# PROPOSAL FOR PURCHASE OF OFFSHORE WIND RENEWABLE ENERGY CERTIFICATES ORECRFP20-1

**Prepared for**

**The New York State Energy Research and Development Authority (NYSERDA)**

**October 20, 2020**

Sunrise Wind | Powered by Ørsted & Eversource

**Submitted by**

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# Acronyms and Abbreviations

| | |
|---|---|
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| AEP | Annual Energy Production |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| BOEM | Bureau of Ocean Management |
| [redacted] | [redacted] |
| CEII | Critical Energy/Electric Infrastructure Information |
| CFR | Code of Federal Regulations |
| CLCPA | Climate Leadership and Community Protection Act |
| [redacted] | [redacted] |
| COD | Construction Operation Date |
| COP | Construction and Operations Plan |
| CRIS | Capacity Resource Interconnection Service |
| CRMP | Coastal Resources Management Program |
| CRRA | Community Risk and Resiliency Act of 2014 |
| CT DEEP | Connecticut Department of Energy and Environmental Protection |
| CT | Connecticut |
| CTV | Crew Transfer Vessels |
| [redacted] | [redacted] |
| CWA | Clean Water Act |
| CZMA | Coastal Zone Management Act |
| [redacted] | [redacted] |
| DoD | Department of Defense |
| DP2 | dynamic positioning |
| [redacted] | [redacted] |
| [redacted] | [redacted] |

| | |
|---|---|
| EIS | Environmental Impact Statement |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| EO EEA | Massachusetts Executive Office of Energy and Environmental Affairs |
| EPA | U.S. Environmental Protection Agency |
| EPC | Engineering, Procurement, and Construction |
| ERIS | Energy Resource Interconnection Service |
| [redacted] | [redacted] |
| ESI | Eversource Investment LLC, an Owner of Proposer |
| E-TWG | New York Environmental Technical Working Group |
| Eversource | Eversource Energy, the corporate parent of ESI |
| FAA | Federal Aviation Administration |
| FATs | Factory Acceptance Tests |
| FDR | Facility Design Report |
| [redacted] | [redacted] |
| FEMA | Federal Emergency Management Agency |
| FIR | Fabrication and Installation Report |
| [redacted] | [redacted] |
| ft | feet/foot |
| [redacted] | [redacted] |
| F-TWG | New York Fisheries Technical Working Group |
| [redacted] | [redacted] |
| GLD | geographic location description |
| GPS | Global Positioning System |
| GW | gigawatt |
| HCA | Host Community Agreement |
| HMI | Human Machine Interface |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| HV | high voltage |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| IHA | Incidental Harassment Authorization |

| | |
|---|---|
| IPO | initial public offering |
| km | kilometer |
| kV | kilovolt |
| [redacted] | [redacted] |
| kWh | kilowatt-hour |
| [redacted] | [redacted] |
| LFIP | large facility interconnection procedure |
| LiDAR | light detection and ranging |
| [redacted] | [redacted] |
| LIRC | Long Island Cable Replacement |
| LOA | Letter of Authorization |
| [redacted] | [redacted] |
| m | meter |
| m/s | meter per second |
| MA CZM | Massachusetts Office of Coastal Zone Management |
| MA | Massachusetts |
| MADMF | Massachusetts Department of Marine Fisheries |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| MW | megawatt |
| [redacted] | [redacted] |
| NEPA | National Environmental Policy Act |
| nm | nautical mile |
| NOAA Fisheries | National Marine Fisheries Service |
| NOAA | National Oceanic and Atmospheric Administration |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| NY | New York |
| NYCA | New York Control Area |
| NYCRR | New York Codes, Rules and Regulations |
| NYISO | New York Independent System Operator |
| NYPA | New York Power Authority |

| | |
|---|---|
| NYSDEC | New York State Department of Environmental Conservation |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| NYSERDA | New York State Energy Research and Development Authority |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| NYSPSC | New York State Public Service Commission |
| O&M | operations and maintenance |
| OCS | Outer Continental Shelf |
| ODF | Offer Data Form |
| OEM | original equipment manufacturer |
| [redacted] | [redacted] |
| OREC | Offshore Wind Renewable Energy Certificate |
| Orsted NA | Orsted North America Inc., an Owner of Proposer |
| Ørsted | Ørsted A/S, the corporate parent of Orsted NA |
| Owners | Orsted NA and ESI, the 50/50 owners of Proposer |
| PATON | Private Aids to Navigation |
| PIIP | Port Infrastructure Investment Plan |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| PPA | power purchase agreement |
| [redacted] | [redacted] |
| Project | Sunrise Wind 2 Project |
| Proposer | Bay State Wind LLC (d/b/a Sunrise Wind) |
| PSEG | Public Service Enterprise Group |
| PSLF | power systems load flow |
| [redacted] | [redacted] |
| RFP | Request for Proposal |
| RI | Rhode Island |
| RICRMC | Rhode Island Coastal Resources Management Council |
| RIDMF | Rhode Island Department of Marine Fisheries |

| | |
|---|---|
| ROD | Record of Decision |
| RODA | Responsible Offshore Development Alliance |
| ROW | right-of-way |
| SAMP | Special Area Management Plan |
| SAP | Site Assessment Plan |
| SAT | Site Acceptance Test |
| SCADA | supervisory control and data acquisition |
| [redacted] | [redacted] |
| SEMA | Southern Massachusetts |
| SEQRA | New York State Environmental Quality Review Act |
| [redacted] | [redacted] |
| SIT | Site Integration Test |
| SOV | Service Operation Vessel |
| SPDES | State Pollutant Discharge Elimination System |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| Sunrise Wind 2 | Sunrise Wind 2 or the Project |
| [redacted] | [redacted] |
| SWPPP | Stormwater Pollution Prevention Plan |
| TJB | transition-joint bay |
| TPAS | Transmission Planning Advisory Subcommittee |
| [redacted] | [redacted] |
| U.K. | United Kingdom |
| U.S. | United States |
| UCAP | Unforced Capacity |
| USACE | U.S. Army Corps of Engineers |
| USCG | U.S. Coast Guard |
| USFWS | United States Fish and Wildlife Service |
| [redacted] | [redacted] |
| WEA | Wind Energy Area |
| WTG | wind turbine generator |
| XLPE | cross-linked polyethylene |

# CONFIDENTIALITY AND ENABLING STATEMENTS

Portions of this Proposal contain confidential, proprietary, and/or commercially sensitive information (collectively, "Confidential Information") that constitute trade secrets or are submitted to NYSERDA by Bay State Wind LLC (d/b/a Sunrise Wind) ("Proposer") as a commercial enterprise or derived from information obtained from such commercial enterprise and which if disclosed would cause substantial injury to the competitive position of such enterprise. The Proposer has separately attached a Request for Exception from Disclosure letter accompanying the Confidential Information. In support of Proposer's claims of confidential, proprietary and trade secret information, the Proposer submits that the Confidential Information:

- consists of confidential, proprietary, and/or commercially sensitive records, forecasts of future energy production, costs, prices, processes, plans, studies, surveys, analyses, engineering, designs, critical infrastructure information, work product, cost allocation strategies and financial projections developed at considerable time and expense in order to compete with other developers;
- is not available in the public and cannot be easily obtained or developed from public information;
- contains confidential or proprietary information that is not published or divulged, disclosure of which would cause the Proposer substantial injury to its competitive position as a commercial enterprise; and
- would be of material economic value to competitors, including, without limitation, other proposers responding to this and future requests for proposals, and would provide them with an unfair advantage in their bidding and negotiating strategies.

The Confidential Information has been preserved pursuant to confidentiality agreements and has been shared only with those individuals whose roles in the preparation of this Proposal required them to have access to it. Specifically, Confidential Information contained in the Port Infrastructure Investment Plans submitted on behalf of port developers as part of this Proposal has been provided to the Proposer under confidentiality agreements.

The Confidential Information is exempt from disclosure under the Public Officers Law, including, without limitation, pursuant to Section 87(2)(d) of the Public Officers Law, which provides for exceptions to disclosure for such records or portions thereof and pursuant to 21 New York Codes, Rules and Regulations (NYCRR) 501.6 of NYSERDA's regulations. Accordingly, the Confidential Information has been redacted from the "Public Version" of this Proposal in accordance with RFP Section 6.2.2.2.

In accordance with RFP Sections 6.2.2.1 and 8.1, the Proposer has submitted a Confidential Version of this Proposal that has been labeled "Confidential" or "Proprietary" on each page and identifies Confidential Information through shading in the narrative portion of this Proposal. The Confidential Version of this Proposal should be treated as a non-public record that is exempt from disclosure to the maximum extent permissible under applicable laws (including, without limitation, Section 87(2)(d) of the Public Officers Law), and as expressly set forth in the Request for Exception from Disclosure pursuant to applicable law (including,

without limitation, Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501).

This Proposal includes information concerning the Proposer's expectations, beliefs, plans, objectives, goals, strategies, and assumptions of future events regarding the Project. That information constitutes "forward-looking statements" based on the current expectations, estimates, assumptions or plans of the Proposer and does not guaranty the future. These expectations, estimates, assumptions or plans may vary materially from actual results. Factors affecting the development, construction and operation of the Project are difficult to predict, many of which are beyond the Proposer's control. New factors also may emerge from time to time, and it is not possible for the Proposer to predict all of those factors, nor can the Proposer assess the impact of each factor on the Project or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

# OFFER DATA FORMS

6.3 The Master Offers Form, Offer Data Form (ODF), and Port Infrastructure Investment Plan Data Form (PIIPDF) documents are Microsoft Excel workbooks that can be downloaded from the NYSERDA Offshore Wind 2020 Solicitation website. Each Proposer must submit a single Master Offers Form. A separate ODF document is required for the Required Base Proposal, the Required Standalone Proposal, and each Alternative Proposal. Contract Tenor alternatives for Proposals with the same non-price aspects are included within a single ODF document. A separate PIIPDF is required for each Port Infrastructure Investment Plan. Instructions for completion are included in each form.

### 6.3.1 Master Offers Form

The Master Offers Form (Appendix H) has three parts, listed below, and a User Guide. If Proposer provides information within other submitted documents that conflicts with the information provided in the Master Offers Form, the ODF, Proposal Narrative, or PIIPDF shall be considered to contain the governing and binding information for both the evaluation and any resulting contract offer.

#### Part I Proposal Fee Calculation

Proposer name, Proposer ID, Offshore Wind Generation Facility, BOEM renewable energy lease number, list of Port Infrastructure Investment Plans included in the Submission, list of Proposals included in the Submission.

#### Part II Quantitative Summary of Proposals

Enter summary information about each Proposal from the Proposal Narrative (distance from shore, foundation technology, turbine model) and ODF (injection point control area, injection substation, anticipated Commercial Operation Date for the first (or only) phase, number of phases, pricing structure, offer price(s), total Economic Benefits by Category).

#### Part III Submission Map

List of all files included in Submission, including file category (*e.g.*, Offer Data Form, Proposal Narrative, Port Infrastructure Investment Plan, Economic Benefits Plan, Interconnection and Deliverability Plan, Fisheries Mitigation Plan, *etc.*), file name, and the Proposals to which each file applies. The Submission Map should offer clarity to NYSERDA of any individual files that service multiple Proposals (*e.g.*, a Fisheries Mitigation Plan that is common throughout) and/or where specific files are applicable only to certain Proposals. For Submission files that represent additional supporting information beyond the required file types, a description of each file is required.

### 6.3.2 Offer Data Form

The ODF (Appendix G) has six parts, listed below, and a User Guide. If Proposer provides information in other sections of its Proposal(s) that conflicts with the information provided in the ODF, the ODF shall be considered to contain the governing and binding information for both the evaluation and any resulting contract offer.

### Part I Identification Worksheet

Proposer name, Offshore Wind Generation Facility name, BOEM renewable energy lease number, unique Proposal name (if not the Required Base Proposal or Required Standalone Proposal), pricing structure, Offer Capacity, number of phases in which Offer Capacity will enter Commercial Operation, Injection Point control area, identification of associated Port Infrastructure Investment Plans by PIIP ID, name,, and total New York State Funding (each Proposal except the Required Standalone Proposal must include $100 million to $200 million).

### Part II Project Definition Worksheet

The expected Commercial Operation Date and capacity of each phase, the P10 Annual OREC Exceedance value, the summer and winter UCAP production factors, and Injection Point and Delivery Point descriptive information.

### Part III Expected Performance Worksheet

Table III-1. P50 Generation (before outages and land-based transmission and curtailment losses) as a fraction of installed capacity by month and hour of day.

Table III-2. Delivered energy as a fraction of P50 Generation by month and calendar year.

### Part IV Pricing Worksheet

Offer level nominal Strike Prices (if Index OREC) or Prices (if Fixed OREC) for each Contract Tenor selected. Up to two pricing offers can be submitted in each ODF, for the 25- and 20-year Contract Tenors. The ODF for the Required Base Proposal must include an offer for the 25-year Contract Tenor.

### Part V Incremental Economic Benefits

Table V-1. Incremental Economic Benefits Category 1, Project-specific Economic Benefits not associated with New York State Funding associated with Port Infrastructure Investment Plans. Data are entered by ID number, including Project phase (development, construction or operation), time period (through third year of Commercial Operation or remainder of Contract Delivery Period), first calendar year and last calendar year in which the benefit is expected to accrue, description, and the net expenditures (stated in nominal dollars), and/or short-term and long-term direct job creation (stated in both unique jobs and FTE-years) in New York State.

Table V-2. Incremental Economic Benefits Category 2, Project-specific Economic Benefits associated with New York State Funding of Port Infrastructure Investment Plans. Data are entered by ID number, including Project phase (development, construction or operation), time period (through third year of Commercial Operation or remainder of Contract Delivery Period), first calendar year and last calendar year in which the benefit is expected to accrue, description, and the net expenditures (stated in nominal dollars), and/or short-term and long-term direct job creation (stated in both unique jobs and FTE-years) in New York State. The entries in Table V-2 must be consistent with the entries in Table II-1P for the PIIPDFs that are applicable to the Proposal that the ODF represents.

Table V-3. Incremental Economic Benefits Category 3, Industry Growth Activities. Data are entered by ID number, including time period (through third year of Commercial Operation or remainder of Contract Delivery Period), first calendar and last calendar year in which the

benefit is expected to accrue, description, Proposer's planned measurement metric and quantity of the input activity.

**Part VI Summary of Annual Economic Benefits**

Economic Benefits entries from Category 1 (Table V-1) and Category 2 (Table V-2) re-stated on an annual total basis based on the years in which the benefits are expected to accrue.

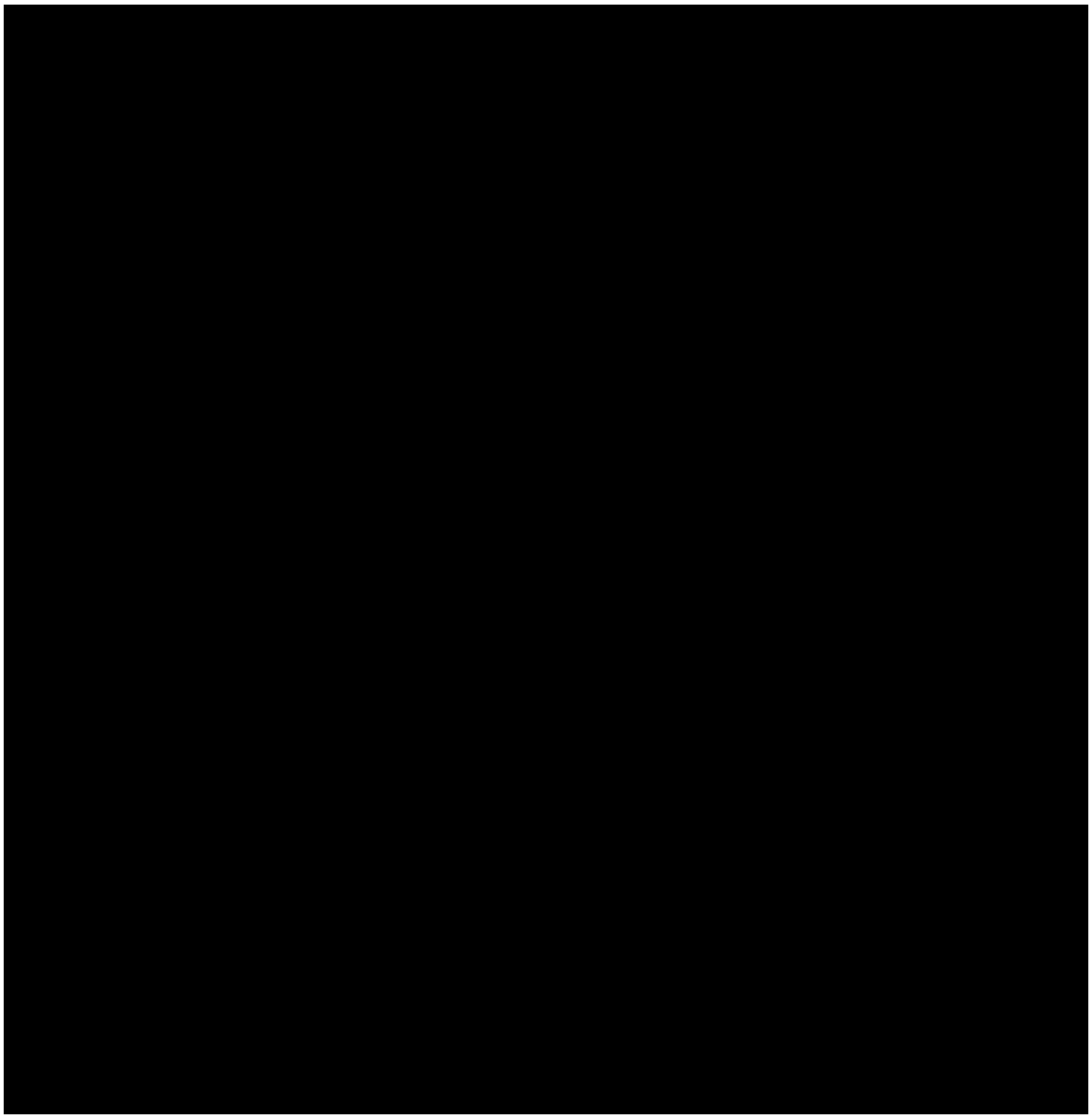
### 6.3.3 Port Infrastructure Investment Plan Data Form

Each Port Infrastructure Investment Plan must be accompanied by at least one PIIPDF (Appendix I). The PIIPDF has seven parts, listed below, and a User Guide. If the Proposer provides information in the narrative Port Infrastructure Investment Plan that conflicts with the information provided in the PIIPDF, the PIIPDF shall be considered to contain the governing and binding information for both the evaluation and any resulting contract offer. In the case of conflicting information between the ODF and PIIPDF, the ODF shall govern.

# 1 EXECUTIVE SUMMARY OF THE PROPOSAL

6.4.1 Proposers are required to provide an executive summary that documents the eligibility of the proposed Offshore Wind Generation Facility, and the array of Proposals included in the Submission, including the proposed Contract Tenor(s), the overall Project schedule(s) including expected Commercial Operation Date(s), and other factors Proposers deem to be important.

## 1.1 Introduction to the Proposal



### 1.1.1 Sunrise Wind 2 At a Glance

Sunrise Wind 2 (the Project) is the latest offshore wind offering of Bay State Wind LLC (d/b/a Sunrise Wind) (the Proposer). We are a 50/50 joint venture between Ørsted, the global

leader in offshore wind, and Eversource, New England's largest and premier energy delivery company. [redacted]

[redacted]

### 1.1.2 How Sunrise Wind 2 Will Benefit New York

**Regardless of which Proposal NYSERDA selects, Sunrise Wind 2 will solidify New York's position as the leader of the U.S. offshore wind industry.** [redacted]

[redacted]

## 1.2 A Trusted Partner for NYSERDA

**Experience matters**. Local knowledge and relationships are key to a successful project. Sunrise Wind 2 will benefit from the hands-on and directly relevant experience gained by the team assembled for Sunrise Wind 1 and South Fork Wind. It will build on their irreplaceable and vast local knowledge gained over the last several years developing the offshore wind projects in New York and its communities, closely working with both local and regional stakeholders, understanding their concerns and priorities, and finally developing actionable solutions to address them. In addition to rich and deep local knowledge, the Sunrise Wind 2 team also brings unmatched technical and operational experience building offshore wind globally and executing large regional electric transmission projects. Our continued collaboration with Consolidated Edison further bolsters the successful development of our projects.

[redacted]

We will deliver a world class offshore wind facility because:

- [redacted]
- [redacted]

[redacted]

- ✓ We take our social responsibility seriously. Ørsted and Eversource are recognized leaders in the green energy industry and addressing climate change. We also strongly support the CLCPA. [redacted]
- ✓ We have experience working with ports globally. We have also developed unmatched local experience and knowledge developing New London Harbor with the Connecticut Port Authority. We know what is physically required to upgrade ports to serve the offshore wind industry. We also know the economics of offshore wind ports, [redacted]

### 1.2.1 Unmatched Offshore Wind and Large Infrastructure Capabilities

We have assembled a team with unmatched experience building offshore wind and other infrastructure projects locally and globally.

- Ørsted is the global leader in offshore wind, responsible for nearly 30 percent of all offshore wind installed capacity today. Ørsted has the deepest bench of technical offshore wind experts in the industry, with over 2,600 dedicated employees across its U.S., Denmark, U.K., Netherlands, Germany, and Taiwan offices—all devoted to ensuring the economic, technical, and environmental viability of its offshore wind projects. Ørsted's record of developing offshore wind projects on-time and on-budget is unmatched in the industry, as is its operation and maintenance organization. Ørsted embodies the complete offshore wind package – from development and engineering through procurement and construction to operation and maintenance.
- Eversource brings industry-leading experience in constructing and maintaining large energy infrastructure projects. In particular, Eversource is highly experienced in transmission and distribution projects like high-voltage and extra high-voltage overhead, underground, submarine, and hybrid transmission lines, and associated terminal equipment. Eversource has a proven track record of interconnecting generation resources reliably and cost-effectively, sustaining the integrity of the transmission system while also alleviating costs for customers.

[redacted]

### 1.2.2 Strong Financial Capabilities

Ørsted and Eversource are both able to take advantage of their substantial balance sheets (with a combined market capitalization of approximately $99 billion and combined operating cash flows of currently $4 billion annually) with strong investment-grade credit ratings to fully fund projects such as Sunrise Wind 2.

[redacted]

[redacted] no company is better positioned to partner with Sunrise Wind 2 than Con Edison Transmission. Con Edison Transmission and its affiliates operate one of the world's largest, most complex and most reliable energy delivery systems, serving 10 million people in downstate New York. [redacted]

[redacted]

[redacted]

### 1.2.5 Extensive Stakeholder Engagement

Our team's approach to stakeholder engagement is best described as "early and often." We believe that building strong relationships within the communities of our projects is key to their success. That's why we are already here on the ground, with offices in New York City, East Hampton, [redacted]. Our team has been connecting with and seeking feedback from stakeholders on Long Island for years. To help guide the way, we have employed experienced local residents since 2017 and continue to expand our local team deepening our reach and accessibility to the community.

Our Proposal was shaped and crafted in response to what we learned after hours of meetings and outreach over the last several months. The feedback we received strengthened this Proposal and reinforced what we know to be true - stakeholder outreach and support is essential to project success.

#### Support Earned from the Community

Our outreach and engagement plan employs the same comprehensive approach as Sunrise Wind 1 and South Fork Wind and builds on a broad base of understanding and accompanying stakeholder support. Our local experience provides valuable insight and feedback to inform the Project design and permitting strategy. For Sunrise Wind 2, despite the challenges of the current COVID-19 pandemic, our team performed significant outreach and earned the support of numerous key individuals and groups, including:

[redacted]

[redacted]

**Limited Conflict and Long-Term Engagement with Fisheries**

Our team has demonstrated its ability to successfully engage with the fishing community. We are active members of the New York State Fisheries Technical Working Group (F-TWG). Through a collaborative process with multiple stakeholders, we have developed and refined the fisheries mitigation plan for Sunrise Wind 1. [redacted]

[redacted]

### Lower Risk due to Extensive Outreach

As demonstrated by our efforts for Sunrise Wind 1 and South Fork Wind in New York, Ørsted and Eversource are highly experienced at conducting outreach in host communities. In addition, Sunrise Wind 2 will benefit from the experience and relationships gained from current New York permitting activities for both projects, as well as the regional and federal permitting activities for those two projects and Revolution Wind, [redacted] In addition to the regulatory authorities, we have well-established relationships with key regional stakeholders, and our continuous engagements with those groups and individuals has informed key aspects of this Proposal [redacted]

### Successful Outcomes Already Achieved from Stakeholder Engagement

We are already living up to our South Fork Wind and Sunrise Wind 1 commitments for the state of New York. A few recent highlights from each project are provided below as a testament to our ability to deliver on our promises.

[redacted]

[redacted]

## 1.3 We will Establish an Enduring Offshore Wind Supply Chain in New York

Sunrise Wind 2 will help achieve Governor Cuomo's goal of an enduring offshore wind supply chain in New York by establishing new, high-paying jobs both in the short-term and permanently for decades to come.

[redacted]

### 1.3.1 Sunrise Wind 2 Port Partnerships and Project Offerings

We have worked closely with port developers to structure the PIIPs to ensure the long-term viability of port infrastructure investments. This was accomplished by leveraging (1) Ørsted's experience with developing offshore wind ports throughout the world; and [redacted]

We have partnered with [redacted] eligible New York ports and developed a portfolio of PIIPs that collectively request [redacted] in New York State funding. [redacted].

[redacted]

[redacted]

[redacted]

## 1.4 Project Definition and Technical Details

### 1.4.1 Proposed Design

[redacted]

### 1.4.5 Embodied Carbon Tracking and Minimization

The Sunrise Wind 2 team belongs to two companies who are recognized leaders in the energy industry for their climate change mitigation strategies. Already ranked as the most sustainable company in the world in the Corporate Knights 2020 Global 100 index of most sustainable corporations, Ørsted has made a commitment to going 100 percent renewable. In February of 2020, Ørsted also launched a new program to become carbon neutral by 2040, and to be halfway towards its goal in 2032. Similarly, Eversource is committed to carbon neutrality by 2030.

We appreciate that, while our Project will likely displace high-carbon emitting power sources on New York's grid, the Project itself is not emissions-free. As a team, we have worked to minimize those impacts by:

[redacted]

## 1.5 New York's Best Option for the Second Offshore Wind RFP

Sunrise Wind 2 builds on the commitment of the Ørsted-Eversource joint venture to reliably deliver to the State of New York, the economic, societal and environmental benefits of offshore wind. Specifically, for Sunrise Wind 2:

[redacted]

- a Project team that has demonstrated a cultural dedication to co-existing with the fishing industry;
- unmatched offshore wind experience and capabilities, including a portfolio of the first wind farms in the U.S. and New York State;

- A private-sector partner in Ørsted-Eversource, who has decades of experience in the [redacted] (including as the only offshore wind developer in the U.S. to be currently constructing an offshore wind marshalling facility);
- Ørsted's substantial expertise as a global leader in offshore wind development and Eversource's extensive experience over many decades in designing, building and operating transmission facilities; and
- a collaboration with Con Edison Transmission, one of New York's premier transmission operators.

[redacted]

### 1.5.1 Quantifiable Benefits and Pricing

Sunrise Wind 2 offers New York a unique chance to significantly expand the new and sustainable homegrown renewable energy economy through a package that includes [redacted]

[redacted]

[redacted]

# 2 IMPACTS OF COVID-19

6.4.2 Proposers are required to describe how the COVID-19 pandemic has affected their business operations, the process of developing the Project, and the content of the Submission. For the avoidance of doubt, the content of this section of the Proposal Narrative is informational only and will not affect the Project Viability scoring of any of the submitted Proposals.

Like most businesses, the Proposer's organization has been affected by the global COVID-19 pandemic. That organization also has dedicated the resources necessary to successfully develop and construct the Project. The Proposer's organization has worked hard to mitigate the impacts to the communities it serves and to keep the lights on. The priorities of Sunrise Wind remain the health and wellbeing of the communities it engages, its employees, its partners, and its suppliers.

As a joint venture, the organization has a history of functioning in the remote work environment, with key members located on the ground in New York, in numerous countries, and within different U.S. states, across multiple time zones. While the COVID-19 pandemic limited (and practically eliminated in the U.S.) face-to-face meetings of local employees, the Proposer's organization quickly pivoted to leverage its existing virtual environment. As a result, internal business operations have adapted to restrictions and maximized technology to continue operations and, in some instances, gain efficiencies (primarily through the avoidance of travel time).

[redacted]

## 2.1 Impacts of the Pandemic on Ørsted

**Global impacts**

Despite the continued COVID-19-related challenges facing the global population, Ørsted had a solid second quarter in 2020, well in line with the company's expectations. Ørsted's operating portfolio remained fully operational, and its construction projects across Europe, Asia Pacific, and the U.S. have largely progressed according to plans. In general, the performance of the first half of 2020 supports Ørsted's full-year EBITDA guidance of DKK 16 million to DKK 17 million.

[redacted]

## 2.2 Impacts of the Pandemic on Eversource

As an organization, Eversource is structured to meet challenges. While the COVID-19 pandemic has presented a unique set of circumstances compared to weather-related events and planning for cyber and terrorist activities, Eversource leveraged its organization's backbone to fulfill its mission as an essential service provider of electric, natural gas, and water to its approximately 4 million customers in the Northeast U.S. That has included responses to significant storm events over the summer. The Eversource organization will continue to adapt and evolve with the developments in managing the COVID-19 pandemic.

## 2.3 Mitigating Impacts of the Pandemic

[redacted]

Despite work-from-home restrictions, the development of the Project progressed as originally planned. Though the pandemic did not have any tangible impact on the bid writing and development processes[redacted]

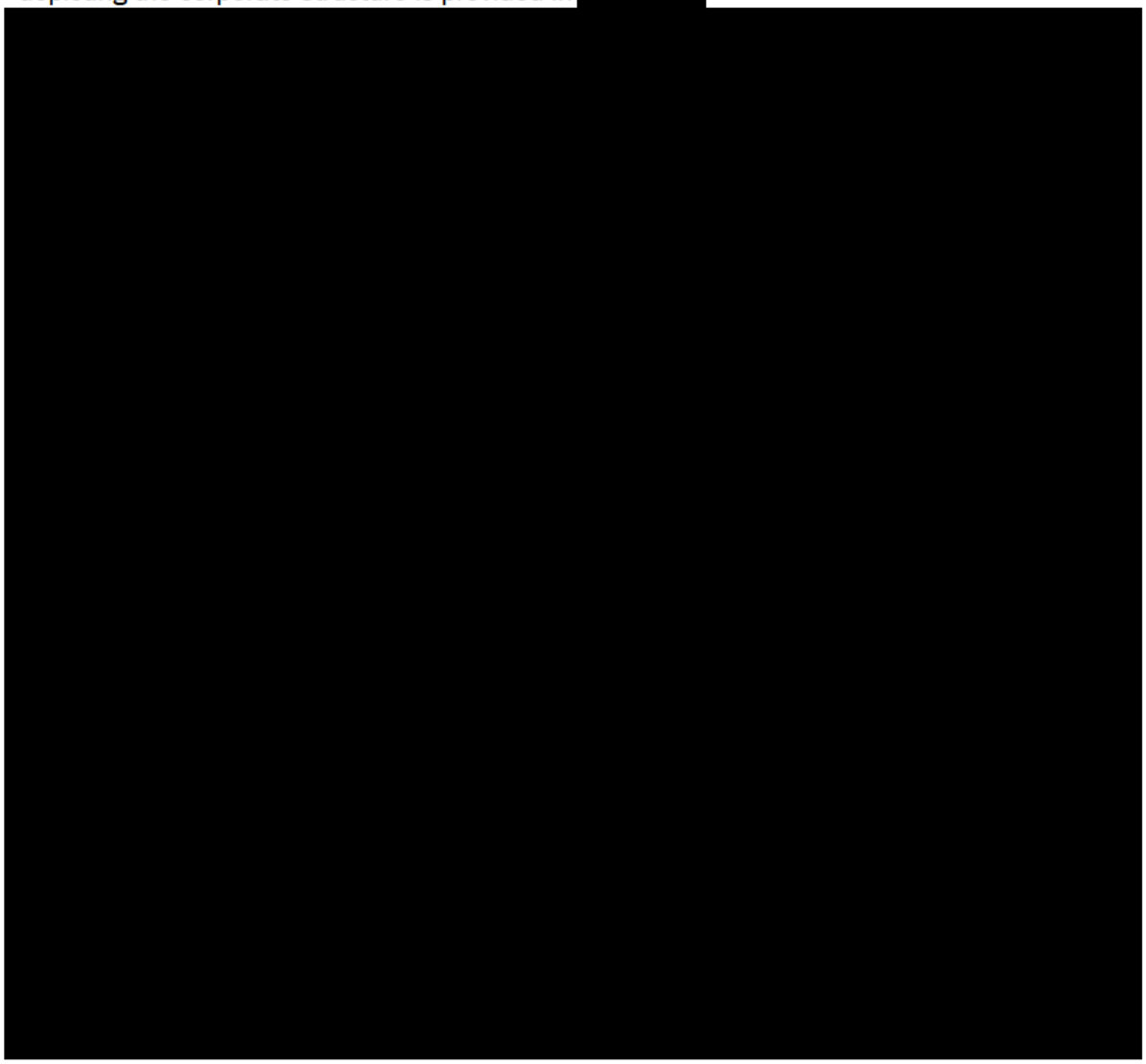
# 3 PROPOSER EXPERIENCE

6.4.3 Proposers are required to demonstrate project experience and management capability to successfully develop and operate the Project proposed. NYSERDA is interested in Project Teams that have demonstrated success in developing generating facilities of similar size and complexity and can demonstrate an ability to work together effectively to bring the Project to commercial operation in a timely fashion. Proposers are required to provide the following information with their Proposal:

## 3.1 Project Organizational Chart

1. An organizational chart for the Project that lists the Project participants and identifies the corporate structure, including general and limited partners.

