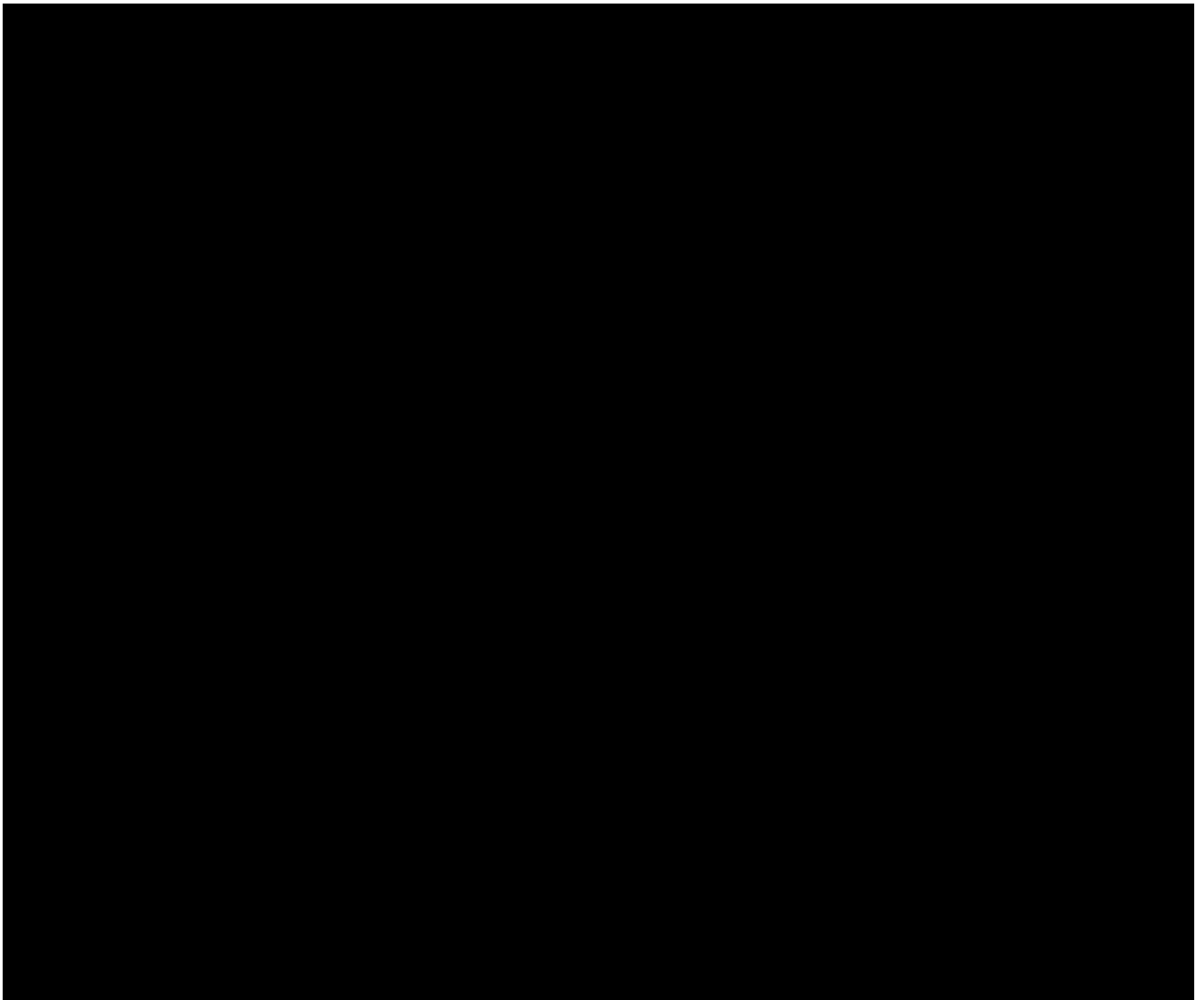
[Redacted Table Content]

Table 8.1-5 summarizes potential locations for the manufacturers of key Project equipment. This is not a final or exhaustive list; other locations may come into play as engineering and procurement progress and the East Coast's offshore wind supply chain matures. Potential equipment manufacturers/suppliers are described further in Section 8.1.4.

[Redacted Text]

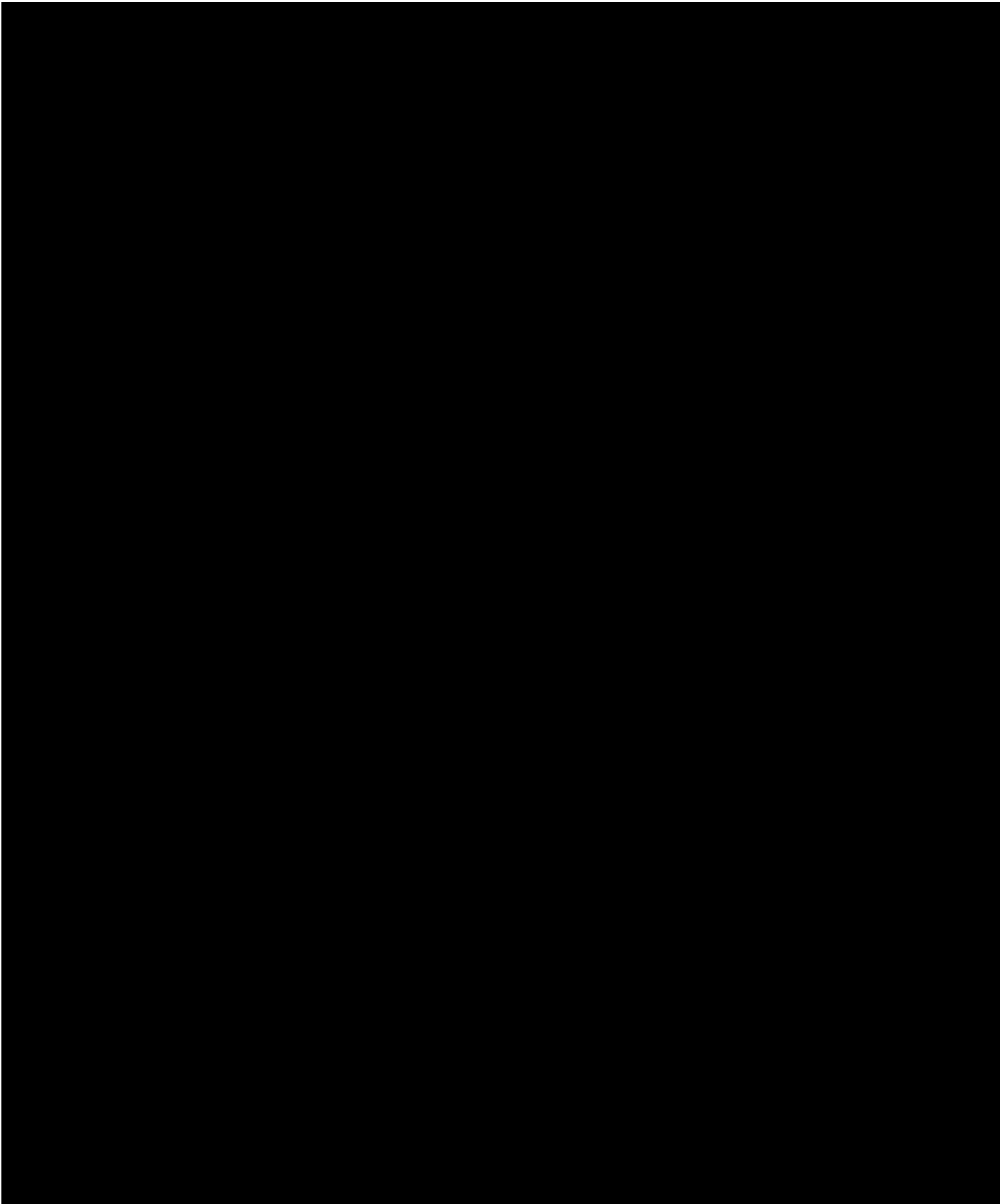
[Large Redacted Table Content]

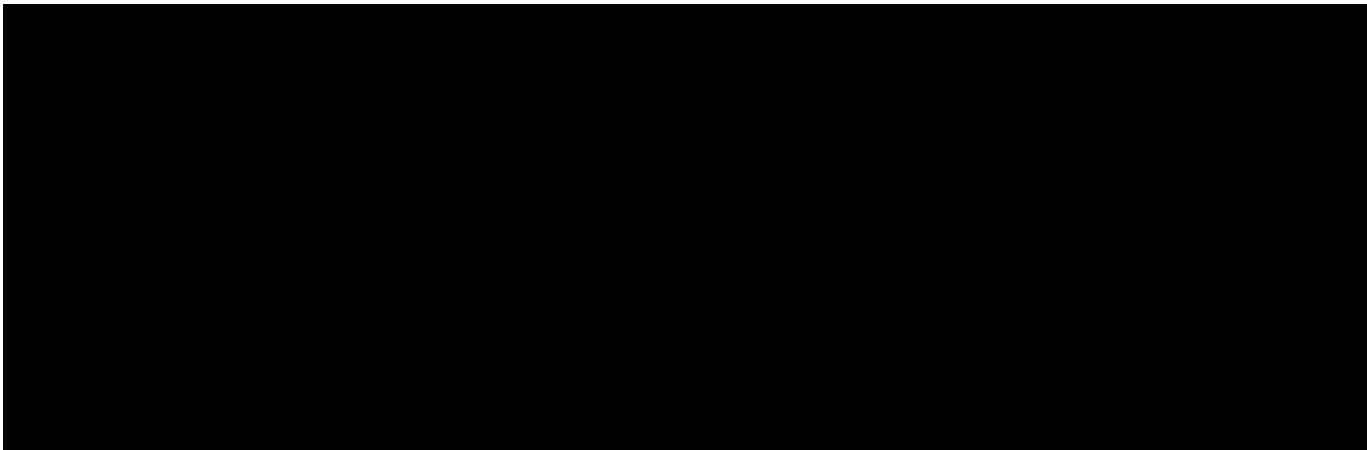




#### 8.1.4 Equipment Acquisition and Contracting







### **8.1.5 Equipment Track Record**

The operational track record for equipment under consideration for the Project is described below.

#### **8.1.5.1 Wind Turbine Generators**

[Redacted text block]

- [Redacted list item]

- [Redacted list item]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**8.1.5.2 Foundations**

Monopiles are a well-known and proven technology used across numerous offshore wind projects worldwide. The first monopiles were installed at the Lely offshore wind project in the Netherlands in 1994. The Blyth Offshore Windfarm (England), which began operation in 2000, and the Horns Rev 1 project (Denmark), which began operation in 2002, represented some of the first large-scale commercial deployments of the technology. Today, monopiles are the dominant foundation type. Of the ~59 GW of offshore wind capacity operating worldwide at the end of 2022, ~35.5 GW (over 60%) were installed on monopile foundations.<sup>8</sup> Over 5,000 monopile foundations have been installed for European offshore wind projects.<sup>9</sup> According to

[REDACTED]

<sup>8</sup> US Department of Energy. 2023. [Offshore Wind Market Report: 2023 Edition](#).

<sup>9</sup> WindEurope. 2023. Offshore Wind Energy 2022 Statistics.

the US Department of Energy's *Offshore Wind Market Report: 2023 Edition*, "the supply chain for monopile fabrication is the most mature and has been replicated internationally, making it more cost-competitive through standardized processes and serial production." As such, monopile technology is well-established and bankable/financeable.

[REDACTED]

### **8.1.5.3 Inter-array Cables**

[REDACTED]

[REDACTED]

### **8.1.5.4 Electrical Service Platform**

[REDACTED]

[REDACTED]

[REDACTED]

### 8.1.5.5 Offshore and Onshore Export Cables

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 8.1.6 Equipment Procurement Strategy

Vineyard Offshore has leveraged its experience in completing the procurement process for Vineyard Wind 1 to identify cost-effective opportunities to use and support the offshore wind supply chain that is emerging along the East Coast and in New England in particular.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

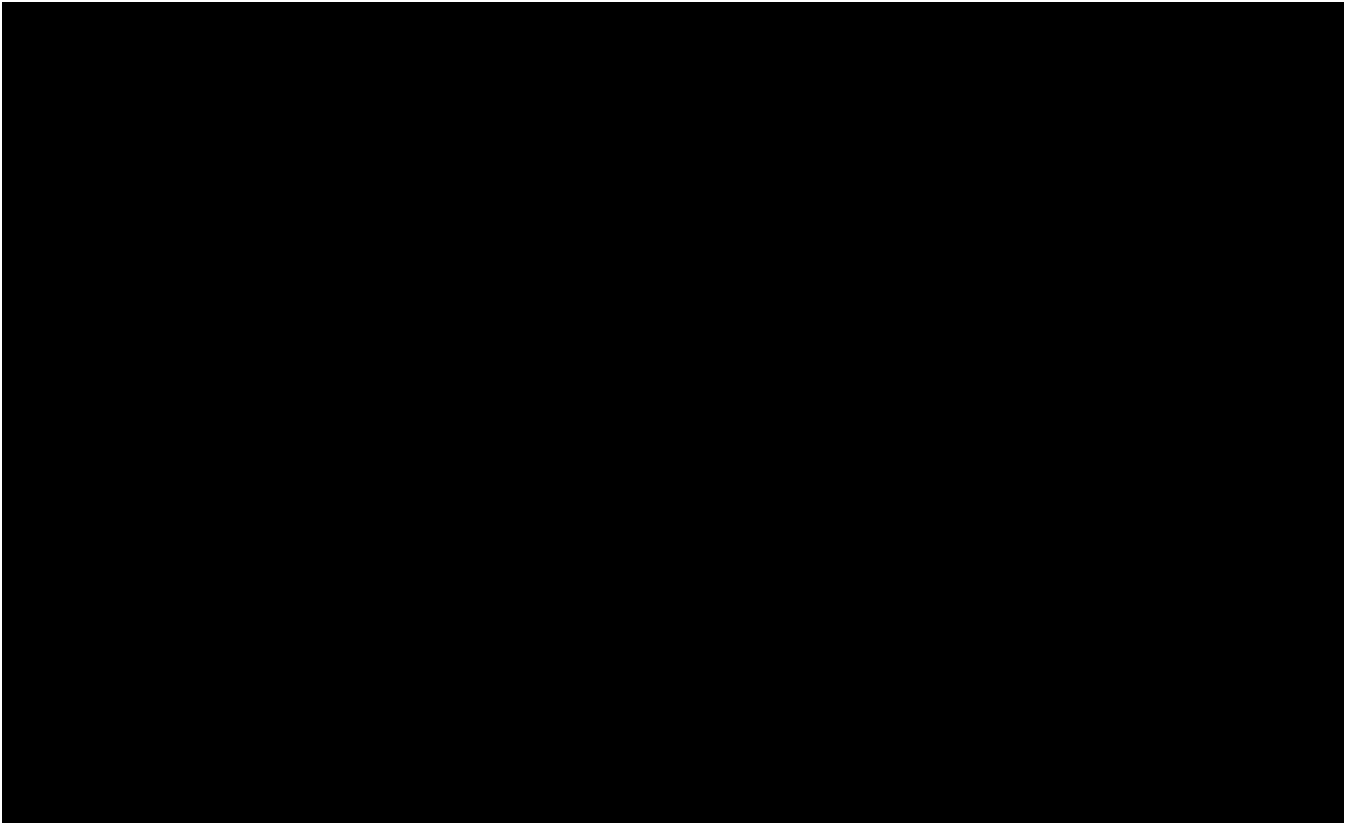
[REDACTED]

[REDACTED]

[REDACTED]

Table 8.1-8 outlines key factors that Vineyard Offshore will consider when procuring equipment for the Project.

[REDACTED]



## **8.2 KEY EQUIPMENT SUPPLIERS**

If the bidder has not yet selected the major equipment for a project, please provide a list of the key equipment suppliers under consideration.

Key equipment suppliers under consideration are identified in Table 8.1-6. [REDACTED]

## **8.3 EQUIPMENT TRACK RECORD**

Please identify the same or similar equipment by the same manufacturer that are presently in commercial operation including the number installed, installed capacity and estimated generation for the past three years.

An overview of the equipment track record for each Project component is provided in Section 8.1.5.



## 8.4 TECHNOLOGY MATURITY

For less mature technologies or equipment, provide evidence (including identifying specific applications) that the technology or equipment to be employed for energy production is ready for transfer to the design and construction phases. Also, address how the status of the technology or equipment is being considered in the financial and permitting plans for the project. Provide the status of testing/ qualification for any equipment in development.

[REDACTED]

The Project is being permitted as part of Vineyard Northeast (see Section 7) using a Project Design Envelope (PDE) based on expected commercial and technological advancements. The PDE outlines a reasonable range of project design parameters (e.g., multiple foundation types) and installation techniques (e.g., use of various cable installation tools). The use of a PDE allows agencies to analyze the maximum impacts that could occur from the Project while providing Vineyard Offshore with the flexibility to optimize the Project within the approved PDE during the later stages of the development process. This flexible approach is particularly important to ensure that Vineyard Offshore can take advantage of the best available technology, maximize renewable energy production, address stakeholder concerns, minimize adverse effects, and maintain Project viability.

[REDACTED]

## 8.5 EQUIPMENT LIST

Please indicate if the bidder has a full and complete list of equipment needed for all physical aspects of the bid, including generation facilities, turbine support structures, electrical platforms, delivery facilities, and mandatory and voluntary transmission system upgrades. If not, identify the areas of uncertainty and when the full and complete list of equipment will be identified.

Section 8.1 provides a full and complete list of all major equipment needed for all physical aspects of the Project. [REDACTED]

### 8.6 TIMELINE FOR SECURING EQUIPMENT

Please indicate if the bidder has secured its equipment for all physical aspects of the bid, including generation facilities, delivery facilities, and mandatory and voluntary transmission system upgrades. If not, identify the long-lead equipment and describe the timing for securing this equipment.

[REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

## SECTION 9 PROJECT SCHEDULE

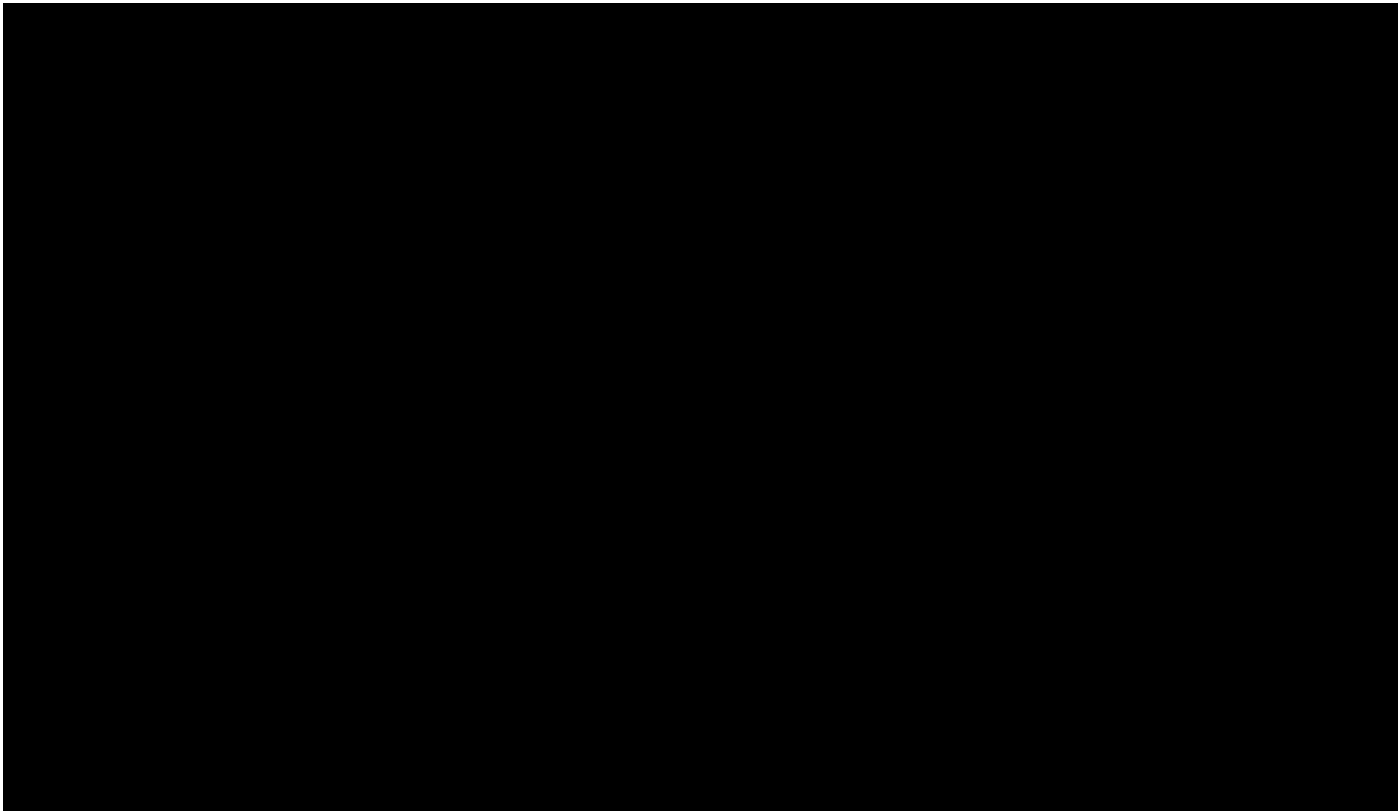
---

### 9.1 PROJECT SCHEDULE

Identify the elements on the critical path. The schedule should include, at a minimum, preliminary engineering, financing, acquisition of real property rights, Federal, state and/or local permits, licenses, environmental assessments and/or environmental impact statements (including anticipated permit submittal and approval dates), completion of interconnection studies and approvals, procurement, facility contracts, start of construction, construction schedule, and any other requirements that could influence the project schedule and the commercial operation date.

Vineyard Offshore has developed a robust and prudent schedule for Vineyard Wind 2 (the "Project") [REDACTED]

[REDACTED] Vineyard Offshore has taken all commercially reasonable steps to de-risk the Project's schedule, and we are confident that Vineyard Wind 2 will be delivered as planned. An overview of the Project's schedule is provided in Figure 9.1-1, with an expanded version included as Attachment 9.1-1.



Vineyard Offshore is one of only a handful of offshore wind developers with direct experience developing and constructing a commercial-scale offshore wind project in the United States (US); we fully understand the scheduling risks, challenges, and opportunities associated with

building these projects, particularly in the Massachusetts Wind Energy Area (MA WEA). Our involvement in the development and ongoing construction of Vineyard Wind 1 has informed the Project's schedule.

[REDACTED]

[REDACTED]

## 9.2 PROJECT SCHEDULE CREDIBILITY

Describe and demonstrate that the project is more likely than not to come online by the commercial operation date that is projected within the proposal, as evidenced by documents filed by the bidder showing the following:

- Commencement of permitting processes;
- A plan for completing all permitting processes;
- Viable resource assessment;
- Environmental assessment;
- Viable financing plans along with detailed information requested in 2.2.2.3;
- Viable installation and electrical interconnection plans;
- Material progress towards the acquisition of all real property rights; and
- Evidence of material vendor activity.

In developing the Project's schedule, we have drawn upon our deep knowledge of local and global supply chain trends and risks, the interconnection process, permitting requirements, and other key program-driving factors such as weather conditions, which can impact installation activities. [REDACTED]

[REDACTED]

[REDACTED] Additional information regarding the credibility of the Project's schedule is provided below.

## 9.2.1 Permitting Process and Plan

The Project's permitting process is being led by Chief Development Officer Rachel Pachter, who has over two decades of experience in the US offshore wind industry. As detailed in Section 12, Rachel's team includes a deep bench of US offshore wind and energy infrastructure development and permitting experts. This team is supported by lead environmental consultant Epsilon Associates Inc. (Epsilon Associates) [REDACTED]

[REDACTED] Epsilon Associates has provided analysis and permitting services to the energy industry for more than 25 years and is the most experienced US offshore wind environmental consultant, having served as the lead consultant for Vineyard Wind 1 on federal, state, regional, and local permitting. [REDACTED]

The Project's permitting plan, process, and timeline are summarized below and further elaborated in Section 7.

### 9.2.1.1 Federal Permitting

The federal permitting process for the Project is already underway. In July 2022, Vineyard Offshore submitted the Vineyard Northeast COP to the Bureau of Ocean Energy Management (BOEM). For the purposes of federal permitting, "Vineyard Northeast" is Vineyard Offshore's proposal to develop, construct, and operate Offshore Wind Energy Generation facilities in Lease Area OCS-A 0522 (the "Lease Area"), along with associated offshore and onshore transmission systems. Vineyard Wind 2 will be developed as part of Vineyard Northeast.

Vineyard Offshore submitted a FAST-41 Initiation Notice for Vineyard Northeast under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) to safeguard an expedited and coordinated federal permitting process. The Federal Permitting Improvement Steering Council (FPISC) announced that Vineyard Northeast is a covered project under the FAST-41 program on October 26, 2023. FPISC has published the permitting timetable for Vineyard Northeast's planned environmental review and permitting processes,<sup>1</sup> [REDACTED]

BOEM determined that the Vineyard Northeast COP meets the requirements of the Notice of Intent (NOI) Checklist on February 7, 2024, and issued the NOI to prepare an Environmental Impact Statement in March 2024. Based on the current FAST-41 permitting timetable, BOEM is expected to issue the Record of Decision (ROD) in Q1 2026. BOEM would then issue the COP Approval within 90 days of the ROD in Q2 2026.

---

<sup>1</sup> The permitting dashboard and permitting timetable for Vineyard Northeast can be found at: <https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/vineyard-northeast>.

The Project's schedule allows ample time for additional permits that will be required from federal agencies, including the US Army Corps of Engineers (USACE), the National Marine Fisheries Service (NMFS), and the Environmental Protection Agency. The USACE and NMFS will coordinate their review with BOEM's National Environmental Policy Act process and are expected to issue a joint ROD with BOEM. All federal approvals are anticipated to be received in a similar timeframe as BOEM's COP Approval.

[REDACTED]

**9.2.1.2 State Permitting**

[REDACTED]

[REDACTED]

[REDACTED]

### 9.2.2 Viable Resource Assessment

Vineyard Offshore tasked C2Wind Aps, one of the most experienced wind energy forecasting companies in the world, with developing a wind resource assessment for Lease Area OCS-A 0522. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Further information is provided in Section 4.

### 9.2.3 Environmental Assessment

Since acquiring the Lease Area in 2019, Vineyard Offshore has performed numerous surveys, including offshore avian, fisheries, and benthic habitat surveys, to collect baseline data on the presence of wildlife in and around the Lease Area. These site-specific surveys supplement the considerable body of existing literature and survey data for the MA WEA. As such, the ecological baseline for the Lease Area and surrounding waters is well understood and has been incorporated into the resource assessments provided in the Vineyard Northeast COP.

We have also already analyzed the potential effects of the Project on physical, atmospheric, biological, economic, cultural, and historic resources and identified measures to avoid, minimize, and mitigate potential impacts in consultation with regulators and stakeholders. This comprehensive environmental assessment is included in Volume II of the Vineyard Northeast COP. Relevant excerpts of COP Volume II are provided in Attachment 7.1-2.

### 9.2.4 Financing Plan

Vineyard Offshore and Copenhagen Infrastructure Partners (CIP) have a demonstrated track record financing projects of similar scale and complexity, including Vineyard Wind 1. In September 2021, CIP and its joint venture partner, Avangrid Renewables, arranged approximately \$2.3 billion for the financing of Vineyard Wind 1 from a group of nine domestic and international banks. Subsequently, in October 2023, Vineyard Wind 1 closed a \$1.2 billion first-of-its-kind tax equity package for commercial-scale offshore wind with three US banks: J.P. Morgan Chase, Bank of America, and Wells Fargo.

[REDACTED]

- [REDACTED]

- [REDACTED]

Further details of our financing plan, including financial assumptions relating to commodity prices, interest rates, inflation, and contingency, are provided in Section 5. Information on transmission system and network upgrade works and costs is included in Section 6.

## 9.2.5 Viable Installation and Electrical Interconnection Plans

### 9.2.5.1 Installation Plan

Vineyard Offshore has invested considerable resources into understanding potential manufacturing and logistical solutions to ensure the timely procurement, manufacturing, and installation of the Project’s wind turbine generators (WTGs), foundations, and other long lead time components. [REDACTED]

[REDACTED]

[REDACTED]



[REDACTED] These results provide Vineyard Offshore with unique insights and support the development of a robust logistical concept and construction plan.

Further details on vessels and logistics are provided in Section 9.3 as well as Section 10, while additional information on the proposed equipment to be installed is provided in Section 8.