In 2016, Orsted NA and Eversource Investment LLC (ESI) (the Owners) formed the Proposer, with each controlling 50 percent of the Proposer and affiliated entities. An organization chart depicting the corporate structure is provided in [redacted]



## 3.2 Proposer and Project Participant Experience

2. Statements that list the specific experience of Proposers and each of the Project participants (including, when applicable, Proposers, partners, and proposed contractors), in developing, financing, owning, and operating generating and transmission facilities, other projects of similar type, size and technology, and any evidence that the Project participants have worked jointly on other projects.

### 3.2.1 Bay State Wind LLC

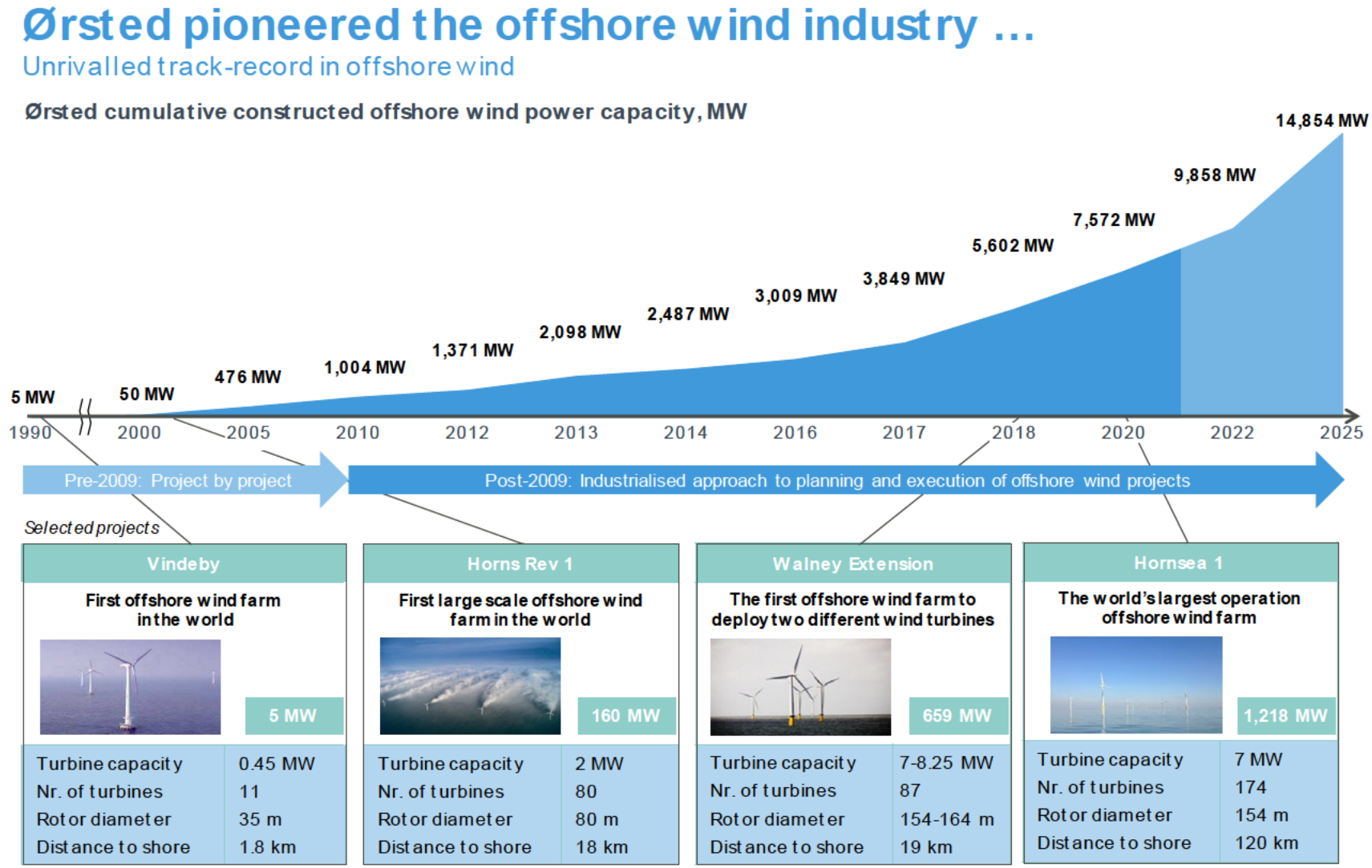
As a 50/50 joint venture between Orsted NA and ESI, the Proposer will benefit from the extensive experience that these organizations have gained over the past two decades in developing, constructing, and operating large energy projects. The Proposer provides additional details on similar projects in Section 3.4.

### 3.2.2 Ørsted

#### The Industry Leader

Ørsted ranks #1 in Corporate Knights' 2020 index of the Global 100 most sustainable corporations in the world and is recognized on the CDP Climate Change A List as a global leader on climate action. Ørsted is the global industry leader in offshore wind and therefore has significant experience with the rigors and challenges of the offshore wind business. Over the past 25 years, Ørsted has constructed 6.8 GW of offshore wind capacity (see Figure 3.2), which is just under 30 percent of globally installed offshore wind capacity. Ørsted's existing activities span a number of markets that include the U.S., Denmark, the United Kingdom, Germany, the Netherlands, and Taiwan. As a result, Ørsted is well practiced in adapting to, and thriving within, new regulatory, permitting, and political landscapes. It is the current Ørsted leadership team that, within the short span of the past three to four years, has driven dramatic cost reductions and paved the way for exponential market growth.

**Figure 3.2 Total Constructed Capacity by Ørsted (MW)**



### U.S. Experience

In 2018, Ørsted acquired Deepwater Wind, the company that built the nation's first offshore wind farm off Block Island, Rhode Island. The Deepwater Wind team gained invaluable experience working with regulators, stakeholders, vendors, and U.S. construction contractors through the development and execution of the Block Island Wind Farm – experience and insights that are now a part of Ørsted. Together, this expanded team is leading a stakeholder-centric approach to development that has made it the go-to partner for states up and down the Eastern Seaboard as they seek to develop offshore wind resources.

Ørsted is developing several projects with Eversource, totaling 1,700 MW, detailed below in Section 3.2.4. Ørsted is also actively developing Ocean Wind, a 1,100-MW installation that received an award to deliver power to New Jersey, and the Skipjack Wind Farm, a 120-MW installation that will deliver power to Maryland. Additionally, Ørsted has nearly completed its work supporting the engineering, procurement, and construction (EPC) for Coastal Virginia Offshore Wind, a pilot project of Dominion Energy that will deliver power to Virginia. These projects, as well as the projects co-developed by the Ørsted-Eversource joint venture, are described in greater detail in Attachment 3-1.

### Exceptional Capabilities

All of Ørsted's experience in development, construction, operation, and decommissioning of offshore wind energy is relevant to the Project. Specific examples of Ørsted's expertise in development and operations of offshore wind energy projects include:

- Successfully developed the first commercial-scale offshore wind farm in the world (Horns Rev I, 2003);
- Designed and constructed the largest wind farm in operation today (Hornsea 1, 2020);
- Successfully operates the first offshore wind farm in the U.S. (Block Island Wind Farm, 2016) and currently developing/constructing the first offshore wind projects for New York, Rhode Island, Connecticut, New Jersey, Maryland, and Virginia;
- Participating in over 20 competitive offshore wind tenders, and unparalleled track record in executing on project development post-award;
- Competitively awarded a power purchase agreement (PPA) for what will be the largest wind farms in the world once constructed (Hornsea 1 and 2's combined 2,600 MW);
- First-ever win with a zero-subsidy bid (Germany 2017);
- Permitting of complex projects across three continents with input and consent required from numerous stakeholders including regulatory agencies, non-governmental organizations, and the fishing industry;
- Design and planning of high-voltage transmission solutions capable of delivering power from offshore wind projects to the identified onshore grid connection point, from as far away as 50 miles (80 kilometers [km]) (Walney Extension, Race Bank, and Hornsea 1);

- Construction of offshore wind farms in challenging marine environments, including far-from-shore projects, high wave heights, high wind speeds, and rough sea conditions;
- Planning and execution of O&M strategy for offshore wind farms; and
- First-ever decommissioning of an offshore wind project, (Vindeby Offshore Wind Farm near Lolland, Denmark in March 2017)[5].

Ørsted has the knowledge and experience with every phase of offshore wind development to design and implement solutions that are appropriate and proven. To demonstrate Ørsted's breadth and depth of industry knowledge, a partial list of projects is provided in Section 3.4. Key personnel are included in Section 3.3. Additionally, Ørsted's unparalleled experience in securing financing, and operating and maintaining offshore wind projects, is demonstrated in Section 7.

### 3.2.3 Eversource

**Over the past 3 years alone, Eversource has planned, designed, permitted, and constructed $6 billion of energy infrastructure projects in the northeast.**

Eversource is an industry leader in constructing and maintaining large transmission and distribution projects including high-voltage and extra high-voltage overhead, underground, submarine, and hybrid transmission lines, and associated terminal equipment. Throughout New England and New York, Eversource has successfully completed hundreds of capital projects over the past decade with a proven track record in:

- Successful single-state and multi-state project siting and permitting;
- Working closely with other companies to develop major projects; and
- Safely and efficiently constructing transmission and distribution projects.

As described in Section 6, Eversource, a Fortune 500 energy company, has significant financial resources and invests substantially in transmission facilities. Eversource financed those investments with its strong cash flows and ready access to the capital markets.

Eversource has successfully completed hundreds of traditional and major capital projects over the past decade. Eversource's innovative solutions to technical and environmental challenges include:

- The first and most extensive 345-kilovolt (kV) applications of solid core cross-linked polyethylene (XLPE) underground cables in the U.S.;
- Laying marine cable in Long Island Sound from a purpose-built ship; and
- Constructing overhead transmission support structures from the air, using helicopters.

Eversource is one of only four North American energy companies recognized as an Environmental, Social, and Governance leader. Eversource brings to bear its deep commitment to supporting the Northeast's renewable energy goals, and will leverage its

[5] Hyperlink to YouTube video: https://www.youtube.com/watch?v=QEJHB8V4hEE.

considerable experience in interconnecting renewable generation resources, such as wind power, into the electrical system. Eversource has a proven track record of interconnecting generation resources reliably and cost-effectively, sustaining the integrity of the transmission system while also alleviating costs for customers. Finally, Eversource is recognized as a leader in providing top-tier reliability, with the utmost focus on safety.

For the purposes of developing the Project, Eversource has replicated its successful formula by assembling a core team of seasoned professionals who have been involved in the development and construction of numerous large transmission facilities, supplemented by internal and external resources that provide the expertise to support project execution. A partial list of projects is provided in Section 3.4 to further illustrate Eversource's experience. Section 3.3 provides additional detail on key personnel dedicated to this Project.

### 3.2.4 Bay State Wind LLC

Ørsted and Eversource have been close partners, successfully working together since 2016 when Ørsted and Eversource created the joint venture. [redacted]

In July 2013, Ørsted, then Deepwater Wind, won the Department of the Interior's first competitive lease sale for offshore wind energy areas to acquire BOEM Leases OCS-A 0486 and OCS-A 0487, an area known as the Rhode Island-Massachusetts Wind Energy Area (WEA). In 2015, Ørsted acquired BOEM Lease OCS-A 0500 immediately adjacent to the Rhode Island- Massachusetts WEA. Following the Bay State Wind LLC formation, the joint venture has been actively developing these sites and has completed major offshore surveys to support engineering permit applications.

As a result of Bay State Wind LLC's efforts, the joint venture has won several contracts and will construct over 1,700 MW of offshore wind generation. The first of these projects will be New York's first offshore wind farm: South Fork Wind, a 132-MW offshore wind farm designed specifically to serve Long Island's constrained South Fork. The joint venture is also developing the 880 MW Sunrise Wind 1 project, currently New York's largest offshore wind project. Additionally, the Revolution Wind project is a 704-MW installation that will deliver 400 MW to Rhode Island and 304 MW to Connecticut.

The joint venture is constructed such that Ørsted will lead and design the efforts for building the offshore components of the facilities. Likewise, Eversource will lead and design the onshore components. This synergistic approach is a natural fit that has created an entity with deep expertise and experience, making Bay State Wind LLC the leading offshore wind developer in the nation.

## 3.3 Key Staff Experience

3. A management chart that lists the key personnel dedicated to this Project and resumes of the key personnel. Key personnel of Proposer's development team having substantial project management responsibilities must have:

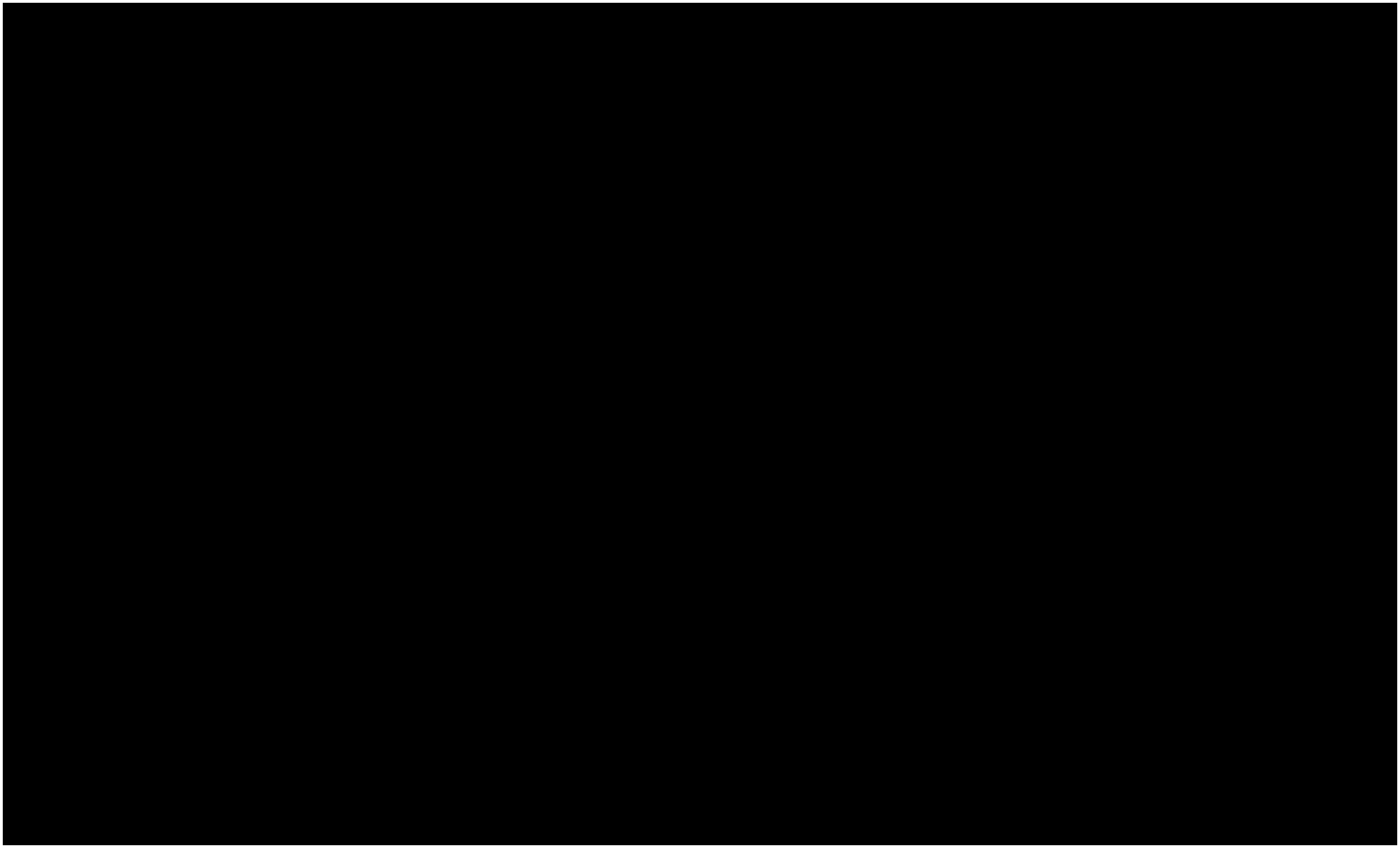
a. Successfully developed and/or operated one or more projects of similar size or complexity or requiring similar skill sets; and

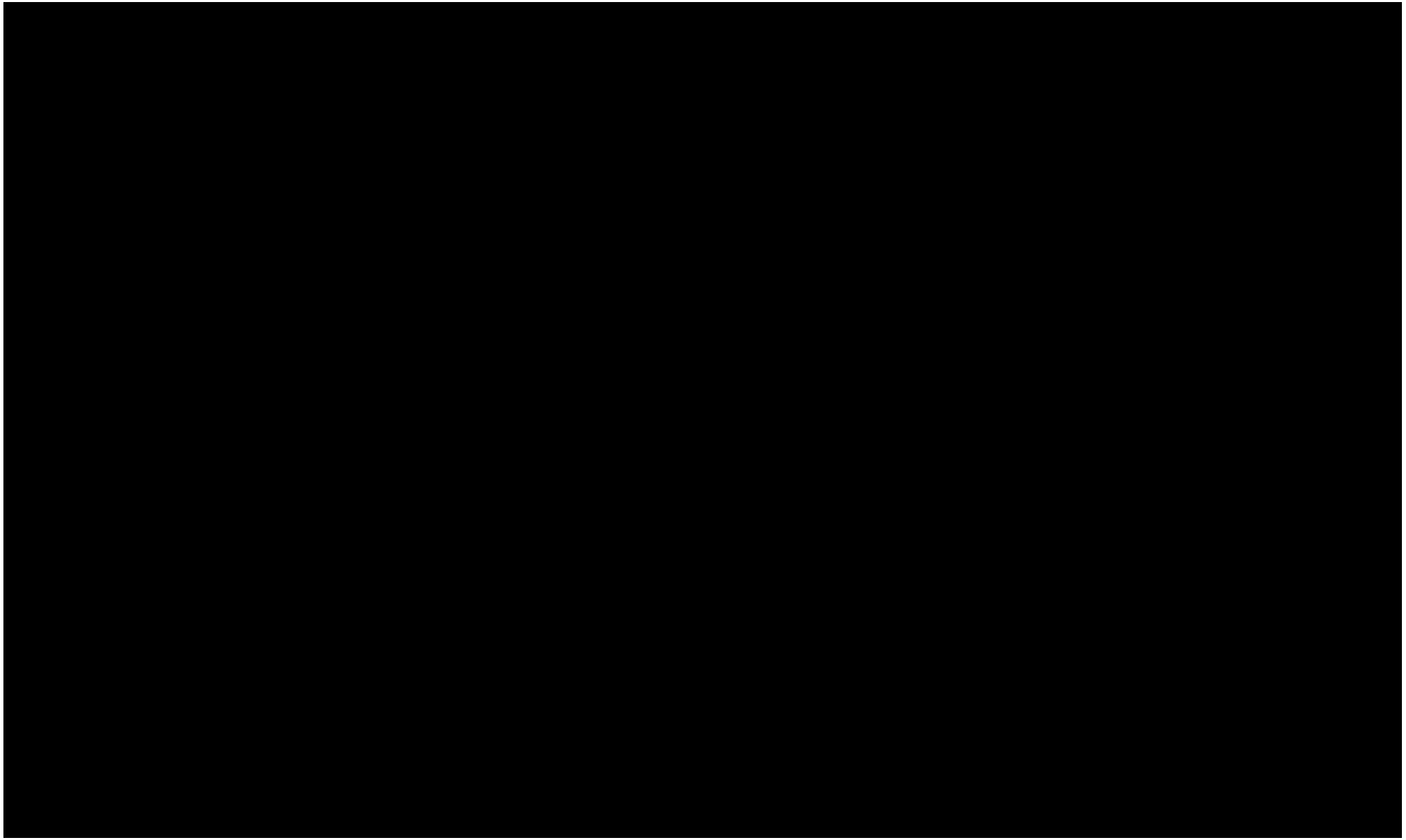
b. Experience in financing power generation projects (or have the financial means to finance the project on Proposer's balance sheet).

Ørsted has approximately 2,300 Wind Power employees dedicated to the development, construction, and operation of large-scale offshore wind projects across the globe, including approximately 80 employees located in the U.S. Eversource has more than 8,000 employees dedicated to the development, construction, and operation of large-scale transmission and distribution projects across the northeast.

The Project management structure and development organization is provided in [redacted] Once construction of the Project commences, some roles will be exchanged with people specialized in project execution. The project development director is replaced by a program director from the Ørsted EPC Division; the technical project manager is replaced by an EPC director; and similarly for other roles.

The robust experience of the Proposer's supporting organization in securing financing is demonstrated in Section 7.4.



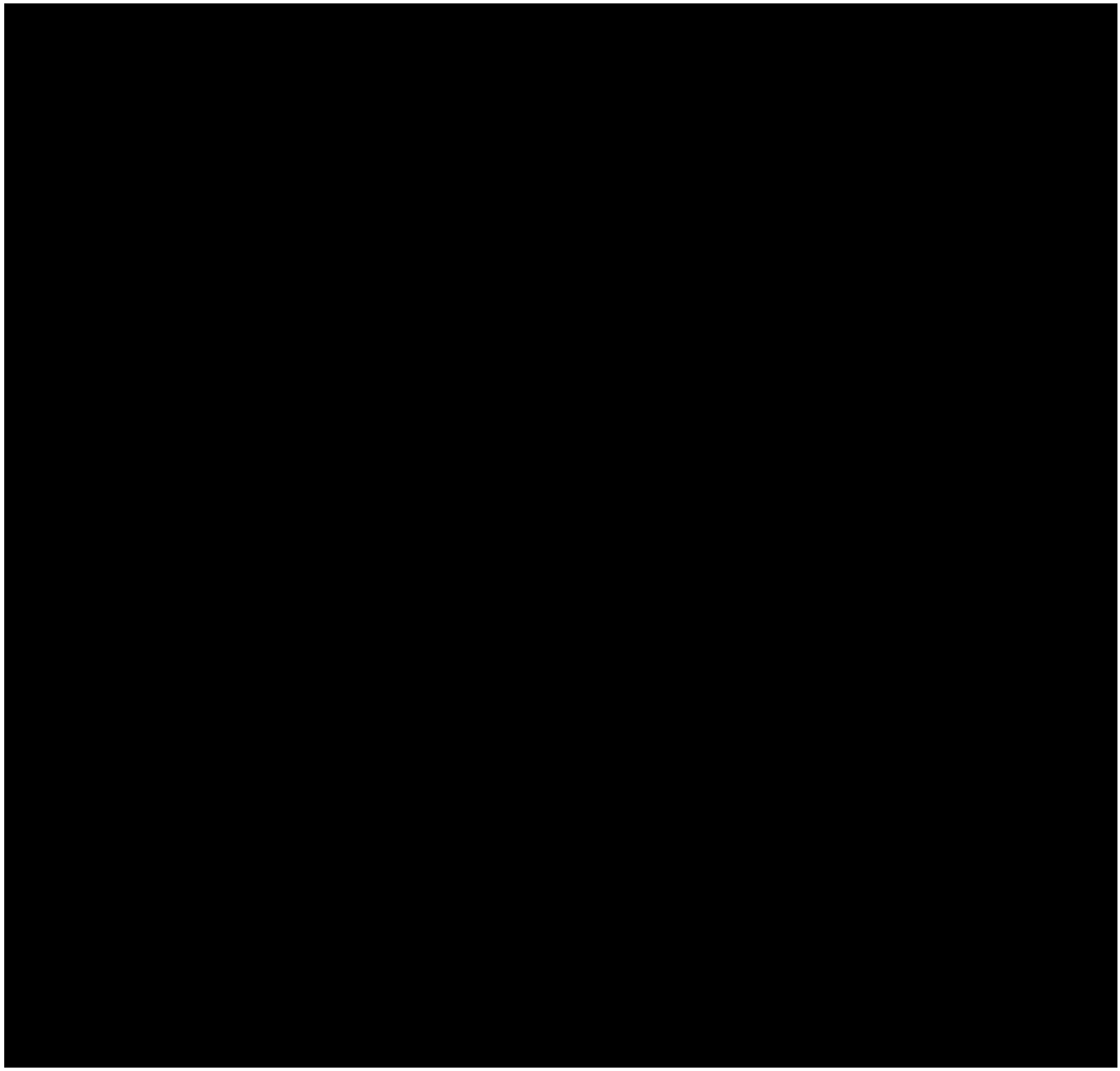


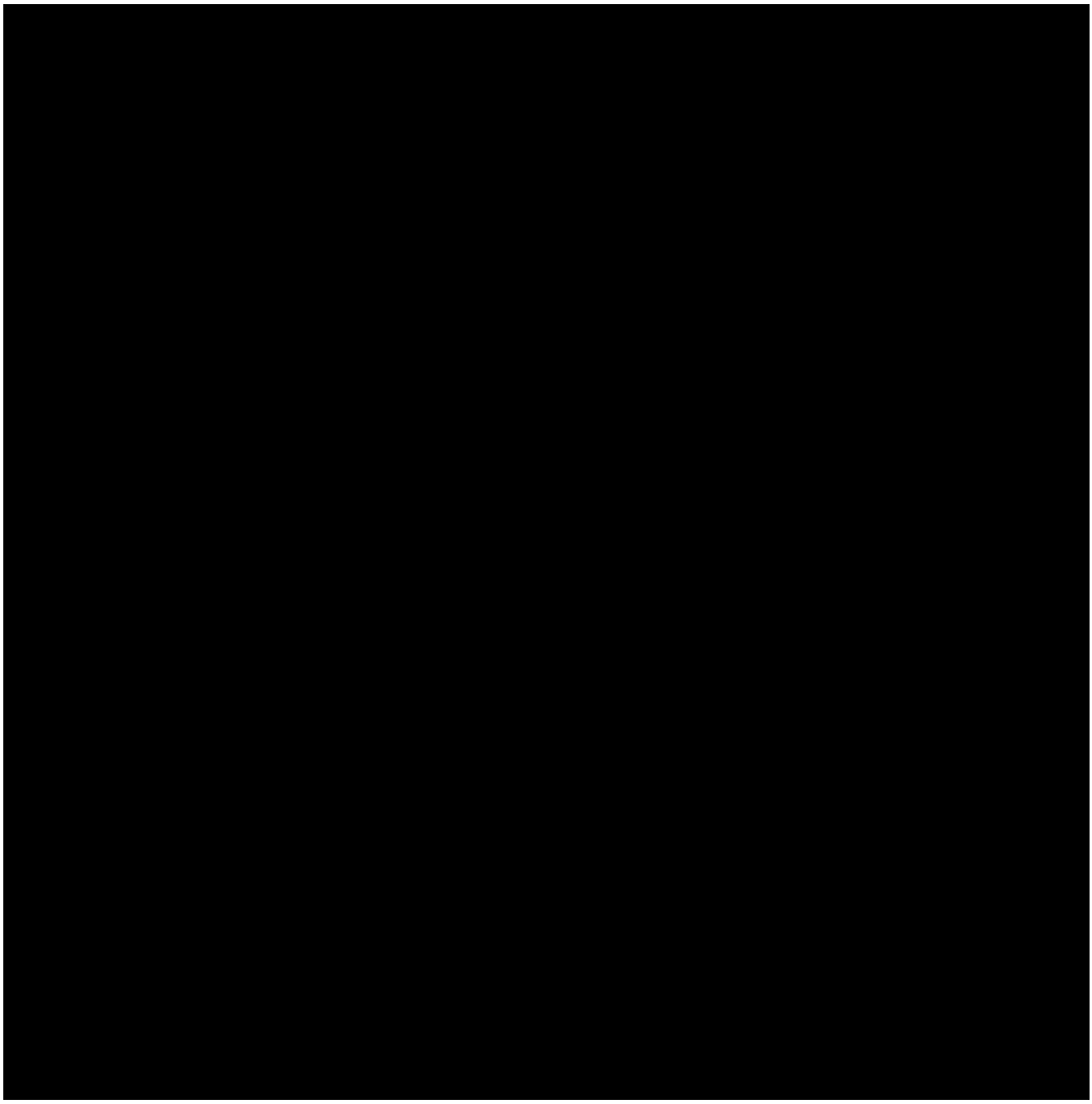
### 3.3.1 Key Personnel Directly Involved in the Management of the Project

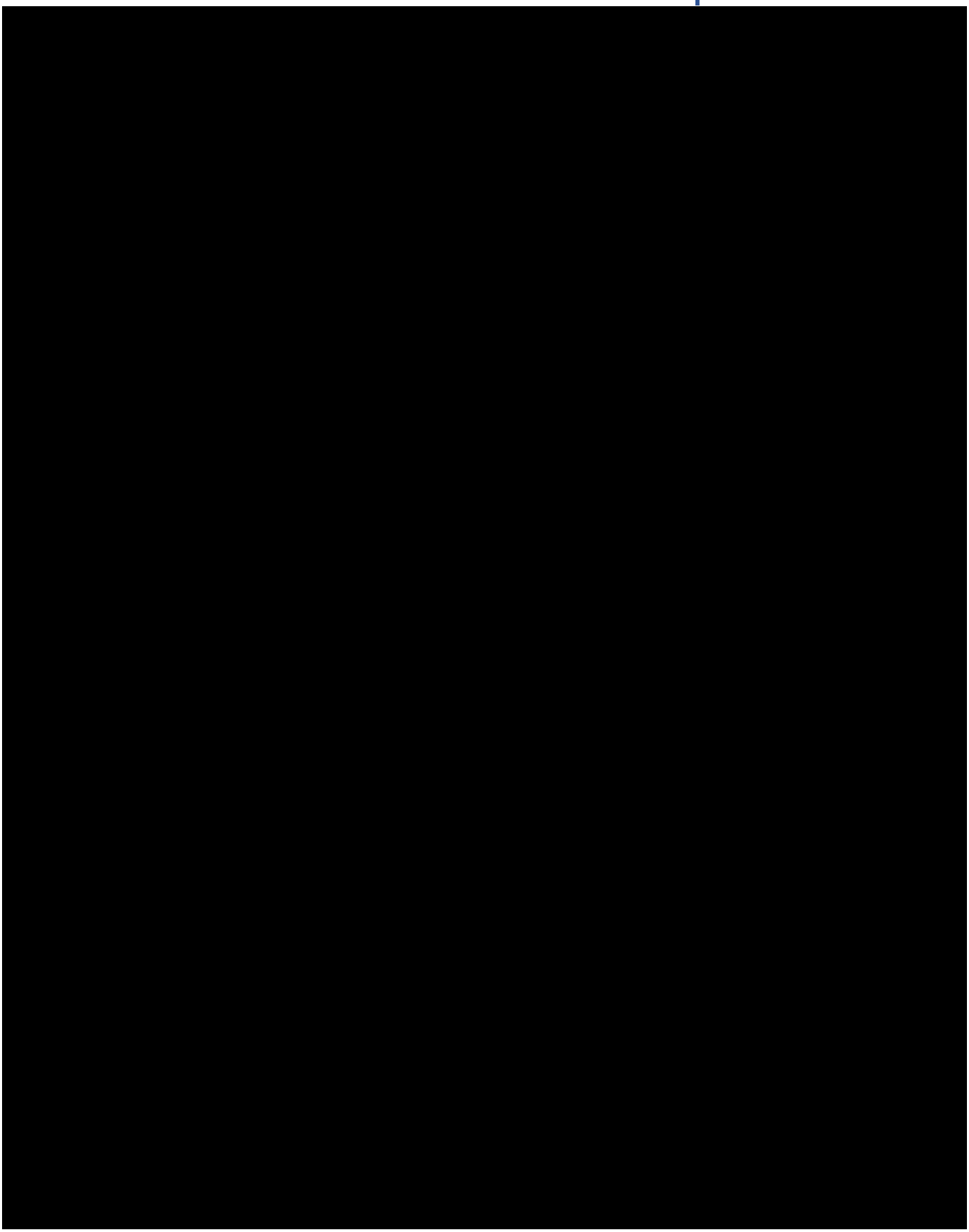
The key personnel directly involved in the management of this Project are identified below and resumes for those personnel are provided in [redacted] Members of the Project team have substantial experience within different areas of the development project: consents/permitting, market development, project development, and partnerships, along with broader business and investment experience.

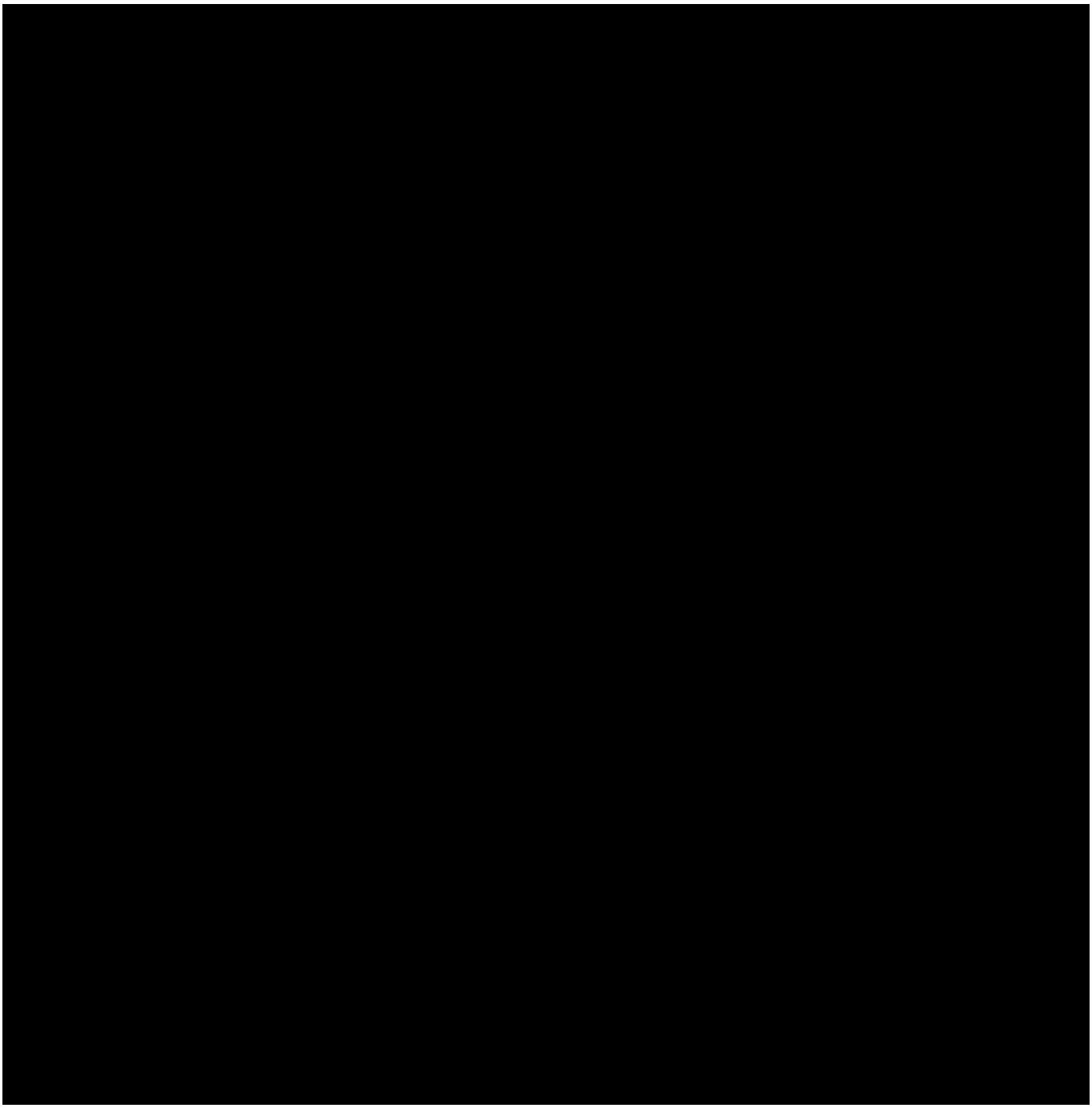
#### Ørsted Key Staff

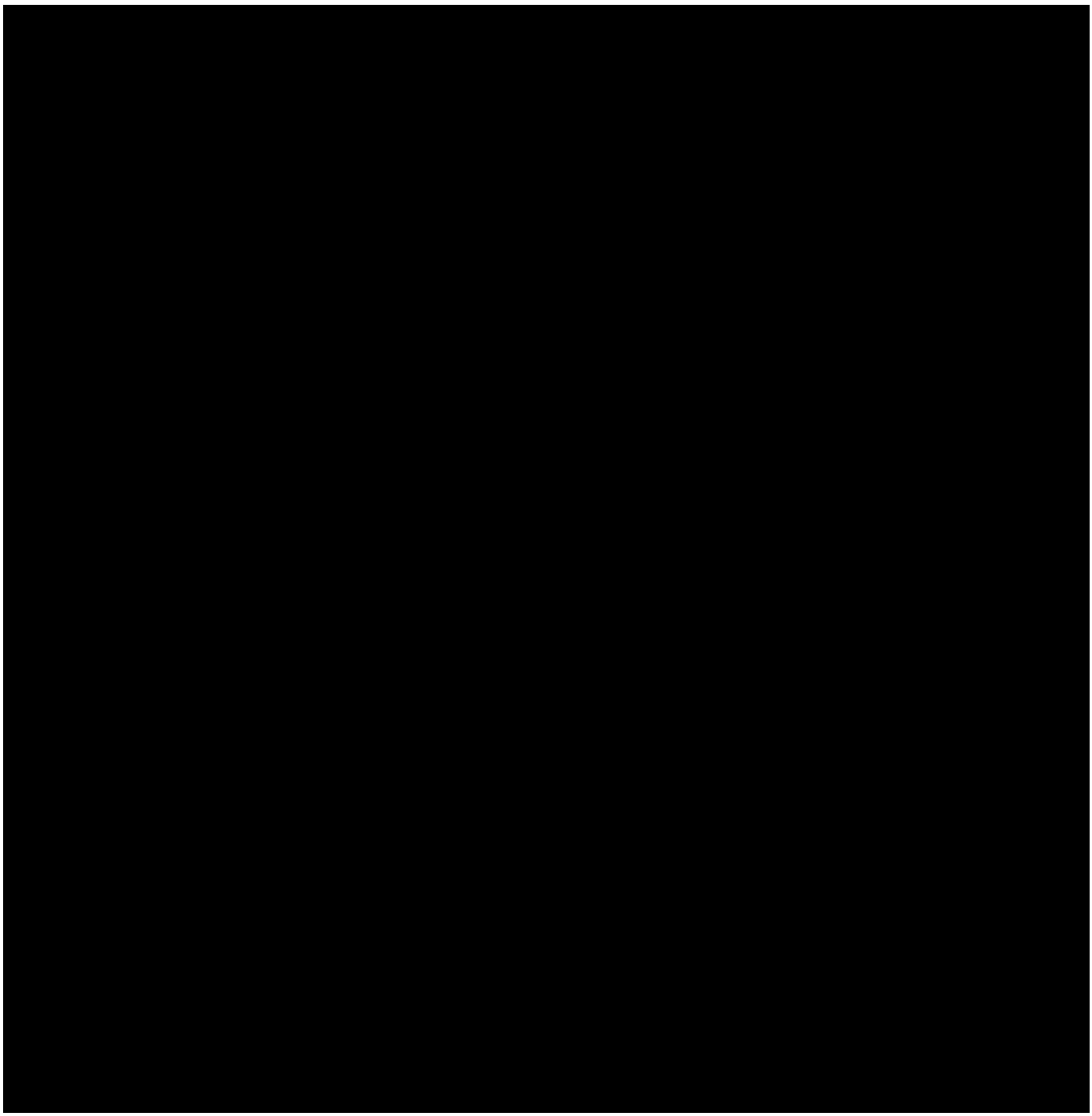
Ørsted relies on an experienced team to lead and manage the successful implementation of the Project throughout all development aspects in accordance with management models that have executed dozens of previous projects [redacted]





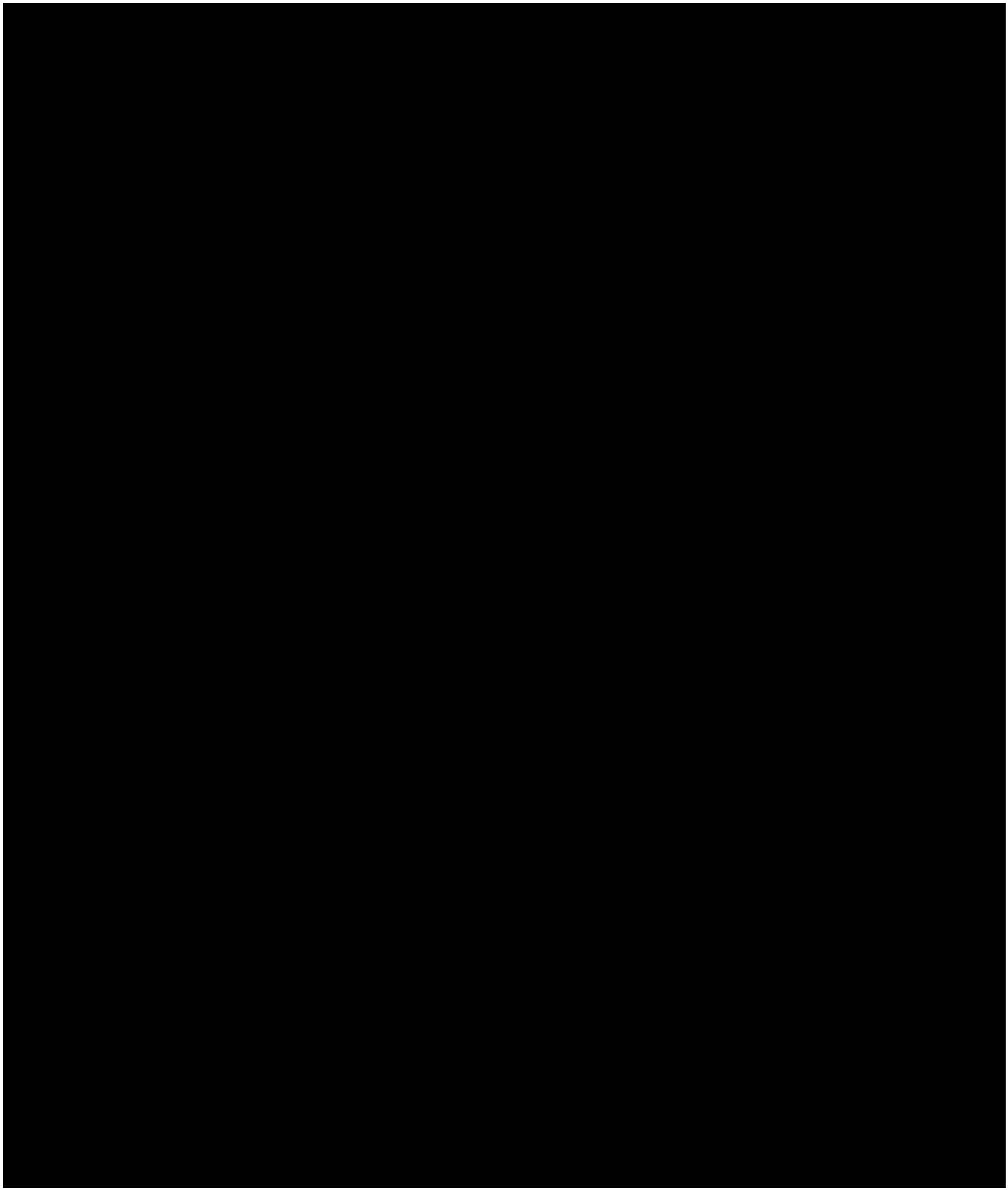


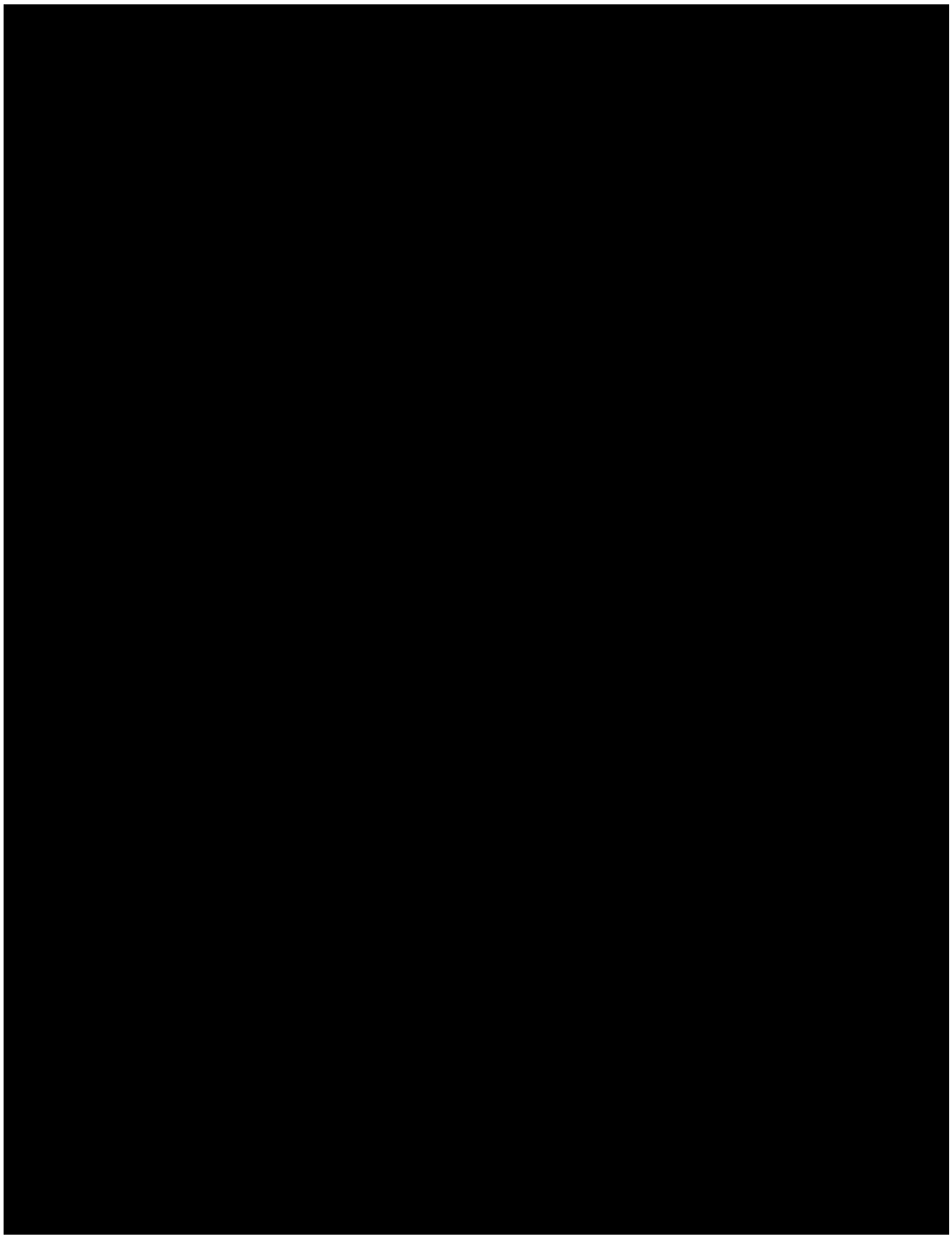


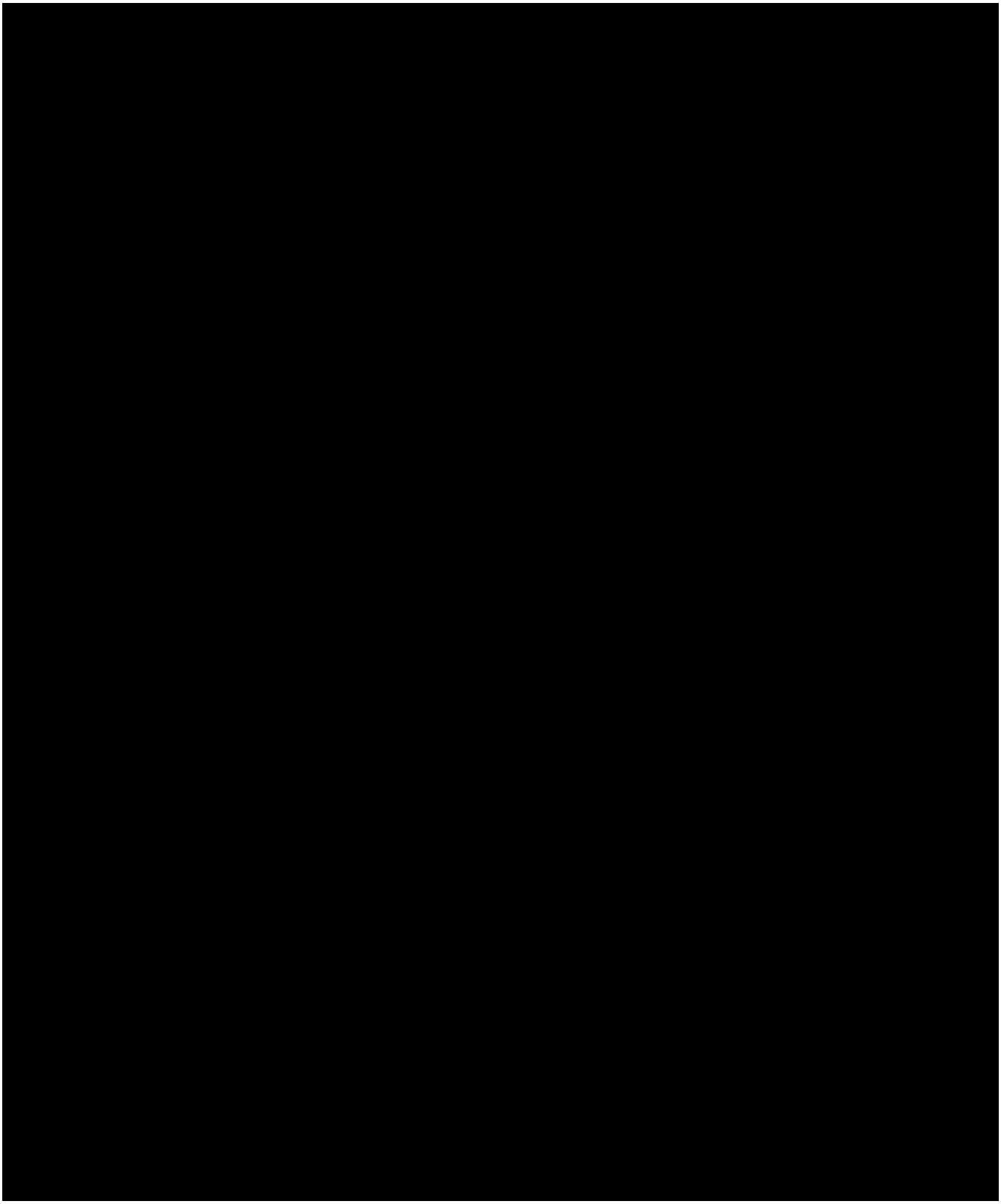


### Eversource Key Staff

In its role as co-owner of Bay State Wind LLC and service provider for development, construction and operation of the onshore facilities, Eversource has an experienced team to lead and manage the successful implementation of the facility [redacted]







## 3.4 Relevant Current Projects

4. A listing of projects the Project sponsor has successfully developed or that are currently under construction. Provide the following information for each project as part of the response:

a. Name of the project

b. Location of the project

c. Project type, size and technology

d. Commercial Operation Date

e. Estimated and actual capacity factor of the project for the past three years

f. Availability factor of the project for the past three years

g. References, including the names and current addresses and telephone numbers of individuals to contact for each reference.

### 3.4.1 Ørsted

To date, Ørsted has constructed 6.8 GW of offshore wind capacity, which is approximately 30 percent of globally installed offshore wind capacity. Ørsted's existing activities span a number of markets, which include Denmark, the United Kingdom, Germany, the Netherlands, the U.S., and Taiwan. References are provided in [redacted] Detailed information regarding Ørsted's offshore wind portfolio is provided in Table 3.4.

[redacted] **Ørsted's Unparalleled Offshore Wind Experience**

- 25+ years' experience
- ~2,300 Wind Power employees
- 26 operational projects
- 6.8 GW constructed capacity

[redacted]

### 3.4.2 Eversource

Eversource has successfully developed several recent large transmission projects. Descriptions of those projects having a capital cost of more than $70 million are provided in Table 3.5. Since the projects listed are not generation projects, there are no capacity and availability factors.

All the projects listed in Table 3.5 are owned by Eversource affiliates, [redacted]

Table 3.4 Ørsted Project Experience

| Project/Program | Location | Description | Size and Project Technology | In-Service Date | Status | Capacity Factor (Estimated)[1] | | | Capacity Factor (Actual)[2] | | | Availability Factor (Actual)[3] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 |
| **USA** | | | | | | | | | | | | | | |
| Ocean Wind | New Jersey | Offshore Wind | 1,100 MW; GE 12.4-MW Haliade-X | [redacted] | Under Development | [redacted] | | | | | | | | |
| Revolution Wind | Rhode Island | Offshore Wind | [redacted] | [redacted] | Under Contract | | | | | | | | | |
| South Fork Wind Farm | New York | Offshore Wind | [redacted] | [redacted] | Under Contract | | | | | | | | | |
| Skipjack Wind Farm | Maryland | Offshore Wind | 120 MW; GE 12.4-MW Haliade-X | [redacted] | Under Contract | | | | | | | | | |
| Coastal Virginia Offshore Wind | Virginia Beach | Offshore Wind | 12 MW; Technology TBD | [redacted] | Under Construction | | | | | | | | | |
| Block Island Wind Farm | Block Island, RI | Offshore Wind | 30 MW; GE 6 MW SWT | 2016 | In Operation | | | | | | | | | |
| **Denmark**[4] | | | | | | | | | | | | | | |
| Anholt | Kattegat (DK) | Offshore wind | 400 MW; Siemens Gamesa SWT-3.6-120 | 2013 | In Operation | [redacted] | | | | | | | | |
| Avedøre Holme | Øresund (DK) | Nearshore wind | 10.8 MW; Siemens Gamesa SWT-3.6-107/120 | 2009 / 2011 | In Operation | | | | | | | | | |
| Horns Rev 2 | North Sea (DK) | Offshore wind | 209.3 MW; Siemens Gamesa SWT-2.3-93 | 2010 | In Operation | | | | | | | | | |
| Horns Rev 1 | North Sea (DK) | Offshore wind | 160 MW; Vestas V80-2 MW | 2003 | In Operation | | | | | | | | | |
| Nysted | Fehmarnbelt (DK) | Offshore wind | 165.6 MW; Bonus SWT 2.3-82 | 2003 | In Operation | | | | | | | | | |
| Middelgrunden | Øresund (DK) | Nearshore wind | 20 MW; Bonus B76/2000 | 2001 | Divested (2018) | | | | | | | | | |
| Vindeby | Smålandsfarvandet (DK) | Offshore wind | 4.95 MW; Bonus B35/450 | 1991 | Decommissioned | | | | | | | | | |
| **Germany**[5] | | | | | | | | | | | | | | |
| OWP West | North Sea (DE) | Offshore wind | 240 MW; Technology TBD | 2024 | Under Development | [redacted] | | | | | | | | |
| Borkum Riffgrund West 2 | North Sea (DE) | Offshore wind | 240 MW; Technology TBD | 2024 | Under Development | | | | | | | | | |
| Gode Wind 3 | North Sea (DE) | Offshore wind | 110 MW; Technology TBD | 2023 | Under Development | | | | | | | | | |
| Borkum Riffgrund 2[6] | North Sea (DE) | Offshore wind | 450 MW; MVOW 8.3 MW-164 | 2018 | In Operation | | | | | | | | | |
| Gode Wind 1 | North Sea (DE) | Offshore wind | 330 MW; Siemens SWT 6.0-154 | 2016 | In Operation | | | | | | | | | |
| Gode Wind 2 | North Sea (DE) | Offshore wind | 252 MW; Siemens SWT 6.0-154 | 2016 | In Operation | | | | | | | | | |
| Borkum Riffgrund 1 | North Sea (DE) | Offshore wind | 312 MW; Siemens SWT 4.0-120 | 2015 | In Operation | | | | | | | | | |
| **Netherlands** | | | | | | | | | | | | | | |
| Borssele 1 & 2 | North Sea (NL) | Offshore wind | 752 MW; Siemens Gamesa 8 MW | 2020 | In Operation | [redacted] | | | | | | | | |
| **United Kingdom** | | | | | | | | | | | | | | |
| Hornsea 2 | North Sea (UK) | Offshore wind | 1,386 MW; SGRE-8.0-167 | 2022 | Under Construction | [redacted] | | | | | | | | |
| Hornsea 1 | North Sea (UK) | Offshore wind | 1,200 MW; SGRE-7.0-154 | 2020 | In Operation | | | | | | | | | |
| Walney Extension | Irish Sea (UK) | Offshore wind | 659 MW; MHI-Vestas V164-8.0 MW & Siemens SWT-7.0-154 | 2018 | In Operation | | | | | | | | | |

Table 3.4 Ørsted Project Experience (continued)

| Project/Program | Location | Description | Size and Project Technology | In-Service Date | Status | Capacity Factor (Estimated)[1] | | | Capacity Factor (Actual)[2] | | | Availability Factor (Actual)[3] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 |
| **United Kingdom (continued)** | | | | | | | | | | | | | | |
| Race Bank | North Sea (UK) | Offshore wind | 573 MW; SWT-6.0-154 | 2018 | In Operation | | | | | | | | | |
| Burbo Bank Extension | Irish Sea (UK) | Offshore wind | 254 MW; V164-8.0 MW (MHI Vestas Offshore Wind) | 2017 | In Operation | | | | | | | | | |
| Westermost Rough | North Sea (UK) | Offshore wind | 210 MW; SWT-6.0-154 | 2015 | In Operation | | | | | | | | | |
| West of Duddon Sands | Irish Sea (UK) | Offshore wind | 388.8 MW; SWT-3.6-120 | 2014 | In Operation | | | | | | | | | |
| Gunfleet Sands Demo | Thames Estuary (UK) | Offshore wind | 12 MW; SWT-6.0-120 | 2013 | In Operation | | | | | | | | | |
| Lincs | North Sea (UK) | Offshore wind | 270 MW; SWT-3.6-120 | 2013 | In Operation | | | | | | | | | |
| London Array 1 | Thames Estuary (UK) | Offshore wind | 630 MW; SWT-3.6-120 | 2013 | In Operation | | | | | | | | | |
| Walney 1 | Irish Sea (UK) | Offshore wind | 183.6 MW; SWT-3.6-107 | 2011 | In Operation | | | | | | | | | |
| Walney 2 | Irish Sea (UK) | Offshore wind | 183.6 MW; SWT-3.6-120 | 2011 | In Operation | | | | | | | | | |
| Gunfleet Sands 1 | Thames Estuary (UK) | Offshore wind | 108 MW; SWT-3.6-107 | 2010 | In Operation | | | | | | | | | |
| Gunfleet Sands 2 | Thames Estuary (UK) | Offshore wind | 64.8 MW; SWT-3.6-107 | 2010 | In Operation | | | | | | | | | |
| Burbo Bank | Irish Sea (UK) | Offshore wind | 90 MW; SWT-3.6-107 | 2007 | In Operation | | | | | | | | | |
| Barrow | Irish Sea (UK) | Offshore wind | 90 MW; V90-3 MW Offshore (Vestas) | 2006 | In Operation | | | | | | | | | |
| **Taiwan** | | | | | | | | | | | | | | |
| Formosa 1 – Phase II | Taiwan Strait | Offshore Wind | 120 MW; 6.0 MW SWT-154 | 2019 | In Operation | | | | | | | | | |
| Formosa 1 - Phase 1 | Taiwan Strait | Offshore wind | 8 MW; 4.0 MW SWT-120 | 2017 | In Operation | | | | | | | | | |
| Greater Changhua | Taiwan Strait | Offshore Wind | Technology TBD | TBD | Under Development | | | | | | | | | |

[redacted]

Sources: Danish Energy Agency, Fraunhofer ISE & EEX, National Grid, and Ørsted.

**Table 3.5 Eversource Project Experience**

| Project/Program | Location | Description | Size and Project Technology | In-Service Date | Status |
|---|---|---|---|---|---|
| Bethel/Norwalk | CT | Electrical Transmission Line | 21-mile (34-km) 345-kV line consisting of 2.1 miles (3.4 km) of XLPE cable, 9.7 miles (15.6 km) of high pressure fluid filled cables and 8.6 miles (13.8 km) of overhead construction | 2006 | In Operation |
| Glenbrook Cables | CT | Electrical Transmission Line | Two sets of parallel 115-kV XLPE cables installed along an 8.7-mile (14-km) route underneath roadways | 2008 | In Operation |
| Stoughton Cables | MA | Electrical Transmission Line | Two parallel 345-kV high pressure fluid filled cables installed along a 17-mile (27-km) route, and a third cable installed along an 11-mile (17-km) route, and new 345-kV switching station | 2007<br>2009 | In Operation |
| Long Island Replacement Cable | NY/CT | Electrical Transmission Line | Three 138-kV XLPE marine cables | 2008 | In Operation |
| Middletown/Norwalk | CT | Electrical Transmission Line | 345-kV circuits consisting of 45 miles (72 km) of overhead line and 24 miles (39 km) of underground cables; reconstruction of 57 miles (92 km) of 115-kV line; construction of new substations and expansion of existing substations | 2009 | In Operation |
| Greater Springfield Reliability (NEEWS) | MA/CT | Electrical Transmission Line | 39 linear miles (63 linear km) of new 345-kV transmission lines and reconstruction of existing 115-kV lines with 13 new or rebuilt substations and switching stations (110 circuit miles [177 circuit km]) | 2013 | In Operation |
| Long-Term Lower Southern Massachusetts (SEMA) Upgrades | MA | Electrical Transmission Line | New 18-mile (29-km) 345-kV line and new 345-kV substation; reconstruction of pre-existing 345-kV line on separate towers, and related 115-kV modifications | 2014 | In Operation |
| Interstate Reliability (NEEWS) | CT | Electrical Transmission Line | 37 miles (59 km) of new 345-kV line with associated substation improvements | 2015 | In Operation |
| Greater Hartford Central CT (GHCC) | CT | Electrical Transmission Line | 27 projects (115-kV), 23 of which were placed in service as of December 31, 2018, with the balance scheduled to be complete during 2020 | 2020 (projected) | Partially In-Service/Under Construction |
| Greater Boston Reliability Solution | MA | Electrical Transmission Line | A series of 115- and 345-kV projects started in 2017 that will improve reliability in the greater Boston region | 2021 (projected) | Partially In-Service/Under Construction |

Table 3.6 Bay State Wind LLC Project Experience

| Project/Program | Location | Description | Size and Project Technology | In-Service Date | Status | Capacity Factor (Estimated)[1] | | | Capacity Factor (Actual)[2] | | | Availability Factor (Actual)[3] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 |
| **USA** | | | | | | | | | | | | | | |
| [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | | | | | | | | |
| Sunrise Wind 1 (NY) | RI-MA WEA/MA WEA/New York | Offshore Wind | [redacted] | [redacted] | Under Contract | | | | | | | | | |
| Revolution Wind (RI) | RI-MA WEA/Rhode Island | Offshore Wind | [redacted] | [redacted] | Under Contract | | | | | | | | | |
| Revolution Wind (CT) | RI-MA WEA/Rhode Island | Offshore Wind | [redacted] | [redacted] | Under Contract | | | | | | | | | |
| South Fork Wind Farm | RI-MA WEA/New York | Offshore Wind | [redacted] | [redacted] | Under Contract | | | | | | | | | |

### 3.4.3 The Long Island Cable Replacement (LIRC) Project

This 11-mile underwater cable reliability project was energized on July 29, 2008, months ahead of schedule, improving reliability for customers during the summer peak load period. Working jointly with the Long Island Power Authority, Eversource replaced seven fluid-filled transmission cables between Norwalk, Connecticut, and Northport, New York, with three new 138-kV XLPE cables. The replacement cables significantly strengthened reliability of service to both states while improving the environmental integrity of Long Island Sound.