### **9.2.5.2 Electrical Interconnection Plan**

Vineyard Wind 2’s interconnection status is described in Section 6 and briefly summarized here. The Project includes a [REDACTED] transmission system and delivery point in Montville, Connecticut. Eversource Energy’s Montville 345 kilovolt (kV) Substation (the “Montville Substation”) is a major substation near the southern New England coast that has long been anticipated as a delivery point for offshore wind in ISO New England (ISO-NE) studies. [REDACTED]

[REDACTED]

[REDACTED]

In maturing the Project’s interconnection plan, various studies have been undertaken by both ISO-NE and Vineyard Offshore to evaluate the Project’s electrical system performance and impact on the reliability of the ISO-NE electrical grid. The studies have also informed the preliminary cost of and schedule for system and network upgrades. [REDACTED]

[REDACTED]

### **9.2.6 Acquisition of Real Property Rights**

Vineyard Offshore has secured critical real property rights for the Project and will obtain others through, or after the completion of, federal, state, and local permitting processes. [REDACTED]

[REDACTED]

The following real property rights have been secured:

- Lease agreement for Lease Area OCS-A 0522 for the purpose of offshore wind energy generation on the Outer Continental Shelf. The lease agreement provides the rights to secure all permits and easements necessary to construct and operate an offshore wind project and install the necessary transmission system within federal waters. An easement for the offshore export cable corridor will be issued upon approval of the Vineyard Northeast COP and will be recorded as an addendum to the lease agreement.

[REDACTED]

[REDACTED]

[REDACTED]

The following remaining rights will be secured through the permitting processes:

[REDACTED]

[REDACTED]

[REDACTED]

Further details on the status of the acquisition of property rights are provided in Section 6, with a summary in Table 6.2-1.

### 9.2.7 Vendor Activity

Vineyard Offshore has leveraged our experience completing the procurement process for Vineyard Wind 1 to identify cost-effective opportunities to use and support the offshore wind supply chain that is emerging along the East Coast and in New England in particular. Our procurement strategy for the Project is further underpinned by extensive investigations of US supply chain capabilities and dialogue with numerous potential domestic and international manufacturers and supply chain partners.

[REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED] These early actions have minimized potential cost and schedule risk for Vineyard Wind 2.

Additional information on the contracting status of the Project’s major equipment is provided in Section 8. The status of vessel procurement is discussed below in Section 9.3.

### **9.3 MARITIME VESSELS AND LOGISTICS**

Include a discussion on use of maritime vessels and access to them, as well as the bidder’s plans to secure any specialized vessels or other equipment consistent with the construction schedule. Provide any agreements, options, or other materials reflecting the bidder’s efforts so far to secure such vessels or other equipment (and any letters of intent to the extent signed agreements are not in place). Also include a description and discussion of the laydown facility/facilities to be used for construction, assembly, staging, storage, and deployment.

[REDACTED]

[REDACTED] An overview of the need for and availability of suitable vessels is provided in Table 9.3-1. [REDACTED]

Additional detail, including information on marine vessels and port facilities, is provided in Section 10.

**Table 9.3-1 Maritime Vessels and Logistics**

---

[REDACTED]

**Table 9.3-1 Maritime Vessels and Logistics (Continued)**

[Redacted Table Content]

**9.3.1 Marine Terminal Facilities**

[Redacted]

[Redacted] The Salem Offshore Wind Terminal is currently under development and is slated to open in 2026. Once completed, it will provide heavy lift deployment and logistics services for offshore wind projects. The marine terminal facility is on a remediated, 42-acre waterfront property on the site of a former coal and oil-fired power plant in Salem Harbor. Among other things, the Salem Offshore Wind Terminal is being planned to include two laydown yards, a transition yard for additional component storage, and a pre-assembly, staging, and loadout area.

[Redacted]

#### 9.4 STATUS OF CRITICAL PATH ITEMS

Detail the status of all critical path items, such as receipt of all necessary siting, environmental, and ISO-NE approvals.

[REDACTED]

[REDACTED]

[REDACTED]

## SECTION 10

### CONSTRUCTION AND LOGISTICS

---

#### 10.1 MAJOR TASKS AND EQUIPMENT FOR PROJECT DEPLOYMENT

Please list the major tasks or steps associated with deployment of the proposed project and the necessary specialized equipment (e.g. vessels, cranes).

Vineyard Offshore has developed a preliminary construction plan for Vineyard Wind 2 (the "Project") that addresses all necessary arrangements and processes for outfitting, assembly, storage, and deployment of major Project components. The preliminary construction plan described herein incorporates Vineyard Offshore's experience developing Vineyard Wind 1, the nation's first commercial-scale offshore wind project, as well as Copenhagen Infrastructure Partners' (CIP's) expertise across an almost 50 gigawatt global offshore wind portfolio. [REDACTED]

Vineyard Wind 2's preliminary construction plan consists of the following six main work packages:

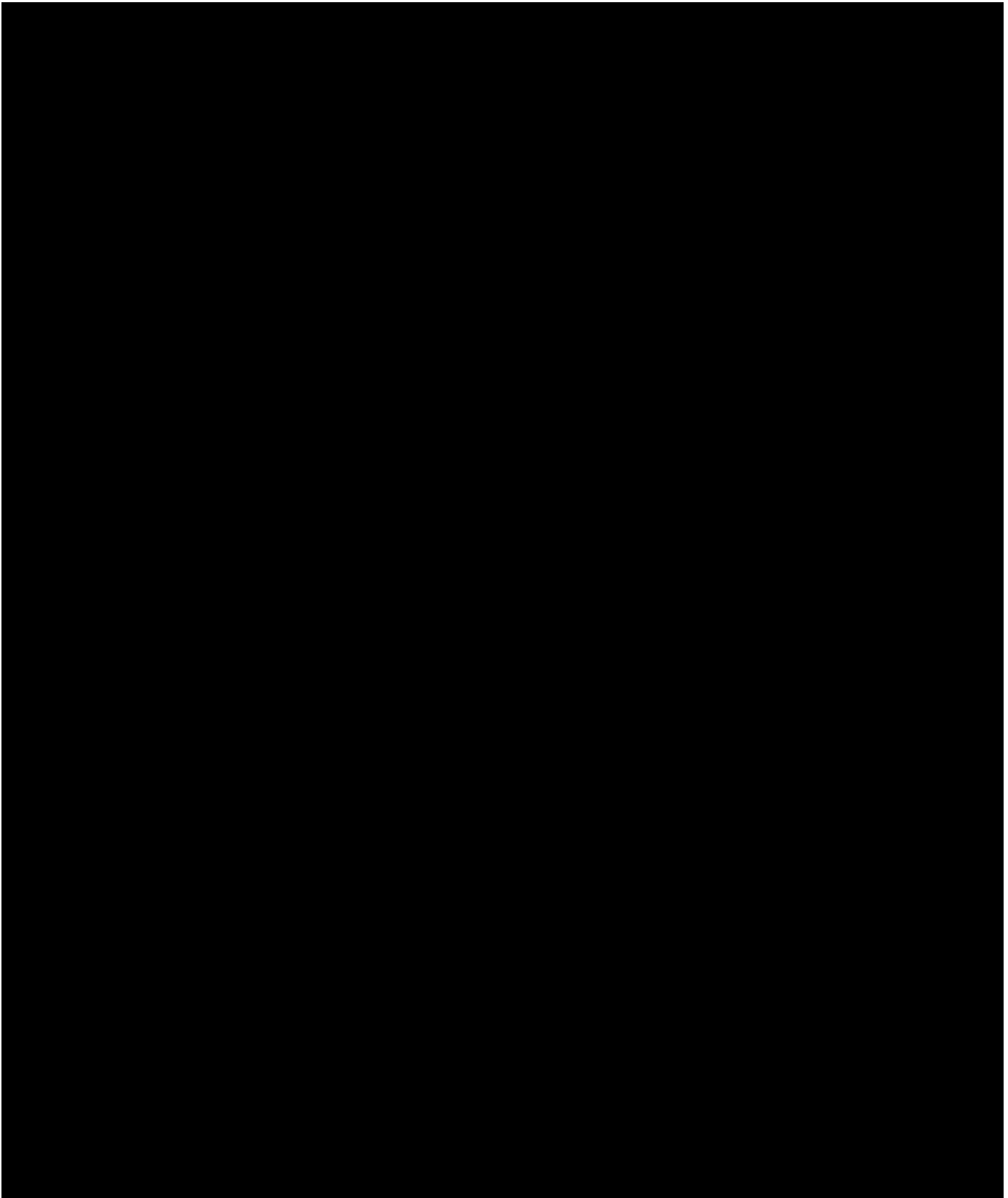
- Wind turbine generator (WTG) foundation T&I
- Electrical service platform (ESP) T&I
- Offshore export cable T&I
- Inter-array cable T&I
- WTG T&I
- Onshore works

The projected sequence of these work packages is depicted on the Project's schedule, which is provided in Section 9.

The T&I vessel spread terminologies used throughout this section are defined in Table 10.1-1.

**Table 10.1-1 Transportation and Installation Vessels and Technologies**

---

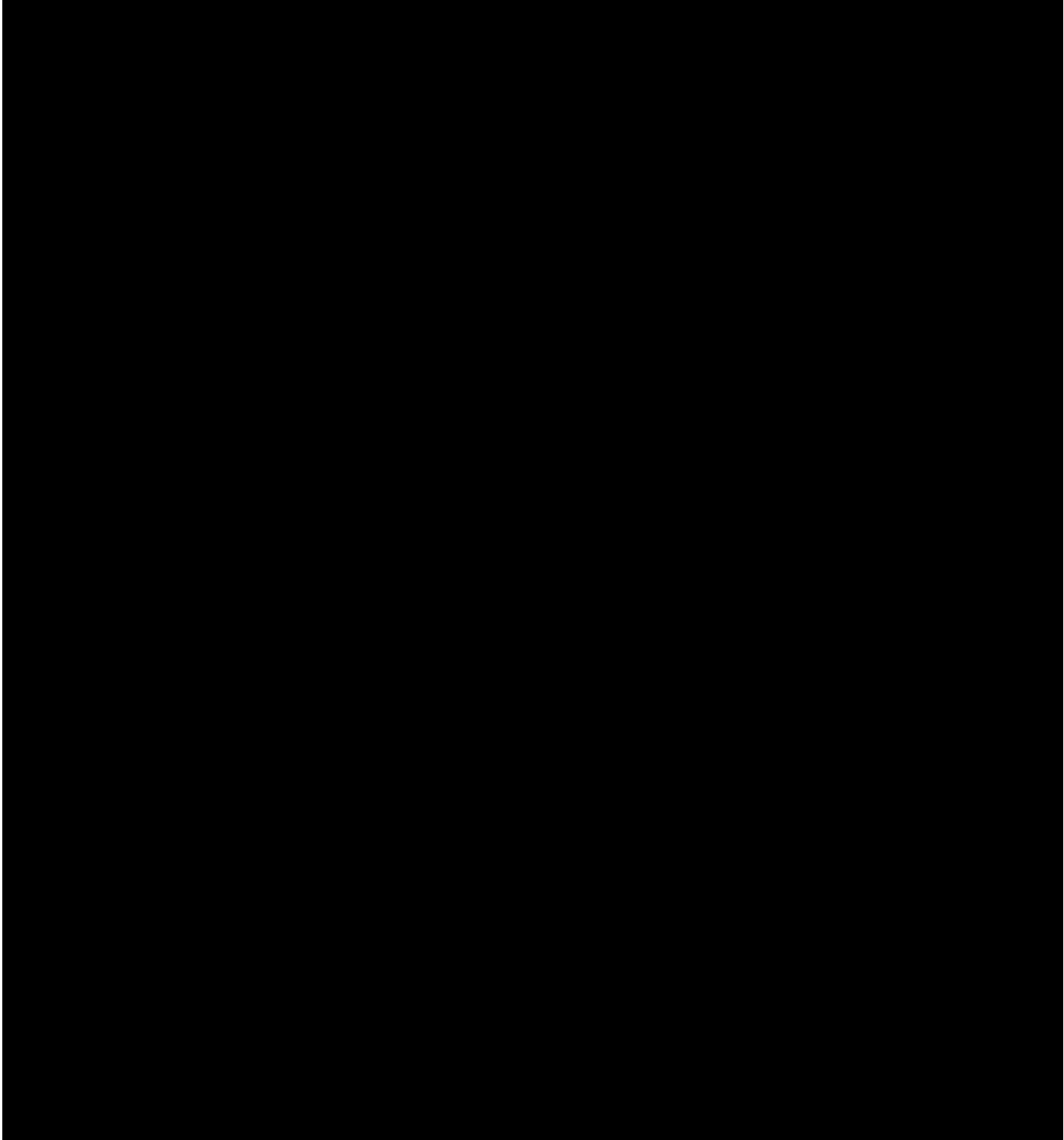




An overview of the major tasks associated with the Project's deployment, including the specialized equipment required to complete each of the work packages, is provided in Table 10.1-2.

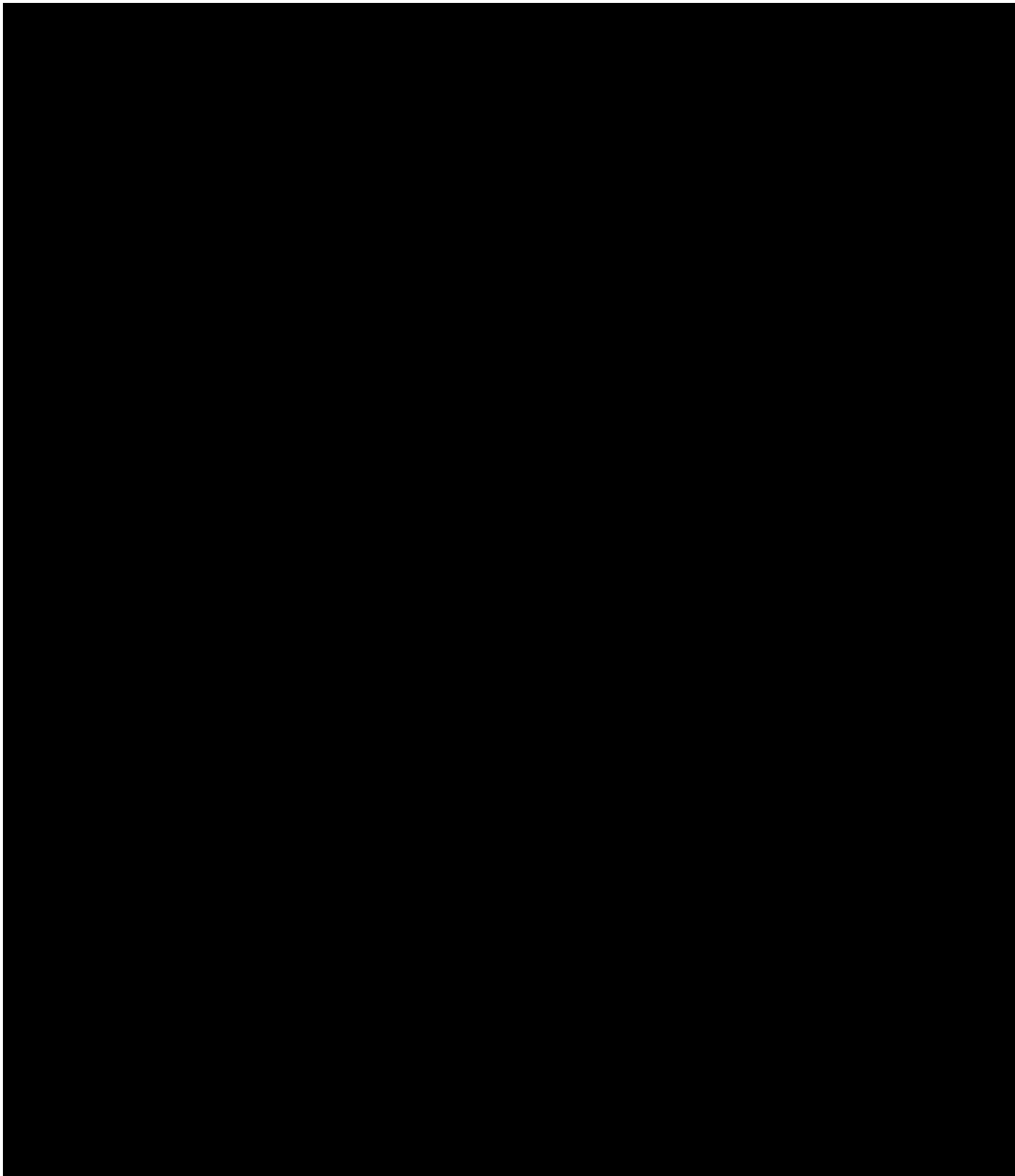
**Table 10.1-2 Major Tasks and Specialized Equipment for Deployment**

---

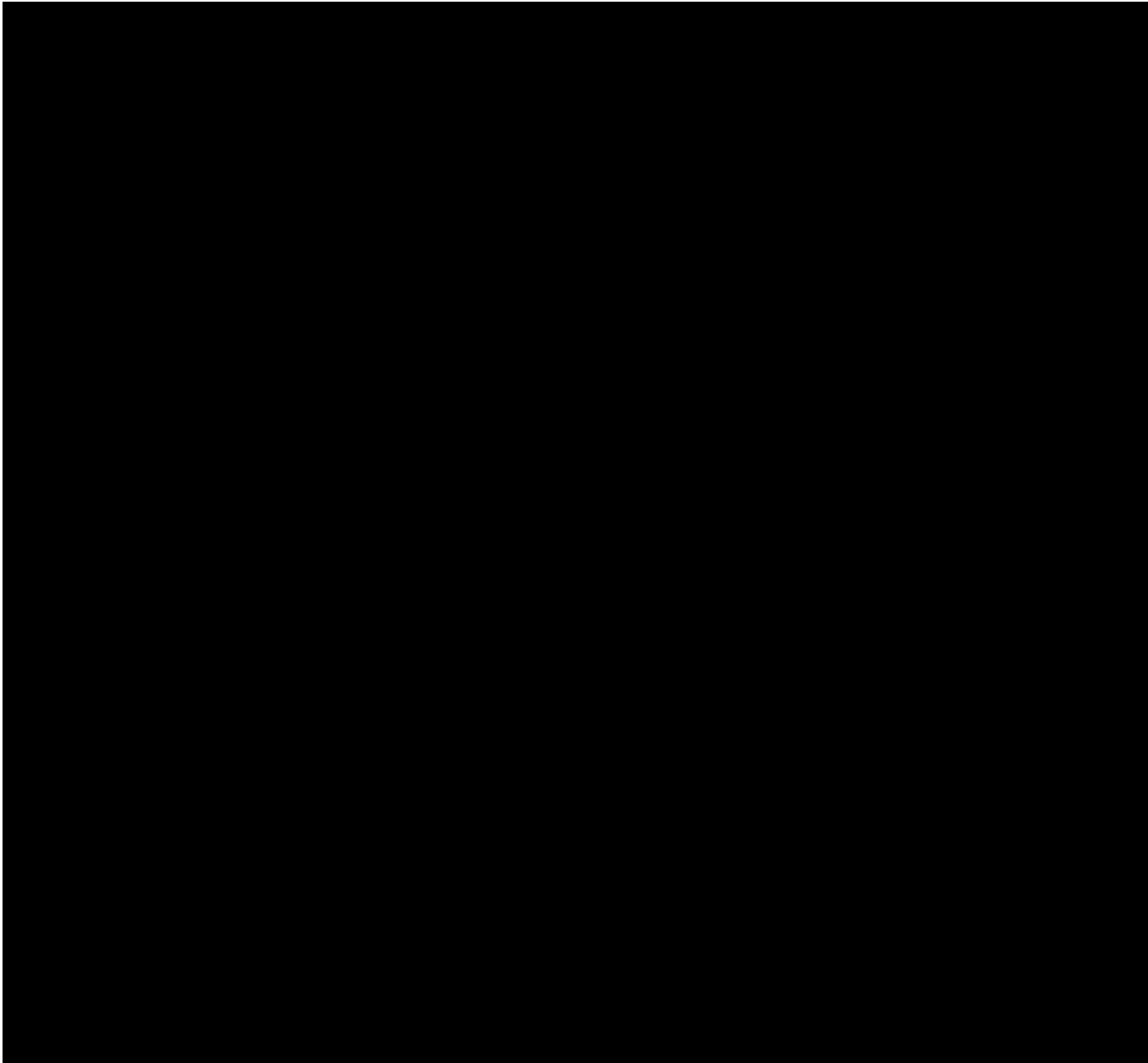


**Table 10.1-2 Major Tasks and Specialized Equipment for Deployment (Continued)**

---



**Table 10.1-2 Major Tasks and Specialized Equipment for Deployment (Continued)**



**10.2 SITE CONTROL FOR MARINE TERMINAL FACILITIES**

Please provide documentation to demonstrate site control for all marine terminals and other waterfront facilities that will be used to stage, assemble, and deploy the project for each stage of construction.

- i. Evidence that the bidder or the equipment/service provider have a valid lease, or option to lease, a marine terminal and/or waterfront facility for construction of the offshore wind energy project (e.g., by virtue of ownership or land development rights obtained from the owner).

- ii. If not available, describe the status of acquisition of real property rights for necessary marine terminal and/or waterfront facilities, any options in place for the exercise of these rights and describe the plan for securing the necessary real property rights, including the proposed timeline. Include these plans and the timeline in the overall project schedule. Provide any agreements, options, or other materials reflecting the bidder's efforts so far to secure real property rights (and any letters of intent to the extent signed agreements are not in place).
- iii. Identify any joint use of existing or proposed real property rights for marine terminal or waterfront facilities.

### 10.2.1 Marine Terminal Facilities

Vineyard Offshore is committed to using a Massachusetts-based marine terminal facility for the pre-assembly, staging, and load-out of the Project's WTGs to maximize Vineyard Wind 2's economic benefits to the Commonwealth. Based on our extensive efforts, we have identified the Salem Offshore Wind Terminal in Salem, Massachusetts as the Project's primary construction port.

The Salem Offshore Wind Terminal, located at the site of a former coal and oil-fired power plant, is being transformed into a world-class logistics and operations center for WTG pre-assembly, transportation, staging activities, and component storage. Ownership of the Salem Offshore Wind Terminal was recently transferred from Crowley Wind Services, Inc. (Crowley) to the Massachusetts Clean Energy Center (MassCEC). Crowley will continue to manage the site's redevelopment and serve as the terminal's operator.<sup>1</sup> Construction of the marine terminal facility is expected to begin in 2024 and be completed in 2026, well in advance of the Project's start of construction.<sup>2</sup>

Once completed, the facility will provide heavy lift deployment and logistics services for offshore wind projects. The Salem Offshore Wind Terminal is planned to include two laydown yards, a transition yard for additional component storage, and a pre-assembly, staging, and loadout area. The 42-acre waterfront site is located approximately 22 miles northeast of Boston in Salem Harbor.

### 10.2.2 Acquisition Status

[REDACTED]

<sup>1</sup> See: [MassCEC, City of Salem, and Crowley Announce Agreements for Salem Offshore Wind Terminal.](#)

<sup>2</sup> See: [Salem Offshore Wind Terminal.](#)

### 10.2.3 Joint Use

[REDACTED]

### 10.3 STAGING AND DEPLOYMENT

Please describe the proposed approach for staging and deployment of major project components to the project site. Indicate the number, type and size of vessels that will be used, and their respective roles, as well as the projected timing of their use. Please include specific information on how the bidder's deployment strategy will conform to requirements of the Merchant Marine Act of 1920 (the Jones Act).

This subsection describes our proposed approach for staging and deployment of major components for Vineyard Wind 2's six main work packages, including a discussion of vessels that are expected to be used and how our deployment strategy complies with United States (US) coastwise laws, including the Jones Act.

[REDACTED]

Vineyard Offshore's construction plan employs best management practices to avoid, minimize, and mitigate potential impacts to host communities and the environment. The Fisheries Mitigation Plan (see Attachment 7.4-1), Environmental Mitigation Plan (see Attachment 7.5-1), and Environmental Justice Impact Assessment (see Attachment 7.6-1) discuss measures that Vineyard Offshore will adopt to minimize potential impacts associated with construction and installation activities.

#### 10.3.1 WTG Foundation Transportation and Installation

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 10.3.1.1 Scour Protection Transport and Installation

Scour protection may be installed at the base of each foundation to minimize sediment transport and erosion (i.e., scour development) caused by water currents. [REDACTED]

[REDACTED]

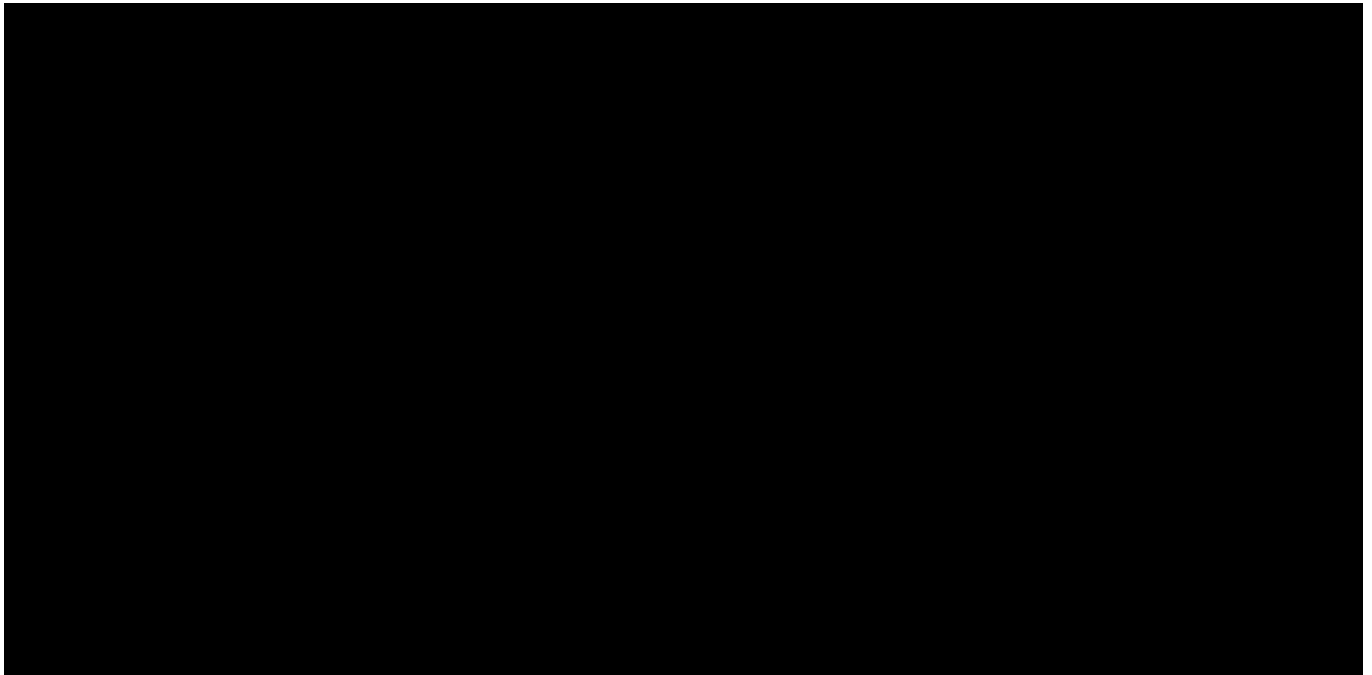
If used, scour protection would likely consist of loose rock material placed around the foundation in one or more layers. If installed in multiple layers, the lower layer(s) (i.e., the filter layer[s]) would consist of smaller sized rock followed by an upper armor layer consisting of larger rock. Scour protection may be installed up to several months prior to the start of foundation installation and/or after foundation installation. Table 10.3-1 describes the installation of scour protection comprised of loose rock material, which is the most widely used scour protection material in the offshore wind industry.

[REDACTED]

Although freely-laid rock is the most widely used scour protection material in the offshore wind industry, scour protection may alternatively consist of rock bags or scour mats. Rock bags consist of rock encased in a durable net material whereas scour mats are expected to consist of plastic fronds. Both rock bags and scour mats would likely be deployed by a vessel's crane.