The original seven underwater cables, each of which were fluid-filled cables, were laid in 1969, and sat exposed on the seabed, except in near-shore areas. Over the years, damage caused by fishing vessels, working barges, and ship anchors required costly and complex repairs to the cable, sometimes with lengthy service interruptions. Impacts to these cables also occasionally resulted in environmental impacts due to release of dielectric fluids. The LIRC project was intended to achieve three significant benefits:

1. Improve the system's reliability by making it less subject to lengthy interruptions from damage caused by anchors and other objects hitting the cables;
2. Reduce future maintenance and repair costs; and
3. Eliminate potential environmental concerns arising from the escape of insulating fluid whenever there is a break in the existing cables.

The LIRC Project used innovative technologies to reduce the number of cables required (from seven single-phase cables to three three-phase cables), and to lay and bury the new cables approximately 6 feet beneath the seabed, thereby protecting Long Island Sound. The Project used the Skagerrak, one of the world's most technologically innovative vessels at the time, to lay cable with a 7,000-ton capacity turntable and a state-of-the-art Global Positioning System (GPS). The GPS controlled the positioning of the ship while an underwater jet plow system used pressurized water to bury the cable below the seabed.

The new XLPE cable contains no fluid that could leak in the event of damage to the cable, and the cable is protected against external damage by its burial under the seabed. This project increased reliability for electric customers in New York and southwestern Connecticut and improved the environmental integrity of Long Island Sound. It was energized on July 29, 2008, months ahead of schedule.

### 3.4.4 South Fork Wind

South Fork Wind is a 130 MW offshore wind project being developed by the Proposer's organization. It will be the first to serve New York State. South Fork Wind has achieved key permitting and real estate milestones following extensive stakeholder engagement.

[redacted]

## 3.5 Project Team

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

a. Construction Period Lender, if any

b. Operating Period Lender and/or Tax Equity Provider, as applicable

c. Financial Advisor

d. Environmental Consultant

e. Facility Operator & Manager

f. Owner's Engineer

g. EPC Contractor (if selected)

h. Transmission Consultant

i. Legal Counsel

The shared expertise of the Owners (Ørsted and Eversource) in developing, financing, constructing, and operating energy projects will be supplemented by third-party firms as described below.

### 3.5.1 Construction Period Lender

[redacted]

### 3.5.2 Operating Period Lender and/or Tax Equity Provider

[redacted]

### 3.5.3 Financial Advisor

[redacted]

[redacted]

### 3.5.4 Environmental Consultant

[redacted]

### 3.5.5 Facility Operator and Manager

**Offshore**

The Proposer will be the Facility Operator and Manager.

The Proposer has developed a preliminary O&M plan that leverages the collective experience of Ørsted and Eversource. For offshore wind O&M, Ørsted has developed and instituted a rigorous operation and maintenance program that is continuously improved over time to benefit from lessons learned. Modeled on the successful track record of Ørsted, the offshore portion of the Project's O&M plan has three major components:

[redacted]

**Onshore**

[redacted]

### 3.5.6 Owner's Engineer

[redacted]

### 3.5.7 EPC Contractor (if selected)

[redacted]

### 3.5.8 Transmission Consultant

[redacted]

### 3.5.9 Legal Counsel

[redacted]

## 3.6 Proposer's NYISO Market Experience

6. Details of Proposer's experience in NYISO markets. With regard to Proposer's experience with NYISO markets, please indicate the entity that will assume the duties of Market Participant for your proposed Offshore Wind Generating Facility. Please provide a summary of Proposer's or Market Participant's experience with the wholesale market administered by NYISO as well as transmission services performed by Con Edison, NYPA, and PSEG-LI/LIPA.

[redacted]

# 4 PROJECT DESCRIPTION AND SITE CONTROL

## 4.1 Project Site Property Rights

6.4.4 Identify the BOEM wind energy area where the proposed Offshore Wind Generation Facility will be located. Provide documentation that Proposer has a valid lease or irrevocable lease option to develop the leased area within this wind energy area over the entire Contract Tenor.

Provide a site plan (or plans) including a map (or maps) that clearly identifies the location of the proposed Offshore Wind Generation Facility, collection facilities, offshore and onshore route of the generator lead line to the interconnection point, converter station(s), and the assumed right-of-way width. Identify the anticipated interconnection point, support facilities, and the relationship of the interconnection point to other local infrastructure, including transmission facilities, roadways, and waterways.

Identify any rights that Proposer or its development partner has at the interconnection point and for the generator lead line right of way. Provide a detailed plan and timeline for the acquisition of any additional rights necessary for interconnection and for the generator lead line right-of-way. Include these plans and the timeline in the overall Project schedule in Section 6.4.11.

In addition to providing the required map(s), provide a site layout plan that illustrates the location of all on-shore and offshore equipment and facilities and clearly delineates the perimeter of the area in which offshore wind turbines will be placed. Identify the distance in statute miles between the nearest shoreline point and the nearest Offshore Wind Generation Facility turbines.

[redacted]

The Proposer holds a federal lease for an offshore wind energy generation site located on the Outer Continental Shelf (see Attachment 4-4[redacted].

[redacted]

# 5 ENERGY RESOURCE ASSESSMENT AND PLAN

6.4.5 Provide a summary of all collected wind data for the proposed Offshore Wind Generation Facility 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 Offshore Wind Generation 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 at least one year of hourly wind resource data. Data collected from the site is preferred, though projected data is permissible. The method of data collection must also be included.

The Proposer has dedicated significant resources to wind resource data collection for the Project, as well as the modeling and analysis of this data into Annual Energy Production (AEP) estimates.

[redacted] In addition, the Proposer continues to gather data through its long-term development of the Project Area, its experience developing and operating the nearby Block Island Wind Farm, and its ongoing development of the nearby South Fork Wind, Revolution Wind, and Sunrise Wind 1 projects. [redacted]

[redacted]

The Proposer's wind yield assessment team applied production and electrical losses as well as operations and maintenance related outages, based on Ørsted's more than two decades of experience in wind farm operations, to arrive at the projected net annual production for the Project.

## 5.1 Energy Resource Plan

The following section provides a detailed summary of the data that supports the Proposer's energy yield estimate. [redacted]

[redacted]

### 5.1.1 Wind Data

The Proposer has compiled Primary and Reference wind data in connection with its assessment of the Project site's wind energy resource.

The Primary data set provides a statistical description of the wind conditions at the Project site.

[redacted]

To account for deviations between the mean wind speed in the measurement period and the historical long-term mean wind speed, the Proposer utilized modeled mesoscale Reference data.

**Primary Data**

[redacted]

[redacted]

[redacted]

[redacted]

**Reference Data**

[redacted]

[redacted] he mesoscale data is modeled wind data derived by downscaling a global numerical weather prediction model to the local region. [redacted]

[redacted]

[redacted]

***Arriving at Final Long-Term Mean Wind Speed***

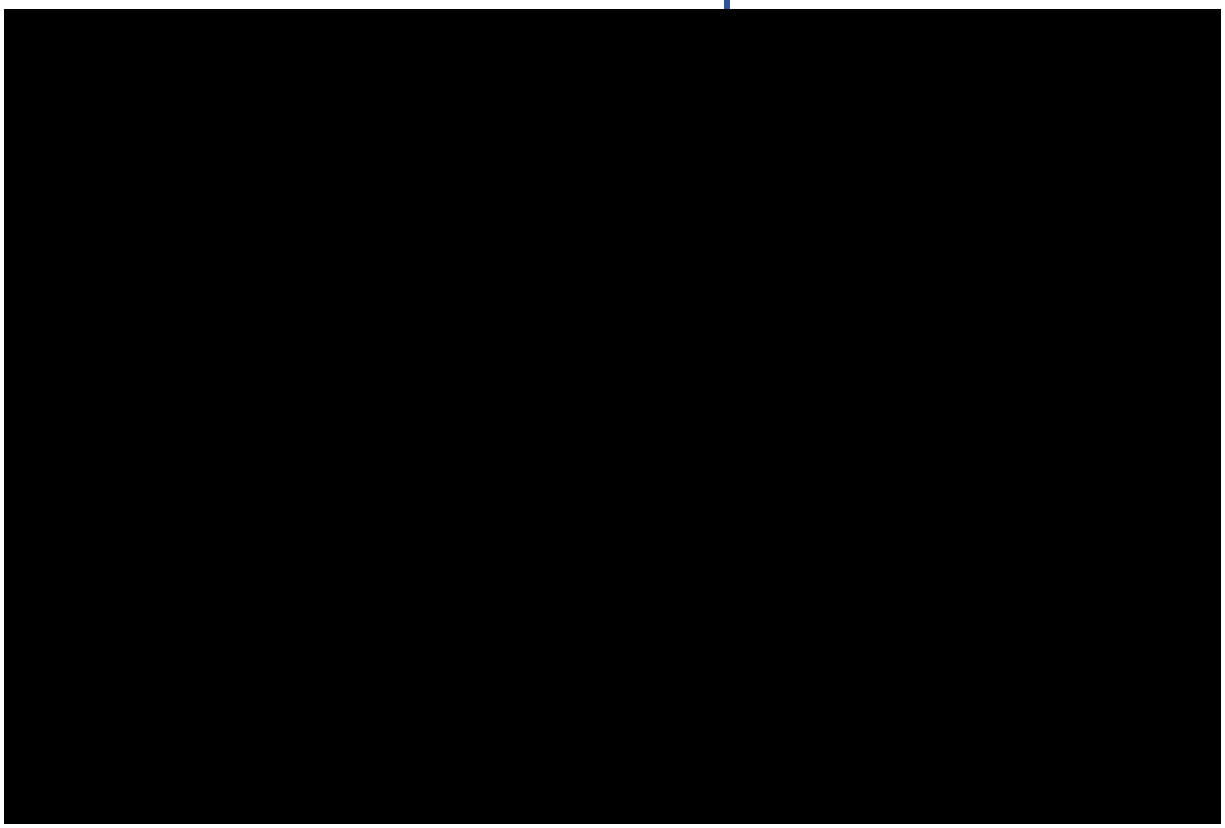
To derive the long-term wind climate at the site, the following steps are taken in the analysis:

[redacted]

- The mean wind speed is corrected using the mesoscale data as long-term reference points. This accounts for differences between the mean wind speed in the measurement period and the long-term historical mean wind speed.

[redacted]

[redacted]



## 5.2 Wind Resource Assessment

Provide a wind resource assessment report for the Proposed Offshore Wind Generation Facility site. Include an analysis of the available wind data which addresses the relationship between wind conditions and electrical output. Provide a site-adjusted power curve. Each curve should list the elevation, temperature and air density used.

The Proposer has provided more than one year of hourly wind resource data (Attachment 5-1 through Attachment 5-3),

See below for an analysis of the available wind data that addresses the relationship between wind conditions and electrical output.

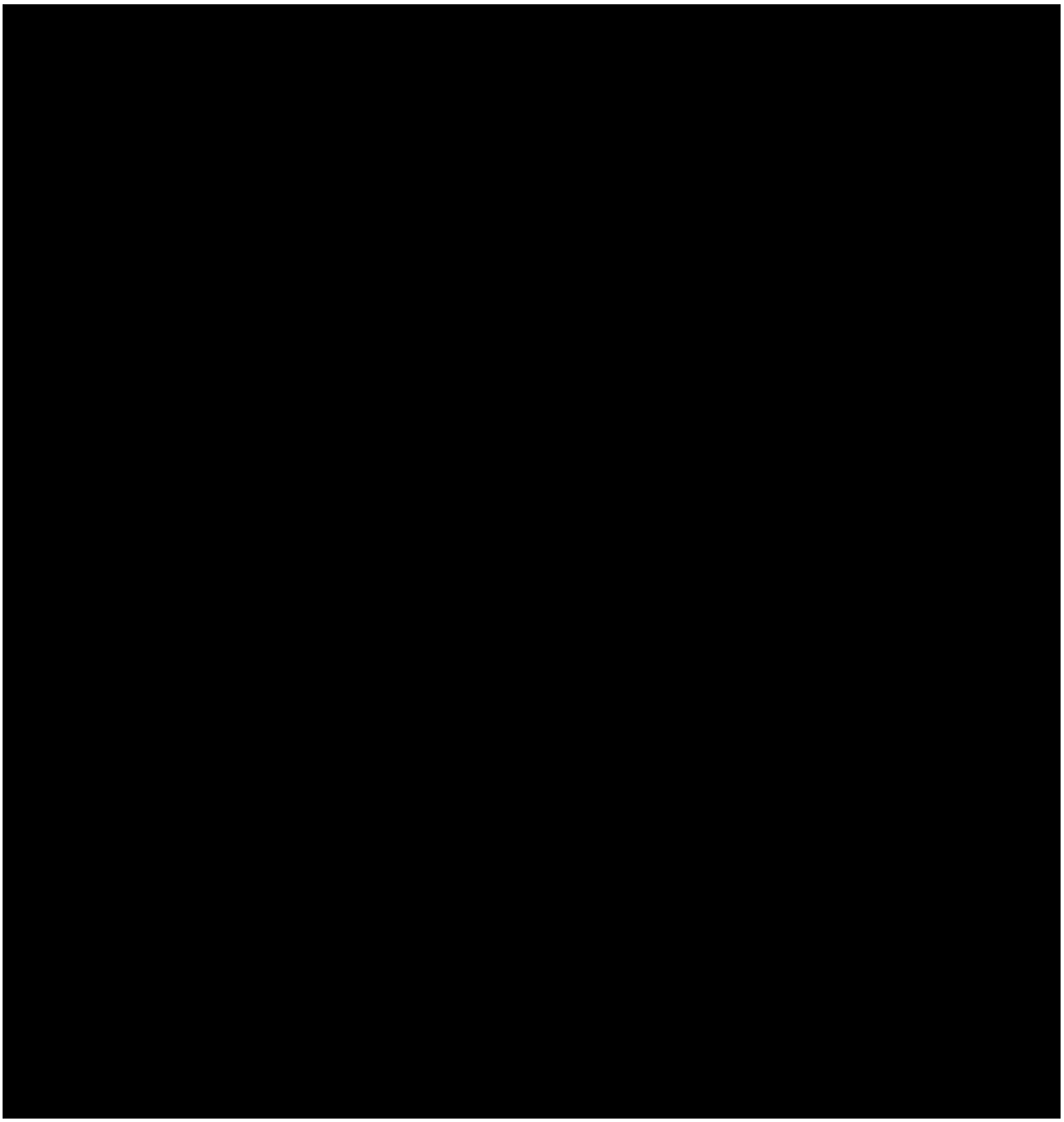
The wind resource analysis summarized above together with the site-adjusted power curve (see 12.1 below) gives the gross energy production of the Project of This is the annual production to be expected in the absence of any losses and accounts for the available wind resources at the Project Site; The largest of these is due to wake losses, the shadowing effect between the WTGs. The wake is calculated using Ørsted's in-house modelling tools that have been validated against production data from a large number of offshore wind power plants. The wake loss depends on the site-specific wind conditions. Similarly, an electrical loss is modeled from the electrical infrastructure of the Project, while availabilities of the WTGs and the other components of the wind power plant are estimated based on Ørsted's vast experience and the Project's O&M Plan.

[redacted]

A site-adjusted power curve is provided below in [redacted], which addresses the relationship between wind conditions and electrical output, and is depicted in [redacted]

The power curve is the relationship between the wind speed and the produced power for a single WTG as calculated following industry standard procedures (International Electrotechnical Commission 61400-12-1). The site-adjusted power curve is specified at the mean air density at the site [redacted]

[redacted]



# 6 OPERATIONAL PARAMETERS

### Operations and Maintenance Concept

The O&M scope of the Project consists of all generation, offshore transmission, and onshore transmission assets. Figure 6.1 illustrates the components of the O&M scope.

[redacted]

### Logistics

[redacted] Further details on the O&M Plan and logistics strategy as well as vessel performance are described in a draft O&M Plan [redacted] that will be continually assessed and optimized (as appropriate) throughout the lifecycle of the Project.

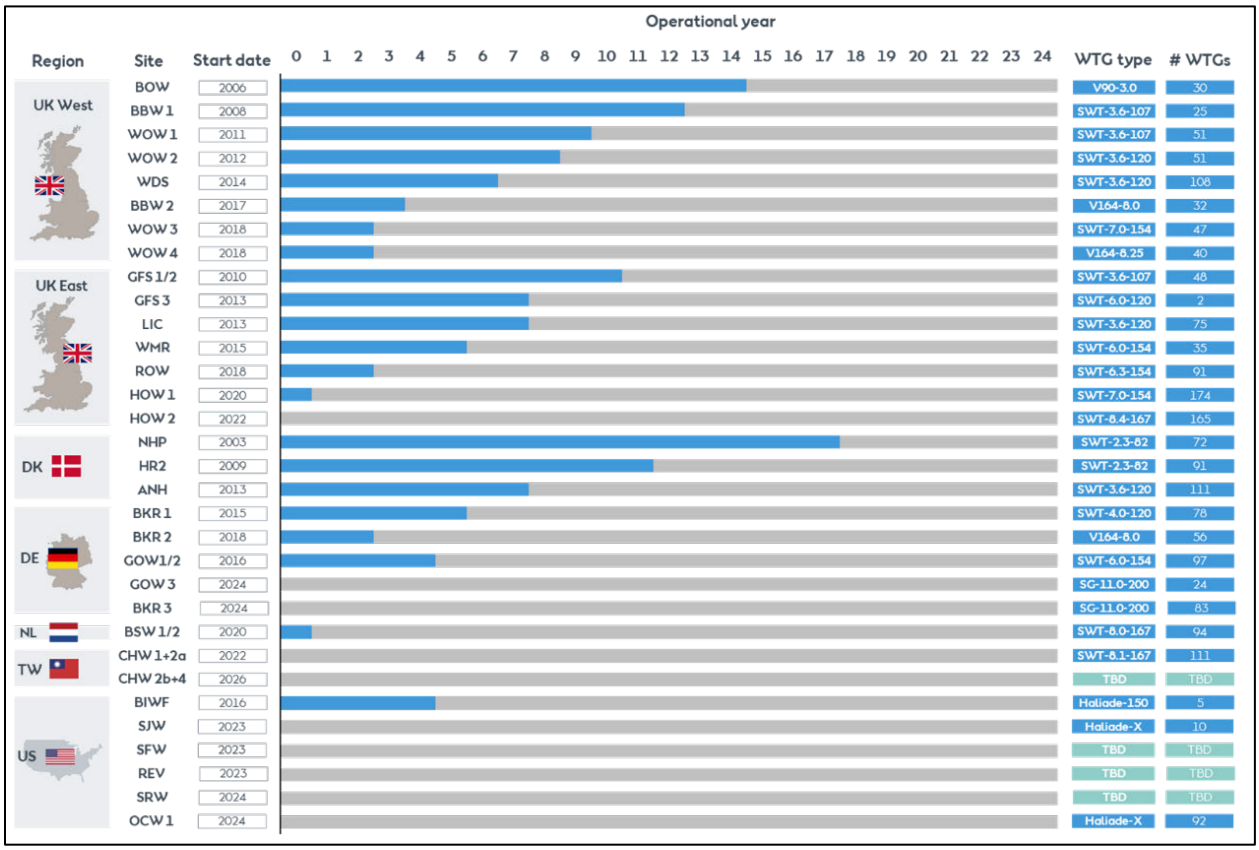
[redacted]

### Operation and Maintenance of Assets

With more than two decades of operational experience and 7 GW of installed capacity across over 25 offshore wind farms, the Proposer's organization has an unparalleled track record in

constructing and operating offshore wind farms. Figure 6.2 illustrates Ørsted's operational track record in offshore wind.

**Figure 6.2 Ørsted's Operational Track Record**




Unlike many developers that use the original equipment manufacturers (OEMs) to maintain the offshore wind assets for life, Ørsted, and through it, the Proposer, will assume maintenance responsibility and employ best-in-class procedures. Its experience using this approach allows Ørsted to frequently secure above industry-average production figures on its assets (see [redacted]). Having assets with greater availability increases the reliability of Ørsted wind farms, which is reflected in the annual energy production figures in the ODF. Ultimately, these performance gains will flow through to New York customers.

The O&M Plan covers the specific equipment and features of the Project, and details the activities, surveys, inspections, and regular maintenance to be performed (including scheduled outage events). The Proposer intends to conduct all of these activities as per industry best practices and based on O&M experience. Fundamentally, the Proposer aims to preserve asset integrity, extend asset lifetime as far as possible, minimize outages, and deliver the highest performance possible for customers.

## 6.1 Maintenance Outage Requirements

6.4.6 Provide partial and complete planned outage requirements in weeks or days for the Offshore Wind Generation Facility. 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).

[redacted] summarizes the planned outage requirements for the Project facilities. Detailed explanations are discussed further in the following subsections. All outage activities have been accounted for in the production figures in the ODF form. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

The WTGs will be subject to planned maintenance, including general inspection, sampling, testing, and part replacement. The WTGs also will be continuously monitored remotely. Uninterrupted monitoring facilitates a more immediate identification of, and response to, possible irregularities.

This offshore wind industry practice is based on the manufacturer's requirements since it is a precondition for maintaining the initial warranty. By installing equipment from a manufacturer with a history of reliable operation and increasing equipment condition monitoring, the Proposer aims to minimize the amount of service hours required during the annual service, [redacted]

[redacted]

[redacted]

## 6.2 Operating Constraints

Provide all the expected operating constraints and operational restrictions for the Project, the reason for the limitation, and characterize any applicable range of uncertainty.

Operating constraints for the Project are primarily related to technical parameters defined by the equipment OEMs, which can be categorized by wind resources and weather conditions (see Section 5 for more detailed information), grid outages, and Health, Safety, and Environment issues.

The operating constraints and technical parameters listed below have been accounted for in the availability and AEP assessment and are reflected in the ODF.

**Technical Parameters**

The operational constraints for the WTGs are:

- Cut-in wind speed: approximately [redacted]
- Cut-out wind speed: approximately [redacted]
- [redacted]

**Offshore Accessibility for Maintenance Work**

Accessibility is primarily determined by wave height for sailing operations, and wind speed and visibility conditions for flying operations. Typically, outages are planned around low wind periods and good offshore accessibility.

[redacted]

# 7 BUSINESS ENTITY AND FINANCING PLAN

6.4.6 Proposers are required to demonstrate the financial viability of their proposed Project. A narrative description of the financing plan should be included in the Proposal Narrative. Detailed supporting information, including financial statements and other documents, should be included in the required Financing Plan attachment. Proposers should provide the following information:

The Proposer's ultimate Owners, Ørsted and Eversource, are publicly traded companies with a combined market capitalization of approximately $99 billion, and combined operating cash flows of approximately $4 billion annually.

Ørsted is the global leader in financing, constructing, and operating offshore wind. It has constructed 6.8 GW of generation over the past 25 years across numerous markets, with another 3.1 GW under construction.

Eversource is an industry leader in the development and operation of large-scale transmission and distribution projects. With more than 8,000 employees, Eversource has significant experience delivering projects throughout the northeast.

[redacted]

The financial strength of Ørsted and Eversource—and by extension the Proposer's financial strength—is described in greater detail in the following responses.

## 7.1 Long-Term Contract Implications

1. Submit information and documentation that demonstrates that a long-term contract resulting from this RFP process would either permit Proposers to finance Proposals that would otherwise not be financeable or assist Proposers in obtaining financing of its Proposal.

A long-term agreement awarded through this RFP process will create a predictable, long-term revenue stream that appropriately values clean, renewable energy from offshore wind generation. Ørsted and Eversource have historically required long-term contracts before beginning construction on large projects and will require a long-term contract to begin construction of this Project as well.

See Section 7.3 for details regarding the financing plan.

## 7.2 Business Entity Structure

2. Describe the business entity structure of Proposers' organization from a financial and legal perspective, including all general and limited partners, officers, directors, managers, members and shareholders, and involvement of any subsidiaries supporting the Project. Provide an organization chart showing the relationship among the different Project participants. For joint ventures, identify all owners and their respective interests, and document Proposers' right to submit a binding Proposal.

Orsted NA and ESI (together, the Owners) have entered into a 50/50 joint venture through which they control the Proposer and its affiliates that hold the Lease Area within which the Project will be located. If the Proposer is successful in the RFP, the Owners intend to assign the geographic portion(s) of the Lease Area—or subdivisions/successor leases thereof—to an existing or newly formed project company, which will also be the entity that executes a corresponding OREC purchase-and-sale agreement with NYSERDA.

Specifically, the Owners jointly own the Proposer's parent company (and sole member-manager), Bay State HoldCo LLC. Neither the Proposer nor Bay State HoldCo LLC has any other members or shareholders.

Bay State HoldCo LLC is managed by a four-person board of directors who constitute "managers" within the meaning of the Delaware Limited Liability Company Act. At the direction and under the supervision of the directors of Bay State HoldCo LLC, the Proposer's project-development activities are facilitated by a four-person steering committee.

[redacted] Section 7.3 provides further explanation of the expected financing plan.

The Proposer has been authorized to submit this Proposal by a written consent from its sole member, Bay State HoldCo LLC, a copy of which is [redacted]

## 7.3 Description of Financing Plan

3. Provide a description of the financing plan for the Project, including construction and term financing. The financing plan should address the following:

a. Who will finance the Project (or are being considered to finance the Project) and the related financing mechanism or mechanisms that will be used (i.e., convertible debenture, equity or other) including repayment schedules and conversion features.

[redacted]

[redacted]

b. The Project's existing initial financial structure and projected financial structure

[redacted]

c. Expected sources of debt and equity financing

[redacted]

d. Describe how any such agreements would differ, contingency on NYSERDA's selecting either the Fixed OREC or Index OREC form of pricing

The Fixed OREC or Index OREC form of pricing does not affect the Proposer's financing plan.

e. Estimated construction costs

[redacted]

f. The projected capital structure

[redacted]

g. 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.

[redacted]

## 7.4 Proposer Experience in Securing Financing

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

a. Project name and location

b. Project type and size

c. Date of construction and permanent financing

d. Form of debt and equity financing

e. Current status of the project

Ørsted is the world's leader in offshore wind development and construction, with more than 25 years of experience executing capital projects, including 26 operational offshore wind projects with 6.8 GW of constructed capacity.

Similarly, with the completion of hundreds of capital projects over the past decade, Eversource has established a successful track record in delivering customer value and demonstrated expertise in building, financing, owning, and maintaining infrastructure for the electric industry. Eversource has invested approximately $8.0 billion over the past three years on new infrastructure in the northeast.

Table 7.1, Table 7.2, and Table 7.3 provide lists of offshore wind projects and other large energy transmission projects financed and developed by the Owners.

**Table 7.2 Projects Financed and Developed by Ørsted**

| Project Name | Location | Type | Size (MW) | Construction Capital Structure / % Ørsted | Permanent Capital Structure (Year) | Permanent Capital Structure / % Ørsted | Status |
|---|---|---|---|---|---|---|---|
| [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| Hornsea 2 | United Kingdom | Offshore Wind | 1,386 | 100% Equity / 100% Ørsted | TBD | TBD / TBD | Under Construction |
| Borssele 1&2 | Netherlands | Offshore Wind | 700 | 100% Equity / 100% Ørsted | TBD | TBD / TBD | Under Construction |
| Hornsea 1 | United Kingdom | Offshore Wind | 1,218 | 100% Equity / 100% Ørsted | 2018 | 100% Equity / 50% Ørsted | Under Construction |
| Borkum Riffgrund 2 | Germany | Offshore Wind | 465 | 100% Equity / 100% Ørsted | 2017 | 100% Equity / 50% Ørsted | Under Construction |
| Walney Extension | United Kingdom | Offshore Wind | 660 | 100% Equity / 100% Ørsted | 2017 | 100% Equity / 50% Ørsted | Operating |
| Race Bank | United Kingdom | Offshore Wind | 573 | 100% Equity / 100% Ørsted | 2016 | 100% Equity / 50% Ørsted | Operating |
| Burbo Bank Extension | United Kingdom | Offshore Wind | 258 | 100% Equity / 100% Ørsted | 2016 | 100% Equity / 50% Ørsted | Operating |
| Block Island Wind Farm | United States | Offshore Wind | 30 | 80% Debt 20% Equity | 2017 | 60% Debt 35% Tax Equity 5% Equity | Operating |
| Gode Wind 1 | Germany | Offshore Wind | 332 | 100% Equity / 100% Ørsted | 2015 | 100% Equity / 50% Ørsted | Operating |
| Gode Wind 2 | Germany | Offshore Wind | 252 | 100% Equity / 100% Ørsted | 2014 | 100% Equity / 50% Ørsted | Operating |
| Westermost Rough | United Kingdom | Offshore Wind | 210 | 100% Equity / 100% Ørsted | 2014 | 100% Equity / 50% Ørsted | Operating |

**Table 7.2 Projects Financed and Developed by Ørsted (continued)**

| Project Name | Location | Type | Size (MW) | Construction Capital Structure / % Ørsted | Permanent Capital Structure (Year) | Permanent Capital Structure / % Ørsted | Status |
|---|---|---|---|---|---|---|---|
| Borkum Riffgrund 1 | Germany | Offshore Wind | 312 | 100% Equity / 100% Ørsted | 2012 | 100% Equity / 50% Ørsted | Operating |
| West of Duddon Sands | United Kingdom | Offshore Wind | 389 | 100% Equity / 50% Ørsted | 2010 | 100% Equity / 50% Ørsted | Operating |
| Anholt | Denmark | Offshore Wind | 400 | 100% Equity / 100% Ørsted | 2011 | 100% Equity / 50% Ørsted | Operating |
| Gunfleet Sands 3 | United Kingdom | Offshore Wind | 12 | 100% Equity / 100% Ørsted | 2012 | 100% Equity / 100% Ørsted | Operating |
| Lincs | United Kingdom | Offshore Wind | 270 | 100% Equity / 25% Ørsted | 2009 | 100% Equity / 25% Ørsted | Operating |
| London Array 1 | United Kingdom | Offshore Wind | 630 | 100% Equity / 50% Ørsted | 2004 | 100% Equity / 25% Ørsted | Operating |
| Walney 1 & 2 | United Kingdom | Offshore Wind | 367 | 100% Equity / 100% Ørsted | 2009 | 100% Equity / 50.1% Ørsted | Operating |
| Horns Rev 2 | Denmark | Offshore Wind | 209 | 100% Equity / 100% Ørsted | 2007 | 100% Equity / 100% Ørsted | Operating |
| Gunfleet Sands 1 & 2 | United Kingdom | Offshore Wind | 173 | 100% Equity / 100% Ørsted | 2011 | 100% Equity / 50% Ørsted | Operating |
| Avedøre Holme | Denmark | Offshore Wind | 10.8 | 100% Equity / 100% Ørsted | 2009 | 100% Equity / 100% Ørsted | Operating |
| Burbo Bank | United Kingdom | Offshore Wind | 90 | 100% Equity / 100% Ørsted | 2006 | 100% Equity / 100% Ørsted | Operating |
| Barrow | United Kingdom | Offshore Wind | 90 | 100% Equity / 50% Ørsted | 2004 | 100% Equity / 100% Ørsted | Operating |
| Nysted | Denmark | Offshore Wind | 165.6 | 100% Equity / 100% Ørsted | 2010 | 100% Equity / 43% Ørsted | Operating |
| Horns Rev 1 | Denmark | Offshore Wind | 160 | 100% Equity / 40% Ørsted | 2006 | 100% Equity / 40% Ørsted | Operating |
| Vindeby | Denmark | Offshore Wind | 5 | 100% Equity / 100% Ørsted | 1991 | 100% Equity / 100% Ørsted | Decommissioned |

**Table 7.3 Projects Financed and Developed by Eversource**

| Project Name | Location | Type | Size | Construction Capital Structure[1] | Permanent Capital Structure (Year) | Permanent Capital Structure[2] | Status |
|---|---|---|---|---|---|---|---|
| Greater Boston Reliability Solution | MA | Electric Transmission | 115-kV and 345-kV | 44% Debt / 56% Equity | 2017-2019 | 46% Debt / 54% Equity | Partially In-Service/Under Construction |
| Greater Hartford Central CT (GHCC) | CT | Electric Transmission | 115-kV | 44% Debt / 56% Equity | 2015-2019 | 46% Debt / 54% Equity | Partially In-Service/Under Construction |
| Interstate Reliability (NEEWS) | CT | Electric Transmission | 345-kV | 44% Debt / 56% Equity | 2015 | 46% Debt / 54% Equity | Operating |
| Long-Term Lower Southern Massachusetts (SEMA) Upgrades | MA | Electric Transmission | 115-kV and 345-kV | 44% Debt / 56% Equity | 2014 | 46% Debt / 54% Equity | Operating |
| Greater Springfield Reliability (NEEWS) | MA / CT | Electric Transmission | 115-kV and 345-kV | 44% Debt / 56% Equity | 2013 | 46% Debt / 54% Equity | Operating |
| Middletown to Norwalk | CT | Electric Transmission | 115-kV and 345-kV | 44% Debt / 56% Equity | 2009 | 46% Debt / 54% Equity | Operating |
| Glenbrook Cables | CT | Electric Transmission | 115-kV | 44% Debt / 56% Equity | 2008 | 46% Debt / 54% Equity | Operating |
| Long Island Replacement Cable | NY/CT | Electric Transmission | 138-kV | 44% Debt / 56% Equity | 2008 | 46% Debt / 54% Equity | Operating |
| Stoughton Cables | MA | Electric Transmission | 345-kV | 44% Debt / 56% Equity | 2007 / 2009 | 46% Debt / 54% Equity | Operating |
| Bethel to Norwalk | CT | Electric Transmission | 345-kV | 44% Debt / 56% Equity | 2006 | 46% Debt / 54% Equity | Operating |

[1] During construction, Eversource typically finances projects with a combination of short-term debt and internally generated cash flow. Projects are not financed at the project level with non-recourse debt, but rather, on balance sheet at the regulated entity developing the project. Capital structure for the regulated entity is generally maintained at the allowed ratemaking capital structure, which can change over time. The current allowed capital structure has been provided.