**Table 10.3-1 Scour Protection Transport and Installation**

---



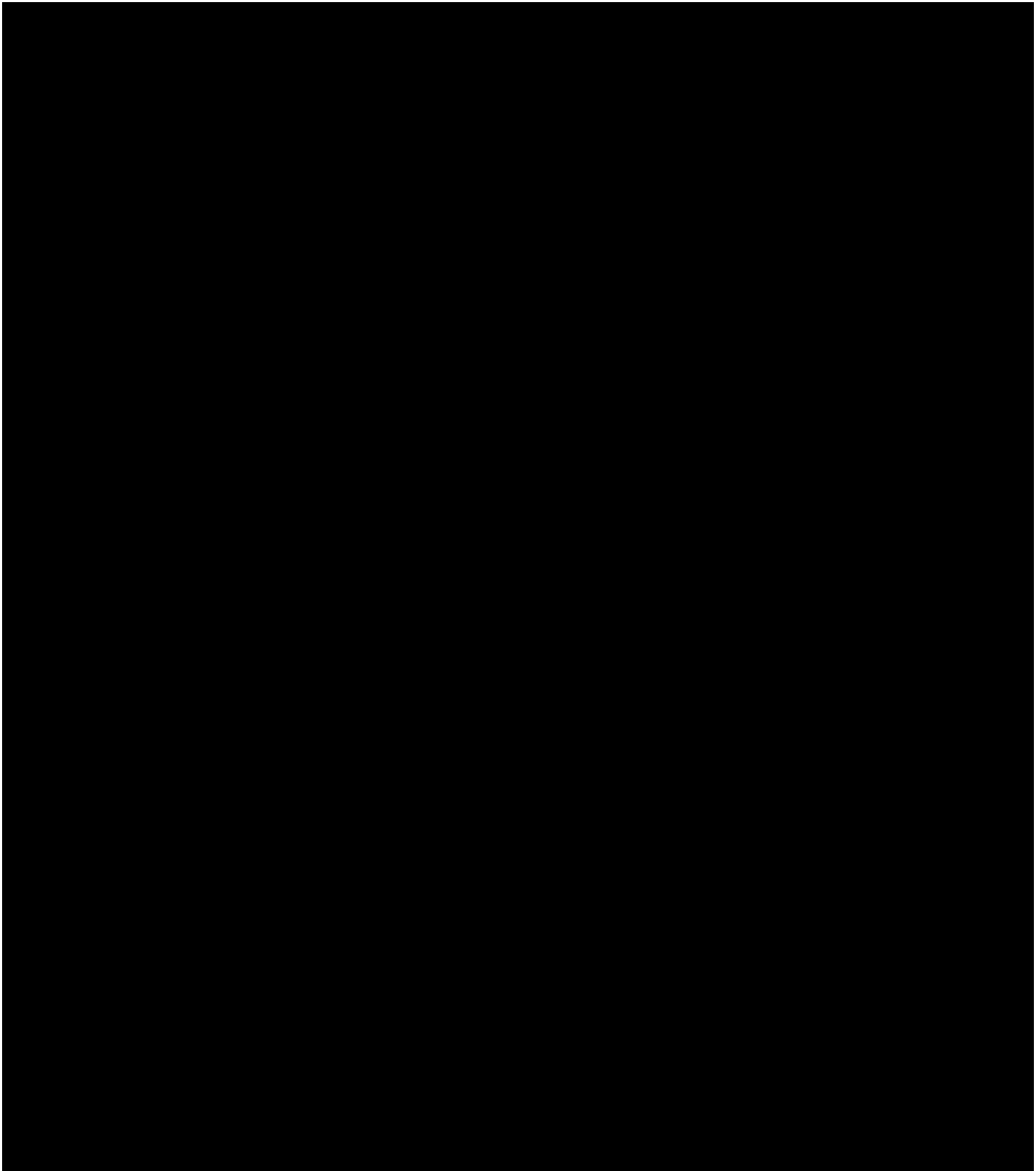
**10.3.1.2 WTG Foundation Transport**



The steps required to transport foundations to the Lease Area are provided in Table 10.3-2.

**Table 10.3-2 Foundation Transport**

---





### 10.3.1.3 WTG Foundation Installation

We have gained considerable experience installing monopiles in accordance with US coastwise laws and federal permitting requirements through the Vineyard Wind 1 project. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Table 10.3-3 describes the foundation installation process.

**Table 10.3-3 Foundation Installation**

---

[REDACTED]
------------

[REDACTED]

**Table 10.3-3 Foundation Installation (Continued)**

---

[Redacted content]

### 10.3.2 ESP Transportation and Installation

The ESP consists of two primary components: (1) the topside, which houses the electrical components, and (2) the foundation, which supports the topside. [REDACTED]

ESP T&I will consist of the following major tasks:

- ESP transport
- ESP installation
- ESP offshore commissioning

#### 10.3.2.1 ESP Transport

[REDACTED]

#### 10.3.2.2 ESP Installation

The specific steps required to install the ESP foundation are similar to those described in Table 10.3-3 for WTG foundations. The ESP foundation may be installed by the same vessel that installs the WTG foundations. As with WTG foundations, the ESP foundation may require seabed preparation (i.e., removing large obstructions, leveling the seafloor's surface, and/or removing weak surficial sediments) and scour protection. [REDACTED]

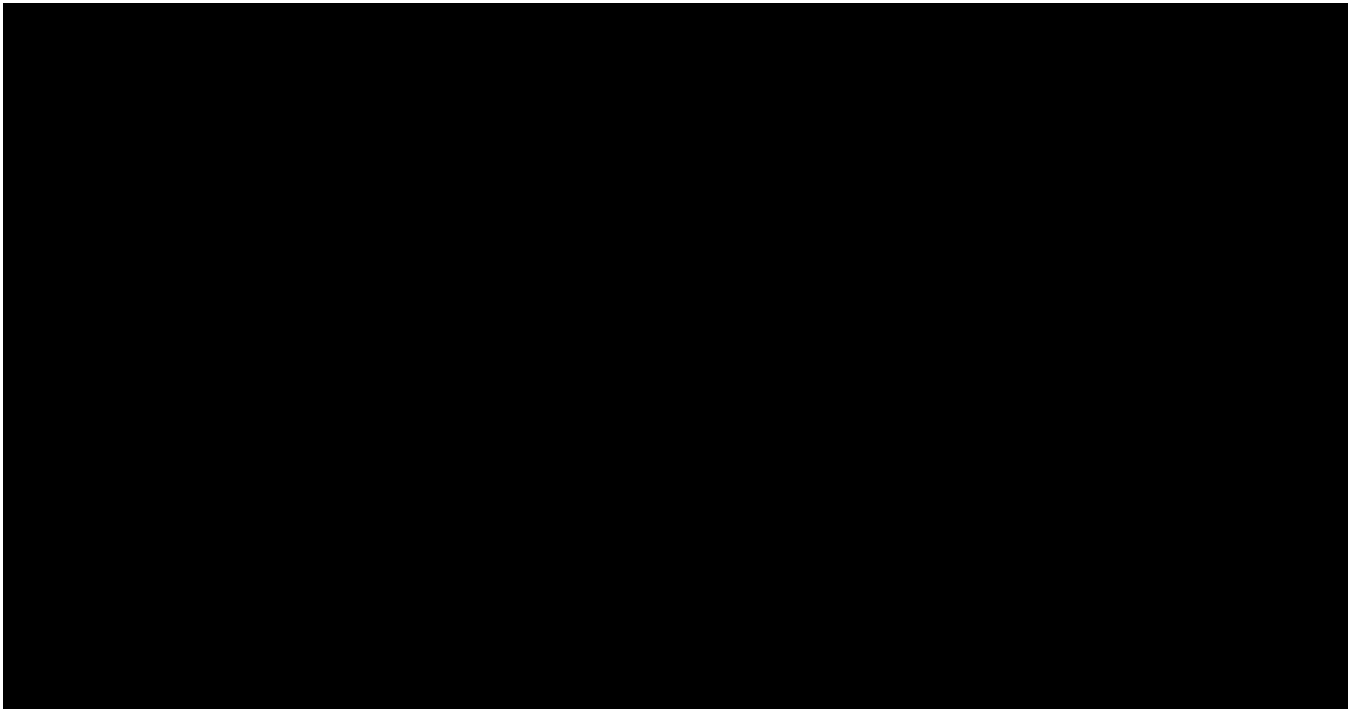
[REDACTED]



[REDACTED]

[REDACTED] ESP topside installation activities are enumerated in Table 10.3-4.

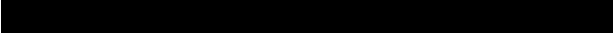
**Table 10.3-4 ESP Topside Installation**

---



  
 These cables will be routed through J-tubes (or a similar alternative) located on the foundation.

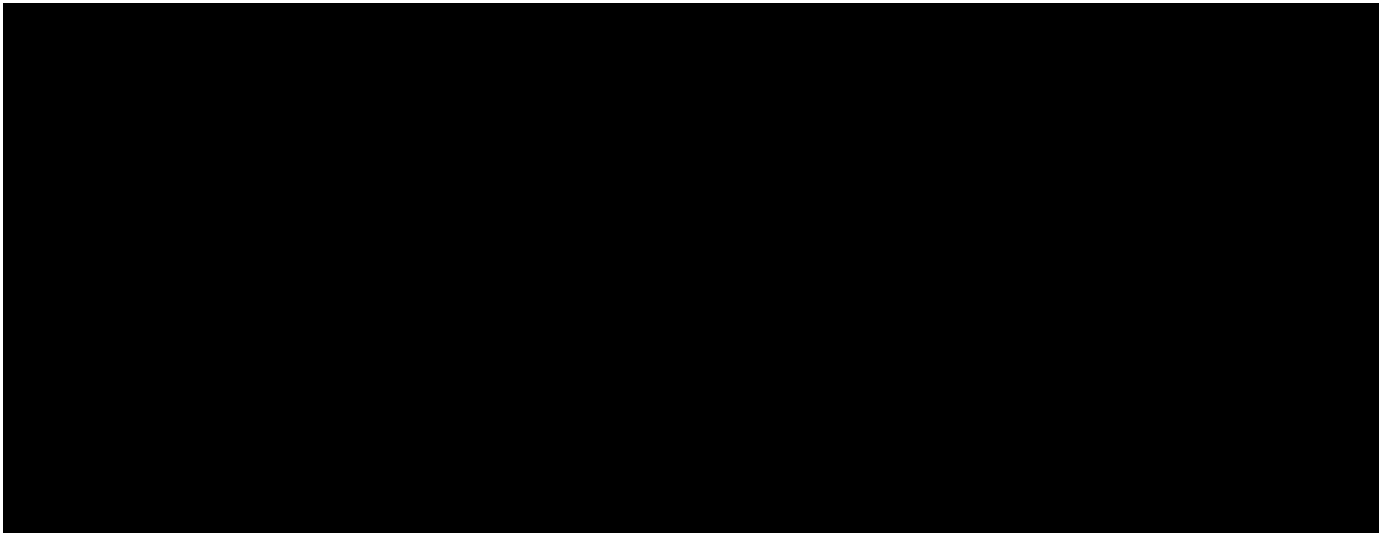
### **10.3.2.3 ESP Offshore Commissioning**

After the ESP is installed, offshore commissioning will commence. ESP commissioning, which entails conducting tests of the electrical infrastructure as well as safety, controls, and communication systems prior to commercial operations, may last several months. The steps for commissioning are indicated in Table 10.3-5. 


A similar “onshore commissioning” of the ESP occurs as part of the topside’s final manufacturing process and is conducted at the factory prior to ESP transport.

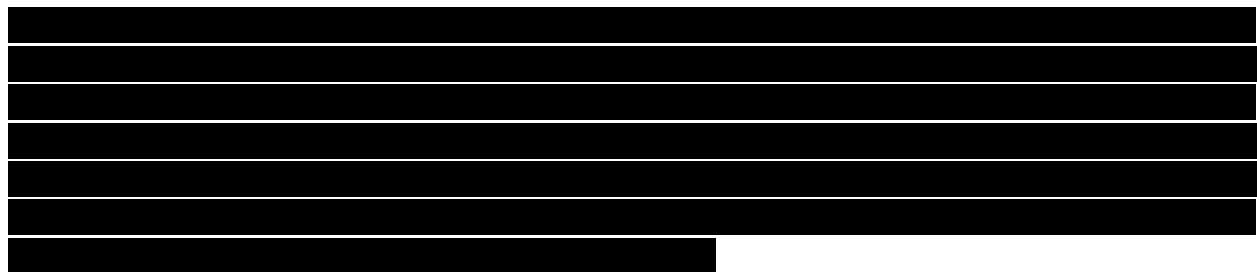
**Table 10.3-5 ESP Offshore Commissioning**



### 10.3.3 Offshore Export Cable Transportation and Installation

Offshore export cable T&I consists of the following main steps:

- [Redacted]
- Pre-lay grapnel runs and pre-lay surveys
- Cable transport, installation, and splicing
- Landfall site installation
- Cable pull-in into the ESP
- Cable termination and commissioning



[REDACTED]

**10.3.3.2 Pre-lay Grapnel Runs and Pre-lay Surveys**

The planned cable alignment will be prepared with a pre-lay grapnel run. The pre-lay grapnel run involves a vessel towing a grapnel train over the cable alignment to clear the planned cable alignment of debris (e.g., discarded fishing gear, ropes, marine trash). This will be performed in advance of cable installation to minimize the risk of any debris on the seabed hindering cable installation. Pre-lay surveys will be carried out shortly before cable installation to confirm that the cable alignment is free of obstructions and to verify seabed conditions.

**10.3.3.3 Cable Transport, Installation, and Splicing**

The offshore export cable will be transported from the manufacturing facility by the cable laying vessel or on a separate transport vessel. [REDACTED] If delivered by a separate transport vessel, the cable may be offloaded at a staging port and subsequently loaded onto the cable laying vessel. Alternatively, the cable may be transferred directly from the transport vessel onto the cable laying vessel.

To install the cable, the cable laying vessel will move along the cable alignment using anchors or DP while likely simultaneously laying and burying the cable. The offshore export cable can be installed from shore toward the Lease Area or in the opposite direction. [REDACTED]

[REDACTED]

[REDACTED] The cable installation contractor will determine the cable installation method(s) and tool(s) that are ultimately used to maximize the likelihood of achieving the target burial depth, taking into account site-specific environmental conditions and cable properties. Vineyard Offshore will require the contractor to prioritize the least environmentally impactful cable installation alternative(s) that are practicable for each segment of cable.

During installation, the burial tool will grade-out of the seabed near splice locations and at the ESP. Where the offshore export cable approaches the ESP foundation, the cable will likely be protected by a cable entry protection system, which is designed to reduce fatigue and mechanical loads as the cable transitions above the seabed and into the foundation.

---

4 [REDACTED]

[REDACTED]

[REDACTED]

**10.3.3.4 Landfall Site Installation**

[REDACTED]

[REDACTED]

**10.3.3.5 Cable Pull-in into the ESP**

As the cable laying vessel approaches the ESP, it will stop at a calculated distance and the cable will be cut and sealed. To commence cable pull-in into the ESP, an ROV will likely recover a pre-installed messenger wire from the base of the foundation and connect it to the pull-in head of the cable. Using the messenger wire, a winch on the ESP will then pull the cable up through the foundation into the ESP topside. As pull-in progresses, the cable laying vessel will move toward the ESP and the cable will be lowered to the seabed. The pull-in continues until the cable reaches the hang-off point where a dedicated team will install the temporary hang-off.

### 10.3.3.6 Cable Termination and Commissioning

[REDACTED]

### 10.3.4 Inter-array Cable Transportation and Installation

Inter-array cable T&I consists of the following main steps:

- [REDACTED]
- Pre-lay grapnel runs and pre-lay surveys
- Cable transport and installation
- Cable pull-in into the WTG foundations and ESP
- Cable termination and commissioning

[REDACTED]

### 10.3.4.2 Pre-lay Grapnel Runs and Pre-lay Surveys

Pre-lay grapnel runs and pre-lay surveys will be performed to confirm that the inter-array cable alignments are free of obstructions and are suitable for installation. See Section 10.3.3.2 for additional description of pre-lay grapnel runs and pre-lay surveys.

### 10.3.4.3 Cable Transport and Installation

The inter-array cables may be transported directly from their manufacturing facility to the Lease Area in the cable laying vessel. Alternatively, they may be delivered by a separate transport vessel, potentially offloaded at a staging port, and subsequently transferred onto the cable laying vessel.

[REDACTED]



[REDACTED]

#### **10.3.4.4 Cable Pull-in into the WTG Foundations and ESP**

[REDACTED]

[REDACTED]

#### **10.3.4.5 Cable Termination and Commissioning**

After the inter-array cables are secured on the temporary hang-offs, the termination team will strip the cables to expose the power cores and fiber optics and connect them to electrical infrastructure located in the top of the WTG foundation or in the ESP topside. Once termination is complete, the inter-array cables will be energized and commissioned.

#### **10.3.5 WTG Transportation and Installation**

WTG T&I is expected to consist of the following major tasks:

- WTG transport to the staging port
- Staging port logistics and pre-assembly
- WTG transport to and installation in the Lease Area
- WTG commissioning

[REDACTED]

[REDACTED]

### 10.3.5.1 WTG Transport to the Staging Port

The WTG consists of three major components: the tower (in multiple sections), the nacelle (and hub), and three blades. Each component will be prepared at a manufacturing facility (see Section 8) and shipped to the staging port. At the staging port (see Section 10.2), a sufficient stock of components will be accumulated prior to WTG installation to maintain a steady pace of installation activities. WTG components may be transported from their manufacturing facility to the staging port on HTVs or transport barges.

[REDACTED]

[REDACTED] WTG transport will proceed according to the steps outlined in Table 10.3-6.

**Table 10.3-6 WTG Transport to the Staging Port**

[REDACTED TABLE CONTENTS]

6

[REDACTED]

### 10.3.5.2 *Staging Port Logistics and Pre-assembly*

The main activities at the staging port will be moving WTG components from transport vessels to storage and back onto feeder vessels for transport to the Lease Area. When the nacelles, blades, and tower sections arrive at the port, the handling steps listed in Table 10.3-7 will occur.

[REDACTED]

**Table 10.3-7 WTG Staging Port Logistics and Pre-assembly**

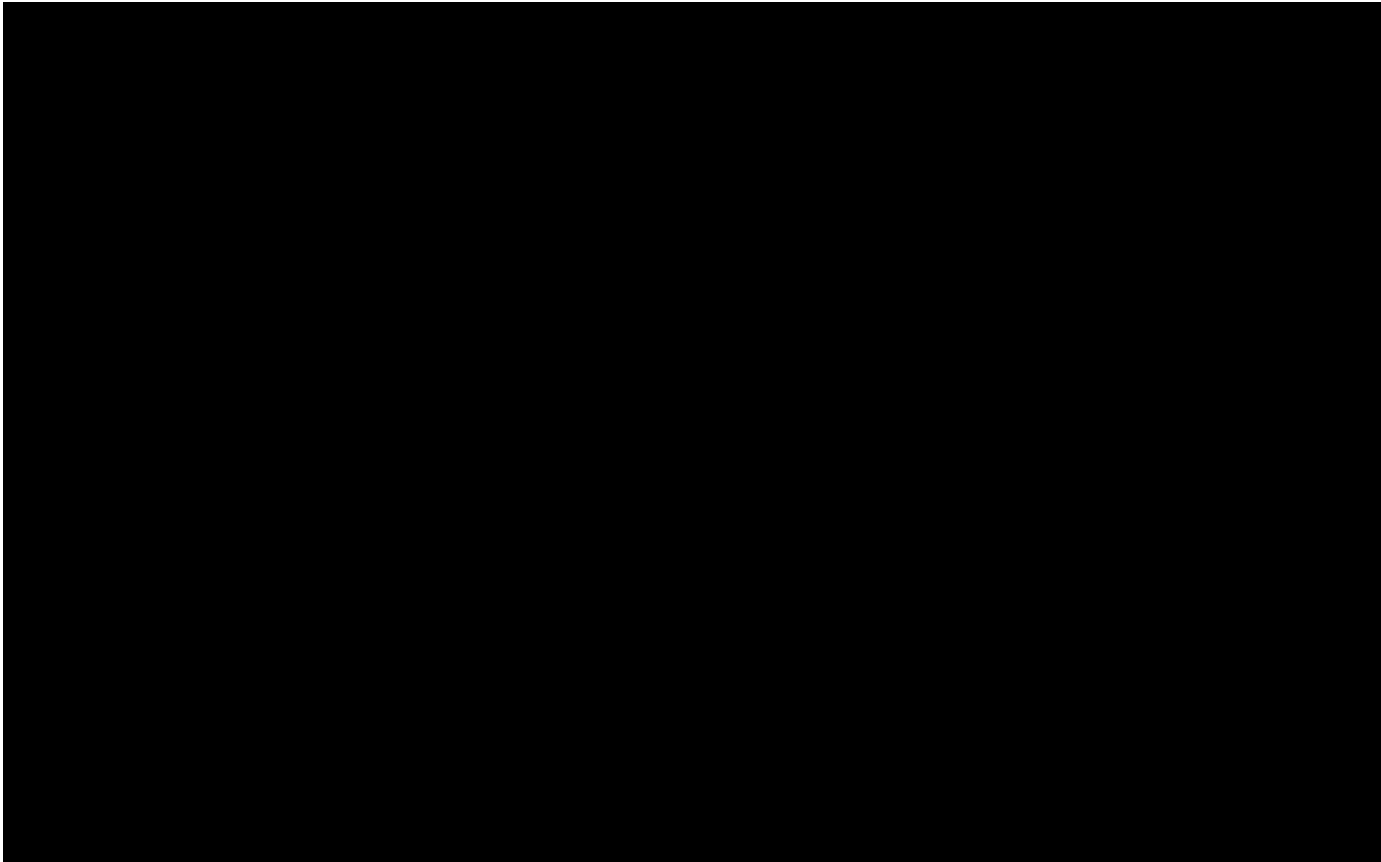
[REDACTED]

### 10.3.5.3 *WTG Transport to and Installation in the Lease Area*

[REDACTED] The WTG installation process [REDACTED] is outlined in Table 10.3-8.

**Table 10.3-8 WTG Transport to and Installation in the Lease Area**

---



#### **10.3.5.4 WTG Commissioning**

WTG installation will be followed by commissioning, where the WTGs will be energized using power from the electrical grid or a temporary power supply (e.g., diesel generators) and prepared for operation. The purpose of commissioning is to test electrical connections, safety and control mechanisms, and communication systems to confirm that they are functioning correctly and that the WTG is ready for energy production. The WTG commissioning phase will happen in parallel with the WTG installation phase. [REDACTED]

#### **10.3.6 Onshore Works**

Onshore works consist of the following major tasks:

- [REDACTED]
- Landfall site construction
- Duct bank civil works
- Cable transport, installation, and commissioning

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

**10.3.6.2 Landfall Site Construction**

[Redacted]

[REDACTED]

[REDACTED]

### 10.3.6.3 Duct Bank Civil Works

The onshore export cables are expected to be installed underground within a duct bank. The duct bank would consist of plastic conduits (e.g., HDPE or PVC) encased in concrete (i.e., cast in-place concrete). The power cables may be installed in separate conduits or within the same conduit. Additional conduits may be accommodated within the duct bank for fiber optic cables and grounding.

The onshore export cables typically require splices approximately every 500-2,000 ft or more. At each splice location, one or more underground splice vaults will be installed. The splice vaults are typically two-piece (top and bottom) pre-formed concrete chambers with openings at both ends to admit the onshore export cables.

The duct bank and splice vaults are expected to be installed via open trenching with conventional construction equipment (e.g., hydraulic excavator, loader, dump trucks, etc.). Similar to the installation of water mains and gas lines, in roadway sections, saw cutting and pavement removal are required before excavation of the open trench. [REDACTED]

[REDACTED] Once the trench is opened, plastic conduits will be assembled and installed using spacers to maintain the desired conduit arrangement. Then, concrete will be poured into the trench to form the duct bank and the prefabricated splice vaults will be installed using cranes. Next, the trenches will be backfilled. The top of the duct bank and splice vaults typically has a minimum of three feet of cover comprised of properly compacted backfill (e.g., sand, fluidized thermal material, native fill) topped by pavement or soil. Any excess soil or soil unsuitable for use as backfill will be transported offsite in accordance with applicable regulations. Trenches that are not backfilled by day's end will be covered with steel plates overnight. Openings in the roadway shoulder will be protected and barricaded to ensure traffic

and pedestrian safety. Completed trench sections that are within roadways will be re-paved in accordance with state and local standards. [REDACTED]

In limited, select areas where future mechanical loading is not of concern, the onshore export cables may be installed in directly buried conduit(s) (without the surrounding concrete duct bank) within open trenches that are subsequently backfilled. In this scenario, a board or concrete cap may be installed above the cables for mechanical protection along with warning tape, pending clarification of various requirements along the onshore export cable route. Splice pits (rather than splice vaults) may be located along the onshore export cable route to facilitate cable pulling activities.

Specialty trenchless crossing methods [REDACTED] are expected to be used where the onshore export cables traverse unique features such as busy roadways, railroads, wetlands, and waterbodies to avoid impacts to those features. The trenchless crossing method(s) utilized will depend on the location, mechanical loading considerations, safety factors, environmental impacts, and other applicable requirements.

#### **10.3.6.4 Cable Transport, Installation, and Commissioning**

Once the duct bank and splice vaults are in place, the onshore export cables will be delivered on a cable reel transport vehicle and pulled through the conduits from one splice vault to another using truck-mounted winches. Then, the cable segments will be spliced together within the splice vaults. The supplier will test and commission the cables following cable installation and termination.

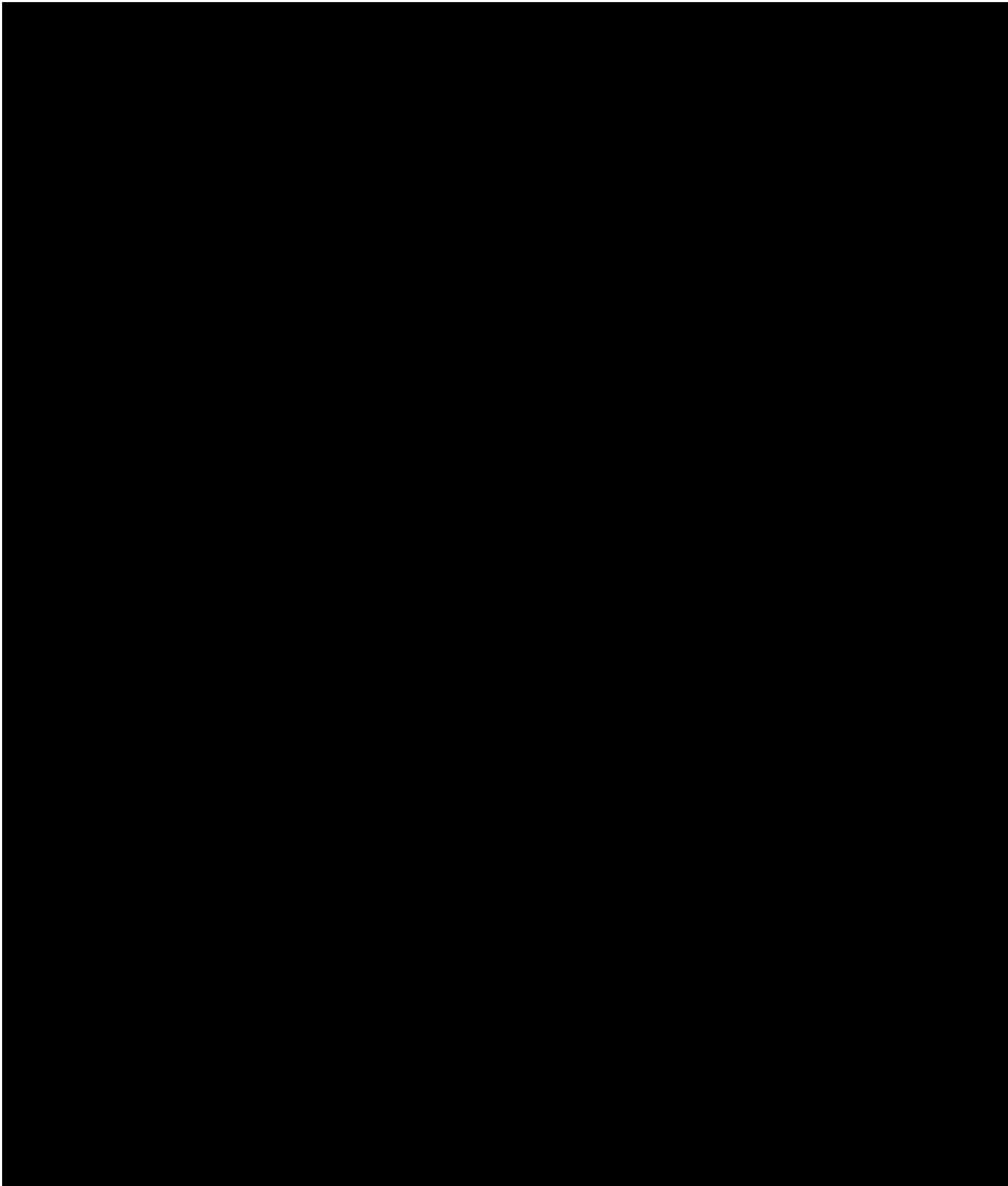
#### **10.3.7 Vessel Types and Respective Roles**

An overview of expected vessels, including the expected number, type, size, and anticipated roles on the Project for each offshore work package is provided in Table 10.3-9. The list is indicative and non-exhaustive. The projected timing of each offshore work package is provided in Section 9.