[2] Once a project reaches commercial operation, short-term financing during construction is typically replaced with long-term debt, but the capital structure will continue to be generally maintained at the allowed ratemaking capital structure, which can change over time. The current allowed capital structure has been provided.

## 7.5 Financial Resources and Strength

5. Provide evidence that Proposer has the financial resources and financial strength to complete and operate the project as planned.

As described throughout Section 7, Ørsted and Eversource are stable and diverse energy companies with robust balance sheets that reflect the financial strength needed to complete and operate the Project in the ordinary course of their respective businesses.

Financial and cash flow data for Ørsted and Eversource is provided in Table 7.4, Table 7.5, Table 7.6, and Table 7.7. Annual reports are provided in Attachments 7-2 through 7-7.

**Table 7.4 Eversource Selected Consolidated Financial Data – Balance Sheet and Income Statement**

| (Millions of Dollars) | 2019 | 2018 | 2017 |
|---|---|---|---|
| *Balance Sheet Data:* | | | |
| Property, Plant and Equipment, Net | 27,585 | 25,610 | 23,617 |
| Total Assets | 41,124 | 38,241 | 36,220 |
| Total Capitalization | 27,467 | 25,364 | 23,567 |
| *Income Statement Data:* | | | |
| Operating Revenues | 8,526 | 8,448 | 7,752 |
| Net Income | 917 | 1,041 | 996 |

**Table 7.5 Eversource Selected Consolidated Cash Flow Data – Funds from Operations and Debt Issuances**

| (Millions of Dollars) | 2019 | 2018 | 2017 |
|---|---|---|---|
| Net Cash Flow Provided by Operating Activities | 2,010 | 1,831 | 1,996 |
| Issuance of Long-term Debt | 1,520 | 2,200 | 2,500 |
| Increase/(Decrease) in Short-term Debt | 325 | (379) | 73 |
| Total Debt Issuances | 1,845 | 1,821 | 2,573 |

**Table 7.6 Ørsted Selected Consolidated Financial Data – Balance Sheet and Income Statement**

| (Millions of Dollars) | 2019 | 2018 | 2017 |
|---|---|---|---|
| *Balance Sheet Data* | | | |
| Total Assets | 28,929 | 26,186 | 1,978 |
| Capital Employed | 6,019 | 12,434 | 10,548 |
| *Income Statement Data* | | | |
| Revenue | 10,176 | 11,542 | 8,926 |
| EBIT | 1,508 | 3,698 | 2,435 |

From Ørsted 2019 Annual Report
Assumes DKK to USD exchange rate of 0.15

**Table 7.7 Ørsted Selected Consolidated Cash Flow Data – Funds from Operations and Debt Issuances**

| (Millions of Dollars) | 2019 | 2018 | 2017 |
|---|---|---|---|
| Cash flow from operating activities | 1,962 | 1,551 | 153 |
| Interest-bearing net debt | 2,585 | -333 | -228 |

From Ørsted 2019 Annual Report
Assumes DKK to USD exchange rate of 0.15

As demonstrated, both Eversource and Ørsted are large, growing companies and had a combined cash flow of approximately $4 billion and a combined market capitalization of approximately $99 billion in 2019. Moreover, both possess deep capital-market expertise, as evidenced by their ability to routinely access the public debt and equity markets. For example, in November 2017, Ørsted issued green hybrid capital securities and green senior unsecured bonds totaling €1.25 billion (approximately $1.5 billion), and in May 2019, Ørsted issued green senior bonds totaling GBP 900 million (approximately $1.1 billion).

**Ørsted – Financial Highlights**

- Ørsted is traded on Nasdaq Copenhagen Stock Exchange, with an equity market capitalization of approximately $68 billion.
- Ørsted was listed in June 2016. The IPO was the largest in Europe in the last 5 years and the largest IPO ever in Denmark both in terms of deal size and market cap.
- Ørsted has invested approximately $7.8 billion in new energy infrastructure from 2016 to 2018.

**Eversource– Financial Highlights**

- Eversource is a large cap company traded on the New York Stock Exchange, with an equity market capitalization of approximately $31 billion.
- Eversource is listed as number 371 on the Fortune 500 2020 list of the largest U.S. corporations (by gross revenues).
- Eversource currently maintains one of the highest credit ratings of any company in the Energy and Utility industry in the U.S.
- Eversource has invested $8 billion in new infrastructure in the past three years.

Eversource successfully issued $350 million of Series P Senior Notes in January 2020. In addition, Eversource's subsidiary NSTAR Electric Company completed a green bond issuance totaling $400 million in March 2020, which followed its first ever green bond issuance of the same amount in May 2019. Finally, on June 15, 2020, Eversource completed an equity offering of a total of 6 million common shares at a price per share of $86.26, resulting in net proceeds of $509 million.

## 7.6 Federal Production Tax Credit or Investment Tax Credit Role

6. Describe the role and the amount of the Federal Production Tax Credit or Investment Tax Credit (or other incentives) on the financing of the project, including presumed qualification year and percentage. The Proposal may not be contingent on receipt of the Production Tax Credit or Investment Tax Credit.

[redacted]

[redacted]

## 7.7 Audited Financial Statements

7. Provide copies of the most recent audited financial statement and annual report for each Proposer for each of the past three years; including affiliates of Proposer (if audited statements are not available, unaudited 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 Proposer and any affiliates and partners.

[redacted] the annual reports for Ørsted (formerly known as DONG Energy) for the past three fiscal years (ending December 31, 2019) are provided as Attachment 7-2, Attachment 7-3, and Attachment 7-4. The annual reports for Eversource for the past three fiscal years (ending December 31, 2019) are provided as Attachment 7-5, Attachment 7-6, and Attachment 7-7. [redacted]. The current senior unsecured (long-term) debt ratings of Ørsted and Eversource are provided in Table 7.8.

**Table 7.8 Ørsted and Eversource Credit Ratings**

| Sponsor | S&P | Moody's | Fitch |
|---|---|---|---|
| Ørsted | BBB+ (stable) | Baa1 (stable) | BBB+ (stable) |
| Eversource | BBB+ (stable)[1] | Baa1 (stable) | BBB+ (stable) |

[1] Rating for senior unsecured long-term debt. Corporate Credit rating is A+.

## 7.8 Board of Directors, Officers, and Trustees List

8. List the board of directors, officers and trustees for the past three years and any persons who Proposer knows will become officers, board members or trustees.

The governance of the Owners' four jointly controlled companies is described in Section 7.2. The directors of both Bay State HoldCo LLC and BSW HoldCo LLC are [redacted]

There are two former directors for Bay State HoldCo LLC and BSW HoldCo LLC: [redacted]

There are four former steering committee members: [redacted]

There are no officers or trustees for the Proposer.

## 7.9 Bid Security

9. Demonstrate Proposer's ability (and/or the ability of its credit support provider) to provide the required security, including its plan for doing so.

The Owners have ample resources to provide bid security on behalf of the Proposer. As of June 30, 2020, [redacted] Ørsted's 2019 operational year saw several funding highlights. In May, it issued GBP 900 million ($1.2 billion) of green senior bonds in one inflation-linked (CPI) tranche and two nominal tranches, making Ørsted the first corporate issuer of CPI-linked green bonds in the UK [redacted] In November, Ørsted was the first foreign corporate entity to issue NTD denominated green bonds in Taiwan, with the issuance of NTD 12 billion ($0.4 billion). In December, Ørsted issued green hybrid capital securities of EUR 600 million ($0.7 billion) and redeemed EUR 524 million ($0.6 billion) of existing hybrid capital securities callable in 2020.

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

Ørsted has not experienced any current credit issues or recent rating downgrade events and is not aware of any pending credit issues or credit rating downgrade events, nor any other financial issues raised by rating agencies, banks, or accounting firms.

Eversource has not experienced any current credit issues or recent rating downgrade events and is not aware of any pending credit issues or credit rating downgrade events, nor any

other financial issues raised by rating agencies, banks, or accounting firms. Eversource maintains one of the highest credit ratings of any company in the Energy and Utility industry in the U.S.

As demonstrated in Section 6.5, all three major credit rating agencies rate Ørsted's and Eversource's credit as stable, and both Eversource and Ørsted are well regarded and maintain strong investment grade credit profiles.

## 7.10 Pending Litigation

11. Disclose any pending (currently or in the past three years) litigation or disputes related to projects planned, developed, owned or managed by Proposer or any of its affiliates in the United States, or related to any energy product sale agreement.

Pending litigation information can be found in the annual reports in Attachments 7-2 through 7-7, which disclose material litigations involving the Owners' respective affiliates. In particular, a historic Orsted NA affiliate (Elsam Kraft A/S, which has now been merged with other Ørsted entities) was party to litigation in which the Danish competition authority found that it charged excessive prices in the Danish wholesale power market from July 1, 2003 through July 1, 2006 (Elsam Kraft A/S was acquired by Orsted NA's ultimate parent company on July 1, 2006). On appeal, however, the High Court of Western Denmark ruled in Ørsted's favor on May 24, 2018, for the period of January 1, 2005 through July 1, 2006; and the Danish Appeals Permission Board subsequently ruled that that decision may not be appealed to the Danish Supreme Court. Nevertheless, following the Danish competition authority's finding, consumers also brought claims for damages, which were dismissed by the Danish Maritime and Commercial Court on March 31, 2020, but have been appealed by the claimants.

Eversource, one of the parent companies of the Proposer, and Avangrid, Inc. are defendants in a class action (Scott Breiding, et al. v. Eversource Energy and Avangrid, Inc., C.A. No. 17-12274-DJC) alleging that the defendants manipulated the wholesale prices of natural gas sold to electric generation facilities in New England. The complaint was dismissed on September 11, 2018. The Breiding decision was appealed to the First Circuit Court of Appeals, which upheld the dismissal and denied a plaintiffs' request for rehearing *en banc*.

A similar consolidated class action case against Eversource and Avangrid before the same judge (PNE Energy Supply LLC v. Eversource Energy and Avangrid, Inc., Docket No. 1:18-cv-11690-DJC), asserting the same claims as in the Breiding case, was dismissed by the court on June 7, 2019. PNE filed an appeal in the First Circuit Court of Appeals on July 12, 2019. Eversource and Avangrid moved to stay the PNE appeal pending the decision of the court in the Breiding case. The PNE Energy Supply decision was appealed to the First Circuit Court of Appeals, which recently upheld the dismissal.

On August 10, 2020, Eversource Energy Service Company was served with a purported "cookie cutter" class action lawsuit arising out of Tropical Storm Isaias, captioned Krysztof Kosieradzki, et al. v. Eversource Energy Service Company, in Connecticut superior court. The plaintiffs are allegedly two residential customers and one business customer who purport to bring this class action on behalf of themselves and other Connecticut homeowners and business owners who were electrical service customers who lost their electrical power during Tropical Storm Isaias. As of the date of the complaint, the plaintiffs had been out of power for

three days. The plaintiffs' law firm brought a similar (nearly identical) putative class action lawsuit against The Connecticut Light and Power Company in 2012 in the aftermath of the October 29, 2011 Winter Storm Alfred. In this new complaint, plaintiffs' law firm cut and pasted from the prior complaint (even asserting that the plaintiffs during this July tropical storm *"lost their electrical power following the snowstorm")*. The prior class action suit lacked legal and factual merit and resolved for an insignificant amount, prior to the company's filing of dispositive motions. Eversource removed the case to the U.S. District Court for the District of Connecticut, Krysztof Kosieradzki, et al. v. Eversource Energy Service Company, Civil Action No. 3:20-cv-01338, and will seek to have the case dismissed.

On September 14, 2020, PenangBenny Consulting LLC brought a complaint in Connecticut Superior Court, captioned PenangBenny Consulting LLC v. Eversource Energy Service Company, Civil Action No. HHD-CV20-6132641-S, asserting breach of contract claims. Eversource will be moving to dismiss the complaint for lack of jurisdiction based on the parties' contractual dispute resolution process, requiring negotiation, mediation, and binding arbitration.

On July 15, 2016, the U.S. Attorney on behalf of the U.S. Army Corps of Engineers filed a civil action in the U.S. District Court for the District of Massachusetts under provisions of the Rivers and Harbors Act of 1899 and the Clean Water Act against NSTAR Electric Company, Harbor Electric Energy Company, a wholly-owned subsidiary of NSTAR Electric Company (HEEC), and the Massachusetts Water Resources Authority (together with NSTAR Electric Company and HEEC, the "Defendants"). The action alleged that the Defendants failed to comply with certain permitting requirements related to the placement of the HEEC-owned electric distribution cable beneath Boston Harbor. The action sought an order to compel HEEC to comply with cable depth requirements in the U.S. Army Corps of Engineers' permit or alternatively to remove the electric distribution cable and cease unauthorized work in U.S. waterways. The action also sought civil penalties and other costs. The parties reached a settlement pursuant to which HEEC agreed to install a new 115-kV distribution cable across Boston Harbor to Deer Island, utilizing a different route, and remove portions of the existing cable. Upon the installation and completion of the new cable and the removal of the portions of the existing cable, all issues surrounding the current permit from the U.S. Army Corps of Engineers are expected to be resolved. On September 19, 2020, the parties filed a status report in which it was agreed NSTAR Electric Company and HEEC would submit a detailed plan for restoration of certain restoration/mitigation work as a result of trenching and excavation for the new cable, along with anticipated completion dates for those plans no later than January 18, 2021. Upon completion of the remaining work, the litigation is expected to be dismissed with prejudice.

[redacted]

## 7.11 Expected Operating Life

12. Provide the expected operating life of the proposed Project and the depreciation period for all substantial physical aspects of the offer, including generation facilities, generator lead lines to move power to the grid, and transmission system upgrades.

[redacted]

## 7.12 Affiliated Entities and Joint Ventures

13. List all of Proposers' affiliated entities and joint ventures transacting business in the energy sector.

As detailed in Section 7.2, Orsted NA and ESI jointly control the companies that are involved in the Project.

Virtually all of Eversource's business is conducted in the energy sector. Ørsted owns, sometimes jointly, more than 100 entities active in the energy sector. Please see Figure 7.1 for a corporate structure chart of the Owners' joint venture, as well as Ørsted's 2019 and Eversource's 2019 Annual Reports (Attachments 7-4 and 7-7) for a complete list of affiliated entities and joint ventures.

## 7.13 Litigation, Disputes, Claims or Complaints, or Events of Default

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

Neither the Proposer nor any of its affiliates has been implicated in any litigation, disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, involving, and relating to the purchase or sale of energy, capacity or renewable energy certificates or products in the U.S.

See Section 7.10 for further details regarding pending litigation.

## 7.14 Statement Regarding any Governmental Investigation

15. Confirm that Proposer, and the directors, employees and agents of Proposer and any affiliate of Proposer are not currently under investigation by any governmental agency and have not 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 offering on any contract, or have been the subject of any debarment action (detail any exceptions).

Neither the Proposer, the Owners or their affiliates, nor any of their respective directors, employees, or agents (acting in their professional capacities) is currently under investigation by any governmental agency, or has in the last four years been convicted or found liable for any act prohibited by State or Federal law in any U.S. jurisdiction involving conspiracy, collusion or other impropriety with respect to bidding on any contract, or has been the subject of any debarment action.

See Section 7.10 on litigation involving affiliates of Eversource.

# 8 INTERCONNECTION AND DELIVERABILITY

6.4.8 Proposers are required to demonstrate the Offshore Wind Generation Facility's interconnection status and deliverability capabilities. A narrative description of the interconnection and deliverability plan should be included in the Proposal Narrative. Detailed supporting information should be included in the required Interconnection and Deliverability Plan attachment. Proposers should provide the following information:

1. a) Provide documentation to show evidence of the interconnection request to NYISO or any neighboring control areas for Capacity Resource Interconnection Service (CRIS) or for Energy Resource Interconnection Service, or similar interconnection standards in neighboring control areas.

   b) For Proposals where capacity is to be delivered to NYCA, Proposers should describe any required transmission system upgrades and provide an estimate of the required transmission system upgrade costs under NYISO CRIS to meet deliverability requirements in NYISO. Evidence that Proposer has a pending, valid interconnection request is sufficient. Describe the status of any planned interconnection to the grid.

   c) Any interconnection studies undertaken by the applicable control area or third parties on behalf of Proposer must be provided.

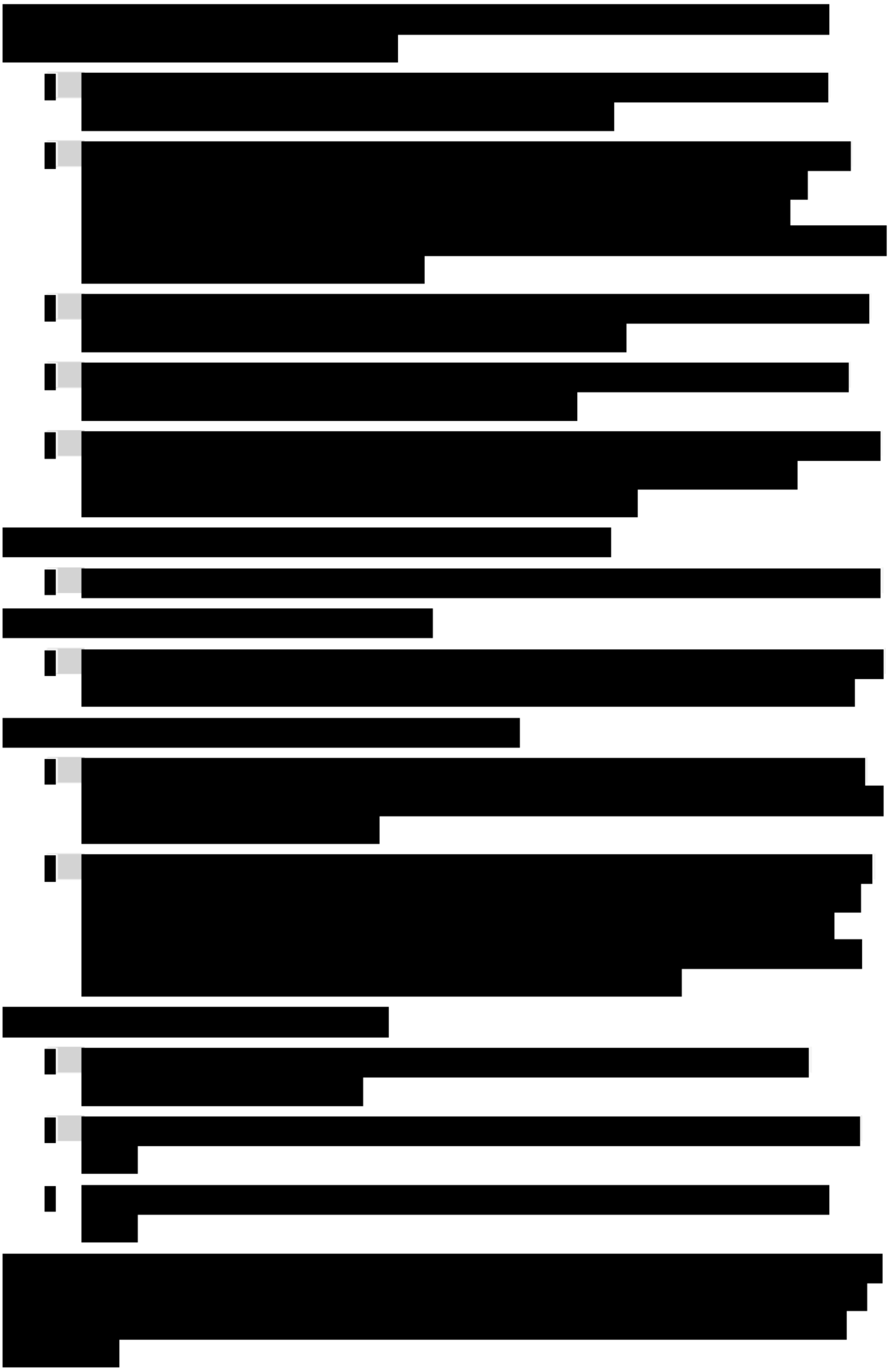
2. Provide a copy of an electrical one-line diagram showing the interconnection facilities and the relevant facilities of the transmission provider.

3. Identify and provide an estimate of cost, supported by an independent third party, for all proposed or anticipated interconnection and transmission upgrades, including any transmission upgrades beyond the point of interconnection that are needed to ensure delivery of energy from the Offshore Wind Generation Facility into NYCA. Describe measures to identify and control the regulatory and operational risks related to the delivery of energy from the Offshore Wind Generation Facility. Describe measures to identify and control the regulatory and operational risks related to the delivery of energy from the Offshore Wind Generation Facility.

4. Demonstrate that energy and associated ORECs generated by the facility can be delivered into the NYCA. For an Offshore Wind Generation Facility interconnecting in an adjacent Control Area, describe how Proposer intends to fulfill the External Project Delivery Requirement.

5. Provide detail regarding the available capacity, at the time of submission, of the proposed Injection Point.

[redacted]



# 9 Environmental Assessment and Permit Acquisition Plan

6.4.9 Proposers are required to demonstrate a plan for environmental assessment and permit acquisition for the Offshore Wind Generation Facility. Proposers should provide the following information:

The Proposer has a great deal of experience in siting and permitting large energy infrastructure projects, standing out among its peer group of developers. As the largest offshore wind developer in the U.S. with over 1,700 MW under contract in the Northeast U.S., the Proposer is currently engaged at both the federal and state levels in substantial environmental assessment work in support of permit acquisition. The Project team successfully permitted the first offshore wind facility in the U.S., the Block Island Wind Farm. Ørsted has developed, permitted, and installed more than 1,100 offshore WTGs in a wide range of waterbodies around the globe. Eversource, as the largest transmission system owner and developer in New England, has decades of experience in addressing environmental requirements in support of successfully permitted projects.

In addition to its experience with the Block Island Wind Farm, the Project team is currently engaged in permitting and outreach activities in New York State and at the federal level for the South Fork Wind and the Sunrise Wind 1 projects. Both projects will interconnect in Long Island. [redacted]

[redacted] provides an overview of the Proposer's current and previous permitting campaigns and status of submittals:

**Table 9.1 Summary of U.S. Offshore Wind Permitting Experience**

| Project | Status |
|---|---|
| Block Island Wind Farm | All permits received in 2015; project is currently operational |
| Coastal Virginia Offshore Wind Pilot | All permits received in 2019; project is currently under construction |
| South Fork Wind | COP submitted in 2018<br>New York State Article VII application submitted in 2018<br>Other federal and state permits under development |
| Bay State Wind | COP submitted in 2019; Other federal and state permits under development |
| Revolution Wind | COP submitted in 2020; Other federal and state permits under development |
| Sunrise Wind 1 | COP submitted in 2020; [redacted] |

[redacted]

## 9.1 Permits, Licenses, Environmental Assessments and/or Environmental Impact Statements Required

1. Provide a comprehensive 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 that are responsible for issuing approval of all the permits, licenses, and environmental assessments and/or environmental impact statements. If a Proposer has secured any permit or has applied for a permit, please indicate this in the response.

To support the timely construction and operation of the Project, the Proposer has developed a viable permitting plan that consists of the following key elements:

- Robust engagement with the regulatory community and other stakeholders;
- Thorough evaluation of impacts through offshore and onshore field surveys, complex modeling, and desktop assessments, including alternatives assessment;
- Refinement of Project parameters [redacted] based on the results of engagement and assessment and subject to regulatory review; and
- Development of appropriate mitigation measures to reduce or eliminate impacts to the extent practicable.

[redacted]

A list of the federal authorizations and required consultations with federal regulatory agencies is provided in Table 9.2. Table 9.2 includes the status of any permit application(s) or permits that have been secured by the Proposer.

**Table 9.2 Federal Authorizations and Required Consultations**

| Consent/Permit and/or Consultation | Regulatory Agency | Status |
|---|---|---|
| Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf, in accordance with Section 8 of the Outer Continental Shelf Lands Act | Department of the Interior, BOEM | [redacted] |
| [redacted] | BOEM | [redacted] |
| [redacted] | BOEM | [redacted] |
| Facility Design Report (FDR) | BOEM | [redacted] |
| Fabrication and Installation Report (FIR) (30 Code of Federal Regulations [CFR] §§ 585.700-702) | BOEM | [redacted] |
| National Environmental Policy Act (NEPA), including consultation under Magnuson-Stevens Fishery Conservation and Management Act, Marine Mammal Protection Act, National Historic Preservation Act, Endangered Species Act | BOEM, U.S. Army Corps of Engineers (USACE), NOAA Fisheries, Department of Defense (DoD), Advisory Council on Historic Preservation, U.S. Fish and Wildlife Service (USFWS) and cooperating regulatory agencies | [redacted] |
| Individual Permit pursuant to Rivers and Harbors Act, Section 10 and Clean Water Act (CWA), Section 404 | USACE | [redacted] |
| Private Aids to Navigation (PATON) Permit and Local Notice to Mariners | U.S. Coast Guard | [redacted] |
| No Hazard Determination | Federal Aviation Administration (FAA) | [redacted] |
| Consultation with DoD | Office of the Assistant Secretary of Defense for Energy, Installations, and Environment, DoD Siting Clearinghouse and U.S. Naval Seafloor Cable Protection Office | [redacted] |
| OCS Air Quality Permit and General Conformity Determination | U.S. Environmental Protection Agency (EPA) | [redacted] |
| [redacted] | [redacted] | [redacted] |
| Incidental Take Authorization (i.e., Incidental Harassment Authorization or Letter of Authorization) pursuant to Section 101(a)(5) of the Marine Mammal Protection Act, Endangered Species Act, Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Magnuson-Stevens Fishery Conservation and Management Act | NOAA Fisheries and/or USFWS | [redacted] |
| [redacted] | | |

### 9.1.1 New York

Components of the Project are located within New York state waters and on New York state land, [redacted]. Certain New York regulatory agencies have jurisdiction over the Project. Necessary New York permits, licenses, and environmental assessments and/or environmental impact statements are identified in [redacted]

Under Article VII, the New York State Public Service Commission (NYSPSC) has the ability to waive any local ordinances or town code that is determined to be unduly restrictive in view of the existing technology, factors of costs or economics, or the needs of consumers. Except for those provisions the Proposer specifically requests that the NYSPSC not apply, the Proposer is required to comply with all substantive local legal provisions that are applicable to the Project. [redacted]

### 9.1.2 Massachusetts

#### Massachusetts Office of Coastal Zone Management – Coastal Zone Program Federal Consistency Certification Letter of Concurrence

In Massachusetts, the Office of Coastal Zone Management is the lead agency with regard to coastal and ocean uses and implements the state's coastal program under the federal Coastal Zone Management Act (CZMA). In response to the Oceans Act of 2008, the Massachusetts Executive Office of Energy and Environmental Affairs (EO EEA) issued the original Massachusetts Ocean Management Plan in December 2009. The plan was revised in 2015 as the Oceans Act requires EO EEA to review and update the plan at least once every five years. The ocean plan provides a management framework that establishes how the relevant agencies coordinate review and approval of proposed projects within state waters, including the Project.

### 9.1.3 Rhode Island

#### RI CRMC—Coastal Zone Management Program Federal Consistency Certification Letter of Concurrence

On September 20, 2018, the Rhode Island Coastal Resources Management Council (RI CRMC) requested concurrence from the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management to issue approval for a routine program change for an amended geographic location description (GLD) as part of the Rhode Island Ocean Special Area Management Plan (SAMP) and federal consistency list as part of its federally approved Rhode Island Coastal Resources Management Program (CRMP) pursuant to the federal CZMA. RI CRMC requested expanded federal consistency review authority of certain federal

license or permit activities, namely offshore wind facilities and submarine cables, within the Massachusetts WEA and adjacent federal waters. On December 7, 2018, the NOAA Office for Coastal Management concurred with RI CRMC's routine program change request and approved the new, expanded GLD and modified federal consistency list, thus granting authority to RI CRMC to assess consistency of BOEM-issued licenses or permits with the Rhode Island Ocean SAMP enforceable policies (Rhode Island Code of Regulations Section 11.10) to an expanded area of federal waters, including the Project's Lease Area.

## 9.2 Anticipated Timeline for Seeking and Receiving Required Permits

2. 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 as described in Section 6.4.11.

Section 9.1 provides a comprehensive list of required permits and licenses, regulatory consultations, and environmental assessments necessary for Project authorization. Table 9.1 and Table 9.2 show a matrix of applicable regulations and permits, including the current status and/or anticipated date of receipt.

As detailed in Section 3, the Proposer has extensive experience in acquiring permits for commercial projects of similar scale. Furthermore, the Proposer has achieved considerable progress in advancing the permitting process consistent with its comprehensive development plan and associated Project schedule (see Attachment 11-1). The timeline for application submittal and receipt for all required permits, licenses, and environmental assessments and/or environmental impact statements is detailed in Section 9.1.

[redacted]
reflects:

- Consistent engagement with regulatory agencies;
- In-depth knowledge of federal and state permitting processes;
- Project milestones achieved to date; and
- Ørsted's and Eversource's collective experience in conducting environmental impact assessments and permitting large infrastructure projects.

[redacted]

### 9.2.1 Federal Permits and Approvals

**Bureau of Ocean Energy Management—Commercial Lease, Approval of Site Assessment Plan and COP, Issuance of Record of Decision, and Approval of Facility Design Report and Fabrication and Installation Report**

For renewable energy and alternative use development on the Outer Continental Shelf (OCS), BOEM is the lead federal agency responsible for the issuance of an OCS commercial lease, authorization of a SAP and a COP and, pursuant to NEPA, issuance of a ROD approving the COP. An Environmental Impact Statement (EIS) will be drafted on behalf of BOEM to examine the Project's potential impacts on the environment during the construction, operation, and eventual decommissioning stages. During that NEPA review process, which includes multiple public comment and review periods, BOEM will solicit input from federally recognized tribes and federal agencies during informal and/or formal consultations. Federal regulatory agencies include:

- Advisory Council on Historic Preservation (and relevant State Historic Preservation Offices);
- U.S. Army Corps of Engineers (USACE);
- U.S. Coast Guard (USCG);
- Federal Aviation Administration (FAA);
- U.S. Fish and Wildlife Service (USFWS);
- NOAA National Marine Fisheries Service (NOAA Fisheries);
- Department of Defense (DoD); and
- U.S. Environmental Protection Agency (EPA).

The ROD will record BOEM's decision on its chosen "preferred alternative", describe the alternatives BOEM considered in relation to the proposed action (i.e., construction of the Project), address public comments on the draft EIS, and (if necessary) propose mitigation and monitoring measures to be undertaken by the Proposer.

Per Secretarial Order 3355[7], in an effort to implement a more efficient federal review process, BOEM is obligated to undertake a page-limited EIS and complete its NEPA review within 12 months of the publication of a Notice of Intent to publish a draft EIS. A ROD is anticipated to be issued in [redacted]. Additionally, per Executive Order 13807, a "One Federal Decision" policy promulgated a memorandum of understanding among federal regulatory agencies to agree to a single timeline of environmental reviews and authorization decisions for proposed major infrastructure projects, prepare a single EIS covering all federal agency actions, sign one ROD, and issue all necessary authorization decisions within 90 days of issuance of the ROD.[8]

[7] In August 2017, the U.S. Department of Interior issued Secretarial Order 3355 Streamlining National Environmental Policy Act Reviews and Implementation of Executive Order 13807 "Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure." The Secretarial Order imposes uniform page and time limits on the completion and review of an EIS.

[8] See Memorandum of Understanding Implementing One Federal Decision Under Executive Order 13807 (April 10, 2018). Available at: https://www.whitehouse.gov/wp-content/uploads/2018/04/MOU-One-Federal-Decision-m-18-13-Part-2-1.pdf.

States have the opportunity to directly weigh in on the NEPA process under the CZMA, National Historic Preservation Act, and Clean Water Act (CWA), as well as on issues arising under state laws or of general concern. The Proposer will engage with New York permitting authorities and host an interagency kick-off meeting. This will be a continuation of the Proposer's efforts to streamline federal and state permitting processes similar to the Proposer's interagency outreach with federal and state agencies for projects such as Revolution Wind, South Fork Wind, Bay State Wind, and Sunrise Wind 1.

After the issuance of the ROD, the Proposer will be required to submit both a Facility Design Report (FDR) and a Fabrication and Installation Report (FIR) for BOEM's review pursuant to 30 Code of Federal Regulations (CFR) §§ 585.700-702. Fabrication and installation of the approved facilities may be initiated only after notification from BOEM that it has received these reports and has no objection.

#### U.S. Army Corps of Engineers—Individual Permit

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for construction of any structure or any obstruction or alteration to a navigable water of the U.S. The excavation and dredging or deposition of material into the "waters of the U.S.", including wetlands, requires authorization from the USACE under Section 404 of the CWA. The New York District USACE will likely be a cooperating agency under BOEM's NEPA process to satisfy the NEPA requirements for these authorizations.

#### U.S. Coast Guard—Private Aids to Navigation Permit and Local Notice to Mariners

The USCG will issue a Private Aids to Navigation (PATON) approval for a lighting scheme permanently affixed to the wind turbine generator [redacted] to alert mariners to potential hazards to navigation. [redacted] A Local Notice to Mariners is a weekly notification published by the USCG to disseminate information to mariners concerning aids to navigation, hazards to navigation, and other items of marine information of interest.

#### Federal Aviation Administration/Department of Defense—Consultation

The FAA has implemented specific regulations for the safe use of air space relative to the location of wind turbine generators, the majority of which are land-based. All structures that exceed 499 feet above ground level are considered obstructions and, therefore, the FAA is obligated to study them to determine their effect on the navigable airspace. In the offshore environment, the FAA's Obstruction Evaluation Group will conduct aeronautical studies based on information provided by the Proposer out to 12 nm (22 km) to assess hazards to flight patterns and radar interference and to also impose requirements under federal obstruction lighting and marking regulations.

The Proposer will initiate consultation with FAA regarding aviation and lighting. The Proposer will conduct a detailed analysis of the airspace to identify obstacles and clearance surfaces that would limit Project development (e.g., location of wind turbine generators) as well as a detailed analysis of any issues with radar line of sight. [redacted]

[redacted]

During its review, the FAA will engage with the DoD and Department of Homeland Security (i.e., USCG) and solicit input from these agencies. The FAA would then issue a Determination of No Hazard, noting that the WTGs and other offshore equipment would have no adverse effect on air navigation.

In addition, the Proposer will consult with the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment, DoD Siting Clearinghouse, which would provide an analysis of potential impacts to military operations (e.g., military testing and training operations and airborne military radar capabilities). The Proposer will also complete consultation with the U.S. Naval Seafloor Cable Protection Office in order to avoid the Navy's submarine assets, including cable systems.

#### U.S. Environmental Protection Agency—OCS Air Permit, General Conformity Determination, and Construction General Permit

The Project will require an OCS permit because of its location beyond the state seaward boundary and will be subject to federal and corresponding state air quality requirements. In accordance with Section 328(a)(1) of the Clean Air Act, the OCS permit would regulate the pollutants emitted from the pre-construction, construction, and operation activities proposed for the Project.

Per Section 328, the definition of "OCS source" is broader in scope as compared to EPA's regulations for land-based stationary sources. Onsite construction equipment and emissions from that equipment, and pollutants emitted from certain vessels that service the OCS source, are subject to regulation in the OCS air permit. Typically, these emissions sources would not be included for an analogous onshore project under stationary source regulations.

For this Project, marine vessels or other equipment employed for construction and/or operation are considered OCS sources.

Additionally, activities located in state territorial waters and within state nonattainment areas for national ambient air quality standards may require a General Conformity determination. As specified in 40 CFR Part 93, Subpart B, in the COP, the Proposer would demonstrate that the activity will not interfere with the state implementation plan for air quality control and would not cause or contribute to new violations and would ensure attainment and maintenance of the national ambient air quality standards.

Furthermore, the EPA would issue a National Pollutant Discharge Elimination System 2017 Construction General Permit and approve a Stormwater Pollution Prevention Plan (SWPPP) for the Project. A National Pollutant Discharge Elimination System Construction General Permit is needed because the onshore construction activities would disturb one or more acres of land and the Proposer is designated as an operator of a construction site and also has control over the construction plans and specifications, including modifications to them or daily site activities necessary to ensure compliance with the permit and SWPPP, including directing workers at the site to carry out permit compliance activities. A SWPPP is a permit compliance with a description specific to erosion and sediment implementation controls.

For federal compliance with the CWA for activities in New York, the New York State Pollutant Discharge Elimination System (SPDES) program has been approved by the EPA and is

administered by the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC has issued a SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002).

#### U.S. Fish and Wildlife Service and National Marine Fisheries Service—Incidental Take Authorization

During the NEPA review process, BOEM will engage in formal consultation with regulatory agencies, including NOAA, USFWS, USACE, and EPA. These agencies are statutorily mandated to review the Project's reasonably foreseeable impacts to protected resources, assess whether additional analysis is warranted (e.g., Biological Assessment and/or Essential Fish Habitat Assessment), and evaluate the need for mitigation measures during Project construction and/or operation. USFWS and NOAA Fisheries will review Project impacts to marine, coastal, and terrestrial threatened and endangered species protected by the federal Endangered Species Act. Impacts to non-listed species and habitats will also be evaluated under several other wildlife protection laws, including the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, the Marine Mammal Protection Act, and the Magnuson-Stevens Fishery Conservation and Management Act.

The Proposer will seek any additional required documentation as part of consultation on endangered species including Incidental Harassment Authorization (IHA) or Letter of Authorization (LOA) requests.

[redacted]

### 9.2.2 State Permits, Approvals and Consultation

Although the Project will not be located within state waters of Massachusetts or Rhode Island, the federal CZMA authorizes states with a federally approved coastal zone management program that may be affected by the issuance of a federal license or lease to review the proposed activities to ensure consistency with that state's enforceable coastal zone policies. New York, Massachusetts, and Rhode Island will all have jurisdiction to review the Project under the CZMA (as discussed in Section 9.1 and below).

#### Massachusetts and Rhode Island

##### *Executive Office of Energy and Environmental Affairs, Massachusetts Office of Coastal Zone Management—Coastal Zone Management Program Federal Consistency Certification Letter of Concurrence*

The Proposer will submit a letter to the Massachusetts Office of Coastal Zone Management (MA CZM) noting that the Proposer will voluntarily submit a request for a Federal Consistency Review by MA CZM for the Project. Additionally, by request, the Proposer will provide any

[redacted]

necessary data and information to facilitate the state's review. The EO EEA must issue a letter of concurrence to the Consistency Certification prior to COP approval by BOEM.

A copy of all federal application materials will be submitted to MA CZM. The Proposer will certify to BOEM and MA CZM that the Project complies and is consistent with the state's Coastal Management Program. By federal regulation, MA CZM has six months to complete its review of a consistency certification and make a decision; however, this process can be extended through the filing of a "stay". [redacted]

***Rhode Island Coastal Resources Management Council—Coastal Zone Management Program Federal Consistency Certification Letter of Concurrence***

The Proposer will submit a CZMA Consistency Certification to the RI CRMC, with an explanation of how proposed activities potentially affecting state coastal resources are consistent with state coastal policies. The Proposer will provide any necessary data and information to facilitate the state's review. The Proposer will meet with RI CRMC to discuss reasonably foreseeable coastal effects to Rhode Island coastal resources from the Project.

Conformance with the RI CRMP, Rhode Island's federally approved program under the CZMA, will be the primary state regulatory driver for the Project. Conformance with the Rhode Island Ocean SAMP policies and the overall RI CRMP will be assessed through the Federal Consistency Review that will be filed with the COP (30 CFR 585.611(b), 585.627). By federal regulation, RI CRMC has six months to complete its review of a consistency certification and make a decision; however, this process can be extended through the filing of a "stay". [redacted]

**New York**

New York has direct jurisdiction over facilities that will occur in or traverse through its territorial waters within 3 nm (5.6 km) from shore. [redacted]
The state requirements associated with installation of an export cable across state territorial waters in New York are described below.

[redacted]

[redacted]

## 9.3 Site Assessment Plan and COP

3. Provide the SAP and COP, if completed. If the SAP and/or COP are not completed, provide the status of development of these plans and a proposed plan and timeline for completion.

[redacted]

[redacted]

# 10 ENGINEERING AND TECHNOLOGY

6.4.10 Provide information about the specific technology or equipment including the track record of the technology and equipment and other information as necessary to demonstrate that the technology is viable.

## 10.1 Preliminary Engineering Plan

1. Provide a preliminary engineering plan which includes at least the following enumerated information. If specific information is not known, identify manufacturers, vendors, and equipment that will be considered.

a. Type of foundation, Offer Capacity, and generator lead line transmission technology

### 10.1.1 Preliminary Engineering Plan (Proposed Design[redacted])

[redacted]

The Proposed Design for the Project (a preliminary engineering plan) can be broken down into the key components described in [redacted]

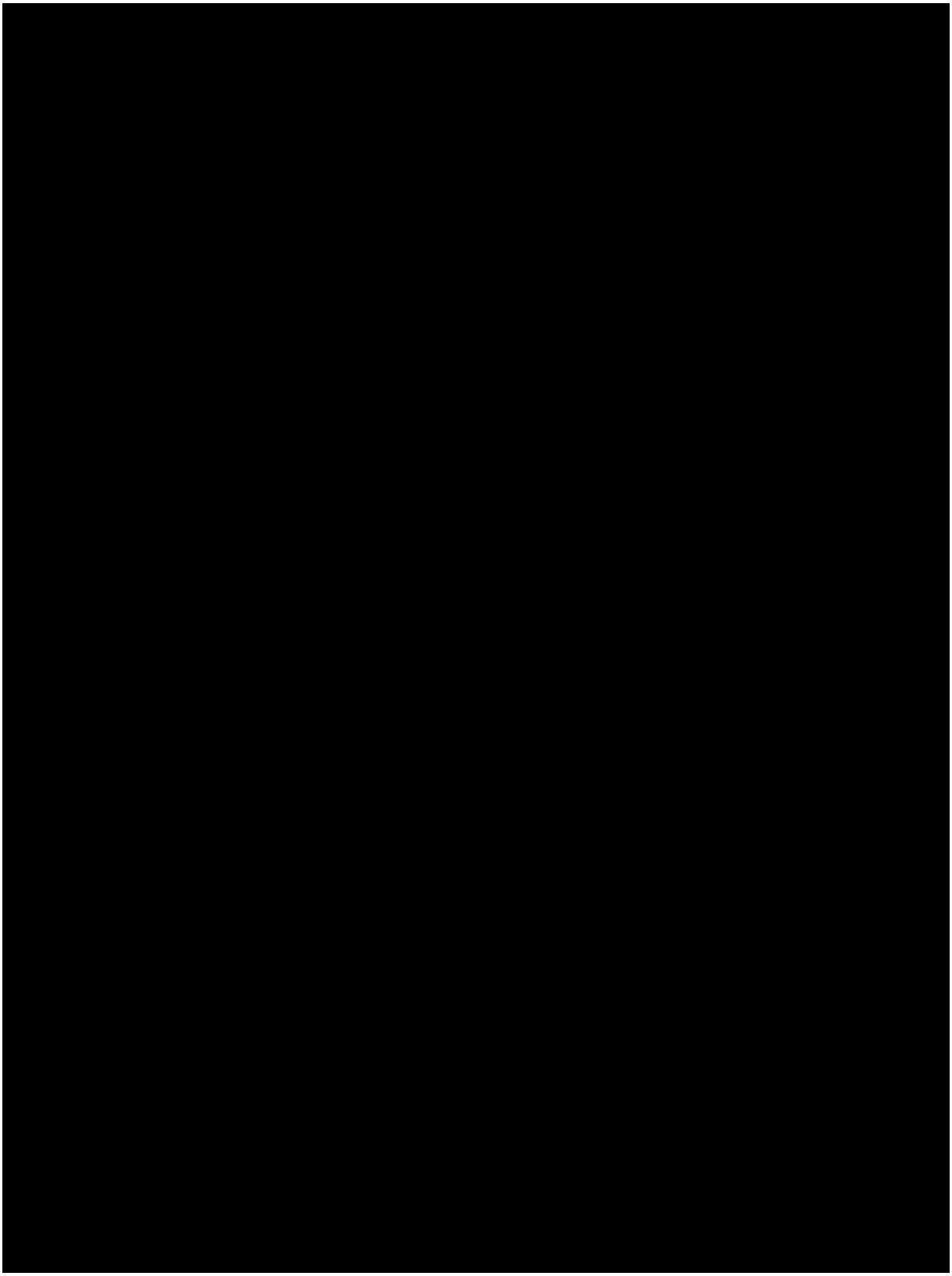
[redacted]

[redacted]

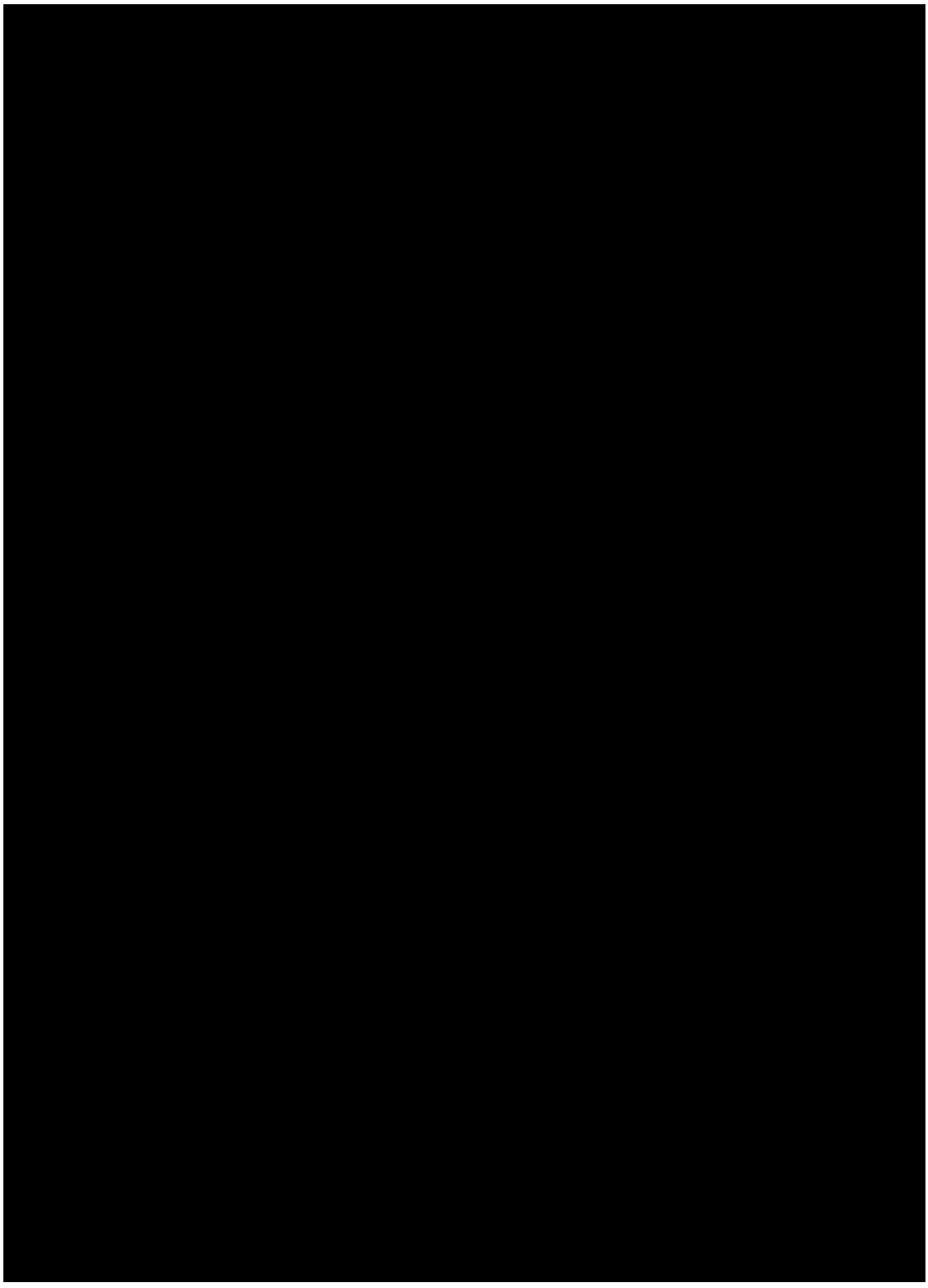
b. Major equipment components to be used, including nacelle, hub, blade, tower, foundation, transmission structures and platforms, electrical equipment and cable)

[redacted]

[redacted]



[redacted]



## Transmission

### *Array Cables*

[redacted] The WTGs are arranged in "strings," with a number of WTGs on a single cable string. The number of WTGs per string depends on the power capacity of the platform connecting the cables and the WTG rating.

[redacted]

[redacted]

the main braces and columns are steel tubes (circular members), and members in the decks are wide flange H profiles. This type of structural system has been successfully installed and used for over 15 other offshore substations in Ørsted's portfolio. This method has also been used in the majority of oil and gas installations in the Gulf of Mexico and around the globe.

[redacted]

[redacted]

The cable and cellar deck (to facilitate cable pulling) will be open decks and the remaining rooms will in general be closed, climate-controlled rooms with the exception of the transformer and shunt rooms, which will be naturally ventilated via openings in the walls.

[redacted]

The SCADA systems' main task is to provide monitoring, control and protection of the high voltage and medium voltage components. The secondary task is to provide interface to external systems and monitor and control the low voltage system and auxiliary systems. All information is presented on a Human Machine Interface (HMI flat screen presentation), allowing alarms and system events to be logged and managed.

## c. Manufacturer of each of the equipment components as well as the location of where each component will be manufactured

[redacted] lists the potential manufacturers in the Proposed Design. [redacted] provides the locations where each component would be manufactured.

[redacted]

### d. Status of acquisition of the equipment components

[redacted] describes the status of major equipment:

[redacted]

e. Status of any contracts for the equipment Proposer has or Proposer's plan for securing equipment and the status of any pertinent commercial arrangements

**Supplier Engagement Plan**

[redacted]

[redacted]

## f Equipment vendors selected/considered

[redacted]

## g. Track record of equipment operations

All equipment in the Proposed Design (or under consideration) is expected to be proven technology at the time of construction. The equipment will all build on technology platforms, with a strong history of performance described in Table 10.5. See Section 6 for the expected operational performance of the Project.

**Table 10.5 History of Equipment Operations**

| Item | History |
|---|---|
| **Generation** | |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| **Transmission** | |
| Array Cable | This technology has been reliably operating for decades, including in many Ørsted projects. |
| Export Cable | The export cable technology is widely accepted in the offshore wind industry and has been used extensively. |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |
| [redacted] | [redacted] |

The Proposer's strategy for mitigating technology risk is to use proven technology.

The critical equipment components for the Project are either the same or are based on earlier versions that have been manufactured and operated with success on various large-scale offshore wind farms by Ørsted as well as the general offshore wind industry. As such, all equipment used in the Project has a history of proven and reliable operation, and poses no practical technological risk.

Ørsted or Eversource have installed, operated and maintained equipment from the majority of the manufacturers referenced in the table provided in [redacted]

[redacted]

h. Design considerations (technology selection, layout) for climate adaptation and resiliency such as sea level rise, potential impacts from increased frequency and severity of storms (i.e. superstorms, hurricanes), seismic activity, etc.

[redacted]

[redacted]

Overall, the Project design is consistent with the 26 successfully operating wind farm sites owned and operated by Ørsted in the U.S., Europe, Taiwan and Germany.

[redacted]

In accordance with the Community Risk and Resiliency Act of 2014, the NYSDEC has adopted science-based projections of future sea level rise scenarios based on various greenhouse gas emission models. Specifically, NYSDEC has adopted sea level rise projections of 6 ft (72 in) above current levels by the year 2100. A report developed by NYSERDA (also called ClimAID) has created models that project the sea level rise scenarios in three New York State regions over various time intervals, and under different emissions scenarios. [redacted]

[redacted]

Additionally, existing site elevations were determined by accessing the NYSDEC, Coastal New York LiDAR (Tidal Water Raster DEM), 2012. Current Federal Emergency Management Agency (FEMA) flood mapping was accessed using the FEMA Map Service Center on-line mapping.

[redacted] The anticipated end of life for the proposed onshore POI substation facilities and upgrades would be in the early 2060s.

[redacted]

***Onshore Transmission Cable***

The onshore transmission cable route would begin at a transition-joint bay (TJB). [redacted] The design for the onshore underground cables would be in accordance with the latest revision to all applicable industry codes and standards as well as applicable regulations of the federal, state and local authorities. These codes and standards, as well as industry best practice, include the assumption of groundwater presence, regardless of sea level. A rise in sea level would not impact cable design and operation. Location of the TJB and splice vaults along the onshore cable route will be evaluated in the detailed design phase with consideration for maintenance access given projected sea level rise, among other factors.

i. In the event the equipment manufacturer has not yet been selected, identify in the equipment procurement strategy the factors under consideration for selecting the preferred equipment as well as the anticipated timing associated with the selection of the equipment manufacturer, including the timing for binding commercial agreement(s).

[redacted]

Ørsted's in-house experts will apply the most recent technological advances; an optimized design, supply chain, and logistical train; and safe and environmentally sound solutions to the U.S. offshore wind market.

The Proposer's organization has also hired a dedicated full-time local procurement team, whose sole role is to identify and support local suppliers. The team is committed to employing a multi-contract approach to the development and construction of offshore wind projects that facilitates local supplier opportunities.

To deepen the local supply chain, the Proposer requests suppliers to set forth similar requirements for their sub-supplier markets. These goals include maximizing local supply and jobs by focusing on the right opportunities for local potential suppliers. Educating and collaborating with local suppliers across tiers and across markets is needed to develop a sustainable and competitive offshore wind supply chain.

In selecting the equipment for the Project, the Proposer will focus on the suppliers' or manufacturers':

- Ability to develop the local supplier market;
- Safety and quality records;
- Track record and references;
- Financial rating; and

- Price level of their proposals.

As described in Section 10.1, the Proposer has initiated detailed dialogues with equipment suppliers. A critical path schedule including a timeline for securing equipment components is provided in Section 11. A detailed overview of this is provided in [redacted]

[redacted]

[redacted]

## 10.2 Lighting Controls

2. Describe the lighting controls that will be utilized on the Offshore Wind Generation Facility and explain how these controls comply with the minimum contract standards and the Offshore Wind Order.

The Proposer's design for the aviation and navigation marking system for the Project will comply with the requirements of the relevant regulatory agencies. Compliance will be verified as part of the process for issuing relevant approvals and/or permits for the Project. [redacted]

See [redacted] for details regarding representative lighting controls for the Project that will be refined during the permitting process and further consultation with regulatory agencies.

# 11 PROJECT SCHEDULE

6.4.11 A Proposer must demonstrate that its Project can be developed, financed, and constructed within a commercially reasonable timeframe. Proposer is required to provide sufficient information and documentation showing that Proposer's resources, process, and schedule are adequate for the acquisition of all rights, permits, and approvals for the financing of the Project consistent with the proposed milestone dates that support the proposed Commercial Operation Date(s).

Proposers are required to provide a complete critical path schedule for the project from the notice of award to the start of commercial operations. For each project element listed below, provide the start and end dates.

[redacted]

The schedule for the development and construction of the Project is commercially reasonable and achievable. It is supported by Ørsted's history with planning and executing multiple large-scale offshore wind projects globally and the Proposer's knowledge of the local regulatory framework and supply chain dynamics. The Proposer's ability to execute the Project is supported by Ørsted's track record of having 25 offshore wind farms successfully developed, constructed, and in operation in the U.S., Europe, and Asia, and an additional seven wind farms under construction. Technical design and constructability are retained in-house and is based on nearly three decades of experience with engineering, procuring, and constructing offshore wind farms and complex onshore/offshore transmission systems.

Below are highlights of the Proposer's expertise in planning, which demonstrates its ability to execute the Project in a commercially reasonable timeframe.

Some of the tools developed by Ørsted based on lessons learned from its previous projects include:

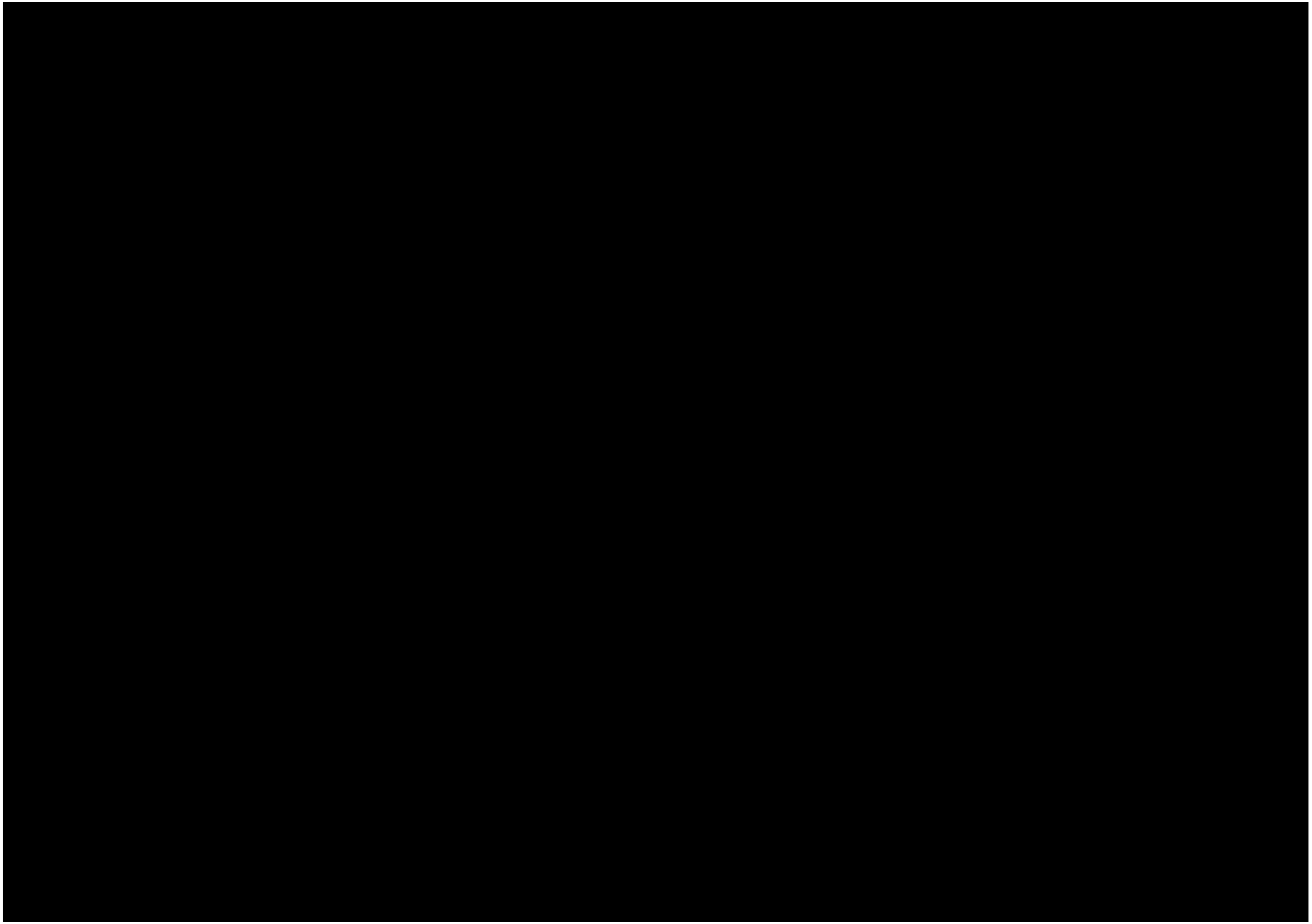
- [redacted]
- [redacted]
- [redacted]

[redacted]

## 11.1 Schedule and Critical Path

1. 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 culminating in the execution of the Interconnection Service Agreement, financial close, engineer/procure/construct contracts, start of construction, construction schedule, and any other requirements that could influence the Project schedule.

[redacted]



## 11.2 Permissible Offshore Construction Windows

2. Describe the anticipated permissible offshore construction windows, and how the construction milestones will be accommodated within these windows.

[redacted]

In addition, the Proposer aims to utilize the periods of the year with the least amount of expected weather downtime for the offshore campaigns to ensure efficient and timely construction of the wind farm.

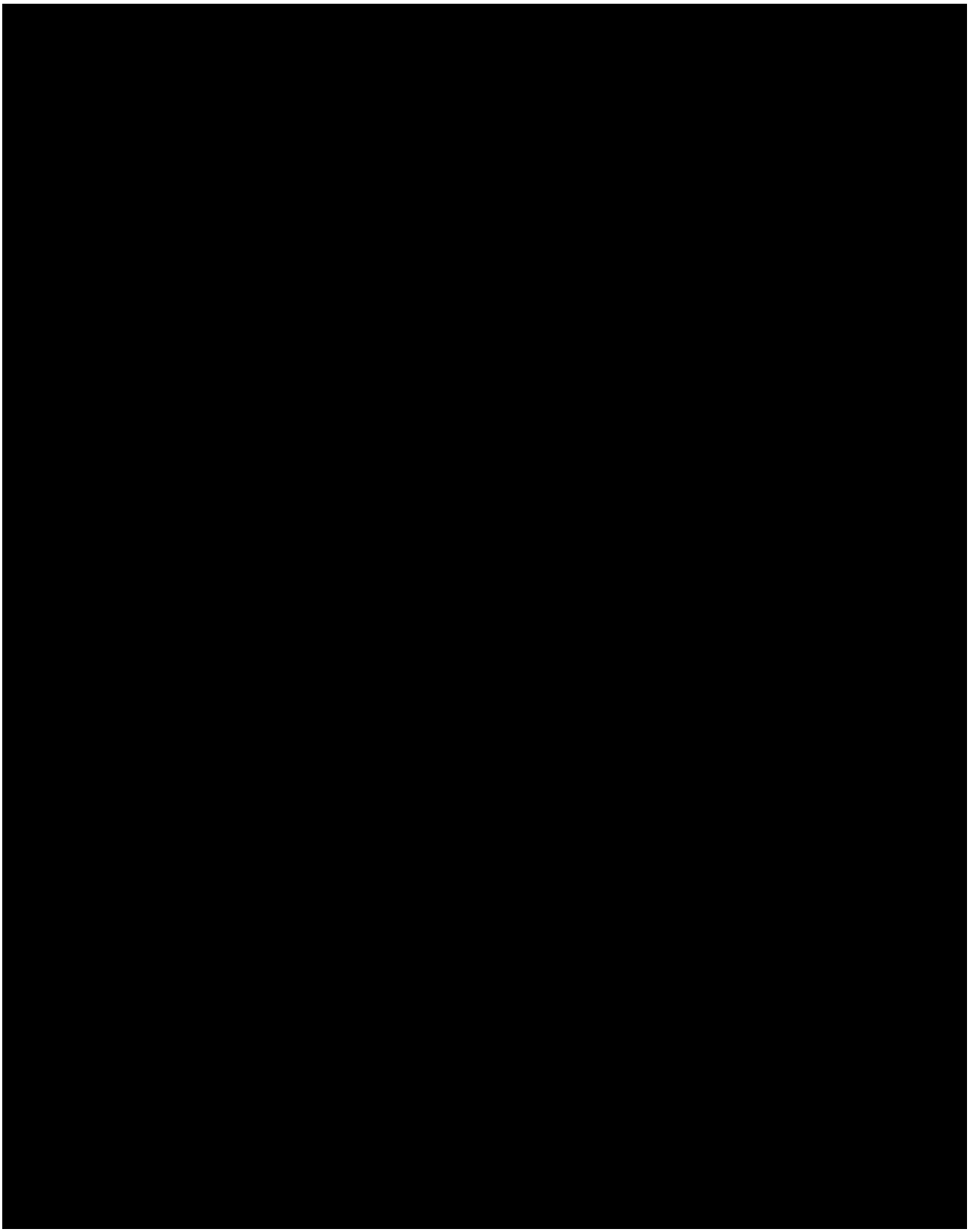
These marine life and weather constraints are accounted for in the Project schedule provided in Section 11.1. Further details on environmental constraints are provided in Attachment E.