[REDACTED]

**Table 10.3-9 Expected List of Vessels and Roles**

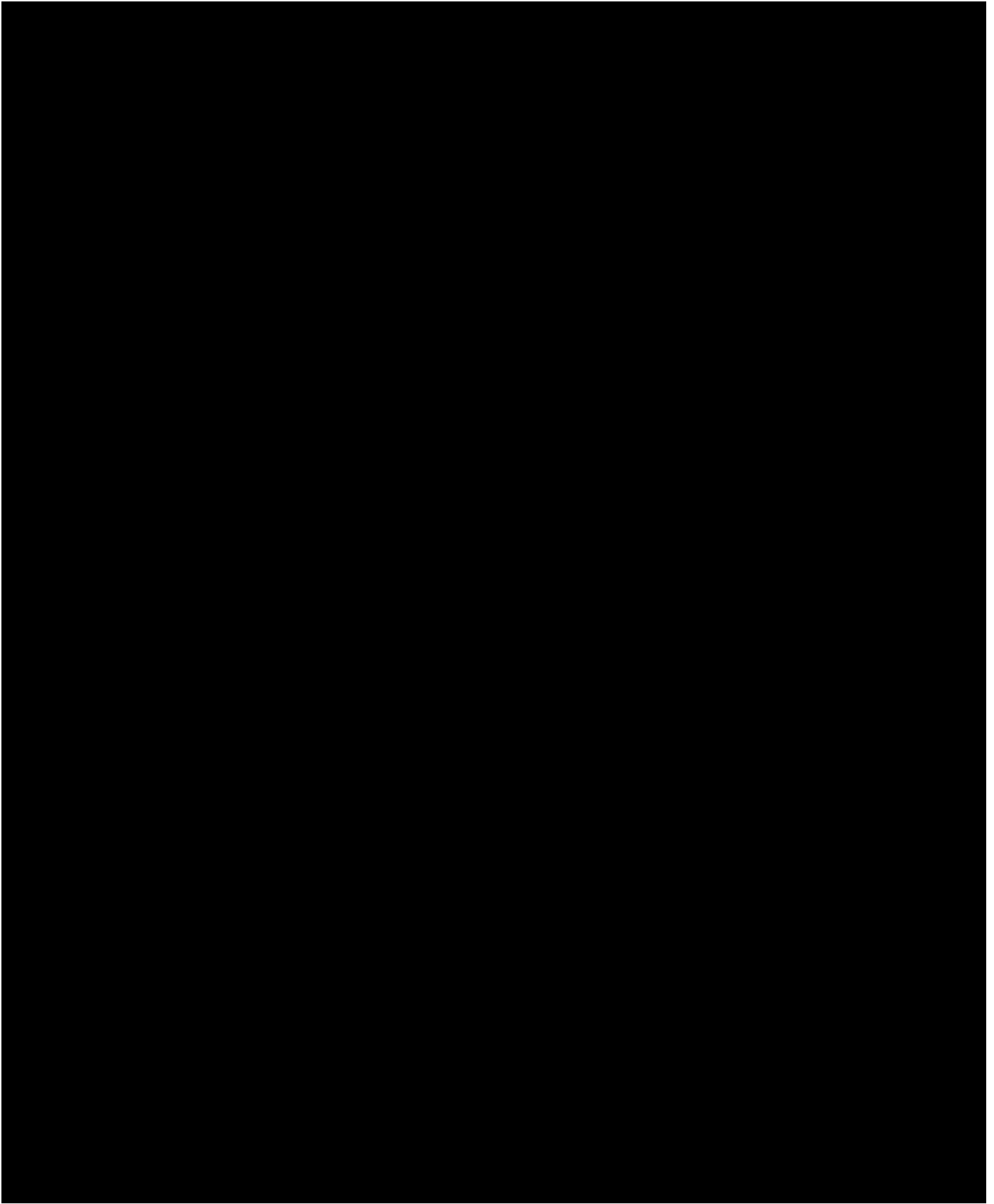
---





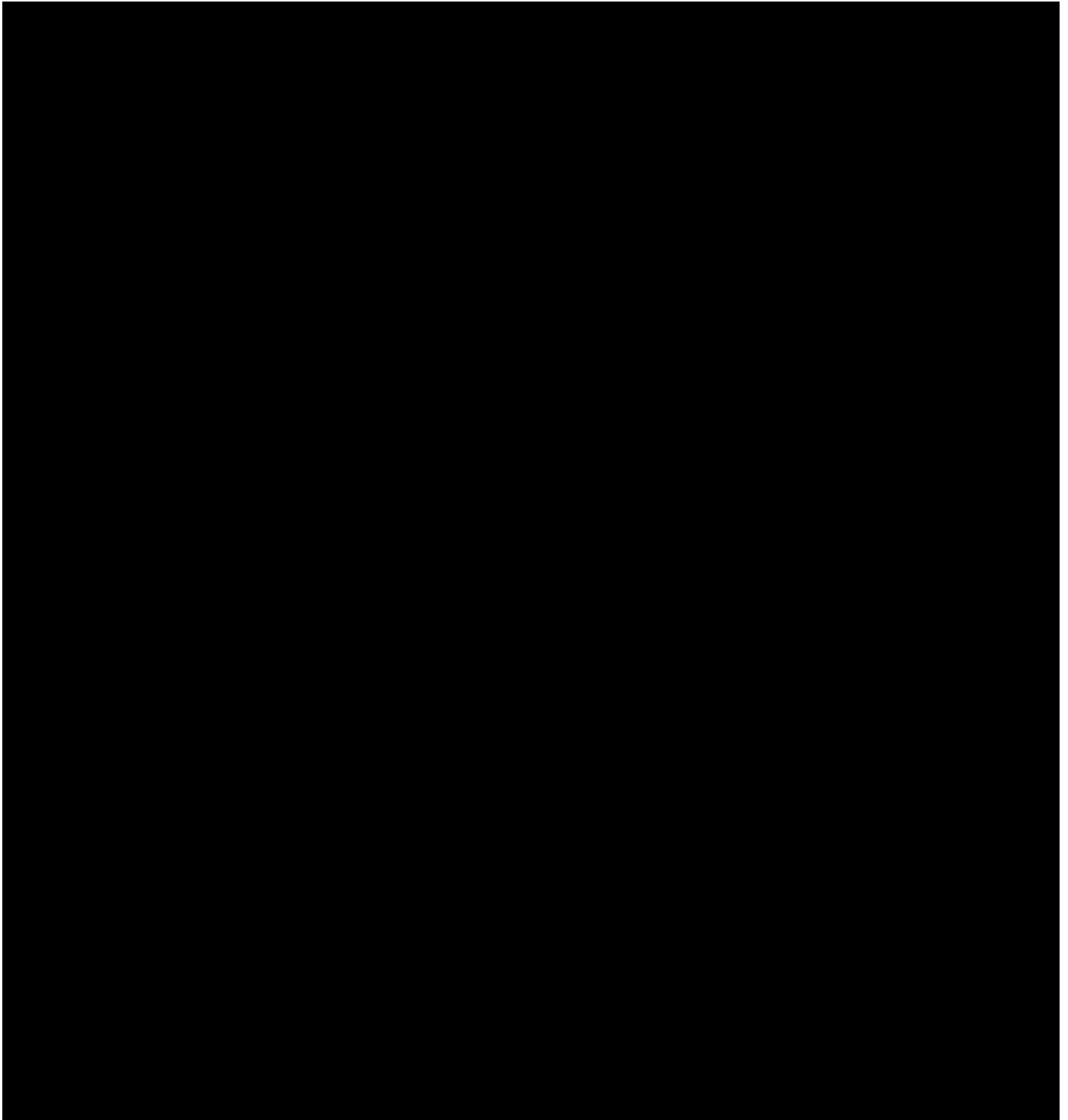
**Table 10.3-9 Expected List of Vessels and Roles (Continued)**

---



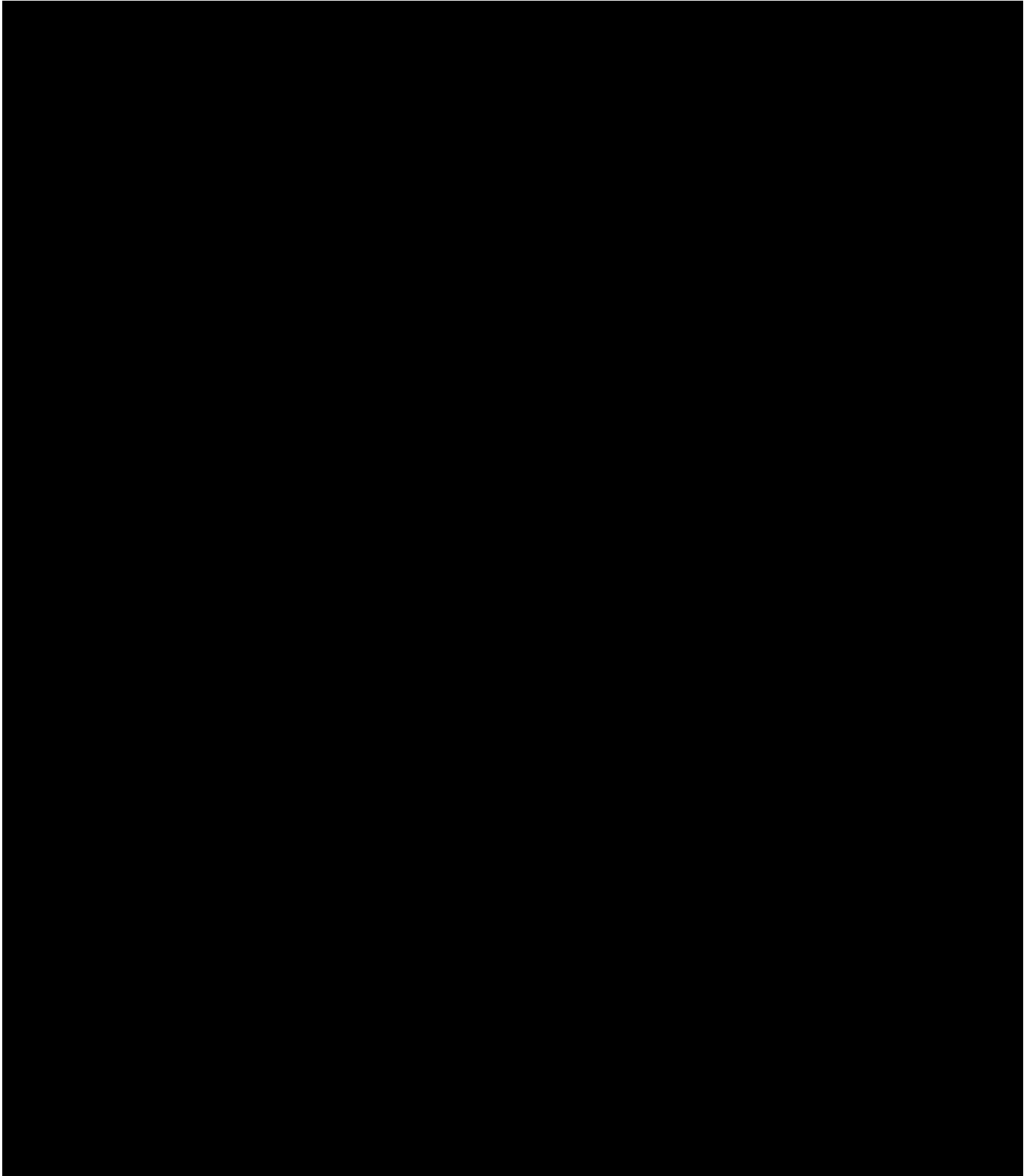
**Table 10.3-9 Expected List of Vessels and Roles (Continued)**

---



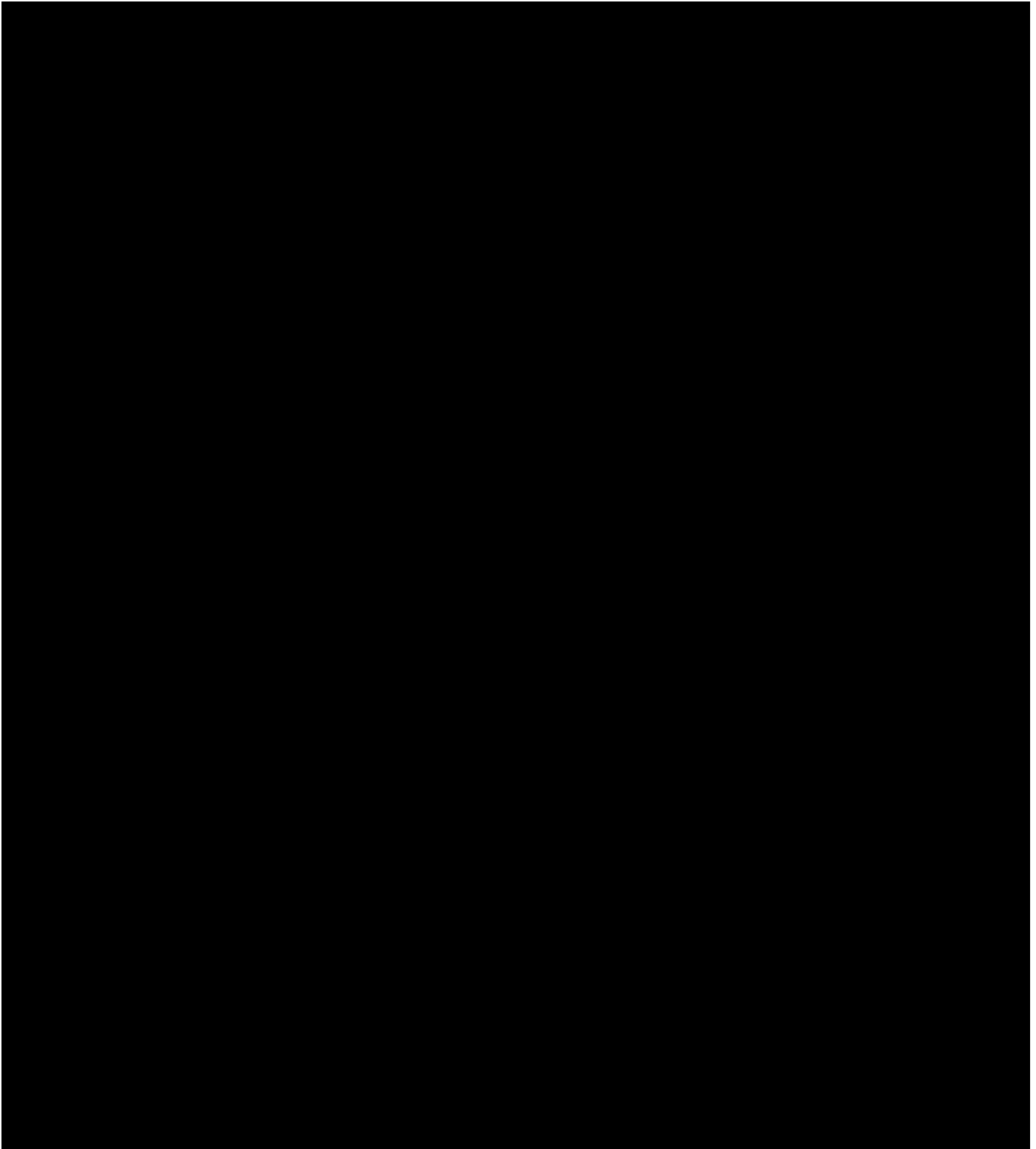
**Table 10.3-9 Expected List of Vessels and Roles (Continued)**

---



**Table 10.3-9 Expected List of Vessels and Roles (Continued)**

---



### 10.3.8 The US Coastwise Laws

This section provides specific information on how the Project’s deployment strategy will conform to the requirements of US coastwise laws, including Section 27 of the Merchant Marine Act of 1920 (commonly known as the Jones Act; 46 US Code [USC] § 55102), the Passenger Vessel Services Act (PVSA; 46 USC § 55103), and the Coastwise Dredging Statute (46 USC § 55109).

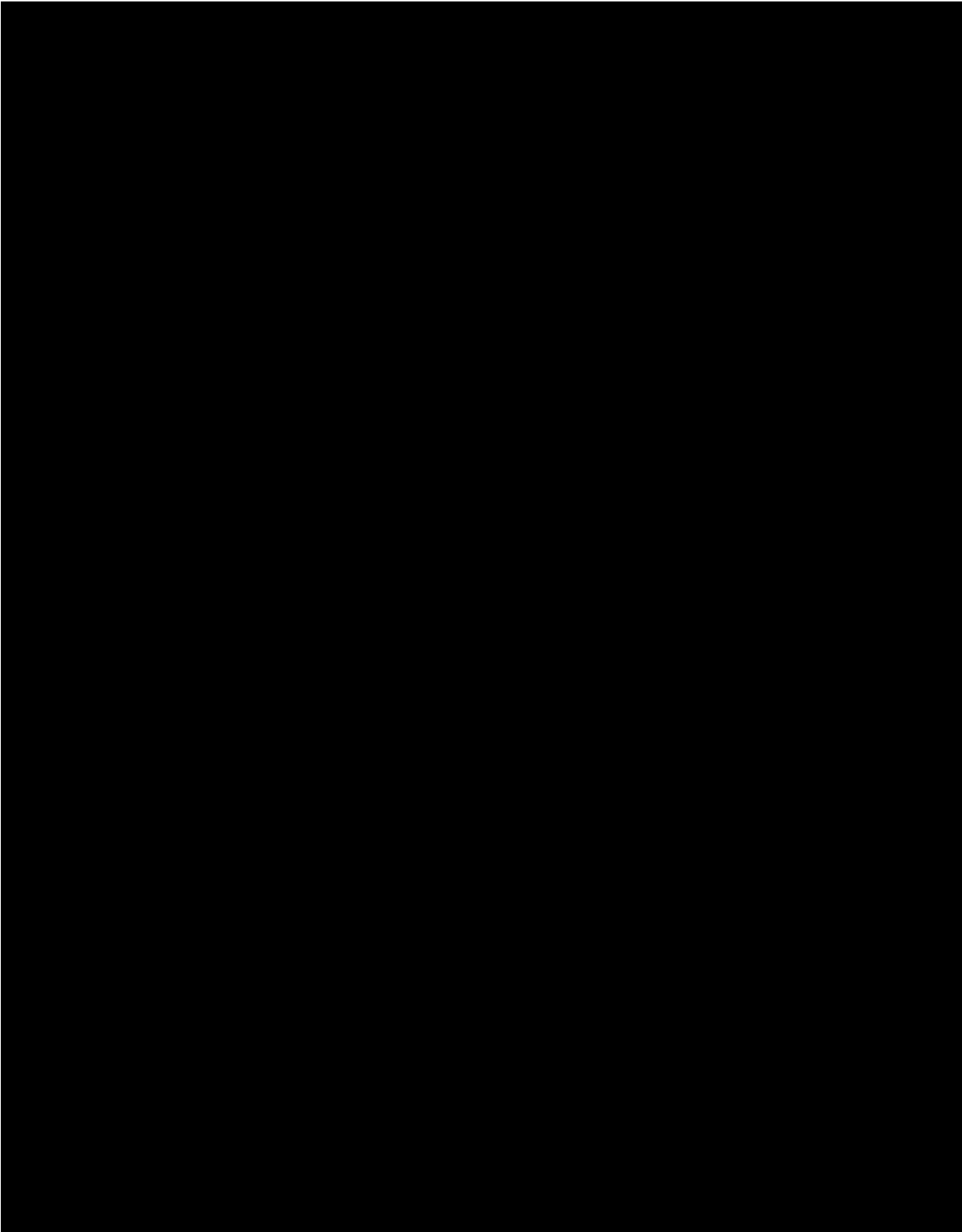
Under the Jones Act, only US-built, owned, and documented vessels (i.e., coastwise-qualified vessels) are allowed to transport merchandise between US coastwise points. Similarly, the PVSA provides that the transportation of passengers between US coastwise points is reserved for coastwise-qualified vessels. Under the Coastwise Dredging Statute, only coastwise-qualified vessels may engage in dredging in navigable waters of the US.

The US coastwise laws generally apply to points in the territorial sea, which extends three nautical miles out to sea.<sup>8</sup> US Customs and Border Protection (CBP) has long held that Section 4(a)(1) of the Outer Continental Shelf Lands Act of 1953 (OCSLA) extends the Jones Act to installations and devices permanently or temporarily installed on the US Outer Continental Shelf (OCS) for the purpose of exploring for, developing, or producing resources therefrom. While it was originally unclear whether the term “resources therefrom” included renewable energy activities, Congress clarified and confirmed in amendments to Section 4(a) of OCSLA contained in the National Defense Authorization Act for Fiscal Year 2021 that US laws (including the coastwise laws) governing offshore energy apply equally to the offshore wind industry (Public Law 116-283 § 9503).

Relevant parts of the Jones Act, PVSA, Coastwise Dredging Statute, and related CBP rulings are described below:

[REDACTED]

<sup>8</sup> According to CBP, the US coastwise laws generally apply to points in the territorial sea, which is defined as the belt, three nautical miles wide, seaward of the territorial sea baseline, and to points located in internal waters, landward of the territorial sea baseline (see 33 CFR § 2.22(a)(2)).

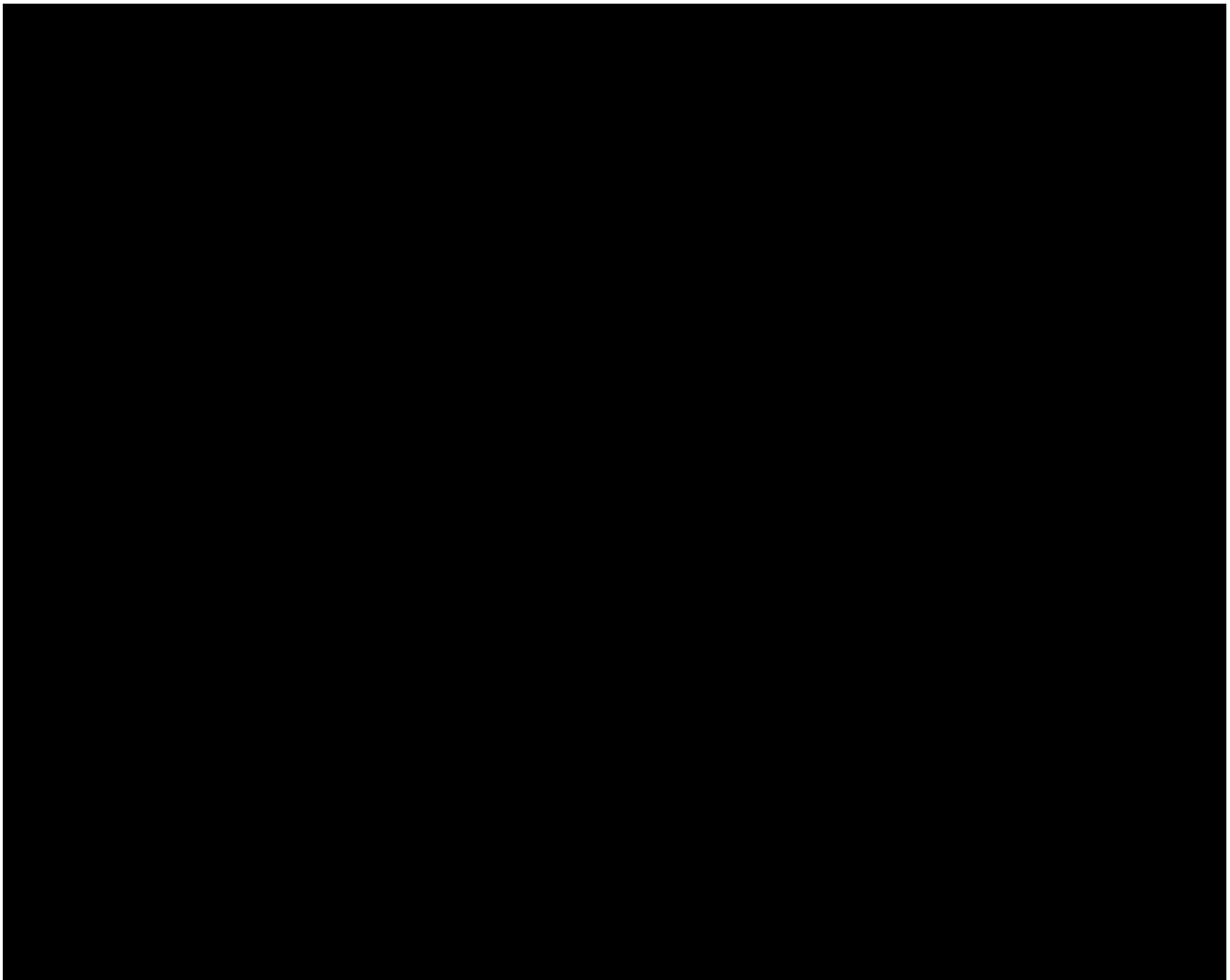


D.

A large rectangular area of the document is completely redacted with a solid black fill, obscuring all text and graphics that would otherwise be present.

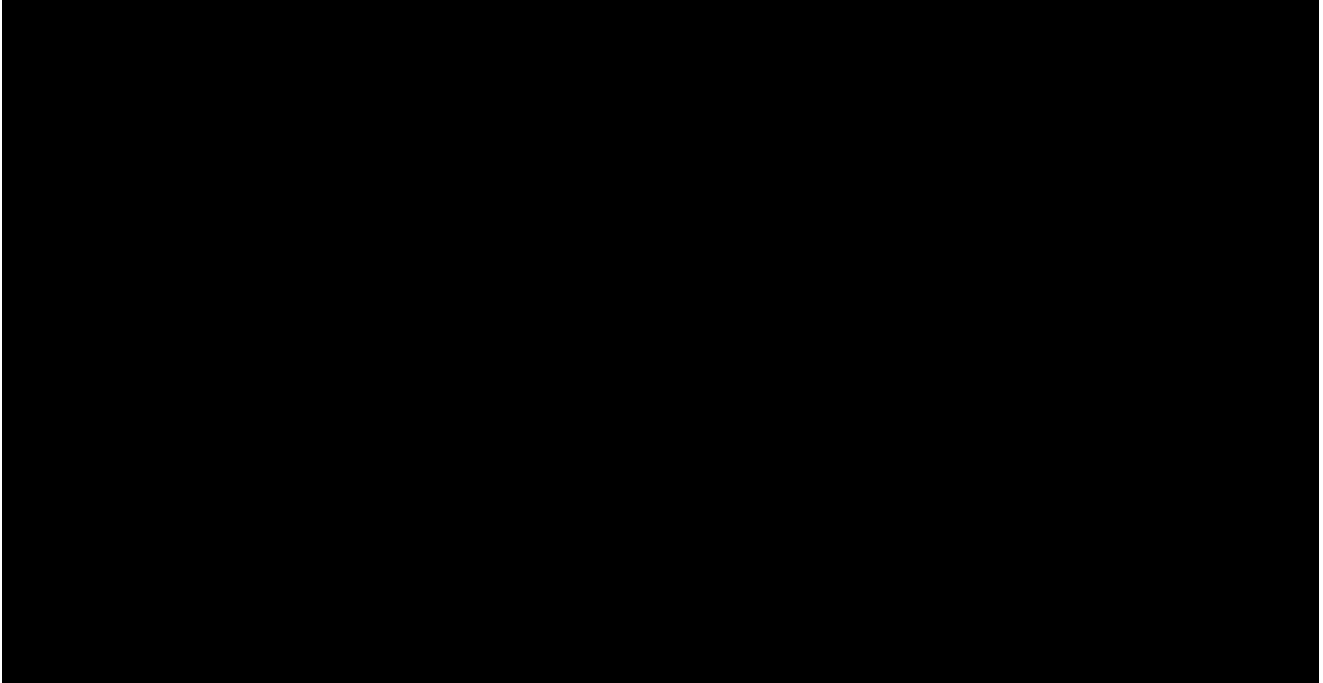
Table 10.3-10 outlines the Project’s approach to compliance with the US coastwise laws.

**Table 10.3-10 Approach to Compliance with US Coastwise Laws**

A large rectangular area of the document is completely redacted with a solid black fill, obscuring all text and graphics that would otherwise be present.

**Table 10.3-10 Approach to Compliance with US Coastwise Laws (Continued)**

---



#### **10.4 RESPONSIBLE PARTIES AND ROLES**

List the party (e.g. the bidder, or equipment/service providers under contract to the bidder) responsible for each deployment activity and describe the role of each party. Describe the status of bidder’s contractual agreements with third-party equipment/service providers.