## 11.3 Status of all Critical Path Items

3. Detail the status of all critical path items, such as receipt of all necessary siting, environmental, and NYISO approvals.

The status of these critical path items is provided in [redacted]

[redacted]



# 12 CONSTRUCTION AND LOGISTICS

6.4.12 This section of the Proposal addresses necessary arrangements and processes for outfitting, assembly, storage, and deployment of major Project components such as turbine nacelles, blades, towers, foundations, and transmission support structures. Please provide a construction and logistics plan that captures the following objectives:

The Proposer offers its deep well of experience executing large-scale offshore wind projects around the world. Indeed, Ørsted is the only company with actual experience constructing and commissioning an offshore wind farm in the U.S. [redacted]

Through Ørsted's unique multi-contracting approach that breaks major work packages into more discrete tasks, and the greater deployment of its own human resources, Ørsted, and therefore the Proposer, will retain control over the outfitting, assembly, deployment, and commissioning to a greater degree than any other developer in the business. This enhanced control covers not only the procurement phase and the division of work scopes into more narrow delivery packages, but also characterizes the construction phase.

The construction setup has evolved over years of collaboration with key suppliers and contractors. The Ørsted approach to collaboration is typically that of a long-standing relationship, where procedures, vessels, and tools are optimized from project to project to achieve those construction efficiencies for which Ørsted is known.

## 12.1 Major Tasks Associated with Deployment of Proposed Project

1. List the major tasks or steps associated with deployment of the proposed Project and the necessary specialized equipment (e.g., vessels, cranes).

As described below, there are several major tasks associated with the construction and deployment of the Project. During the installation phase, daily progress will be recorded in corporate systems, which gives unique comparative data to internally benchmark how much time each installation task should take under all weather conditions. These major tasks, the specifics of which are discussed in greater detail in Section 12.3 below, include:

- Foundations;
- WTGs;
- Electrical – array cables;
- Electrical – export cable;
- [redacted]
- [redacted]

Each of the major packages listed typically will have its own installation contract with a specialized contractor, and each offshore package will require vessels (specialized equipment) as described in [redacted] The WTG will be installed by the supplier, using the supplier's specialized lifting equipment (see Section 12.3) and product-specific procedures.

The overall coordination and management of the offshore construction work will be carried out under the Ørsted EPC Director, with dedicated construction site staffing. This approach gives the in-house engineering, procurement and construction management (EPC) organization full control of the installation campaign, maintaining quality and schedule goals.

[redacted]

[redacted]

## 12.2 Documentation of Site Control for Marine Terminals and Other Waterfront Facilities

2. Identify the marine terminals and other waterfront facilities that will be used to stage, assemble, and deploy the Project for each stage of construction.

a. If available, evidence that Proposer or the equipment/service provider have right(s) to use a marine terminal and/or waterfront facility for construction of the Project (e.g., by virtue of ownership or land development rights obtained from the owner).

b. 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 in Section 6.4.12.

c. Identify any joint use of existing or proposed real property rights for marine terminal or waterfront facilities.

An overview of the Project's use of marine terminals and other waterfront facilities with respect to each stage of construction is summarized in [redacted] and described in greater detail below. Figure 12.1 is a graphical depiction of these locations. [redacted]

### 12.2.1 WTG Staging and Pre-assembly

The specific Project scope covering the installation of the WTG components consists of the marine facilities that would support the staging, pre-assembly, and load-out of the nacelle units, the tower sections, and the blades.

[redacted]

### 12.2.2 Foundation Staging

The specific Project scope covering the installation of the foundation structures consists of the marine facilities that would support the staging, outfitting, and load-out of the secondary steel components for final outfitting [redacted]

[redacted]

### 12.2.3 Export Cables

[redacted]

Spare cable to support the operational phase will be stored within the harbor facility.

### 12.2.4 Array Cables

[redacted]

Spare cable to support the operational phase will be stored within the harbor facility.

### 12.2.5 EPC Base

The specific Project scope covering the construction base during the offshore installation phase consists of both the marine facilities that will support [redacted] as well as the onshore office and warehouse facilities required to house the site personnel, offshore technicians, and the tools and equipment to support the offshore installation activities.

[redacted]

[redacted]

## 12.3 Proposed Approach for Staging and Deployment of Major Project Components

3. Describe the proposed approach for staging and deployment of major Project components to the Project site. Include a description and discussion of the laydown facility/facilities to be used for construction, assembly, staging, storage, and deployment.

The development and construction plan for the Project breaks the proposed approach for staging and deployment to the Project site into the following [redacted] components:

- Foundations;
- WTGs;
- Electrical – array cables;
- Electrical – export cable;
- [redacted]
- [redacted]

Section 12.4 describes the number, type, and size of vessels that will be used and their respective roles in the staging and deployment plan. The Proposed Design, methods, and equipment are typical solutions that the Proposer is continuously improving, hence, the actual execution set-up may differ.

### 12.3.1 Foundations

[redacted]

### Installation

[redacted]

When each foundation installation is complete, a tent or similar cover will be put on top of the foundation to protect the structure and electrical components inside. [redacted]

[redacted]

### 12.3.2 WTG

WTG installation will be staged out of the WTG pre-assembly harbor (see [redacted]).

[redacted]

[redacted]

**Figure 12.6 Upending of Tower Section in Load-out Port (Gode Wind, 2015)**


**Figure 12.7 Towers Assembled and Ready at the Load-out Port (Gode Wind, 2015)**

**Figure 12.8 Towers Assembled and Ready for Load-out (Gode Wind, 2015)**

Nacelles are unloaded at the pre-assembly harbor by means of multi wheelers or a harbor crane. A thorough inspection for transport damage is conducted, and pre-assembly typically consists of mounting the heli-hoist (basket), cooling unit with wind measurement instruments, and aviation marking components. If a nacelle is stored for a longer period, it needs to be conditioned by means of dehumidification and rotating of the entire drive train (e.g., generator). Prior to preparing for load-out, the nacelle assembly are pre-commissioned, ID-markings are applied, and a quality control walk-down with the owner's representative is conducted (Figure 12.9).

**Figure 12.9 Nacelles Pre-assembled and Ready at the Load-out Port (Gode Wind, 2015)**

WTG blades are stored at the pre-assembly site as well, transported via harbor crane and trucks with special trailers. Little pre-assembly or inspection is required (Figure 12.10).

**Figure 12.10 Blades Ready at the Load-out Port (Gode Wind, 2015)**

Through its collaboration with a terminal operator, the Project will have access to the highly skilled and appropriately licensed workforce supporting blade load out including:

- Site management (e.g., Site Manager, Supervisor(s), Planner, HSE, Secretary);
- Crane drivers;
- Multi wheeler and heavy lifting truck drivers;
- Other logistics vehicle site drivers;
- High voltage electricians;

- Low voltage and communication electricians;
- Mechanical fitters; and
- Dock workers.

**WTG Installation**

[redacted] WTG components will be loaded and sea fastened (using specially-designed sea fastenings) onto the deck of the WTG installation vessel, which is jacked up along the quayside.

**Figure 12.11 Loading Towers onto WTG Installation Vessel (Gode Wind, 2015)**


[redacted]

[redacted]

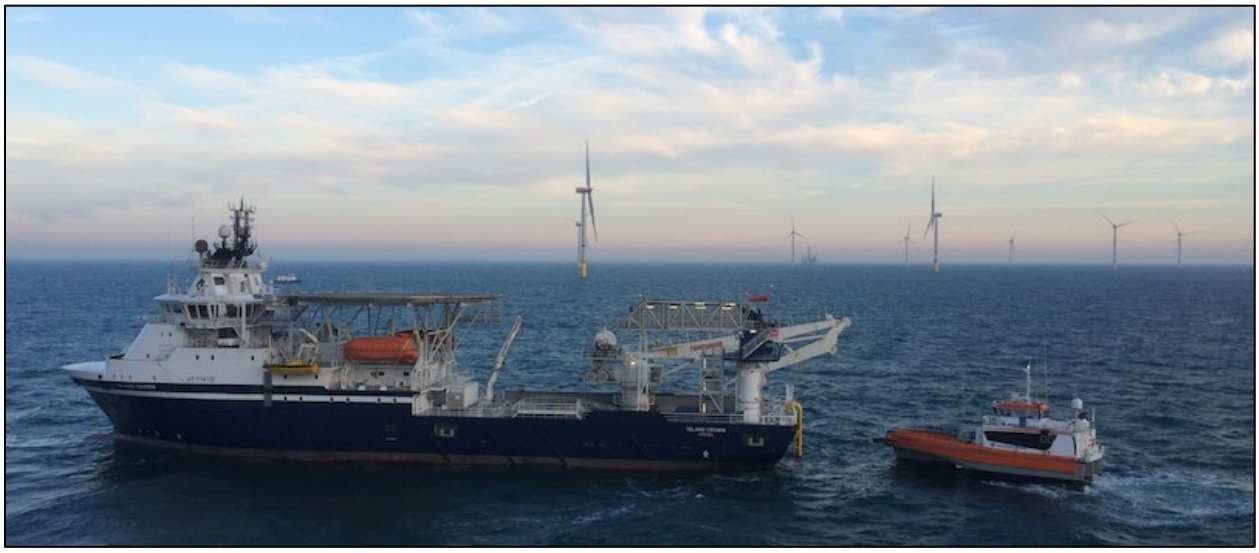
[redacted]

### WTG Commissioning

After installation, the WTG is connected to the electric grid and commissioned. [redacted] however, commissioning will likely be completed by technicians hosted by either a CTV and/or a DP2 SOV with an integral "walk to work" access system (Figure 12.13). Both SOV and DP2 vessels use a gangway system to transfer commissioning technicians to the WTGs and also serves as a hotel vessel. CTVs push onto the boat landing on the foundations to allow technicians to access the WTG.

WTGs typically begin producing power 1 to 4 days after installation has been completed.

**Figure 12.13 DP2 Vessel and CTV (Gode Wind 01+02, 2015)**



### 12.3.3 Electrical – Array Cable

Prior to cable installation, support work may be required such as boulder clearance. and messenger wire installation. [redacted]

[redacted]

[redacted]

Cable crossings may require special measures such as rock placement, mattresses, and/or propriety separation devices.

Repeated surveys are required to ensure correct installation such as pre-lay, post lay, and depth of burial. Other vessels will assist the progress transferring personnel and equipment to the offshore structures. After installation of the cable protection system, the cables are pulled up the offshore structures where they are secured, tested, and terminated.

### 12.3.4 Electrical – Export Cable

Prior to cable installation, support works may be required such as boulder clearance, a pre-lay grapnel run, and messenger wire installation. [redacted]

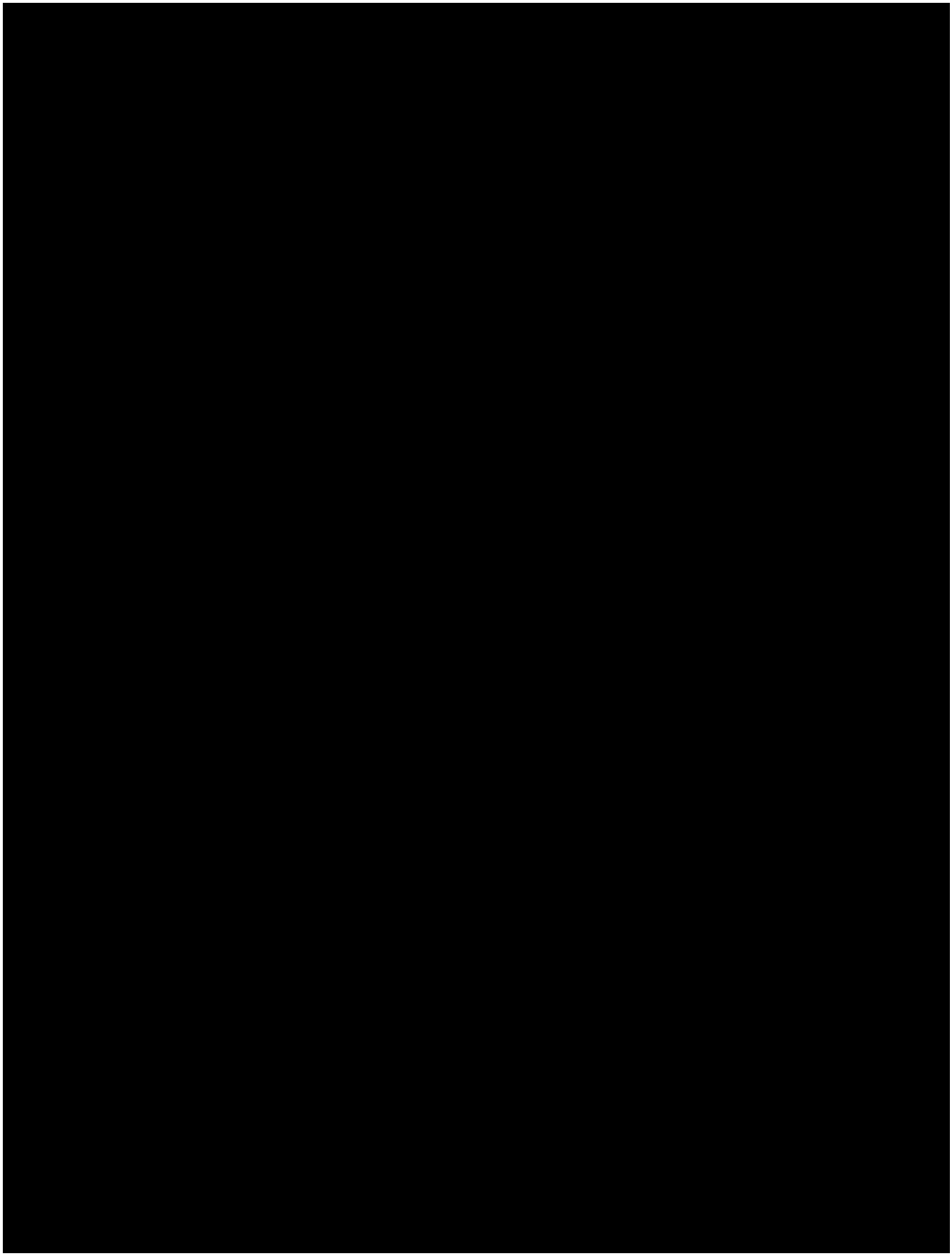
[redacted]. The export cable is loaded and laid in sections due to the system length and cargo capacity (weight and volume) restrictions. Adjacent cable sections will be joined together offshore once laid.

A DP2 vessel is expected to load and lay the cables simultaneously via a plowed solution. [redacted] a second DP2 vessel could post lay bury the cables by jet plow, mechanical plowing, mechanical cutters, controlled flow excavation, or a trailing suction hopper dredger.

Cable crossings may require special measures such as rock placement, mattresses, and/or propriety separation devices.

Repeated surveys are required to ensure correct installation such as pre-lay, post lay, and depth of burial. Other vessels will assist the progress by transferring personnel and equipment to the offshore structures. After installation of the cable protection system, the cables [redacted] where they are secured, tested, and terminated.

[redacted]



[redacted]

***Factory Acceptance Tests (FATs)***

Factory acceptance tests are carried out to confirm that the equipment under test has been manufactured in accordance with the approved design. These tests provide the supplier with the opportunity to identify any design or build quality issues in advance of the equipment being delivered to site. All issues identified should, where possible, be rectified by the supplier prior to shipment.

***Site Acceptance Test (SATs)***

During the Site Acceptance Test, the equipment suppliers commissioning engineer conducts testing of the components supplied (as stand-alone systems) under the Project scope, testing the conformance of the delivered solution to the approved design and functional specifications. This process also confirms the integrity of the installation and the absence of any transit damage.

***Site Integration Test (SITs)***

The site integration test involves the overall testing [redacted] The system(s) under test may be composed of hardware, software, or hardware with embedded software. The site integration test is a process of verifying that [redacted] meets its requirements and performs in accordance with the design and the Proposer's expectations.

***First Energization of HV equipment and On Load Tests***

Following the completion of the FATs, SATs, and SITs, and provided all the associated documentation has been completed and a pre-energization inspection has been carried out, the equipment can be considered ready for energization. At this stage, the system is handed over to the Senior Authorized Person who will carry out the actual energization of the HV system.

[redacted]

[redacted]

[redacted] The equipment manufacturers will be responsible for transportation, rigging, and placing the equipment on the concrete foundations. The rigging company, which acts as a subcontractor to the equipment manufacturer, is responsible for all logistical services (e.g., engineered rigging and hauling plans, routing, permitting, clearance checking, load analysis of transport, and dimensional restrictions). When required, the rigging company is also responsible for temporary local warehouse storage of equipment and components. Upon installation of the equipment on the foundations, the rigging

company is responsible for checking alignment, anchoring, and proper temporary protection from weather.

Upon placing the equipment, the manufacturers are required to complete attachments of all components associated with each equipment piece. When required, as part of final deployment, the equipment will be filled with an insulating fluid and/or insulating gas.

[redacted]

All equipment, [redacted], will be tested as soon as it is installed and control and protection equipment are available. Testing will be performed by competent and licensed contractors working in accordance with the test methodologies and plan reviewed and verified by qualified engineers. All tests will be documented by prescribed test reports and accepted by the Proposer. The commissioning will be performed in strict adherence to New York ISO's protocol on receiving permits and clearances.

[redacted] **and Medium Voltage breakers:** Upon the installation of all breakers and control panels, each breaker will be acceptance tested. The acceptance testing will include operability of the breakers; functional testing of control and protection schemes, alarms and indications; and remote control (SCADA) operability.

**Control Center:** The control center will be acceptance tested at the manufacturer's facility. Upon the installation at the site, each control and protection scheme will be tested and commissioned along with other equipment.

[redacted]

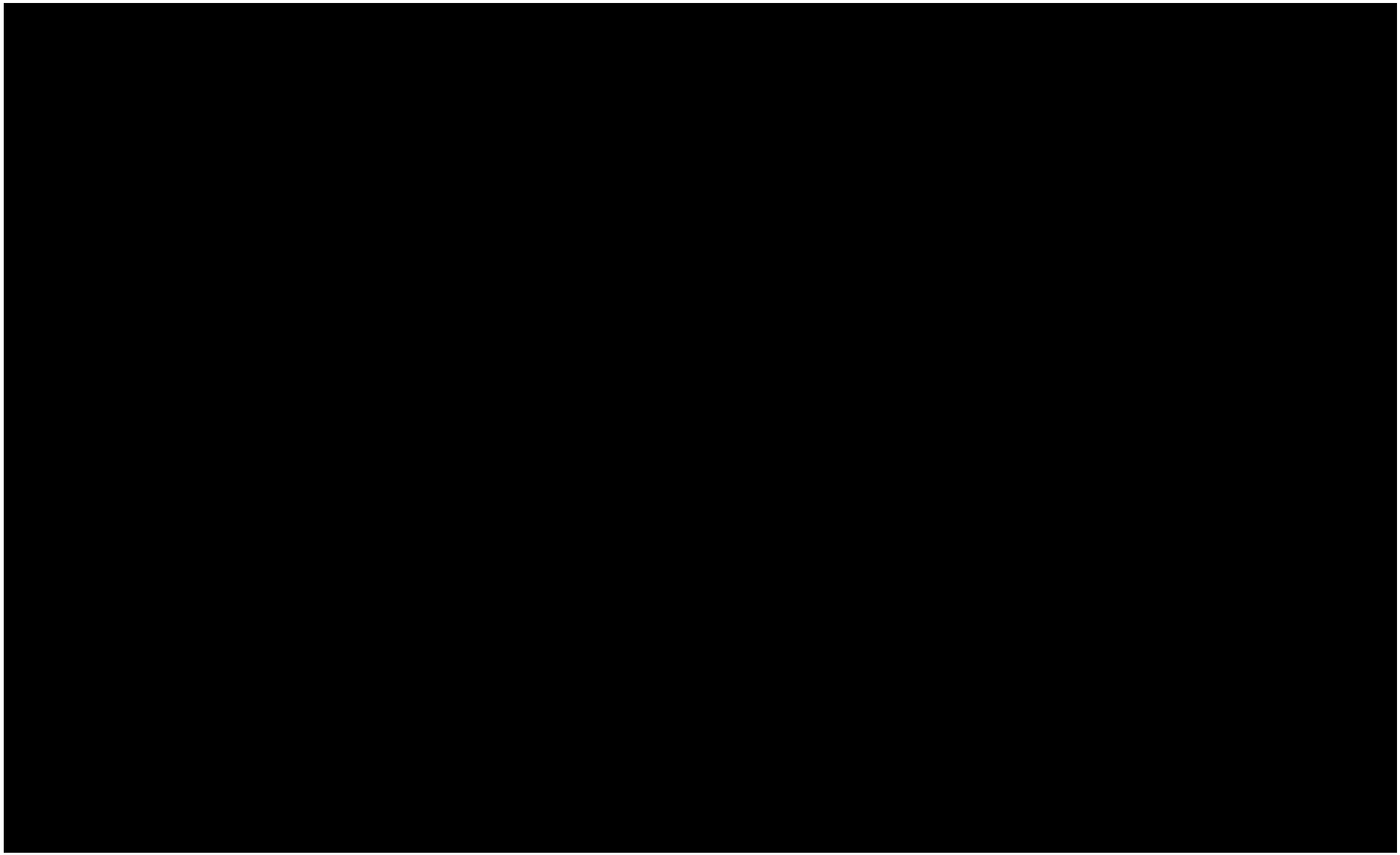
**Step-Up Transformers:** Upon the installation of the step-up transformers, they will be acceptance tested and commissioned.

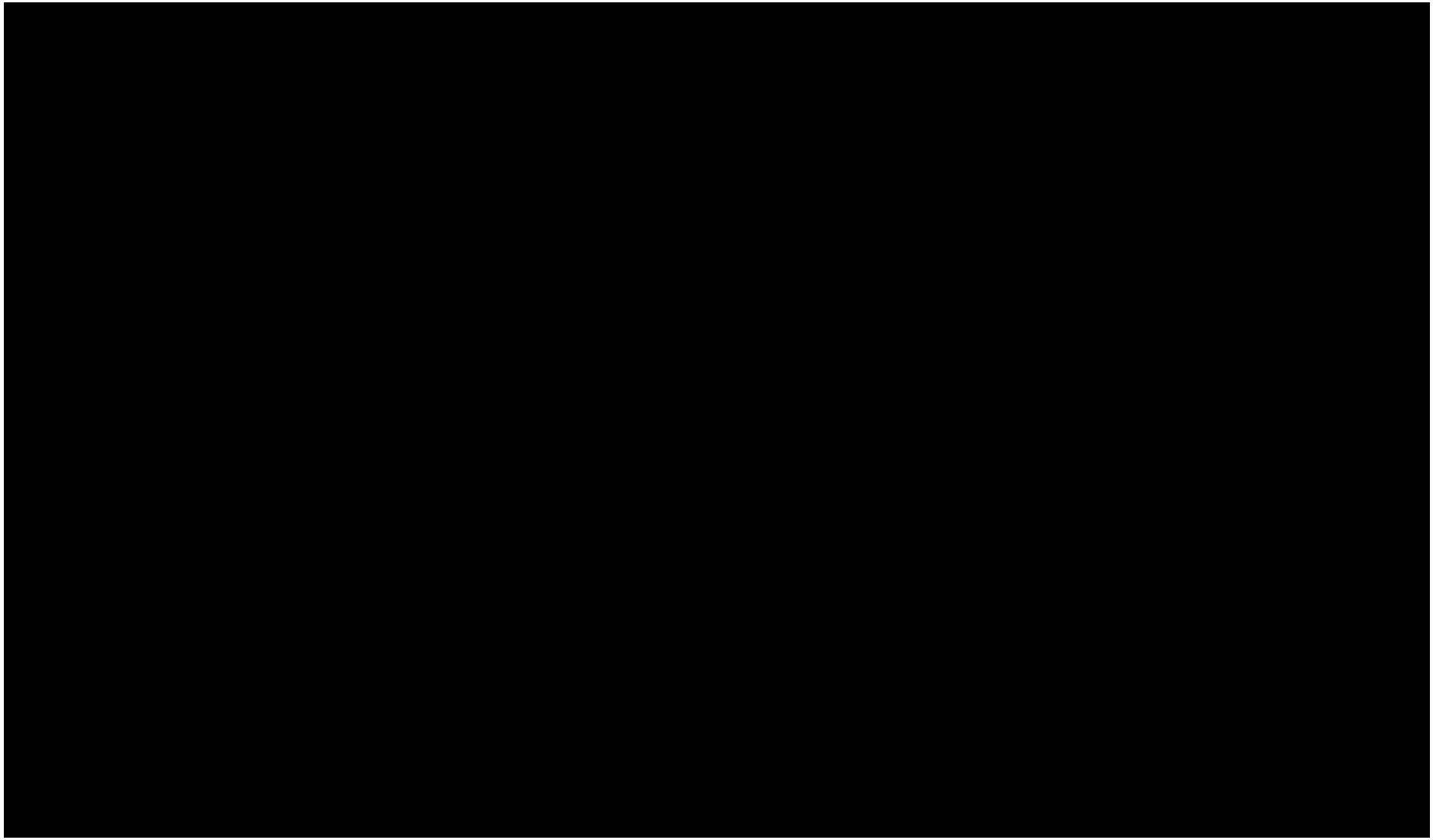
[redacted]

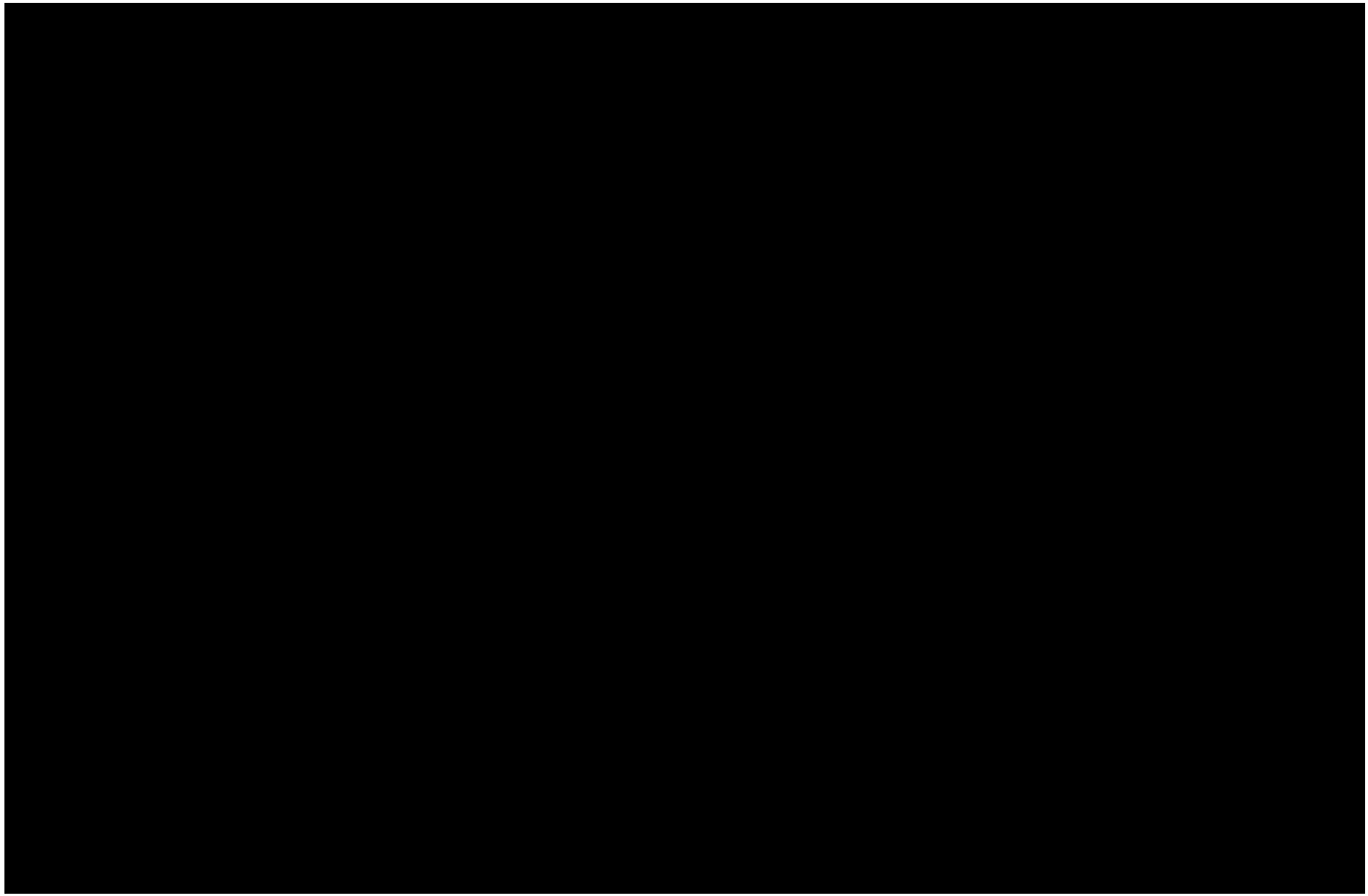
## 12.4 Vessels

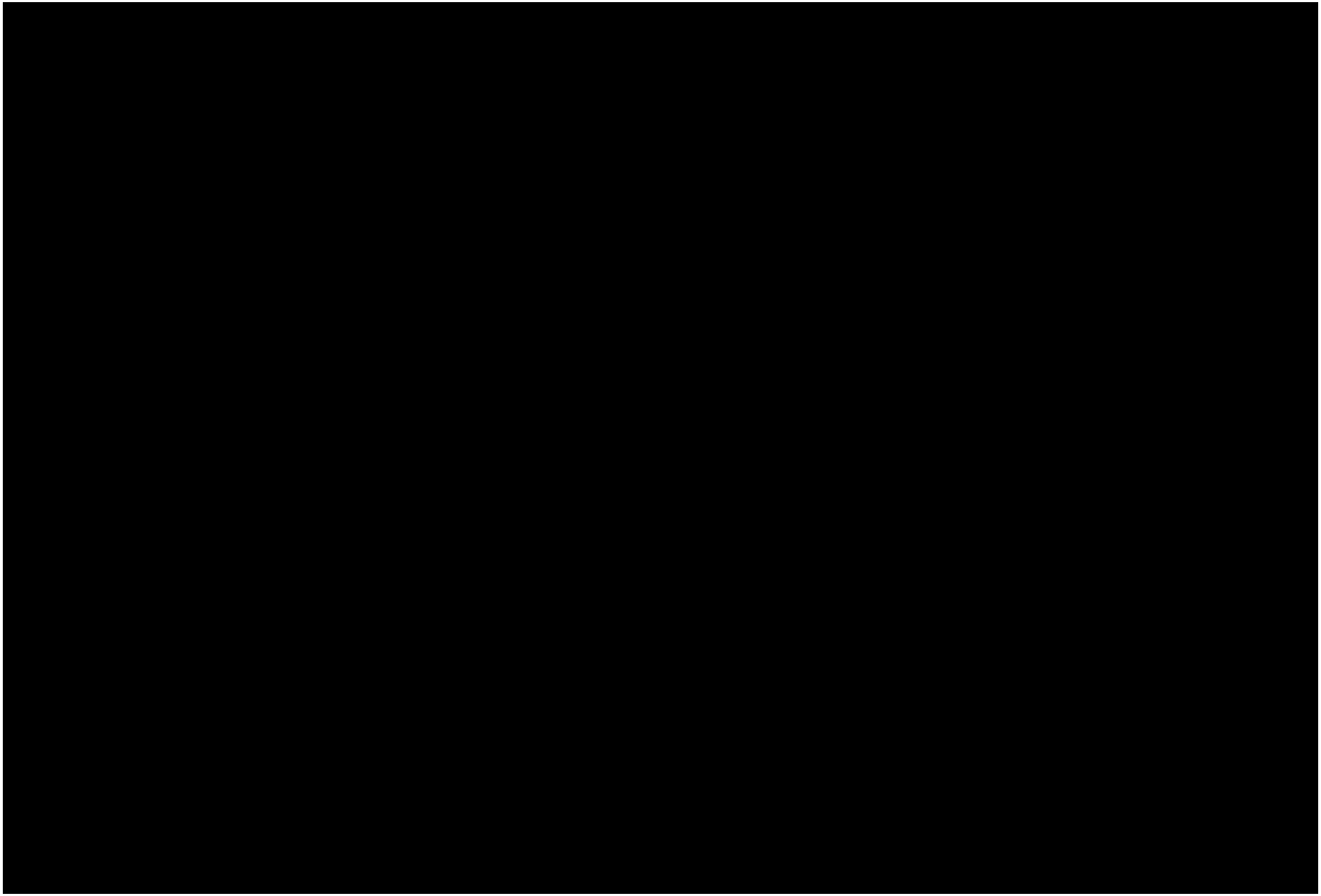
4. Indicate the number, type and size of vessels that will be used, their respective uses, and how vessels will be secured for the required construction period. Explain how Proposer's deployment strategy will conform to requirements of the Merchant Marine Act of 1920 (the Jones Act).