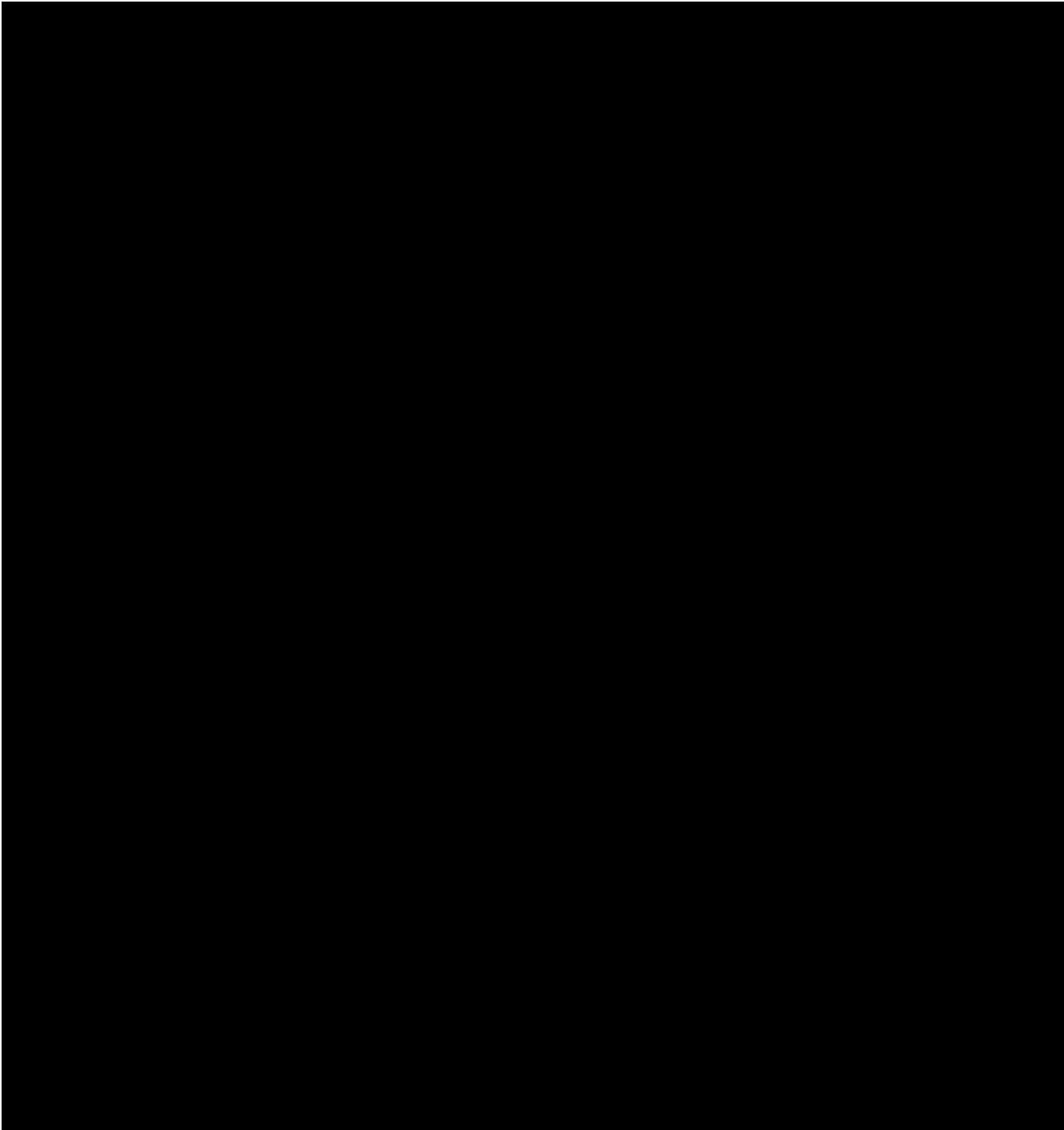
##### **10.4.1 Parties Potentially Involved in Project Deployment**

Table 10.4-1 provides a list of the potential parties involved in the Project’s deployment along with a description of their role. This list represents the Tier 1 T&I contractors (i.e., equipment/service providers) with whom Vineyard Offshore has been in direct dialogue; this list is indicative and non-exhaustive. We have also engaged with Tier 2 suppliers (such as harbor owners, crane companies, supply vessel owners, and transport vessel owners) but they are not included in the table below.



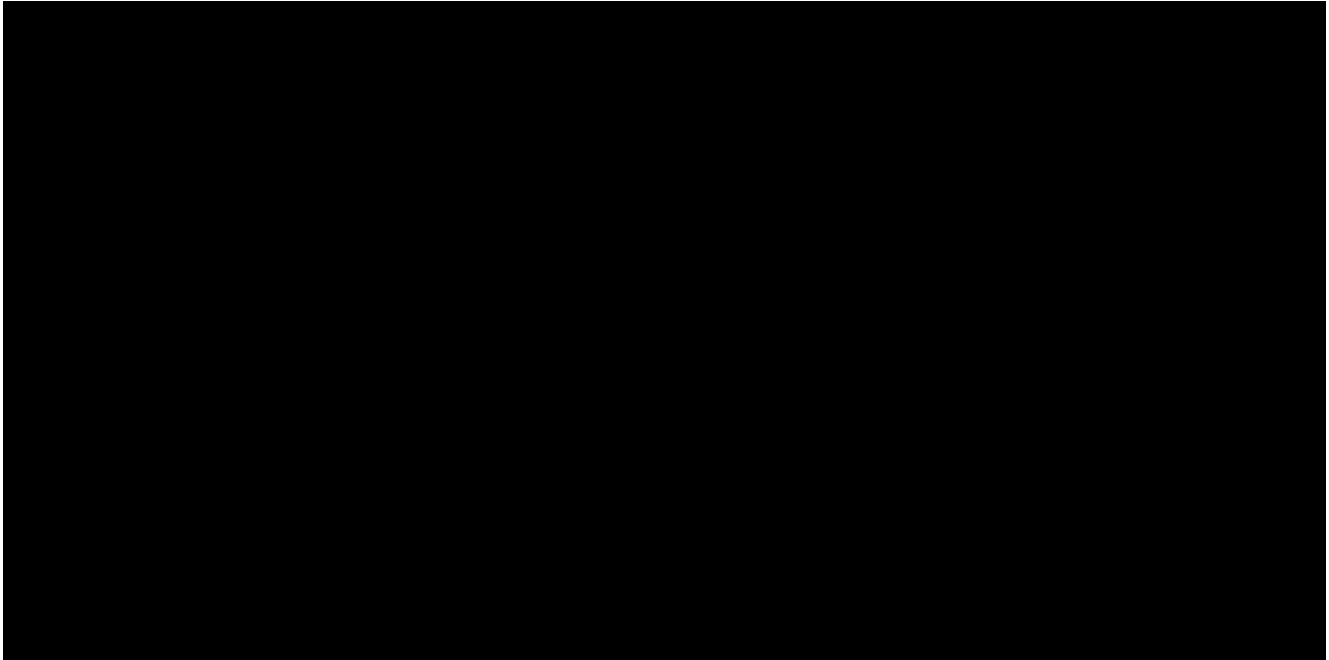
**Table 10.4-1 Parties Potentially Involved in Project Deployment**

---

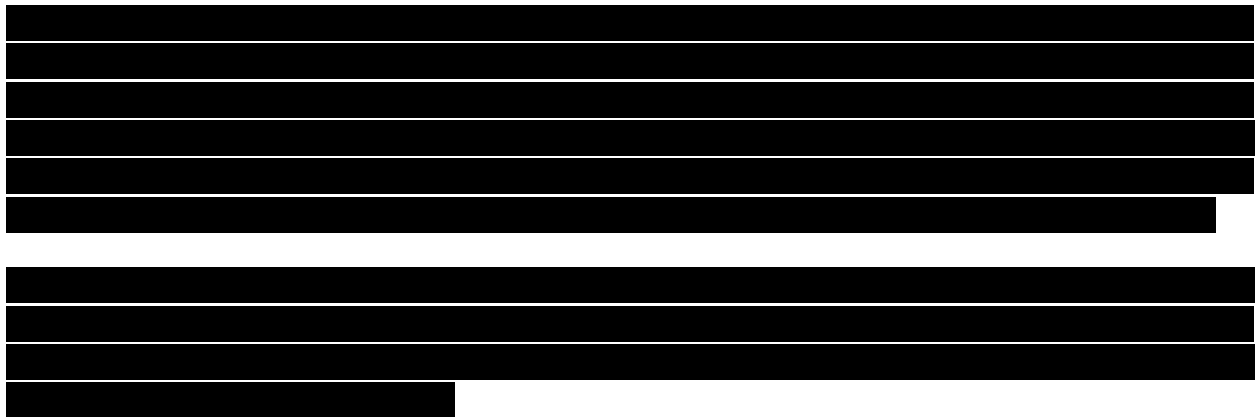


**Table 10.4-1 Parties Potentially Involved in Project Deployment (Continued)**

---



**10.4.2 Contractual Agreements with Third-party Equipment/Service Providers**



## SECTION 11

### OPERATIONS AND MAINTENANCE

---

#### 11.1 OPERATIONS AND MAINTENANCE PLAN

Provide an O&M plan for the project that demonstrates the long-term operational viability of the proposed project. The plan should include the location of the O&M base, a discussion of the staffing levels proposed for the project, the expected role of the project sponsor or turbine manufacturer/outside contractor, scheduling of major maintenance activity, and the plan for testing equipment.

Vineyard Offshore has developed a robust operations and maintenance (O&M) plan that supports the operational viability of Vineyard Wind 2 (the "Project") and delivers long-term economic benefits to Massachusetts. The O&M plan presented herein draws heavily from the experience gained developing and implementing the Vineyard Wind 1 O&M plan and has been benchmarked against similar plans developed for offshore wind and transmission projects owned and/or operated by Copenhagen Infrastructure Partners (CIP).

##### 11.1.1 O&M Base and Operational Control Center

Vineyard Offshore will establish an O&M base in Massachusetts. [REDACTED]

[REDACTED] An O&M base at this marine terminal facility will support the Project's successful operation, as New Bedford is one of the closest ports to Lease Area OCS-A 0522 (the "Lease Area"), while diversifying the South Coast's offshore wind economy and creating long-term job opportunities for local residents.

##### 11.1.2 O&M Logistics

[REDACTED]

[Redacted text block]

[Redacted text block]

### 11.1.3 Organization and Staffing Levels

[Redacted text block]

[Redacted text block]

[Redacted text block]

Estimated staffing levels for Vineyard Wind 2 during the O&M phase are provided in Table 11.1-1. Additional information about the Project’s estimated job creation potential during the O&M phase specific to Massachusetts is provided in Section 13.

**Table 11.1-1 Vineyard Wind 2 O&M Staffing Levels**

[Redacted table content]

#### 11.1.4 Maintenance and Equipment Testing

Vineyard Offshore’s O&M philosophy is based on the execution of preventive maintenance designed to minimize the need for corrective intervention. [Redacted text]

[Redacted text block]

[REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

Specific maintenance and inspection requirements will be defined at the Project component level based on the OEM’s maintenance instructions, statutory inspection requirements, and Vineyard Offshore’s and CIP’s experience with operational offshore wind projects. Scheduled maintenance will include visual inspections, mechanical and electrical tests, tightening of mechanical connections (if required), and the exchange of consumable products such as filters, oil, grease, and coolant. Equipment testing generally occurs concurrently with other scheduled maintenance; however, it may occur more frequently depending on maintenance requirements.

With respect to corrective maintenance, Vineyard Offshore focuses on constant readiness so repairs can be executed effectively, efficiently, and as quickly as possible. Additional information about maintenance, inspection, and equipment testing is provided in Section 3 and the Fisheries Mitigation Plan included as Attachment 7.4-1.

### 11.1.5 Health and Safety

At Vineyard Offshore, health and safety are our top priorities. [REDACTED]

[REDACTED]

[Redacted]

## 11.2 SITE CONTROL

Please provide documentation to demonstrate site control for all marine terminals and other waterfront facilities that will be used for O&M.

- i. If available, evidence that the bidder or the equipment/service provider have right(s) to use a marine terminal and/or waterfront facility for O&M of the offshore wind energy project (e.g., by virtue of ownership or land development rights obtained from the owner).
- ii. If not available, describe the status of acquisition of real property rights for necessary marine terminal and/or waterfront facilities, any options in place for the exercise of these rights and describe the plan for securing the necessary real property rights, including the proposed timeline. Include these plans and the timeline in the overall project schedule.
- iii. Identify any joint use of existing or proposed real property rights for marine terminal or waterfront facilities.

### 11.2.1 Marine Terminal Facilities

[Redacted]

[Redacted]

- i. [Redacted]
- ii. [Redacted]
- iii. [Redacted]
- iv. [Redacted]
- v. [Redacted]
- vi. [Redacted]
- vii. [Redacted]

### 11.2.2 Acquisition Status

[REDACTED]

### 11.2.3 Joint Use

[REDACTED]

## 11.3 OPERATIONS AND MAINTENANCE FUNDING MECHANISM

Describe in detail the proposed O&M funding mechanism and funding levels to support planned and unplanned O&M requirements.

[REDACTED]

[REDACTED]

[REDACTED] As a result, we are confident in our estimate of the funding levels required for the Project's O&M.

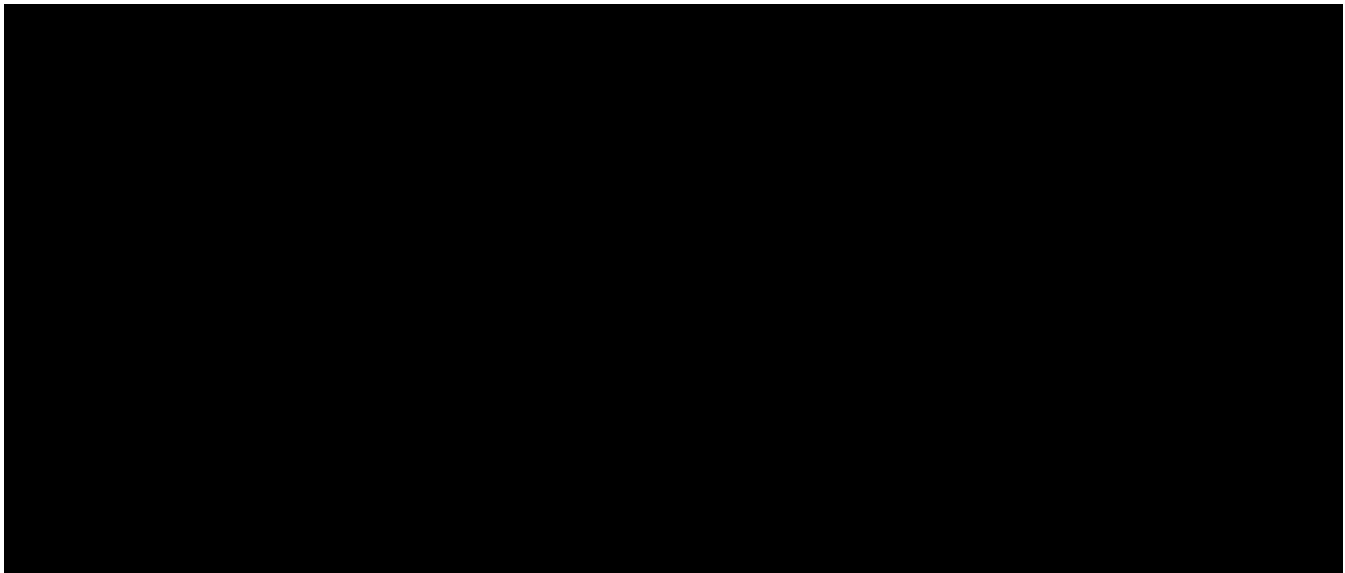
## 11.4 WARRANTIES AND GUARANTEES

Describe the terms (or expected terms) of the warranties and/or guarantees on major equipment that the bidder is utilizing or proposing to utilize.









**Table 11.4-2 BoP Warranty Coverages**

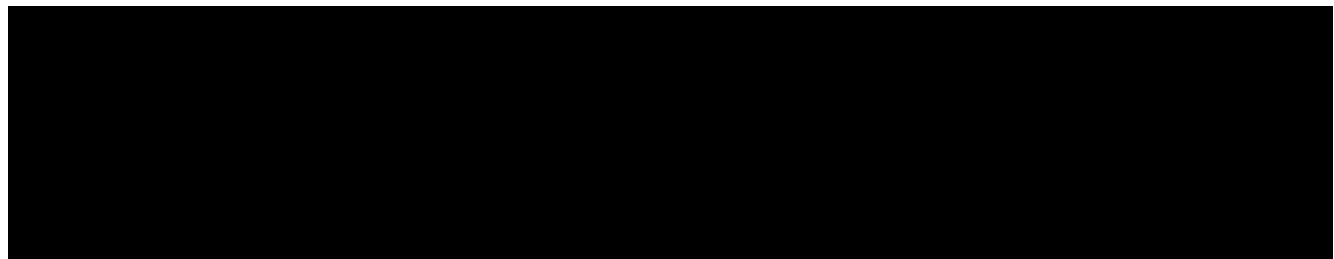


**11.5 OPERATIONS AND MAINTENANCE AGREEMENTS**

Describe the status of the project sponsor in securing any O&M agreements or contracts. Include a discussion of the sponsor's plan for securing a medium-term or long-term O&M contract, including the expected provider of O&M services.

  
 All necessary agreements required to support Vineyard Wind 2's operations phase will be in place before the Project achieves commercial operation (see Table 11.5-1). The Vineyard Offshore team and CIP have significant experience securing such agreements, having undertaken this work for Vineyard Wind 1.   


**Table 11.5-1 Key O&M Agreements to be Finalized Before Commercial Operation**



**Table 11.5-1 Key O&M Agreements to be Finalized Before Commercial Operation (Continued)**

[REDACTED]
------------

**11.5.1 Wind Turbine Generators**

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

**11.5.2 Balance of Plant**

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

**11.6 OPERATIONS AND MAINTENANCE EXPERIENCE**

Provide examples of the bidder’s experience with O&M services for other similar projects.

The Vineyard Offshore team and CIP have extensive O&M experience with multiple offshore wind projects (see Section 12). This expertise, including technical know-how, will be used in support of Vineyard Wind 2. The experience gained during the O&M of Vineyard Wind 1 will also be leveraged to the benefit of the Project.

### 11.6.1 Copenhagen Infrastructure Partners

CIP's offshore wind team is one of the most knowledgeable and experienced in the world. Many of the individuals on the team were leaders in developing offshore wind technology and practices in the early days of offshore wind, helping to transform the sector into the significant energy resource it is today. [REDACTED]

CIP is also the world's only offshore wind developer to have projects in development on four continents: North America, Europe, Asia, and Australia. Globally, CIP's Senior Partners have been involved in the development, construction, and operation of a significant number of offshore wind projects. CIP also previously had financial interests in the operational offshore wind projects, including:

- 402 MW Veja Mate project in the German North Sea (operational since 2018); and
- 588 MW Beatrice project in the United Kingdom (UK) North Sea (operational since 2019).

Additionally, CIP funds own other large-scale energy infrastructure projects, including:

- 273 MW Borea onshore wind project in the UK;
- 197 MW Bearkat I onshore wind project in the US;
- 162 MW Bearkat II onshore wind project in the US;
- 2,806 MW BorWin1, BorWin2, HelWin2, and DoIWin2 Offshore Wind Farm Connections in the German North Sea;
- 487 MW Monegros onshore wind project in Spain;
- 58 MW SAGE solar project in the US; and
- 60 MW Lostock waste-to-energy plant in the UK.

## SECTION 12

### PROJECT MANAGEMENT/EXPERIENCE

---

#### 12.1 ORGANIZATIONAL CHART

Provide an organizational chart for the project that lists the project participants and identifies the corporate structure, including general and limited partners.

Vineyard Offshore LLC (Vineyard Offshore) was launched in April 2022 and is exclusively focused on the rapidly expanding United States (US) offshore wind market. Vineyard Offshore is Copenhagen Infrastructure Partners' (CIP's) dedicated offshore wind development partner in the US, leading the development and commercialization of CIP's US offshore wind projects. Combined with CIP's 50% ownership of the Vineyard Wind 1 project, Vineyard Offshore has the potential to develop approximately 6 gigawatts (GW) of clean, renewable, and cost-effective energy in the US. Additional details regarding Vineyard Offshore's business entity structure are provided in Section 5.

##### 12.1.1 Vineyard Northeast LLC

Vineyard Wind 2 (the "Project") will be located in Lease Area OCS-A 0522 (the "Lease Area"). The lease agreement for the Lease Area is held by Vineyard Northeast LLC, a Delaware limited liability company. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## 12.2 PROJECT EXPERIENCE

Provide statements that list the specific experience of the bidder and each of the project participants (including, when applicable, the bidder, partners, and proposed contractors), in developing, financing, owning, and operating generating and delivery facilities, other projects of similar type, size and technology, and any evidence that the project participants have worked jointly on other projects.

### 12.2.1 Vineyard Offshore

Vineyard Offshore brings industry-leading experience to every phase of the offshore wind project development process, from conception and design to permitting, financing, and construction. [REDACTED]

Vineyard Offshore was established by the same team that developed the Vineyard Wind 1 project, which is currently under construction. Vineyard Wind 1 was the first commercial-scale offshore wind project in the US to obtain permitting approval at the federal and state levels, to conclude procurement and contracting for all major contract packages, to finalize interconnection agreements, to achieve financial close (FC), to begin construction, and to achieve first power. The expertise gained developing and constructing Vineyard Wind 1 will be transferred to Vineyard Wind 2. Additional information about our team's offshore wind experience is provided in Section 12.3.

### 12.2.2 Copenhagen Infrastructure Partners

CIP was established in 2012 by senior executives from the energy sector with PensionDanmark (one of the largest labor market pension funds in Denmark and one of the most experienced institutional investors in renewable energy) as the founding investor. Today, CIP is a global leader, market pioneer, and among the largest fund managers globally within renewable energy. CIP currently manages 12 funds and has raised approximately \$27 billion from more than 150 institutional investors across the globe. The funds represent different investment strategies, with five "flagship funds" focusing on energy infrastructure projects in Organisation for Economic Co-operation and Development (OECD) countries (see Section 5).

[REDACTED]

Additional information about CIP's experience is provided in the following sections and in Section 5.

### 12.2.2.1 CIP Partner Group

CIP is controlled and majority-owned by four Senior Partners with a proven track record in the energy industry (see Figure 12.2-1). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**Figure 12.2-1 CIP's Senior Partners**



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**12.2.2.2 Offshore Wind Experience**

CIP is active in offshore wind globally and currently has ownership or exclusive rights to approximately 50 GW of offshore wind projects in development, construction, or operation in Australia, Germany, Italy, Japan, Taiwan, South Korea, the United Kingdom (UK), and the US. CIP pioneered the build-out of offshore wind in the US with Vineyard Wind 1. Construction on that project started in late 2021 and it achieved first power in January 2024.

With its leading competencies and insight into offshore wind, CIP is widely considered a global leader in the offshore wind industry, and an early mover into new markets. The Changfang & Xidao (CFXD) and Veja Mate case studies that follow illustrate CIP’s ability to pioneer offshore wind in new markets while meeting stringent local content requirements and delivering complex projects that comply with strict environmental permitting conditions.

12.2.2.2.1 Changfang & Xidao

CIP formally entered Taiwan’s new offshore wind market in 2017 with the acquisition of CFXD, one of the first large-scale offshore wind projects outside Europe. The acquisition of this 589 megawatt (MW) offshore wind project was the direct result of CIP’s early and extensive involvement in the offshore wind industry, its global industrial network, and the establishment of a local presence in Taiwan.

[REDACTED]

CIP further anchored its investment in the Taiwanese economy by inviting two life insurance companies into the project ownership, Taiwan Life and Transglobe, [REDACTED]

[REDACTED]

[REDACTED] CIP successfully brought the CFXD project to FC in Q1 2020. The project was financed through a combination of equity and senior loans from a consortium of 25 international and Taiwanese banks and financial institutions, as well as six export credit agencies, for a total of approximately \$3 billion.



Construction activities started in 2021, and first power was achieved in November 2022. The project is on track to achieve full commercial operation in 2024. Vestas (formerly MHI Vestas Offshore Wind [MVOW]) is supplying 62 V174-9.5 MW WTGs for the project. Century Wind Power is supplying 62, three-legged jacket foundations, with Bladt Industries employed as a subcontractor for the foundations. Once operational, the project is expected to deliver enough annual power to supply approximately 400,000 homes.

#### 12.2.2.2.2 Veja Mate

Veja Mate is an operational 402 MW offshore wind project located in the German North Sea. CIP entered the project in 2015 prior to FC and led construction phase activities, among other activities. Veja Mate was completed four months ahead of schedule, despite the installation of 67 foundations and 6 MW WTGs under challenging conditions almost 60 miles from shore and in water depths up to 135 feet. During the process, the team set several world records, including the first use of *Seajacks Scylla*, the world's largest installation vessel at the time, and the installation of a 1,300-US-ton monopile (at the time, the largest monopile foundation ever installed).

[REDACTED]

[REDACTED]

Construction of the project began in 2016, and commercial operation was achieved in 2018. The project consists of 67 Siemens Wind Power SWT-6.0-154 WTGs, each with a 6 MW capacity. Today, Veja Mate provides enough annual power to supply more than 500,000 German homes. In 2019, CIP, through the fund CI-II, divested its equity stake in Veja Mate but remains a lender to the project.

[REDACTED]

[REDACTED]

[Redacted]

### 12.2.3 Project Partners and Consultants

Vineyard Offshore works with expert consultants and project partners to support our project development efforts. The primary companies and partners supporting the development of Vineyard Wind 2 are listed in Table 12.2-1. [Redacted]

[Redacted]

**Table 12.2-1 Project Partners and Consultants**

[Redacted Table Content]

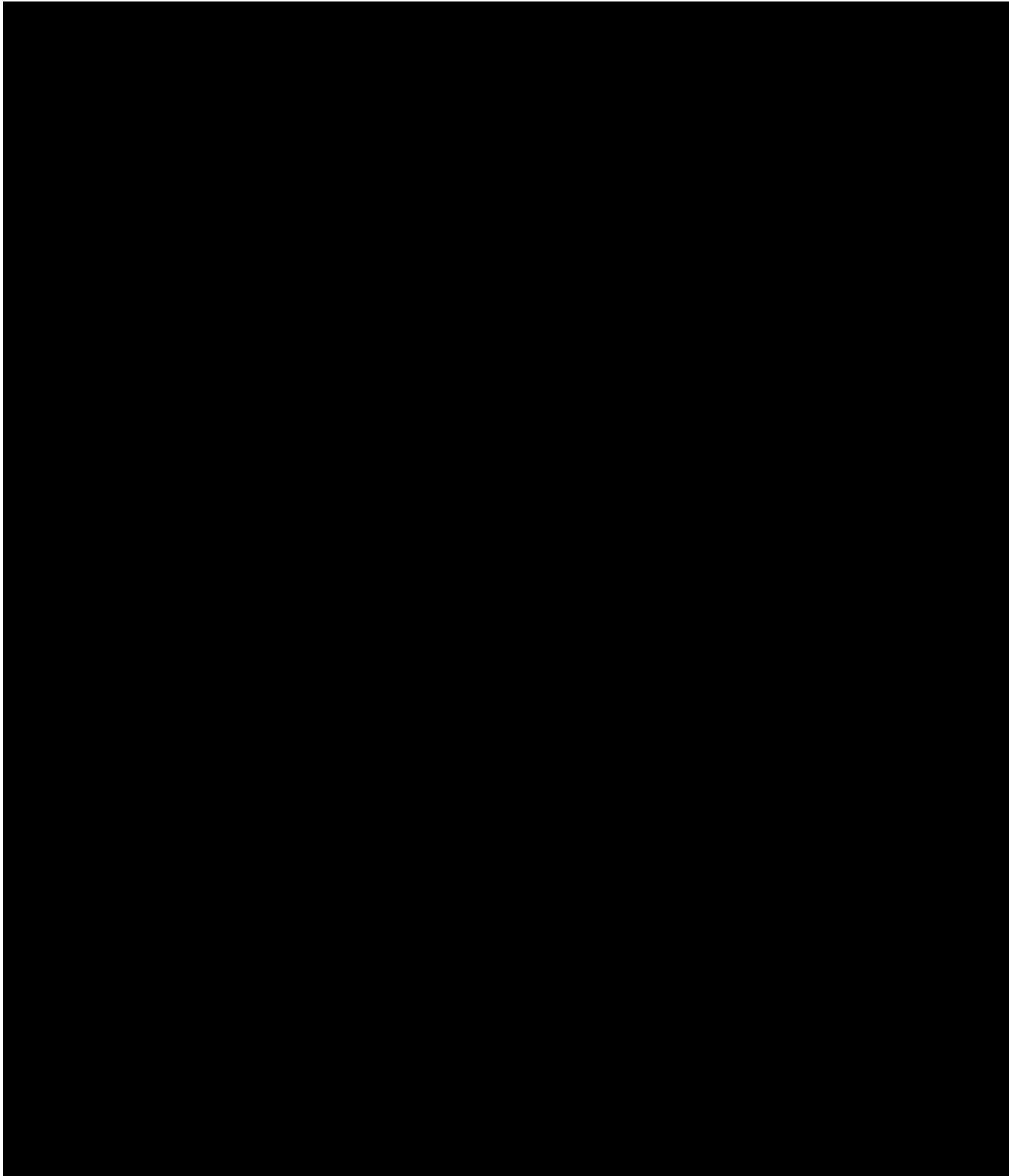
**Table 12.2-1 Project Partners and Consultants (Continued)**

---

[Redacted content]

**Table 12.2-1 Project Partners and Consultants (Continued)**

---



### 12.3 KEY PERSONNEL

Provide a management chart that lists the key personnel dedicated to this project and provide resumes of the key personnel. Key personnel of the bidder's development team having substantial project management responsibilities must have:

- i. Successfully developed and/or operated one or more projects of similar size or complexity or requiring similar skill sets; and
- ii. Experience in financing power generation projects (or have the financial means to finance the project on the bidder's balance sheet).

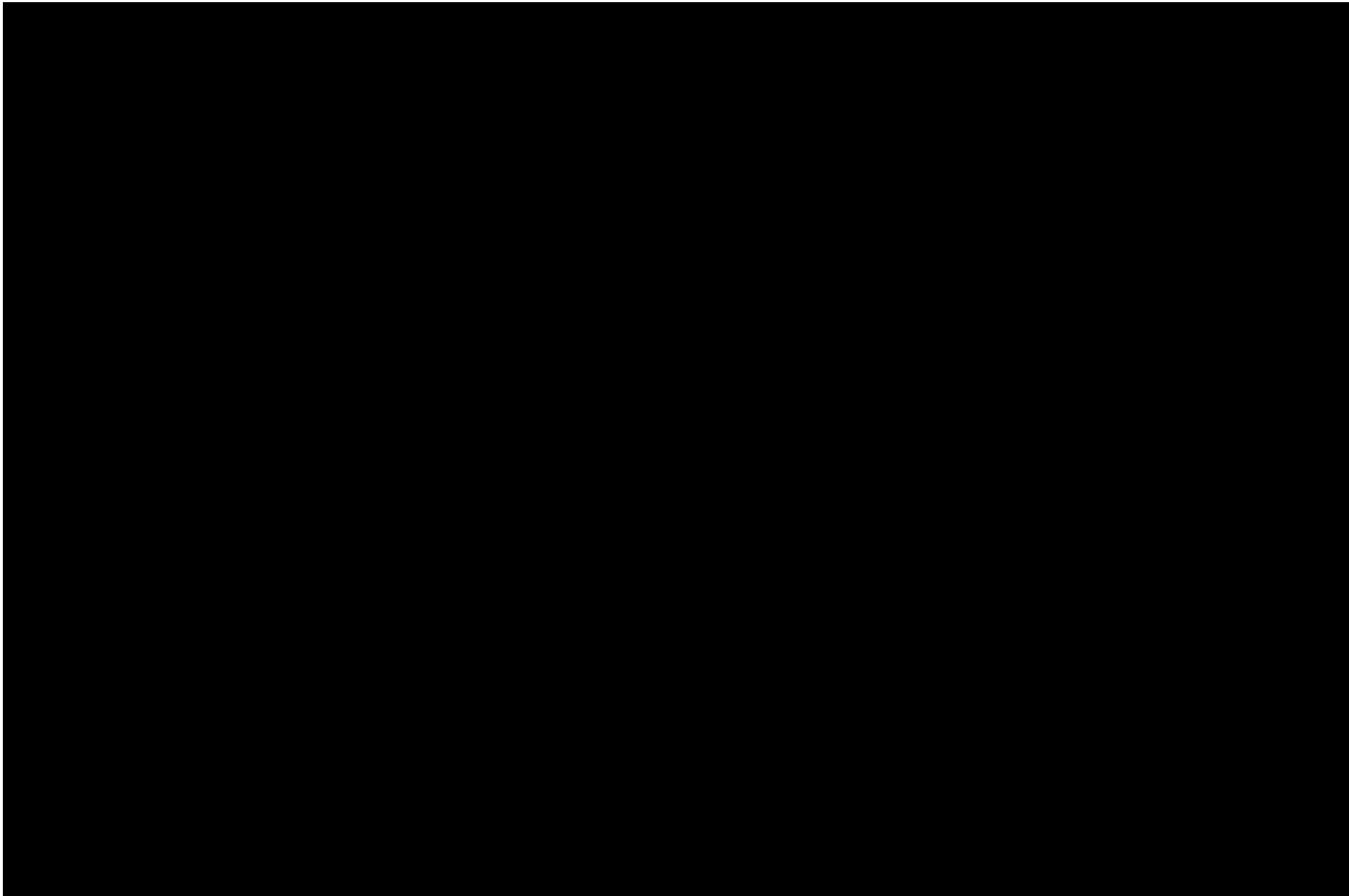
The Vineyard Offshore team is made up of highly qualified individuals with decades of experience in the US and global offshore wind markets. Many members of the team supported the development of Vineyard Wind 1 and remain involved in that project as it moves through the construction phase. The experience gained developing and constructing the nation's first commercial-scale offshore wind project has been and will continue to be leveraged by Vineyard Offshore to ensure the success of Vineyard Wind 2.

A management chart of key personnel is provided as Figure 12.3-1. [REDACTED]

[REDACTED]

[REDACTED] Additional information about Vineyard Offshore's senior management team is provided in the sections that follow. Key personnel resumes are provided in Attachment 12.3-1. [REDACTED]

[REDACTED]



### 12.3.1 Senior Management Team

#### **Alicia Barton**, Chief Executive Officer (CEO) of Vineyard Offshore

Alicia is a seasoned executive with a career at the forefront of the renewable energy sector. As the former CEO of FirstLight Power, she played a pivotal role in developing and operating a 1.6 GW+ portfolio of hydroelectric, pumped storage, battery storage, and solar assets in the US and Canada and led the company's investment in Leading Light Wind, an offshore wind project in development in the New York Bight. Prior to FirstLight Power, Alicia held key positions in some of the industry's leading organizations. At SunEdison, she managed operations for the Global Utility Group (a utility-scale solar and land-based wind developer in global markets) during its tenure as the largest renewable energy development company globally. Her experience in the public sector includes tenure as the CEO of the Massachusetts Clean Energy Center (MassCEC) where she oversaw the development of the New Bedford Marine Commerce Terminal, a key staging port for the construction of Vineyard Wind 1. She also served as CEO of the New York State Energy Research and Development Authority (NYSERDA), where she led New York's record-setting procurements for renewable energy, with over 6,000 MW of new renewable energy resources put under long-term contracts, including the nation's largest offshore wind procurement at that time. While in private law practice, she also served as outside counsel to Vineyard Wind leading up to its initial bid to Massachusetts. Through each of her prior roles, Alicia has been an instrumental leader in laying the groundwork for the offshore wind industry in the US. Alicia holds a Bachelor of Science degree in Natural Resources from Ohio State University and a Juris Doctor (JD) degree from Boston College Law School.

#### **Klaus Skoust Møller**, Chief Project Officer of Vineyard Offshore

Klaus is currently serving as the CEO of Vineyard Wind 1. He has more than 15 years of experience in offshore wind, including a successful track record of leading the development and construction of more than 3 GW of large-scale offshore wind projects across four continents, including serving as Program Director for the Zhong Neng (Taiwan) and UK offshore wind projects, including Race Bank, Burbo Bank Extension, and Gunfleet Sands 3. Klaus holds a graduate diploma in business administration from Copenhagen Business School (Denmark), is a Master of Law from Aarhus University (Denmark) and holds a higher commercial examination program degree from Randers Business School (Denmark).

#### **Rachel Pachter**, Chief Development Officer (CDO) of Vineyard Offshore

Rachel also currently serves as the CDO for Vineyard Wind 1 and was previously Vineyard Wind's Vice President of Permitting (2016-2019). She has more than 20 years of experience in offshore wind development, particularly in permitting and regulatory compliance, environmental and site investigation, and federal, state, and local regulations. In addition to overseeing permitting efforts for Vineyard Wind 1, Rachel has developed geophysical, geotechnical, and avian surveys and conducted community outreach and public relations. Rachel has successfully managed and completed permitting of two commercial-scale offshore wind projects located in US federal waters (Cape Wind and Vineyard Wind 1). She advised and

planned all environmental and permitting aspects of development for Vineyard Wind 1 and managed the first phase of offshore geophysical and geotechnical site investigations for that project. Previously, Rachel was the Permitting and Environmental Manager at Energy Management Inc./Cape Wind Associates, where she worked for nearly 14 years. Rachel has a bachelor's degree in geology (Cum Laude) from the University of Alaska at Fairbanks and received the Geology and Geophysics Award for outstanding scholastic achievement.

**Ben Koffel**, Chief Commercial Officer (CCO) of Vineyard Offshore

As CCO of Vineyard Offshore, Ben oversees business development, partnerships, and strategic procurement. He has more than a decade of experience in onshore renewables development and investment banking. As a developer at Enel Green Power (Enel), Ben previously worked on more than 3 GW of wind, solar, and hydropower developments in North America and Colombia across all phases of the project lifecycle, from site origination and land acquisition, permitting, interconnection, pre-construction planning, and offtake structuring, to shepherding projects through final investment decision. In addition to greenfield development, he also established and managed several successful co-development partnerships with developers across North America and pioneered the development of the Colombian onshore renewables market for Enel. As an investment banker, Ben was involved in approximately \$2 billion of successful structured finance transactions in the renewables and transportation sectors in North and South America, including greenfield debt and equity raising, mergers and acquisitions, and strategic divestments. He has a master's degree in regional planning and a bachelor's degree in anthropology, both from Cornell University.

**Ryan Wallace**, Chief Financial Officer (CFO) of Vineyard Offshore

As CFO of Vineyard Offshore, Ryan oversees treasury, reporting, financial planning and analysis, project finance, and compliance. He has approximately 15 years of experience in renewable energy and merchant energy facilities throughout New England and New York. Before joining Vineyard Offshore, Ryan served as the Executive Vice President of Finance at Great River Hydro where he helped transition 13 facilities producing 1.6 GW of conventional hydropower throughout New England from a collection of high-quality, utility-scale assets into a premier, standalone platform of renewable energy growth. Ryan also previously worked at TransCanada Corporation where he coordinated business unit activities for several power plants interconnected through various independent system operators (ISOs), including ISO New England (ISO-NE), New York ISO, and PJM. While at TransCanada, Ryan also supported the financial aspects of the development and successful operations of the Kibby Wind Farm in Maine. He has a master's degree in accounting from Bentley University and a bachelor's degree in finance from the University of Massachusetts Dartmouth.

**Jennifer Simon Lento**, Chief Legal Officer and Corporate Secretary of Vineyard Offshore

Jennifer is also currently serving as the General Counsel and Corporate Secretary of Vineyard Wind 1. She led the \$2.3 billion debt financing process for the Vineyard Wind 1 project, which achieved FC in 2021 as well as the project's tax equity financing. Jennifer has been practicing



law in the renewable energy and environmental sectors for more than 17 years. After 10 years with the renewable energy and environmental practice groups of several large and mid-sized law firms in Boston, southern New Jersey, and Philadelphia, Jennifer served as counsel for a private equity fund focused on the acquisition, development, and financing of distributed solar energy facilities. Jennifer received her JD degree at the Rutgers School of Law and holds a bachelor's degree in liberal arts from Sarah Lawrence College.

**Christian Scorzoni**, Chief External Affairs Officer of Vineyard Offshore

As Chief External Affairs Officer, Christian leads Vineyard Offshore's policy development, regulatory and government affairs, and strategic communications work. Before joining Vineyard Offshore, he spent 13 years with TSK Associates. In that role, Christian oversaw the growth of TSK Associates into one of New England's leading government relations firms focused on renewable energy. Christian has worked closely with Vineyard Wind and Vineyard Offshore since 2016, working as a consultant to provide strategic counsel and government affairs support. Christian previously served as Assistant Secretary of Energy and Environmental Affairs under Deval Patrick where he managed the policy development and implementation of several landmark energy bills in 2008, including the Green Communities Act, Global Warming Solutions Act, and Green Jobs Act. Christian also served nearly 10 years in the Massachusetts State Senate as Deputy Chief of Staff and Legal Counsel to Senate President Robert E. Travaglini. He received his JD degree from Suffolk Law School and has a bachelor's degree in political science from American University.

## 12.4 PROJECTS AND REFERENCES

Provide a listing of all projects the project sponsor has successfully developed or that are currently under construction. Provide the following information as part of the response:

- i. Name of the project
- ii. Location of the project
- iii. Project type, size and technology
- iv. Distance from shore and mean water depth of project
- v. Commercial operation date
- vi. Estimated and actual capacity factor of the project for the past three years
- vii. Availability factor of the project for the past three years
- viii. References, including the names and current addresses and telephone numbers of individuals to contact for each reference.

A list of offshore wind, onshore wind, and transmission projects that CIP has successfully developed or that are currently in development or under construction is provided as Attachment 12.4-1.

## 12.5 PROJECT TEAM

With regard to the bidder's project team, identify and describe the entity responsible for the following, as applicable:

- i. Construction Period Lender
- ii. Operating Period Lender and/or Tax Equity Provider
- iii. Financial Advisor
- iv. Environmental Consultant
- v. Facility Operator and Manager
- vi. Owner's Engineer
- vii. Transmission/Delivery Consultant
- viii. Legal Counsel

Vineyard Offshore has extensive contacts and access to the firms required to satisfy the financing, environmental assessment, operation, engineering, transmission, and legal counsel requirements of the Project. Our Project team includes the following:

- **Construction Period Lender:** [REDACTED]
- **Operating Period Lender and/or Tax Equity Provider:** [REDACTED]
- **Financial Advisor:** [REDACTED]
- **Environmental Consultant:** Epsilon Associates is currently serving as the lead environmental consultant for federal permitting activities for Lease Area OCS-A 0522. [REDACTED]
- **Facility Operator and Manager:** [REDACTED]
- **Owners' Engineer:** [REDACTED]

- **Transmission/Delivery Consultant:** [REDACTED]
- **Legal Counsel:** [REDACTED]

## 12.6 OFFSHORE WIND EXPERTISE AND CORPORATE MANAGEMENT CONTINUITY

Describe the experience and expertise of the bidder and project team needed to successfully develop, finance, construct, and operate and maintain its proposed eligible project on schedule and according to the bidder's commitments to a competitive procurement process. Describe the Bidder's continuity of corporate management through successful project development.

### 12.6.1 Project Experience and Expertise

As noted in Section 12.3, the Vineyard Offshore team is comprised of highly qualified individuals with significant experience in the US and global offshore wind markets. Collectively, our offshore wind experience spans two decades, four continents, and several gigawatts of project capacity, and includes the following:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- securing financing for offshore wind projects and other renewable energy assets on five continents, including \$2.3 billion in financing for Vineyard Wind 1, which represents one of the largest investments in a single renewable energy project in the US;
- [REDACTED]
- [REDACTED]

The Vineyard Offshore team is backed by CIP, whose Senior Partners have been with the company since its founding in 2012. [REDACTED]

[REDACTED] Today, CIP is the only offshore wind developer in the world to have projects in development on four continents: North America, Europe, Asia, and Australia.

Finally, the Vineyard Offshore team’s track record on the Vineyard Wind 1 project speaks for itself with respect to Vineyard Offshore’s commitment and ability to successfully develop, finance, construct, and operate and maintain offshore wind projects in accordance with commitments made through a competitive procurement process.

### **12.6.2 Corporate Management Continuity**

As CIP’s exclusive development partner in the US, Vineyard Offshore is a Massachusetts-based company that will lead the Project through the development and construction phases to commercial operation. [REDACTED]

Similarly, CIP also develops, finances, constructs, and operates offshore wind projects with a long-term view. [REDACTED]

## **12.7 PROPOSER’S TRACK RECORD**

Describe the Bidder’s track record developing similar projects, including consideration of any project delays, amendments, defaults, and performance issues, including on prior long-term contracts. Describe any prior failures to achieve commercial operation dates under other PPAs and credible description of how the current proposed project will avoid similar project delays or development issues.

Vineyard Offshore and CIP are committed to the success of their offshore wind projects. This is readily evidenced by the experience with Vineyard Wind 1, which experienced a two-year federal permitting delay in July 2019 after the Bureau of Ocean Energy Management (BOEM) announced that additional review was required to analyze the cumulative impacts of multiple

offshore wind projects along the East Coast over the next decade. While this delay, and the challenges it presented, threatened the viability of the project, Vineyard Wind 1's leadership team and CIP remained committed to Vineyard Wind 1.

After BOEM's announcement, Vineyard Wind 1's development team, led by Vineyard Offshore's CDO Rachel Pachter, worked diligently with BOEM to conclude the federal permitting process while maintaining project viability. Changes to the project's PPAs with the Distribution Companies were also necessary to accommodate the delay; these were amended in 2019 to include additional milestone extensions and security for the project. These negotiations were led by Vineyard Offshore's Chief Legal Officer and Corporate Secretary, Jennifer Simon Lento.

[REDACTED]

[REDACTED] Vineyard Wind 1 is currently under construction and expected to achieve commercial operation in 2024.

No projects developed by Vineyard Offshore or any affiliate thereof have failed to achieve commercial operation dates under other PPAs. [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

## 12.8 PROPOSER'S REGULATORY AND JUDICIAL EXPERIENCE

Describe the bidder's relevant experience supporting similar projects in a state or federal regulatory or judicial forum. This experience can be established with examples of one or more key member(s) of the development team advocating in favor of a similar project in a regulatory proceeding, before a court, or in another tribunal.

Vineyard Offshore’s team has extensive experience supporting offshore wind projects in various regulatory, permitting, and judicial forums. Team members including Rachel Pachter, Jennifer Simon Lento, Geri Edens, and Chris Rodstrom, for example, led or played a key role in the permitting process for Vineyard Wind 1, which included review and consultations with nearly 30 different agencies at the federal, tribal, state, local, and regional levels; the negotiation of and regulatory approval process for Vineyard Wind 1’s PPAs in 2018 and their amendment in 2019 following the federal permitting delay; and litigation concerning federal and state agency approval of Vineyard Wind 1. Resumes for each of the individuals named above are provided in Attachment 12.3-1.

[REDACTED]

## 12.9 PROJECT FAILURES OR DEFAULTS

If the bidder or any of its past or present affiliates has either (1) been involved with a complex development project that failed, was withdrawn, or otherwise did not proceed, or (2) defaulted under, or agreed to terminate a contract for a complex development project, then the bidder should provide relevant details.

Vineyard Offshore has neither been involved in a complex development project that failed, was withdrawn, or otherwise did not proceed, nor defaulted under or agreed to terminate a contract for a complex development project.

[REDACTED]

## SECTION 13

### DEMONSTRATED, VERIFIABLE COMMITMENT TO CREATE AND FOSTER EMPLOYMENT AND ECONOMIC DEVELOPMENT AND OTHER DIRECT BENEFITS

---

#### 13.1 JOBS AND EMPLOYMENT OPPORTUNITIES

Please provide an estimate of the number of jobs to be created directly during project development and construction, and during operations, and a general description of the types of jobs created, duration of employment, estimated annual compensation, the employer(s) for such jobs, and the location. Employment impacts should be broken out by state and the region as a whole and highlight any impacts in economically distressed areas. Please treat the development, construction, operation and maintenance periods separately in your response. All information provided must be measurable.

Please describe employment opportunities for members of federally recognized and state acknowledged tribes in the Commonwealth, workers from low-income communities and certified minority-owned and women-owned small business enterprises in the Commonwealth, as well residents of any Environmental Justice neighborhoods impacted by the project.

Please describe any investments in workforce development to support the offshore wind industry, which may include partnerships with proximate vocational and technical schools, community colleges, labor groups, and community-based organizations to create paid training, internship, apprenticeship programs and educational programs paired with transitional work opportunities.

Please describe project support for workforce harmony and community benefits through Community Benefits Agreements and workforce agreements with appropriate labor organizations for construction, renovation, reconstruction, alteration, installation, demolition, expansion, maintenance and repair.

Please describe the status of any contractual commitments with respect to direct job creation and provide any pertinent agreements that have been executed.

##### 13.1.1 Job Creation

Vineyard Wind 2 (the "Project") will unlock significant local employment opportunities in the Commonwealth through commitments to wind turbine generator (WTG) staging activities, locally sourced union labor for the Project's offshore construction activities, and our long-term operations and maintenance (O&M) base. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Although the bulk of Vineyard Wind 2's job benefits are centered in Massachusetts, the Project will also create positive employment impacts in southern New England [REDACTED]

[REDACTED] In this way, the Project represents a significant opportunity to further strengthen both Massachusetts' and the region's offshore wind workforce.

**Table 13.1-1 Vineyard Wind 2 Job Creation Estimates (FTE Job-years)** [REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**13.1.1.1 Development Direct Jobs**

Vineyard Offshore is headquartered in Massachusetts and is already contributing to the Commonwealth’s economy through our ongoing development efforts for Vineyard Wind 2.

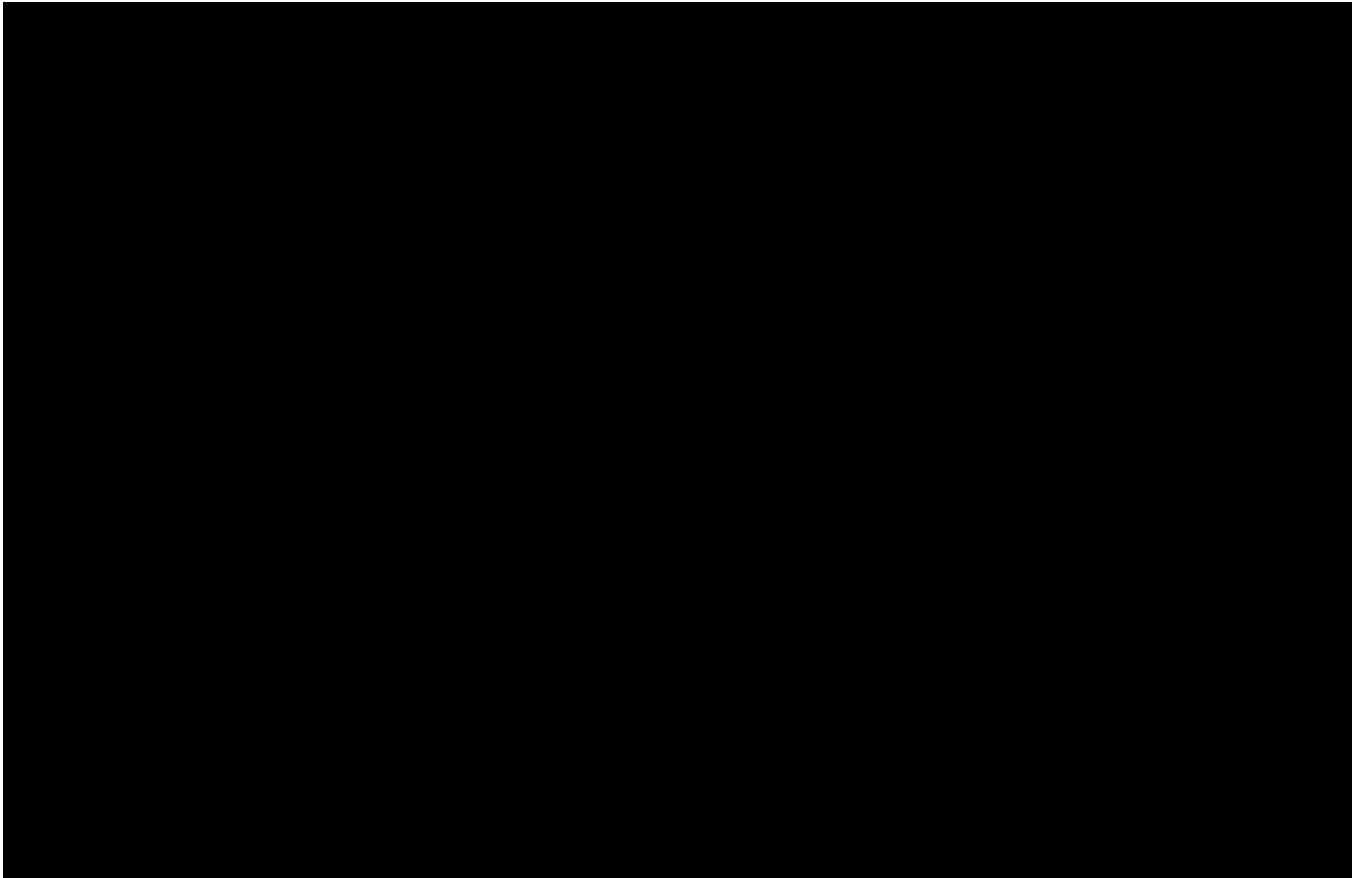
[REDACTED]

[REDACTED] Examples of these roles are provided in Table 13.1-2.

[REDACTED]

**Table 13.1-2 Development Job Examples**

---



**13.1.1.2 Construction Direct Jobs**

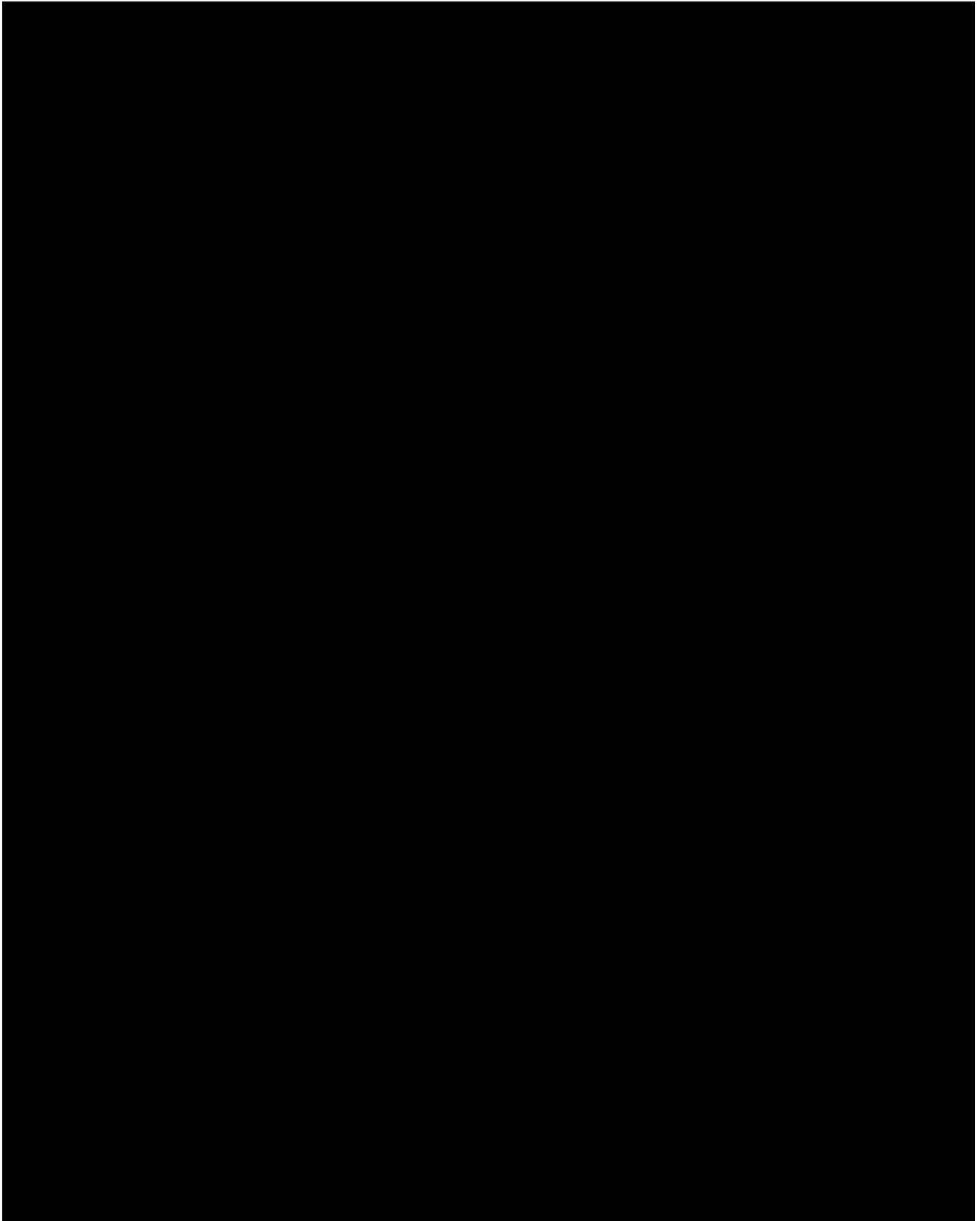
As Vineyard Wind 2 transitions to the construction phase, a host of local onshore and offshore construction jobs will be generated. In most cases, these jobs will be with engineering and construction management firms, original equipment manufacturers (OEMs), construction firms utilizing the building and maritime trades, and vessel and port operation companies. ■



■ Examples of these roles are provided in Table 13.1-3.

**Table 13.1-3 Construction Job Examples**

---



### 13.1.1.3 Operations Direct Jobs

Vineyard Wind 2's operations phase will create high-quality job opportunities that require a range of educational backgrounds, training certifications, and expertise. O&M jobs will be primarily located in and around New Bedford, where the Project's O&M base will be located and Vineyard Offshore hosts a satellite office. Examples of these roles [REDACTED] can be found in Table 13.1-4. Additional information about the Project's O&M organization and staffing levels is provided in Section 11.

**Table 13.1-4 Operations Jobs Examples**

---

[REDACTED]

### 13.1.2 Diverse Employment Opportunities

Vineyard Wind 2 will create employment opportunities in Massachusetts across every Project phase for skilled and unskilled laborers, individuals with different educational backgrounds and attainment levels, and various specialists. [REDACTED]

[REDACTED]

To ensure broad access to the Project’s employment benefits, Vineyard Offshore will continue to work with Tribal Nations, EJ communities, and other stakeholders. For example, we partnered with the Bristol Community College Foundation in 2023 to create a special fund providing scholarships for members of the Mashpee Wampanoag Tribe to earn a certificate or associate degree in offshore wind at the college. As part of this, Vineyard Offshore is providing stipends to support living expenses for a limited number of tribal members pursuing these credentials. Also, in partnership with the Mashpee Wampanoag Tribe, we sponsored and assisted with planning a job fair and family day in December 2023 that connected dozens of tribal members with offshore wind employment and educational opportunities.

We have also outlined a set of strategies and commitments in Vineyard Wind 2’s Diversity, Equity, and Inclusion (DEI) Plan aimed at expanding and diversifying the offshore wind workforce and supply chain (see Attachment 13.7-1).

[REDACTED]

We are well-positioned to succeed in these efforts as demonstrated by our experience with Vineyard Wind 1 (see Attachments 7.3-1 and 7.3-2).

### **13.1.3 Workforce Development Investments**

[REDACTED]

[REDACTED]

### **13.1.4 Labor Harmony and Community Benefits**

#### **13.1.4.1 Labor Union Agreements**

Vineyard Offshore intends to utilize union labor for both onshore and offshore construction activities for Vineyard Wind 2. We will negotiate in good faith one or more mutually agreeable project labor agreements (PLAs) and/or regional labor agreements with the appropriate labor union entities [REDACTED] as described in the letters of intent (LOIs) included in Attachment 13.1-2.

Through the experience gained on Vineyard Wind 1, Vineyard Offshore fully understands the complexities of integrating union labor into an offshore wind project. Key members of our team spent more than three years negotiating with the Southeastern Massachusetts Building Trades Council to finalize the industry's first offshore wind PLA in the United States (US), which was executed on July 16, 2021 (see Attachment 13.1-3). Approximately 500 union labor jobs were committed in the Vineyard Wind 1 PLA, which incorporated both onshore and offshore construction of the project, providing opportunities for the local labor union workforce to participate in new and specialized aspects of offshore wind construction. In implementing the PLA, our team collaborated with union labor leadership to ensure maximum labor union job creation and identified additional scopes of work that were appropriate for the local labor union workforce. Two years into the construction phase, Vineyard Wind 1 has exceeded the 500-jobs commitment and created an estimated 937 union labor jobs (see Attachment 13.1-4). Our success on Vineyard Wind 1 demonstrates our commitment to using union labor on our projects.

[REDACTED]

[REDACTED]

[Redacted]

### 13.1.4.2 Community Benefits Agreements

[Redacted]

[Redacted]

#### 13.1.4.2.2 Good Neighbor Agreement

Vineyard Offshore has entered into a Good Neighbor Agreement with the Town of Nantucket and several island organizations (see Attachment 7.8-3). Among other things, this agreement provides financial support for the community to pursue climate adaptation and coastal resiliency projects. This agreement will result in a \$3 million payment from Vineyard Offshore to the Nantucket Offshore Wind Community Fund when the Project achieves financial close. Funds will be used to support projects and initiatives related to protecting, restoring, and preserving cultural and historic resources; coastal resiliency; climate adaptation; and renewable energy.

### 13.1.5 Contractual Commitments for Project-related Employment

[Redacted]

[Redacted]

### 13.2 FEDERAL AND DOMESTIC CONTENT LABOR REQUIREMENTS

Please describe any plans to meet federal domestic content and labor requirements to maximize federal tax credits available to the project under the Inflation Reduction Act (IRA).

[REDACTED]

### 13.3 ECONOMIC ACTIVITY AND DEVELOPMENT

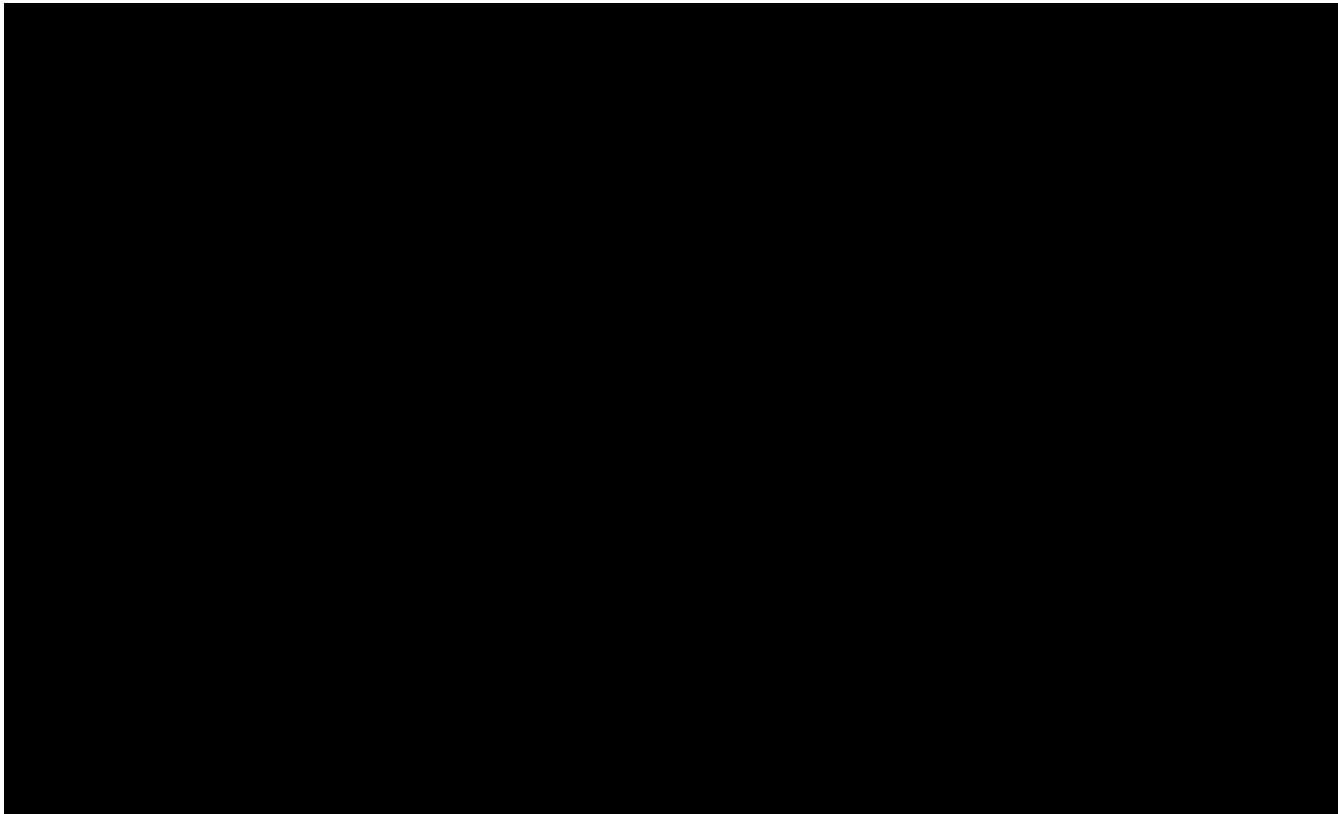
Please describe and quantify any other economic activity or development expected to result directly from the proposed project. Impacts should be broken out by state and the region as a whole and highlight any impacts in economically distressed areas. Direct economic activity/development will be evaluated based on scale relative to project size, credibility and firmness. Preference will be given to commitments that secure long-term benefits are preferred; begin to provide benefits during project development, construction, installation, and the first five years of operations; direct benefits to Environmental Justice populations and host communities. Commitments will be evaluated by the degree or extent to which the asserted benefits are contractually committed to by the bidder. Specific commitments to economic activity or development may include (but are not limited to):

- Direct and reasonably certain commitments made on or after July 1, 2022 to capital investments in the manufacture, fabrication and assembly within the commonwealth of domestic supply chain components of the offshore wind industry. Bidders are further directed to describe, if applicable, how the proposed supply chain investments are complementary to any other supply chain investments made by the parent company to support other offshore wind projects in the region.
- Utilization and investment in port facilities and infrastructure during project development, construction, and operation and maintenance of the project.
- Investment in offshore wind-related research and innovation initiatives or partnerships.
- Economic development activities and investments that directly benefit economically distressed areas, environmental justice communities, and/or low-income Environmental Justice populations, especially those directly impacted by the project.

[REDACTED]



**Table 13.3-1 Vineyard Wind 2 Total Economic Benefits (Nominal 2023\$)**

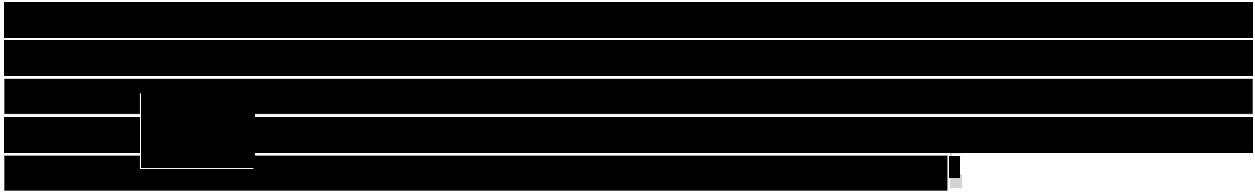


### **13.3.1 Economic Benefits Commitments**

Vineyard Wind 2’s economic benefits package includes a series of workforce, supply chain, innovation, and other commitments that will diversify the Commonwealth’s offshore wind economy and strengthen local communities. The commitments described below are built on our Vineyard Wind 1 experience, incorporate input from Massachusetts suppliers and potential partners, and account for the challenges of realizing a diverse offshore wind workforce and supply chain. This ensures that our commitments are viable and responsive to the needs and capabilities of local economies.

### 13.3.1.1 Port Facilities and Infrastructure

#### 13.3.1.1.1 Anchoring Offshore Construction in Salem



Our commitment to use the Salem Offshore Wind Terminal builds upon the early work members of our team undertook to establish a second offshore wind construction hub in Massachusetts at Salem Harbor. As Vineyard Wind, we brought the City of Salem, Crowley, Footprint RealCo (the former owner of the 42-acre Salem Harbor site), and local stakeholders together to advocate for the redevelopment of Salem Harbor into a WTG staging facility. Those efforts received a significant boost with the third Section 83C (83C-III) solicitation's award to Commonwealth Wind<sup>8</sup> and the subsequent efforts by state and local officials to secure public funds to support redevelopment of the site.

Today, the Salem Offshore Wind Terminal is poised to become a reality, with construction slated to begin in 2024 and be completed in 2026. The recent transfer of ownership of the Salem Offshore Wind Terminal from Crowley to the Massachusetts Clean Energy Center (MassCEC) represents another significant step forward.<sup>8</sup> Vineyard Offshore commends the Commonwealth for ensuring this facility's availability and utilization as a public asset and further advancing the site's transformation into a purpose-built offshore wind energy terminal.



Additional information about Vineyard Offshore's plans to use the Salem Offshore Wind Terminal is provided in Section 10 and Attachment 10.2-1. A rendering of the future terminal is provided in Figure 13.3-1.



<sup>8</sup> Crowley will manage the site's redevelopment and serve as the terminal's operator. See: [MassCEC, City of Salem, and Crowley Announce Agreements for Salem Offshore Wind Terminal](#).

**Figure 13.3-1 Salem Offshore Wind Terminal**



13.3.1.1.2 Establishing an O&M Base in New Bedford

[REDACTED]

[REDACTED] The O&M base will serve as the central location for the Project's O&M activities and guarantee long-term job opportunities in a Gateway City. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Additional information about Vineyard Offshore’s plans to establish an O&M base in New Bedford is provided in Sections 11 and Attachment 11.2-1. [REDACTED]

[REDACTED]

### **13.3.1.2 Supply Chain and Manufacturing Local Content Opportunities**

Vineyard Offshore has actively explored a range of opportunities for local content [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**13.3.1.3 Directly Funded Initiatives**

Vineyard Offshore is committing [REDACTED] to directly funded initiatives that we will pursue if Vineyard Wind 2 is awarded PPAs in connection with the 83C-IV solicitation. The funding [REDACTED] will be used for a variety of purposes, including promoting a diverse and inclusive offshore wind sector, positioning the Commonwealth as a global climate innovation lab, addressing energy burdens in low- and moderate-income households, advancing robust regional research efforts, and supporting the blue economy.

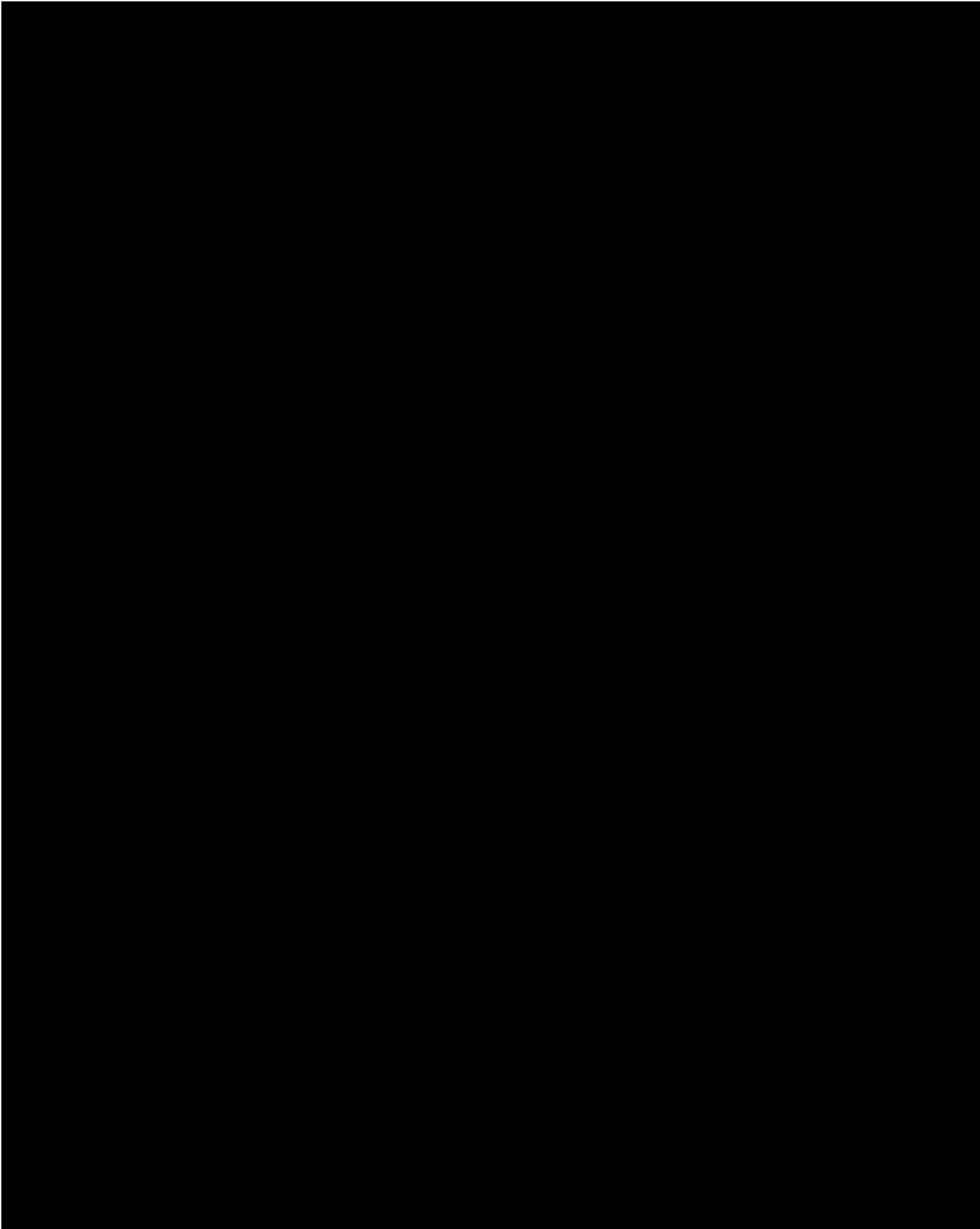
**Table 13.3-2 Vineyard Wind 2 Directly Funded Initiatives**

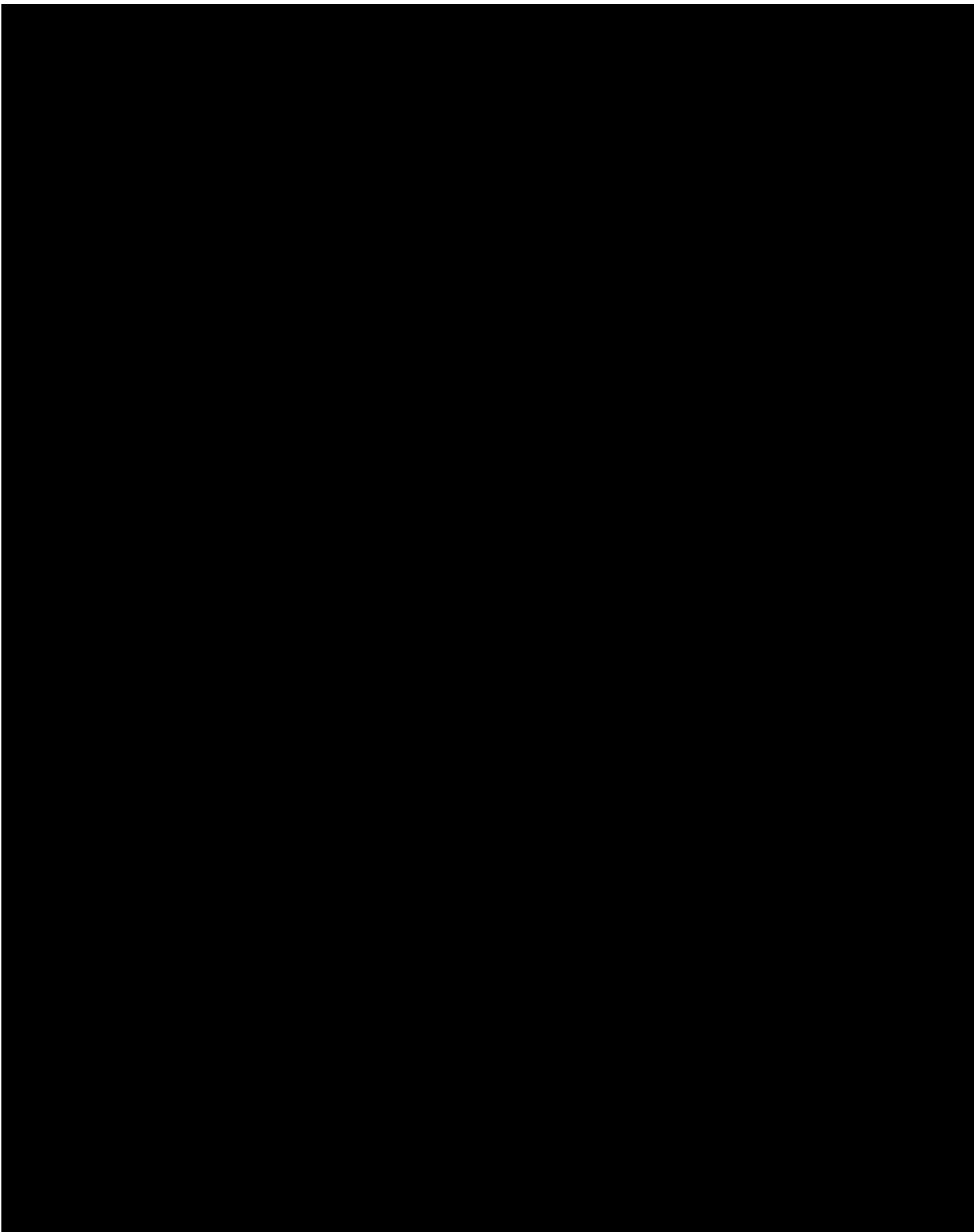
[REDACTED]

**Table 13.3-2 Vineyard Wind 2 Directly Funded Initiatives (Continued)**

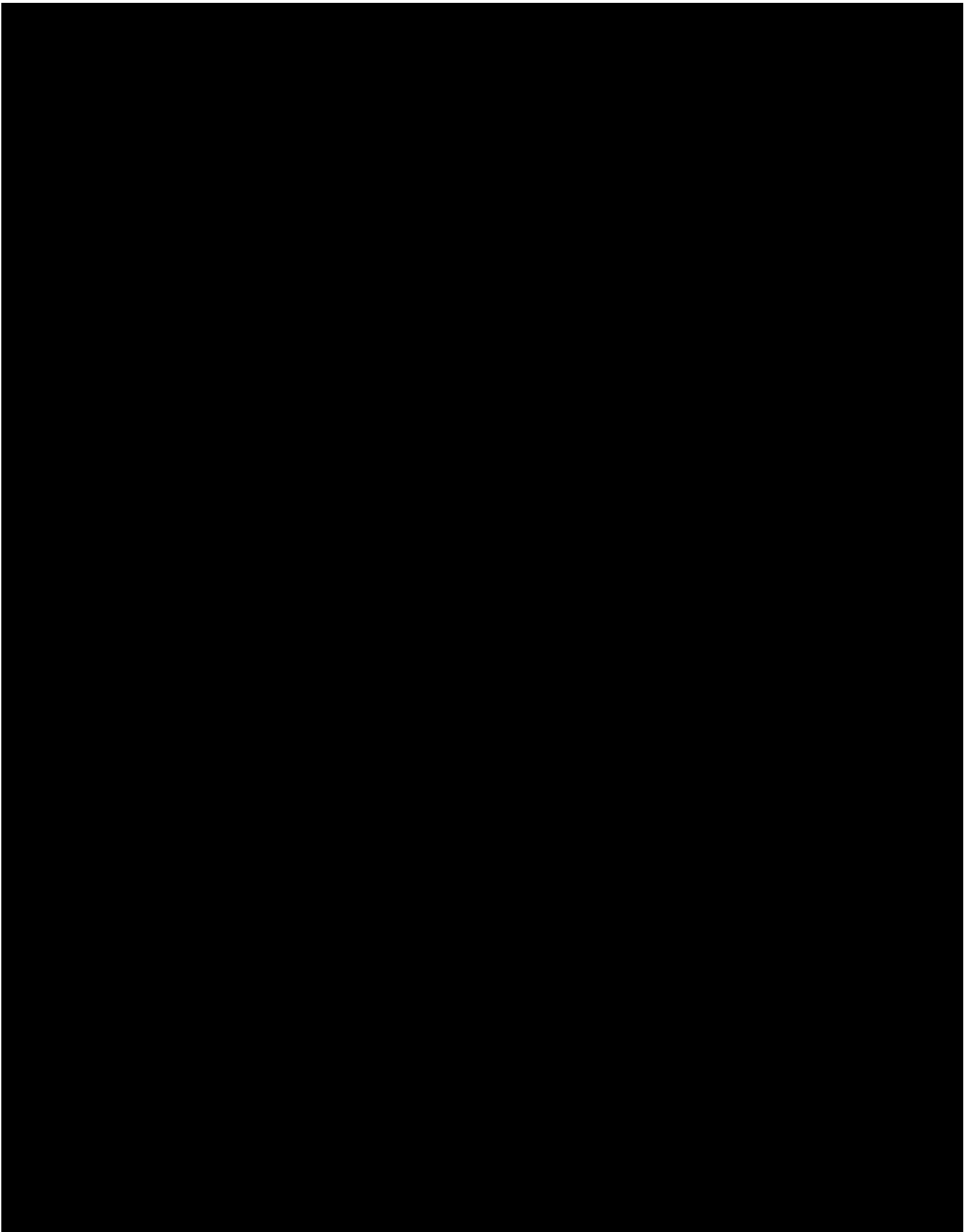
---

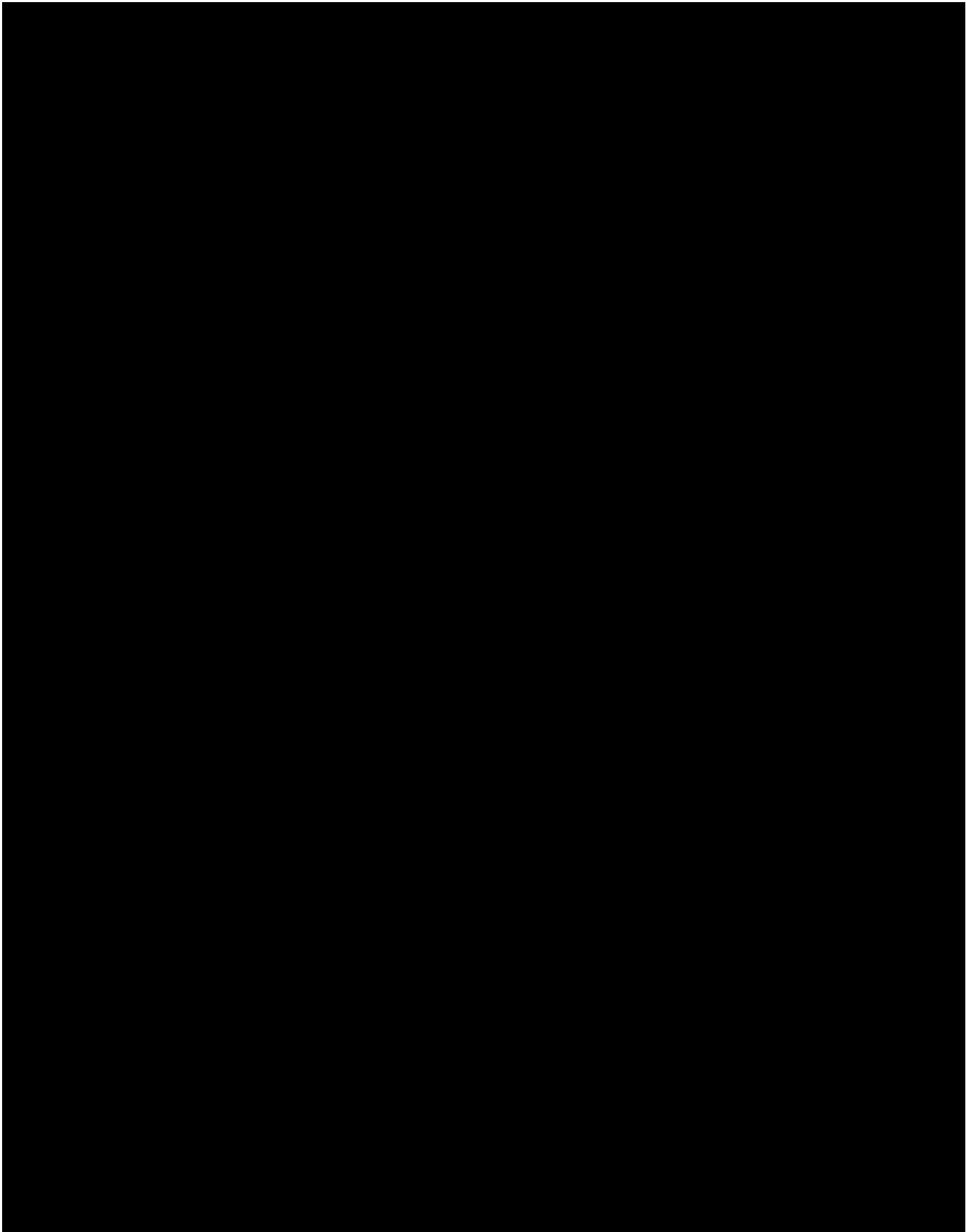
[Redacted content]











### 13.3.1.4 Regional Economic Benefits

In developing the Vineyard Wind 2 proposal, we sought to utilize New England's best available interconnection and port infrastructure and build upon pre-existing investments in the offshore wind economy. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 13.3.2 Economically Distressed Area, EJ Community, and Low-income Benefits

Vineyard Wind 2 will result in a range of economic activities, including investments, that directly benefit economically distressed areas, EJ communities, low-income workers, and others. [REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

[Redacted text block]

**13.4 ECONOMIC DEVELOPMENT CONTRACTUAL COMMITMENTS**

Please describe the status of any contractual commitments with respect to economic development and provide any pertinent agreements that have been executed.

Please specify the administrator of any funds (i.e. fund administered by a third-party or by the Bidder).

[Redacted text block]

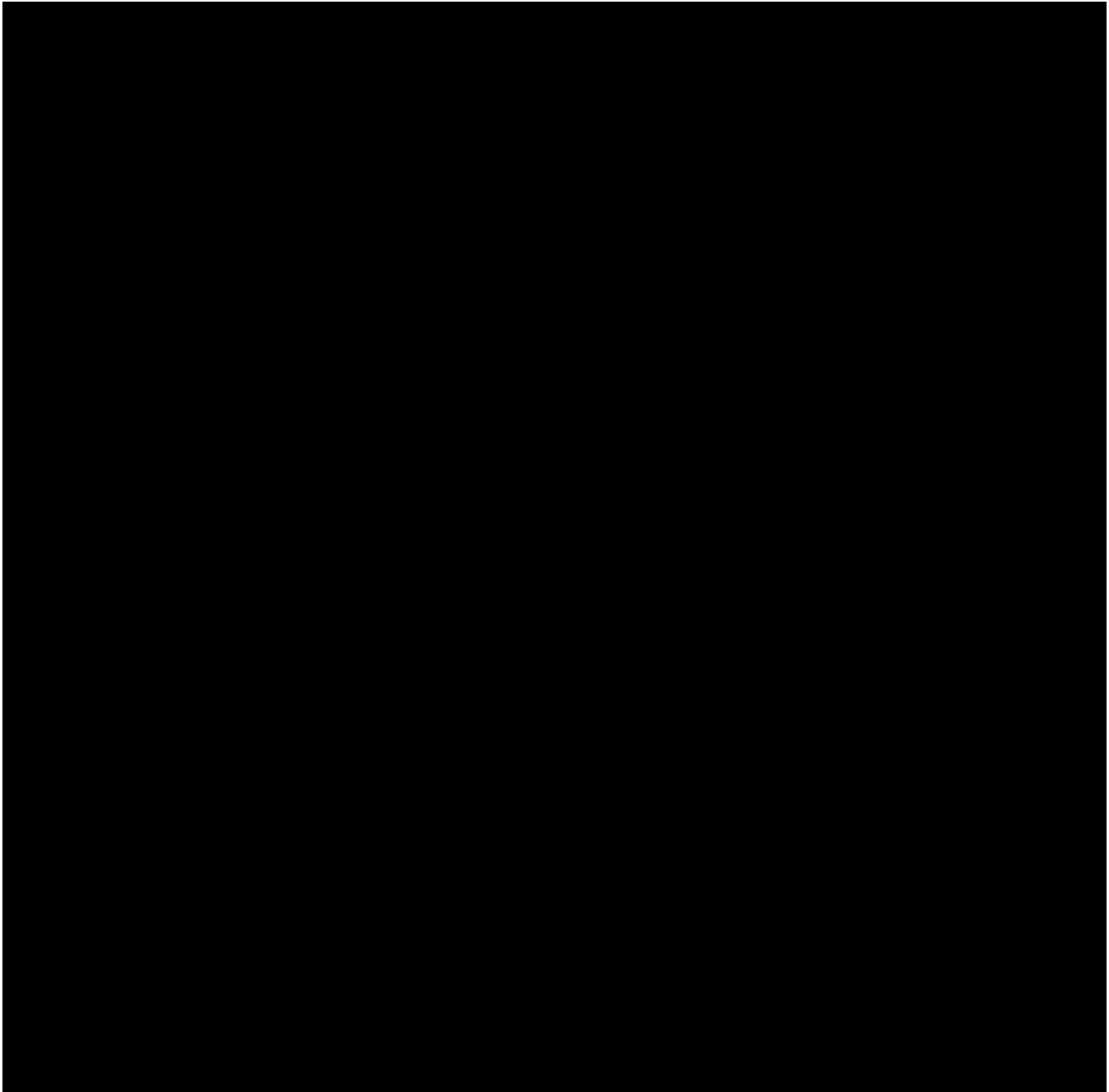
**Table 13.4-1 Vineyard Wind 2 Economic Development Contractual Commitments**

[Redacted table content]

[Redacted text block]

**Table 13.4-1 Vineyard Wind 2 Economic Development Contractual Commitments (Continued)**

---



**Table 13.4-1 Vineyard Wind 2 Economic Development Contractual Commitments  
(Continued)**

---

[Redacted Table Content]

**13.5 SECTION 2.2.4.1 FACTORS**

To the extent not already specified elsewhere in your response, please address the factors listed in RFP Section 2.2.4.1 and describe any benefits or impacts associated with the proposed project.

[Redacted content]

**Table 13.5-1 Vineyard Wind 2's Electricity Market Impacts and Other Benefits**

[Redacted table content]

**13.6 LOW-INCOME RATEPAYER BENEFITS**

Please demonstrate any benefits to low-income ratepayers in the Commonwealth, as outlined in Section 2.2.4.2, and describe how the project minimizes and mitigates, to the extent feasible, ratepayer impacts. Benefits to low-income ratepayers may include, but are not limited to, projects that reduce the energy burden for low-income ratepayers through energy efficiency or renewable energy upgrades; direct funding of rate relief through grant programs, support



of existing community programs or other funding opportunities. Describe the impact, if any, those benefits will have on the cost to the project.

Please provide copies of any agreements to effectuate those benefits.

Vineyard Wind 2 will generate a host of job, economic development, and other benefits that will be accessible to low-income ratepayers as described in Sections 13.1 through 13.5. Vineyard Offshore has also taken steps to increase price certainty and reduce cost increase risks, thereby minimizing and mitigating potential ratepayer impacts from the Project (see Section 5.7).

[REDACTED]

[REDACTED]

### **13.7 DIVERSITY, EQUITY, AND INCLUSION PLAN**

Please provide a diversity, equity and inclusion plan that includes a Workforce Diversity Plan and the Supplier Diversity Program Plan as outlined in Section 2.2.4.3 of the RFP. Describe consultation with the Massachusetts Supplier Diversity Office, as applicable.

Vineyard Offshore is committed to building a diverse, equitable, and inclusive offshore wind industry in support of a just transition. The DEI Plan developed for Vineyard Wind 2 builds on the efforts started and knowledge gained on Vineyard Wind 1 (see Attachment 13.7-1). It outlines strategies and commitments to increase diversity in the industry and provide opportunities to EJ communities, underrepresented populations, and local and diverse businesses to join the offshore workforce and supply chain in Massachusetts.

The DEI Plan [REDACTED] includes the following components:

- **Workforce Diversity Plan:** The WDP focuses on strategies and commitments to support efforts to ensure we recruit, train, and hire diverse candidates for the Project’s workforce. We will implement the WDP in partnership with labor unions, education and training institutions, local communities, and other stakeholders. [REDACTED]

- **Supplier Diversity Program Plan:** The SDPP is focused on increasing the number of local and diverse companies that are able to respond effectively to offshore wind procurements and secure contracts that grow their business. [REDACTED]

[REDACTED]

[REDACTED]

### 13.8 TRACKING AND REPORTING

Please describe the strategy and mechanisms to track and report on any applicable commitments, including progress in achieving promised employment and economic benefits and the goals in the diversity, equity and inclusion plan, based on the template provided in the Form MOU with DOER and MassCEC and any other supplemental plans for tracking and reporting.

Please provide a marked version of the Form MOU with DOER and MassCEC for this solicitation (see Appendix L) showing any specific proposed changes to the Form MOU. Bidders are discouraged from proposing any material changes or conditions to the Form MOU and any such changes will be considered in the Stage Two Qualitative Evaluation.

### 13.8.1 Tracking and Reporting

As required by the Form Memorandum of Understanding with DOER and MassCEC (Form MOU), Vineyard Offshore will track and report on progress toward achieving the employment and economic benefits discussed in this section and the DEI Plan. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 13.8.2 Form MOU

A marked version of the Form MOU is provided as Attachment 13.8-1.

### 13.9 ECONOMIC DEVELOPMENT SUMMARY SHEET

The Section 13 Addendum: Economic Development Summary Sheet is a Microsoft Excel workbook provided on MACleanEnergy.com. Please fill out and submit the Section 13 Addendum to accompany responses in this section.

Attachments:

Copy of completed Section 13 Addendum in Excel format (.xls or .xlsx file):

An Economic Development Summary Sheet is provided as Attachment 13.9-1.

**SECTION 14**

**EXCEPTIONS TO FORM PPAS**

---

Please attach an explanation of any exceptions to the Form PPA set forth in Appendices B-1 and B-2. Comments to the proposed Form PPA must include any specific alternative provisions in a redline format to the Form PPA. If the bidder is proposing a two-phased project with each phase covered by a separate contract, the bidder should provide two separate contracts with specific alternative provisions to the Form PPA in redline format.

Bidders are discouraged from proposing material changes to the Form PPA.

**14.1 FORM PPA REDLINES**

The Form Power Purchase Agreement (PPA) redlines, included as Attachments 14.1-1 (National Grid) and 14.1-2 (Eversource/Unitil), detail certain requested changes to be negotiated between the parties.

**14.1.1 Material Changes to the National Grid Form PPA**

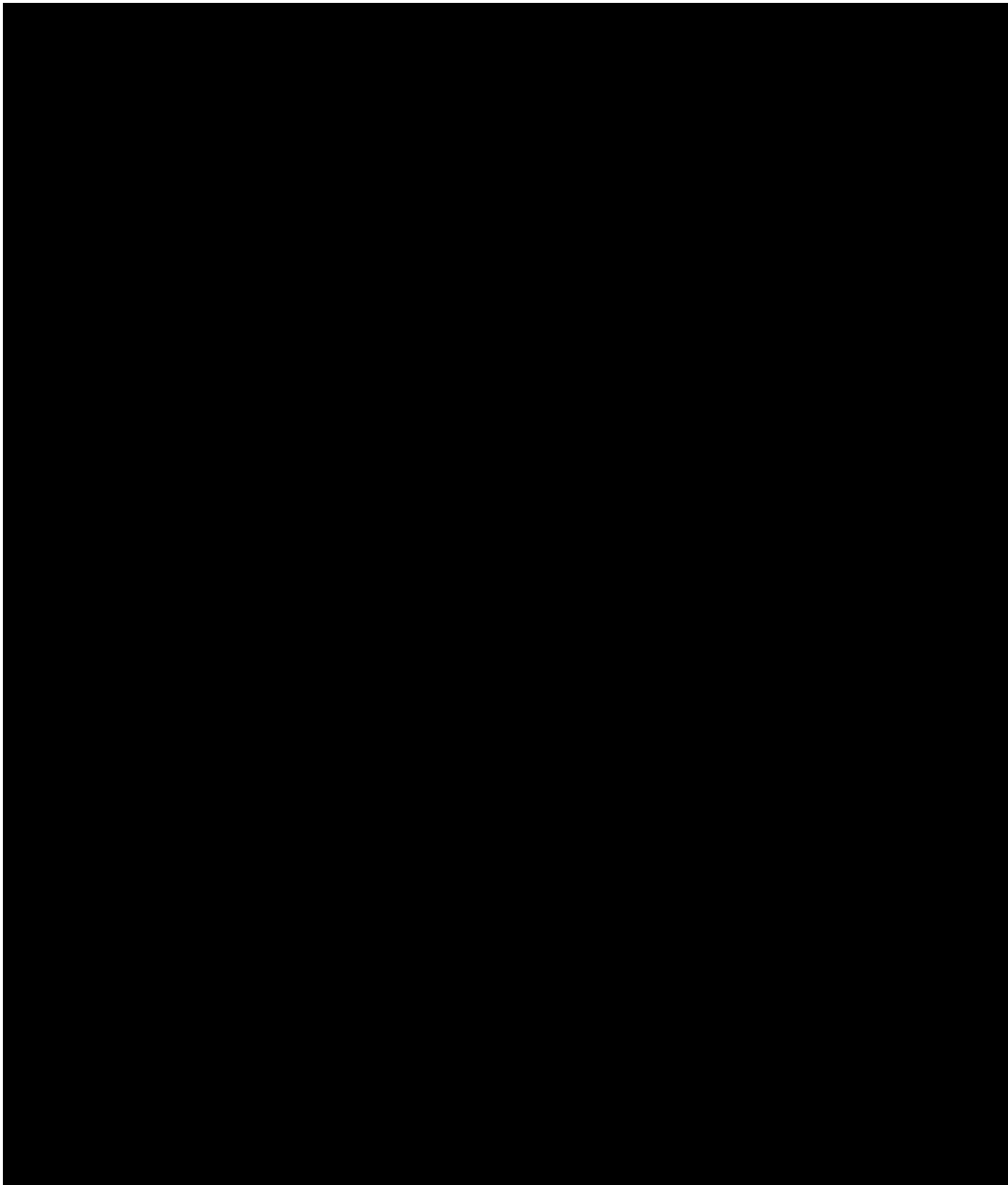
[Redacted content]

[Redacted content]

[Redacted content]

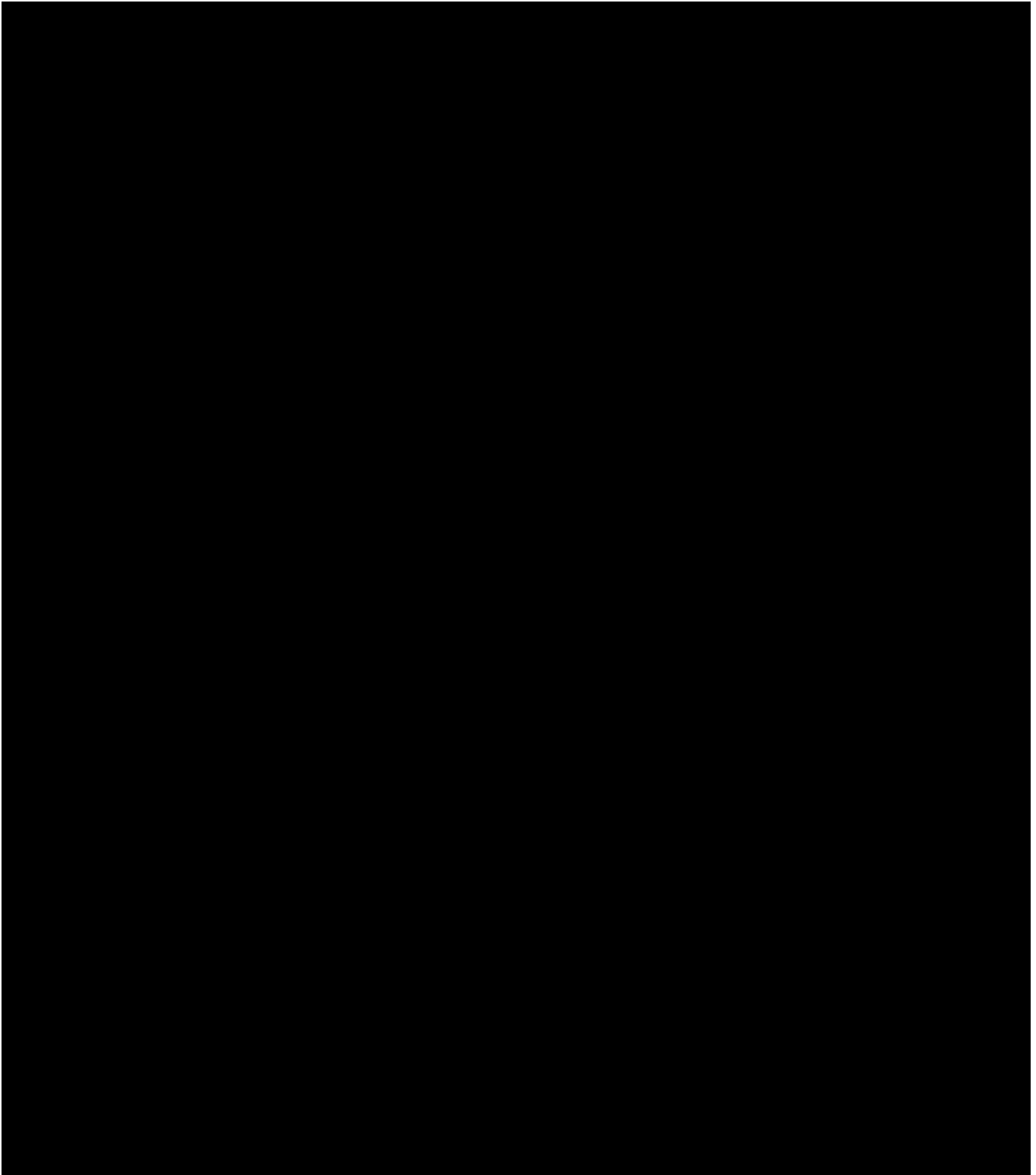
**Table 14.1-1 Summary of Material Changes to the National Grid Form PPA**

---



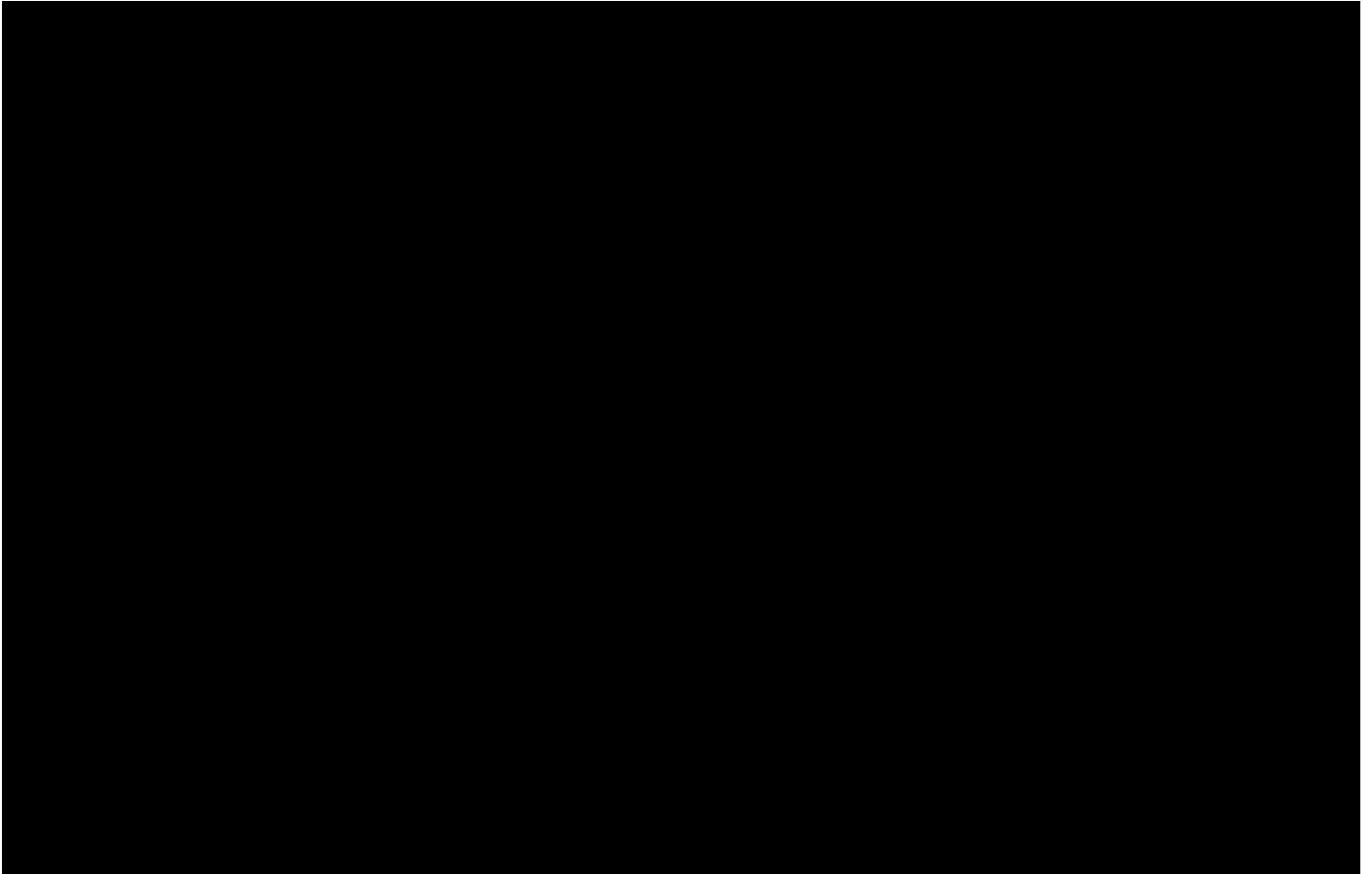
**Table 14.1-1 Summary of Material Changes to the National Grid Form PPA  
(Continued)**

---



**Table 14.1-1 Summary of Material Changes to the National Grid Form PPA (Continued)**

---



**14.1.2 Material Changes to the Eversource/Unitil Form PPA**

A summary of the material changes for the Eversource/Unitil Form PPA is provided in Table 14.1-2.



[Redacted text block]

[Redacted text block]

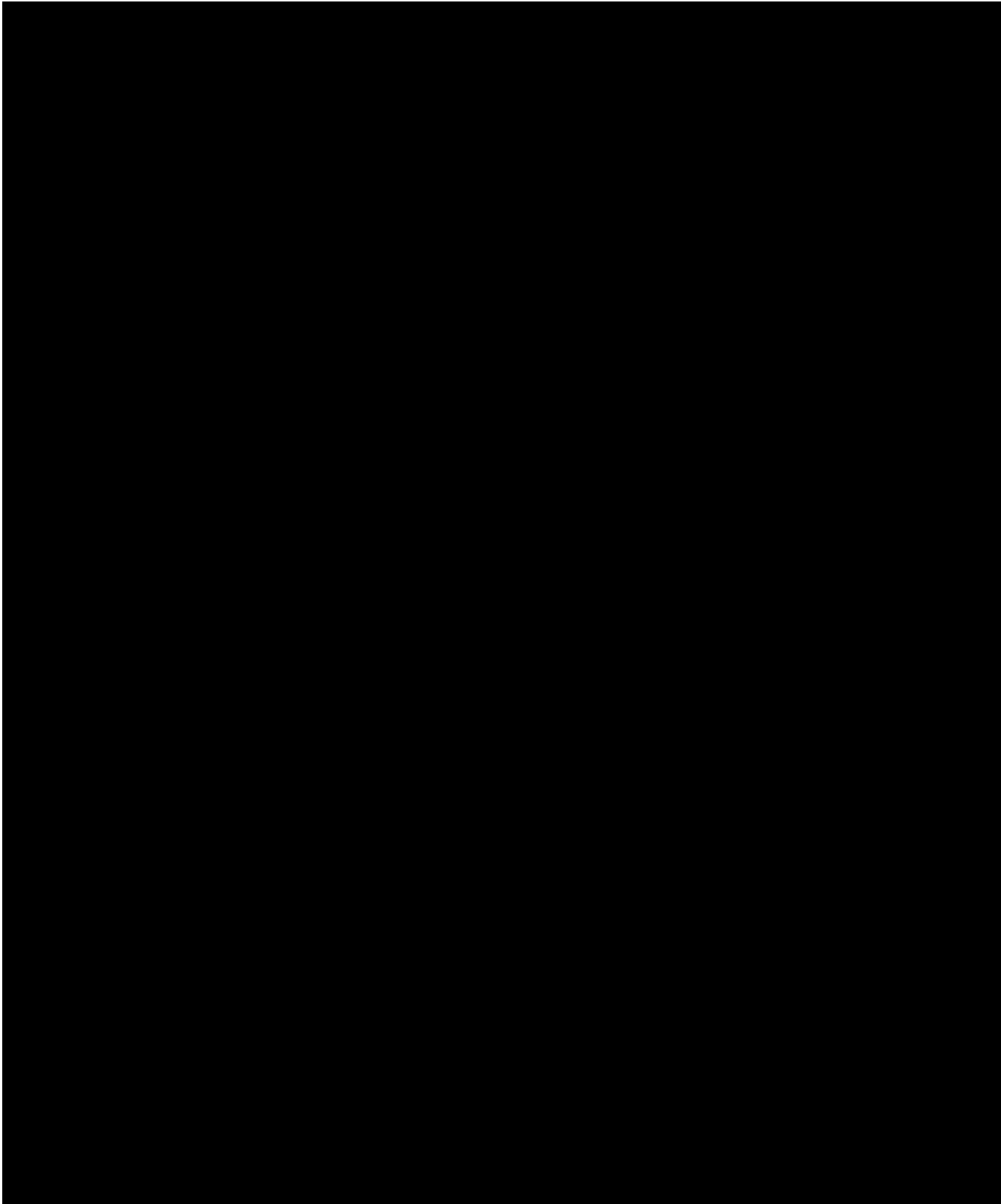
**Table 14.1-2 Summary of Material Changes to the Eversource/Unitil Form PPA**

[Redacted table content]



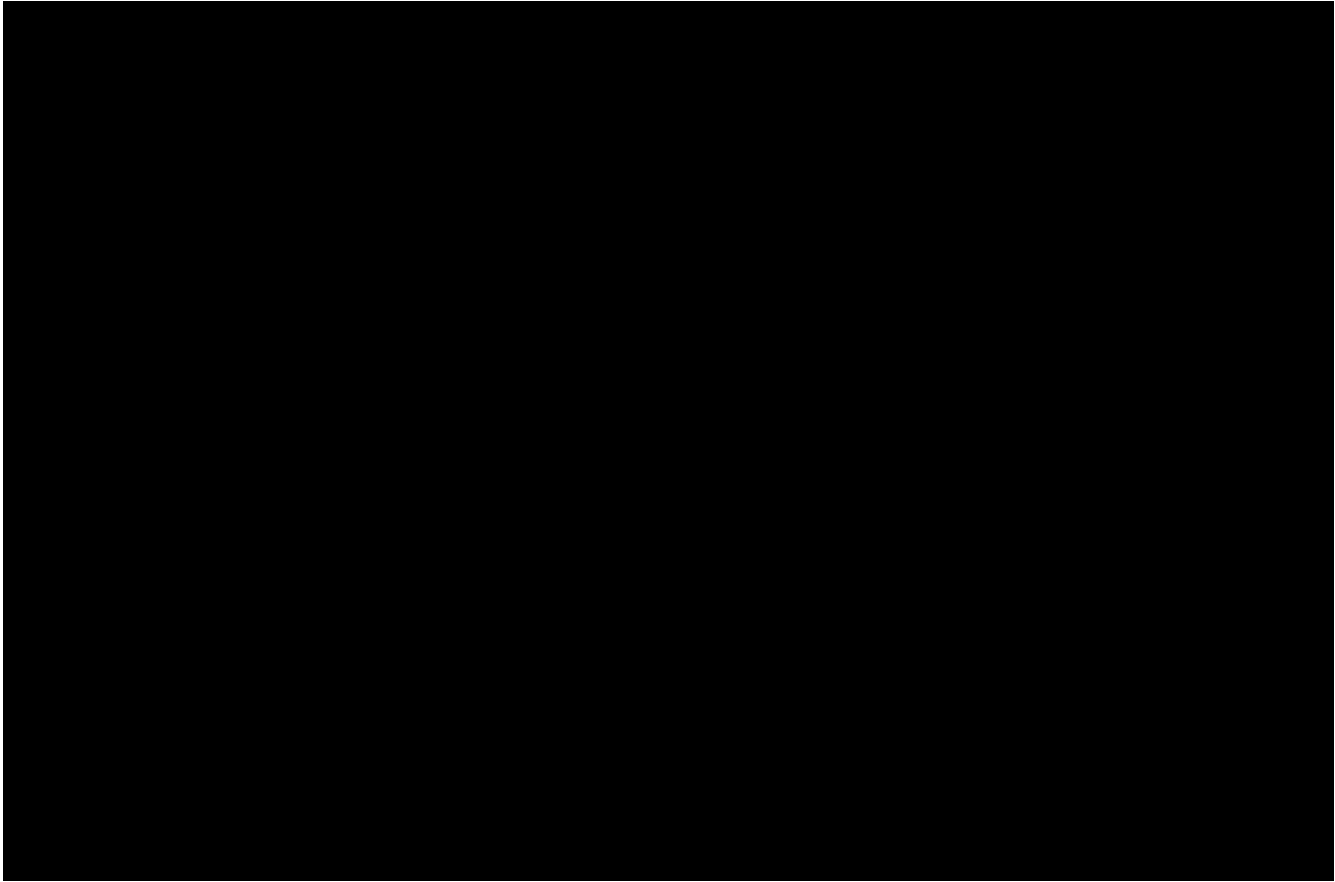
**Table 14.1-2 Summary of Material Changes to the Eversource/Unitil Form PPA  
(Continued)**

---




**Table 14.1-2 Summary of Material Changes to the Eversource/Unitil Form PPA (Continued)**

---





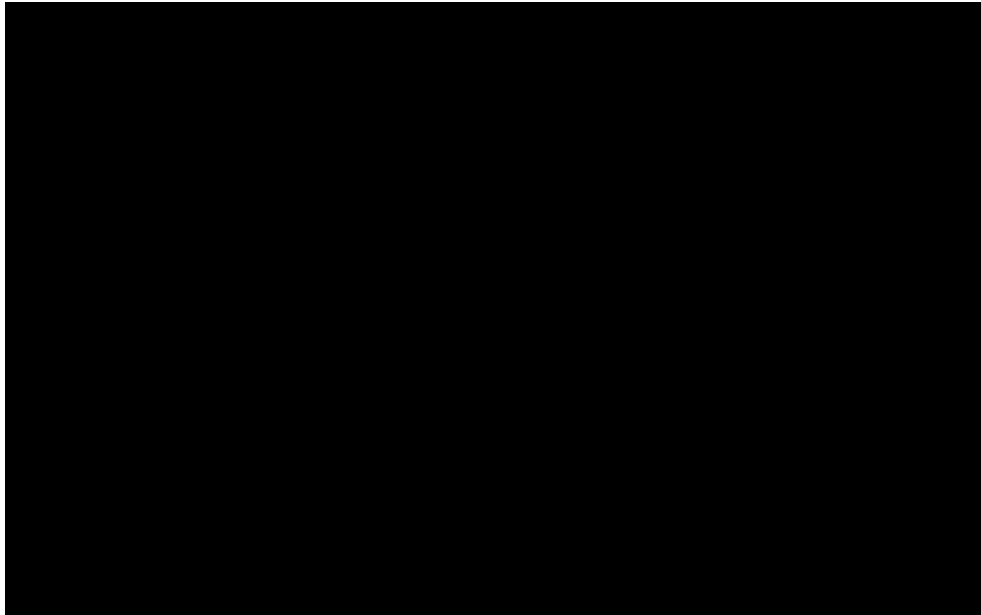


**14.2 CRITICAL MILESTONES**

The proposed dates for the Critical Milestones in Section 3.1 of the Form PPAs are provided in Table 14.2-1.

**Table 14.2-1 Proposed Milestone Dates**

---



## **SECTION 15**

### **EXCEPTIONS TO FORM COMMITMENT AGREEMENT**

---

#### **15.1 EXCEPTIONS TO FORM COMMITMENT AGREEMENT**

Please attach an explanation of any exceptions to the Form Commitment Agreement set forth in Appendix G. Comments to the proposed Form Commitment Agreement must include any specific alternative provisions in a redline format to the Form Commitment Agreement.

Bidders are discouraged from proposing material changes to the Form Commitment Agreement.

Vineyard Offshore has no exceptions to the Form Commitment Agreement set forth in Appendix G.