A summary table identifying the number, type, and size of vessels that will be used and their respective roles is provided in [redacted].





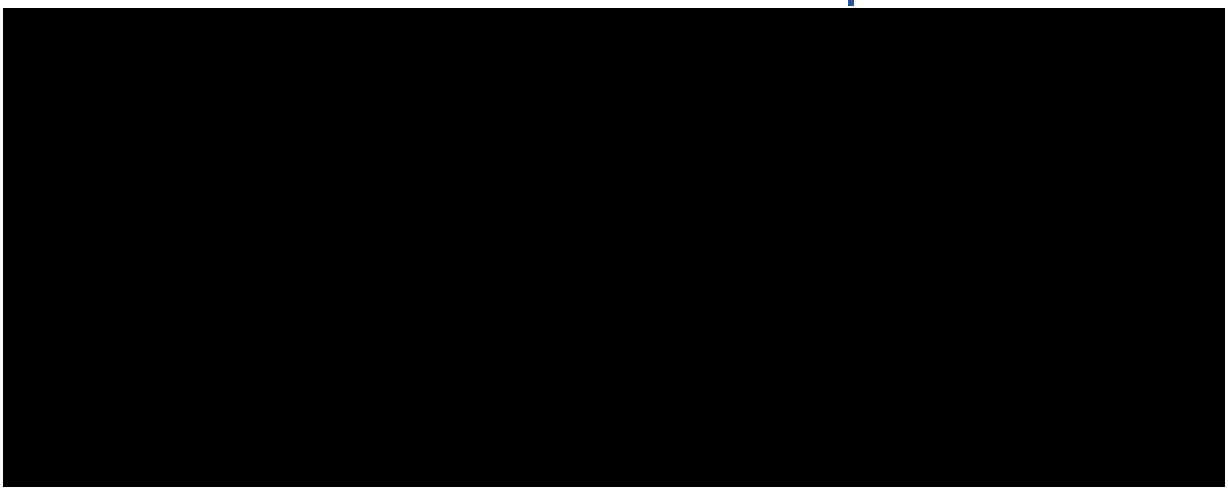




[redacted]

Notably, in October 2020, the Proposer's organization announced the execution of a long-term charter agreement with Edison Chouest Offshore (ECO) for the provision of the first-ever U.S. flagged Jones Act-qualified SOV. The SOV will be engineered, constructed, and operated by ECO [redacted]

[redacted]



## 12.5 Party Responsible for Each Deployment Activity

5. List the party or parties responsible for each deployment activity and describe the role of each party. Describe the status of Proposer's contractual agreements with third-party equipment/service providers.

The Proposer's approach to the sourcing and supply of the components and skills required for construction and operation of the generation asset and offshore transmission asset of the Project is expected to be managed through a multi-contracting approach with the main packages and contractors described in Table 12.4. This differs from a turnkey approach, where only one contractor is responsible for both supply and installation of the major scopes. The multi-contracting approach, combined with Ørsted's in-house engineering capabilities, allows for full EPC control.

The Proposer's organization has a procurement team dedicated to broadening the supply chain by identifying, pre-qualifying, and developing new suppliers, particularly within new markets to meet local content expectations, and manages the supply chain as a portfolio across the current and future portfolio of wind farms when procuring components for new wind farms.

Within the offshore wind industry, several of the suppliers have a portfolio of different products combined with a production capacity that enables them to both supply a range of different components used in the wind farm, such as cables and HV components, and supply to multiple wind farms.

Although competition is maintained by making sure alternative suppliers are available, the Ørsted organization primarily works with selected strategic suppliers in order to develop more cost-efficient concepts and products that can be used in tomorrow's wind farms. The close interaction with the service-suppliers and manufacturers and the sharing of knowledge between experts are key success factors in developing more efficient manufacturing, installation methods, and technology.

A summary of the responsibility split between contracts is provided in Table 12.4. Additional information about the procurement process is provided in Section 10. See also Section 12.4 for a description of negotiations and discussions regarding installation vessels for foundation, WTG, and cable deployment.

**Table 12.4 Deployment Activity Responsible Parties**

| Deployment Activity | Responsible Party |
|---|---|
| Foundations | The **foundations supplier** will deliver [redacted] at the quayside ([redacted]) in order for the **installation contractor** to be able to transport them to the site. |
| WTG | The **WTG supplier** will transport, pre-assemble, install, and commission WTG components. The Proposer will contract the installation vessel and free issue this vessel to the WTG supplier for the installation. |
| Array cables | The **array cable supplier** will manufacture and deliver the array cables at the designated harbor and the array cable. **Installation contractor** will take over the cables there, then transport, install, and connect the cables. |
| Export cable | The **export cable manufacturer** will deliver the export cable to the designated site, which can be a harbor or the offshore Project site where the **installation contractor** will take over the cable, install it, and terminate it at shore. |
| [redacted] | [redacted] |
| [redacted] | Typically, the **rigging companies** hired by the manufacturers are primarily responsible for staging and deployment activities. When required, the manufacturers hire local experienced contractors for specialized services. |

# 13 FISHERIES MITIGATION PLAN – NARRATIVE COMPONENT

6.4.13 A narrative description of the Fisheries Mitigation Plan should be included in the Proposal Narrative

## 13.1 Fisheries Mitigation Plan Summary

D.1. The Proposer must briefly present its philosophy and approach to avoiding, minimizing, restoring and offsetting the potential fisheries impacts of the proposed Project and how the Proposer will use research, data and stakeholder feedback to support decision making with respect to pre-construction surveys, site design, construction, operations and decommissioning.

[redacted] the Proposer intends to build sustainable working relationships with fisheries stakeholders throughout all phases of the Project, with a focus on meaningful engagement that produces mutual benefits.

[redacted] the Proposer intends to follow Ørsted's engagement and outreach program with the commercial and recreational fishing community. [redacted] In the past, this type of outreach has resulted in significant changes in wind projects, including changes in cable routing, array layout, and turbine placement. This exchange of information with the fishing industry has been mutually beneficial, resulting in less conflict and better collaboration, an achievement that the Proposer plans to build on.

[redacted] the four core principles of the Proposer's fisheries engagement philosophy, which apply across the U.S. portfolio of the Proposer's organization, are:

**Communications:** The Proposer will [redacted] conduct an active dialogue with fishermen to understand their concerns about offshore wind energy development for the Project, learn what is necessary for fishermen to successfully operate in the area of an offshore wind energy project, and plan the Project to minimize the potential for conflict. The Proposer will provide clear, relevant, and timely information on activities to the fishing industry including general information about offshore wind energy [redacted] specific details on the Project, the schedule for on-water Project activities, available science, and the results of studies and assessments relating to the Project. The

[redacted]

Proposer will engage with and listen to representatives of the many different types of fishing activities that take place in the Project Area.

**Coordination:** The Proposer's organization will continue sharing relevant information about wind energy and the proposed activities that could affect the fishing industry and coordinate activities to minimize impacts on fishermen. The Proposer's organization will continually seek input from Fisheries Representatives and Fisheries Liaisons and other industry organizations to enable the Proposer to continually improve coordination with commercial and recreational fishermen of all gear types, with specific emphasis on the Project.

**Collaboration:** The Proposer will adopt [redacted] Ørsted's approach to minimize impacts on fishing and seek partners within the fishing industry to assist with this goal. The Proposer will seek to cooperate with the fishing industry to design and conduct Project-specific and regional collaborative research aimed at understanding any potential impacts of offshore wind development on fishing and the marine environment. [redacted] Additionally, the Proposer will collaborate with the industry to identify practical solutions to optimize access and fishing in and around the Project. Finally, the Proposer will share non-proprietary research and information gathered by the Proposer in its studies that might be of help to further understand the living marine resources in the Project Area and their habitats.

**Coexistence:** The Proposer's organization will strive to fairly and quickly resolve conflicts between the Project and individual fishermen. The Proposer believes ongoing discussions with the fishing industry will be more constructive if both parties are better informed about the nature of the other's business and if there is trust and open communication on both sides. The Proposer will employ an extensive fisheries outreach network to assist in this effort. Information gained during outreach with commercial and recreation fishing interests for this Project [redacted] will be used to inform the layout of Project facilities (WTGs locations, spacing, submarine cables, onshore facilities, etc.) with a focus on minimizing conflicts so that the Project and fishing can co-exist with each industry thriving in a shared environment. This open communication will continue throughout all phases of the Project and provide an "open door policy" for fishermen to voice their concerns.

The Proposer and its organization are committed to the principle that offshore wind and fishing can coexist. While conflicts among ocean uses can seem inevitable, proactive dialogue and an openness to change can mitigate many of these conflicts. In this spirit of dialogue, the work of the Proposer's organization with the commercial fisheries industry began many years ago – long before the various state-sponsored solicitations were planned. The Proposer expects that those many years of work with fisheries, as well as its organization's collaboration with the Responsible Offshore Development Alliance (RODA) (see Attachment 13-1) and the Responsible Offshore Science Alliance (ROSA), and the current engagement with stakeholders [redacted]

[redacted]

### 13.1.1 Block Island Wind Farm Experience

Experience is the foundation of the Proposer's philosophy. The Ørsted team, then Deepwater Wind, has been conducting safe and successful offshore operations and maintenance activities in the U.S. since Block Island Wind Farm began commercial operations in 2016.

In connection with the Block Island Wind Farm, Ørsted has deeply invested in science and research to advance knowledge of how offshore wind energy development might affect fisheries resources, and is committed to the collaborative and transparent sharing of that research. At the Block Island Wind Farm, Ørsted conducted Demersal Trawl and Lobster surveys before, during, and after construction over a period of six years. The trawl surveys resulted in the publication of the first U.S. Offshore Wind related peer reviewed article titled "Flatfish habitat use near North America's first offshore wind farm" and is just one example of research being conducted at Ørsted's wind farm sites.

Ørsted's commitment to collaboration is exemplified by the approach to science at the Block Island Wind Farm:

- **Development of protocols in consultation with industry**: the study protocols were developed in consultation with the commercial fishing industry as well as state and federal regulators.
- **Collaborative science**: the surveys are executed on commercial fishing vessels.
- **Sharing data and results:**
  - Monthly and annual reports have been shared with regulators, fishing groups, and interested fishermen.
  - The data collected during the surveys is shared with the Rhode Island Department of Environmental Management yearly.
  - The data will be posted on the Northeast Regional Data Portal when the studies are complete.
  - In December 2017, the Block Island Wind Farm funded a science forum where the results of the fisheries studies as well as all of the other studies were shared publicly.
- **Collaboration with federal agencies and universities on science:**
  - State-of-the-art avian radar unit/camera monitoring installed on the Block Island Wind Farm foundation.
  - Partnered with University of Rhode Island scientists to install monitoring equipment as part of an agreement with U.S. Fish and Wildlife Service.
  - Bat monitoring equipment installed at the Block Island Wind Farm.

The Project will continue to further Ørsted's commitment to advancing the concept of regional science and maintain its position as an industry leader on these discussions.

## 13.2 Communications and Collaboration

D.2 *The New York State Offshore Wind Master Plan, the New York State Public Service Commission Order Establishing Offshore Wind Standard Framework for Phase 1 Procurement* issued on July 12, 2018 and the *Order Authorizing Offshore Wind Solicitation* in 2020 issued on April 23, 2020 pursuant to Case No. 18-E-0071, and this RFP emphasize the value of stakeholder engagement in the development of offshore wind energy Projects. Further, the Orders require Proposers to work with the State supported Fisheries Technical Working Group ("F-TWG"). The Proposer must describe how it will identify stakeholders relevant to fishery issues and describe how the Proposer intends to communicate with those stakeholders during survey work, and design, construction, operation, and decommissioning of the Project. The Proposer must also describe how, specifically, it will communicate with vessels actively fishing in areas in or adjacent to the Project area during site assessment and construction activities and facilitate proper notification to vessels and resource managers. This description of communication protocols must account for the need to coordinate with members of the F-TWG and consultations with New York State agencies during the various Project phases.

[redacted]

Throughout Project development, a Fisheries Liaison will collect data about the structure of fishing communities associated with the Project Area. This data will inform the continual enhancement of the Fisheries Communications and Outreach Plan as a living document. That approach ensures an informed foundation for outreach activities, providing insight into the communities and pathways for successful communication.

As part of that effort, the Proposer's organization will continue to develop and leverage its organization's network of Fisheries Representatives, while remaining consistent with BOEM Guidelines. Fisheries Representatives are knowledgeable members of the affected fishing communities who are responsible for collecting and disseminating information as well as serving as a conduit for concerns. They are chosen after consultation with community members and are compensated for their time and expertise.

[redacted]

### 13.2.1 Surveys

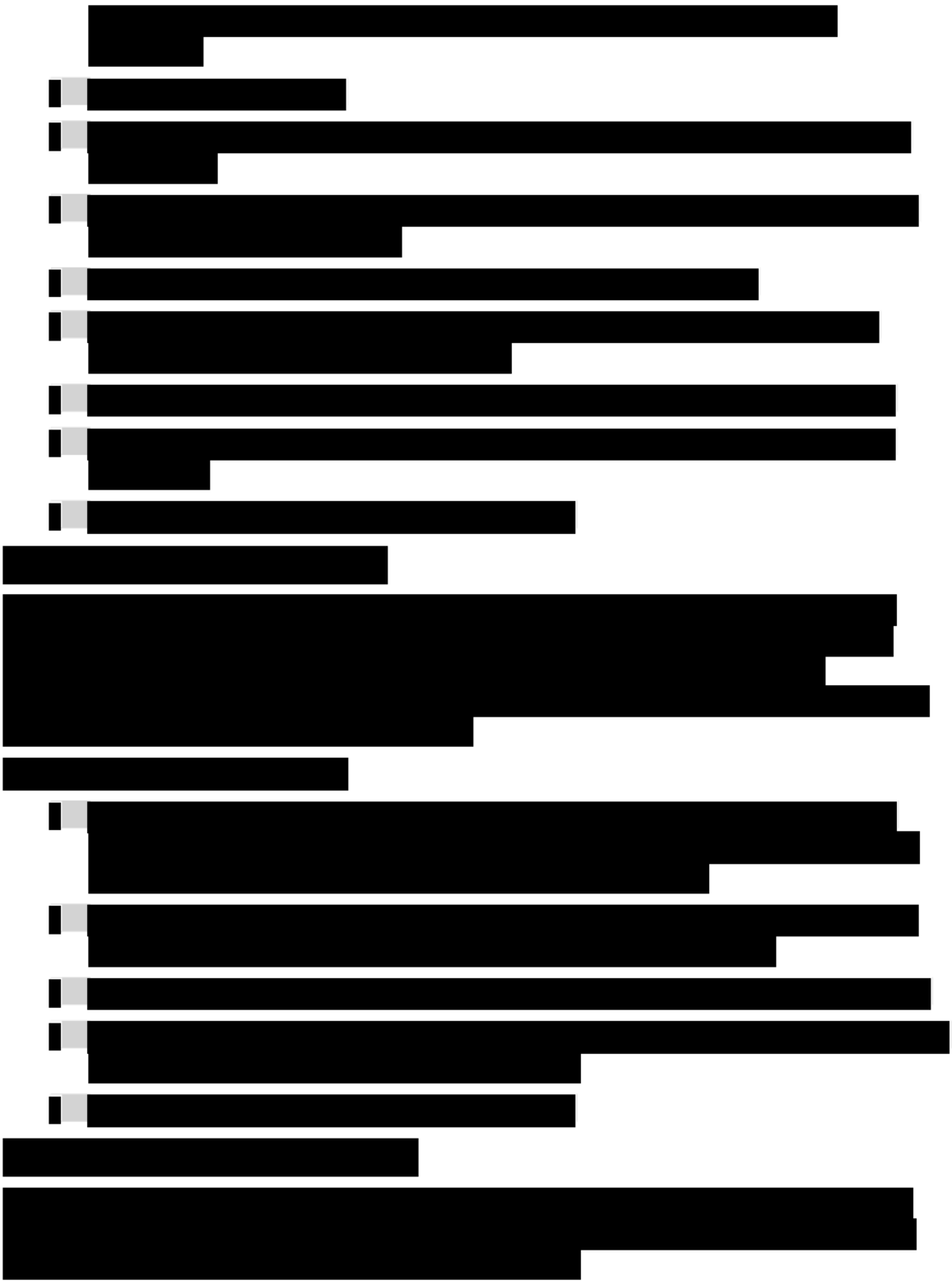
[redacted] the Proposer will provide regional fishing interests with information on survey activities through extensive outreach by its Fisheries Liaisons and Fisheries Representatives. Before surveys commence, the Proposer will issue specific Local Notices to Mariners in coordination with the U.S. Coast Guard (the USCG). The Local Notice to Mariners will be broadcast by the USCG to the maritime and boating community.

[redacted]

### 13.2.2 Construction

[redacted] The construction phase of the Project will see an increase in vessel activities, and the Proposer will coordinate with the USCG and maritime stakeholders in the Project Area to minimize concerns and maintain safe operations. [redacted] the Proposer will develop and refine construction communication plans in coordination with federal and state agencies, as well as with the fishing industry and other mariners.

[redacted]



## 13.3 Monitoring and Research Pre-, During- and Post-Construction

D.3 Fisheries research and peer-reviewed publication of research findings is key to advancing the knowledge of how offshore wind energy development might affect fish and fisheries. Proposers are encouraged to work with the fishing industry in the collection of data, to publish their own work in scientific journals, and to coordinate with scientists and regulators interested in investigating fishery- and wind energy-related scientific questions.

Because offshore wind energy development is in early stages in the US there is little empirical information as to the effects such development may have on ecological communities and fishery resources specific to the New York Bight. Thoughtfully planned, designed, and implemented pre-, during- and post-construction monitoring and research to understand fish responses and potential effects from development is key for adaptive management. Further, multiple regional sites working together and coordinating monitoring and research in a consistent manner would bring additional value to the scientific understanding of how development of offshore wind energy is affecting regional resources.

The Proposer must (to the extent possible at this stage) describe how it plans to conduct scientifically sound, statistically rigorous studies to accomplish the following:

1. Establish baseline data on the spatial and temporal presence of fish and invertebrates in the proposed area of the Project at multiple life history stages included egg, larval, juvenile, adult, and spawning stages, as well as associated fish and invertebrate habitats;
2. Monitor for impacts on these types of life history stages during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects;
3. Assess and quantify (to the extent practical) changes attributable to Project activities; and
4. Determine how the proposed Project area is used by commercial and recreational fisheries in the region, including current and historic usage as well as associated transit routes, and how usages changes in commercial and recreational fishing patters will be calculated post-construction.

Proposers should also identify opportunities for developing or investing in collaborative research with the fishing industry to collect ecological and/or fishing data. The description must account for the need to coordinate with members of the F-TWG during data gathering and assessment.

In the event that these activities cannot be clearly defined at this stage, the Proposer must describe how it will approach these questions and data gaps.

The Proposer must describe how it plans to make fisheries data available in accordance with Section 2.2.6 of the RFP.

The Proposer will facilitate collaborative, transparent science pre-, during, and post-construction at the Project. The scope of the actual studies conducted will be determined with fisheries stakeholders, the F-TWG, and regulatory authorities.

[redacted] fisheries populations, as well as temporal and spatial distribution, are well-studied because of their environmental and economic importance in the vicinity of the Lease Area. A variety of fisheries population studies have been conducted in the northern Atlantic OSC by agencies and organizations. [redacted] In connection with its permitting process, the Proposer will utilize the extensive data collected by these studies [redacted] to provide baseline fisheries data within the Project Area.

[redacted]

Baseline characterization of the fisheries resources in the Project Area has been informed through interviews with fishermen who frequent the Project Area. The Proposer has also been consulting with federal and state agencies and other stakeholders to build a baseline understanding of fisheries resources in the Project Area.

[redacted]

To better understand the research, survey requests, and areas of concern in the Project Area, the Proposer's organization will work with local stakeholders, including fishermen, to identify priorities using outreach, surveys, and questionnaires to assist in building consensus. The Proposer will also use the multiple state agencies, industry groups and associations, as well as the New York State Environmental Technical Work Group (E-TWG) and Fisheries Technical Working Group (F-TWG), to assist in identifying research needs and priorities.

[redacted]

[redacted] The Proposer's organization will engage in discussions and participate in workshops with fishermen and local organizations to map typical transit routes taken by fishermen within the Project Area. As part of the F-TWG, the Proposer will participate in upcoming transit studies and discussions. Additionally, the Proposer will continue to engage with fishermen to gain a greater understanding of how commercial and recreational fisheries are used in waters in and around the Project Area.

The Proposer plans to continue Ørsted's strong response and commitment to fishing industry needs in design and implementation of its projects. [redacted]

[redacted]

## 13.4 Supporting Other Research

D.4 The selected Proposer will be required to coordinate with third-party supported scientists, providing reasonably-requested Project data and access to the Project area for independent scientists examining environmental and fishery sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates and fisheries for the purpose of publication in peer reviewed journals.

The Proposer must describe how such requests will be considered and processed, and any restrictions on data provision or access the Proposer believes may be required to protect trade secrets or maintain site security.

The Proposer may also elect to identify a level of financial commitment that will be appropriated to leverage third-party environmental research funding related to fish, invertebrates and fisheries, including federal or State-supported research, or that the Proposer would be willing to contribute to a general fund for supporting third-party research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development. Such financial commitments will be favorably considered in the proposal review process.

The Proposer supports third-party research associated with the development of the Project. [redacted] the Proposer intends to take a collaborative approach to science. The Proposer will continue working with and sharing non-proprietary research data and reports [redacted] and working with stakeholders in the spirit of collaborative and informative science.

[redacted]

[redacted]

The Project Area also will be accessible by research vessels, including fishing vessels used for research, for independent scientists to examine fishery sensitivities and other environmental topics.

## 13.5 Site Design Considerations

D.5 As offshore wind energy technology advances, Proposers are able to consider various alternatives for elements of the proposed site design and related infrastructure. The Proposer must describe how it will consider the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area.

The Proposer must demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g. orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The Proposal must outline how the Proposer will engage with stakeholder groups such as the F-TWG and other regional fishermen and shipping and navigation to determine Project layouts that address stakeholder concerns.

[redacted]

the Proposer's organization has engaged, and will continue to engage, with stakeholder groups such as the F-TWG, regional fishermen, and other maritime stakeholders such as maritime experts, consultants, and marine safety committees [redacted] in coordination with marine stakeholders including the USCG Districts and Sectors, commercial

shipping, commercial and recreational fishing, as well as the F-TWG, addressing key concerns such as navigation, vessel access, and safety.

## 13.6 Construction and Operation

D.6 The Proposer must describe its planned operational protocol to avoid, minimize, and mitigate impacts to fish, invertebrates and fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers. The Proposer must also describe its process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

The Proposer must describe how they will minimize potential loss of fishing gear due to snags on turbine structures, associated cables or cable mattresses, or related structures installed or deployed as a result of offshore wind energy development, and how the Proposer will approach claims of lost gear in the event of a snag that provides for a fair and timely review of the claim and appropriate compensation of impacted parties.

[redacted]

The Proposer's organization has extensive construction and operational experience and capability as evidenced by the development, construction, and operation of 26 offshore wind farms globally. [redacted]

[redacted]

[redacted] Generally, construction-related impacts to fisheries may include temporary, localized increases in noise and turbidity and permanent changes to substrate. Mobile fish and invertebrates are expected to temporarily leave the area in response to construction activity. Populations of benthic organisms would not be diminished by the small area of sea floor that will be disturbed by construction. Within several months of completion of construction, the abundance and distribution of benthic invertebrates is expected to return to pre-construction conditions.

[redacted]

[redacted]

By collecting data on the Project, siting the Project outside of sensitive areas to the extent reasonably practicable, and working with stakeholders to design the Project to coexist with current fishing activities, the Proposer intends to avoid significant impacts to fisheries. The Proposer plans to design the Project to minimize exposure risk [redacted]

### 13.6.3 Gear Loss Prevention and Claim Procedure

The Proposer's organization is the first offshore wind developer in the U.S. to publish a Fishing Gear Conflict Prevention and Claim Procedure to address the potential for gear interaction between offshore wind activities and fishing activities. [redacted] The procedure [redacted] was developed in consultation with regulatory authorities and fisheries stakeholders and designed to be as straightforward as possible for the affected fishermen, while providing a transparent, fair, and balanced review process.

[redacted]

[redacted]

### 13.6.4 Monitoring

The Proposer will monitor for Project-related impacts to fisheries resources during the construction and operation phase. During the construction phase, as described in Section 13.2 above, the Proposer plans to engage in notification campaigns to alert fishermen of the schedule of construction activities. As part of that process, the Proposer would communicate with vessels, including active fishing vessels near the construction areas, and via multiple forms of media.

## 13.7 Project Decommissioning

D.7 The Proposer must describe how it will develop a decommissioning plan, including coordination with fisheries stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage. Proposals demonstrating thoughtful consideration of the full life cycle of offshore wind energy Projects will be considered favorably.

In March 2017, Ørsted became the first developer to decommission an offshore wind project, the Vindeby Offshore Wind Farm near Lolland, Denmark. The 11-turbine Vindeby Offshore Wind Farm was constructed in 1991 and remained in operation for over 25 years.

[redacted] All Project components will be decommissioned in accordance with the applicable regulations in 30 CFR Part 585 [redacted]

[redacted]

The Proposer anticipates that the decommissioning plan will include coordination with fisheries stakeholders (similar to that developed and implemented for the construction phase). The plan will account for changing circumstances during the operational phase of the Project and new discoveries, particularly in the areas of the marine environment and technological change.

## 13.8 (Optional) Fisheries Compensation Plan

D.8 If a fisheries compensation plan is being considered to offset impacts, the Proposer must describe how it will determine instances where all reasonable attempts to avoid and minimize Project impacts, or restoration to predevelopment conditions are not feasible and some type of fisheries compensation plan is warranted. The Proposer must describe how a fisheries compensation plan was or will be developed; how the Proposer will coordinate with the F-TWG and other entities in the design or review of the fisheries compensation plan, and; how the compensation plan will be administered by a non-governmental third-party to provide reasonable and fair compensation for impacts that cannot be sufficiently addressed through other means.

[redacted]

## 13.9 Additional Considerations

D.9 The Proposer must outline any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the fishing community. Proposers are encouraged to review the Bureau of Ocean Energy Management (BOEM) *Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 Code of Federal Regulations (CFR) Part 585.* (Available at https://www.boem.gov/Social-and-Economic-Conditions-Fishery-Communication-Guidelines/) and *Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf Report on Best Management Practices and Mitigation Measures. A final report for the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewal Energy Programs, Herndon, VA. OCS Study BOEM* (available at

[redacted]

https://www.boem.gov/OCS-Study-BOEM-2014-654/) in the development of their Plan.

The Proposer has implemented and, in connection with the permitting of the Project, will continue to implement relevant mitigation strategies as discussed in BOEM's *Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 Code of Federal Regulations (CFR) Part 585* and *Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf Report on Best Management Practices and Mitigation Measures*. The Proposer intends to be transparent in its engagement with the fishing community to address issues in a manner consistent with BOEM's suggested methods while continuing to explore ways to go above and beyond suggested guidelines.

In accordance with BOEM's guidelines and as part of an informal fisheries communications and outreach plan, the Proposer's organization has engaged multiple Fisheries Liaisons, as well as Fisheries Representatives, in New York, Rhode Island, and Massachusetts. [redacted] the Proposer plans to conduct further meetings, hold additional open houses, and disseminate more information about the Project to the fishing community, such as plans for site assessment surveys. Outreach and communication with the fishing industry regarding Project plans will continue throughout the construction and operation phases [redacted]

The Proposer's organization has engaged, and will continue to engage with, the fishing industry to inform its refinement of the Project design. Through outreach to fisheries groups, the Proposer has acquired information on sensitive areas to avoid and other features of the Project Area, as well as the nature of fishing activities that occur within and around the Project Area, including temporal and spatial fishing patterns. The Proposer will continue to utilize feedback received from the fishing industry for consideration [redacted] and the implementation of a science-based monitoring program.

The Proposer will consider the safety of fishermen and mariners traversing the Project Area in its Safety Management System and Emergency Response Plan submitted with the Project's COP, which will establish a communication protocol and describe roles and responsibilities and procedures for emergency events. The Proposer will work with BOEM and BSEE to determine if additional safety requirements are necessary.

The Project's COP will establish plans for mitigation and monitoring of conditions within the Project Area during the construction, operation, and decommissioning phases of the Project. The Proposer will work with BOEM, as well as with other federal and state agencies and fisheries stakeholders, to address concerns regarding the monitoring plans.

# 14 Environmental Mitigation Plan – Narrative Component

6.4.14. A narrative description of the Environmental Mitigation Plan should be included in the Proposal Narrative.

## 14.1 Environmental Mitigation Plan Summary

E.1 The Proposer must briefly present its philosophy and approach to avoiding, minimizing, restoring and offsetting the potential environmental impacts of the proposed Project and how the Proposer will use research, data and stakeholder feedback to support decision making with respect to site design, construction, operations and decommissioning.

[redacted]

The Proposer will work to minimize environmental impacts through siting of the Project components in less sensitive areas and conducting monitoring and mitigation. Additionally, the Proposer will support collaborative science to further understand the potential impacts of offshore wind and incorporate the results into development, design, construction, and operation of the Project in an environmentally responsible manner.

[redacted]

## 14.2 Communications and Collaboration

E.2 The *New York State Offshore Wind Master Plan, the New York State Public Service Commission Order Establishing Offshore Wind Standard Framework for Phase 1 Procurement* issued on July 12, 2018 and the *Order Authorizing Offshore Wind Solicitation* in 2020 issued on April 23, 2020 pursuant to Case No. 18-E-0071, and this RFP emphasize the value of stakeholder engagement in the development of offshore wind energy Projects. Further, the Orders require Proposers to work with the State-supported Environmental Technical Working Group ("E-TWG"). Many other stakeholders are engaged in offshore wind energy development. The Proposer must describe how it will identify stakeholders relevant to environmental issues and describe how the Proposer intends to communicate with those stakeholders during survey work, and design, construction, operation and decommissioning of the Project. This description must account for communications with members of the E-TWG and consultations with New York State agencies during the various Project phases.

The Proposer's stakeholder engagement will include outreach to and meetings with federal and state agencies and non-regulatory stakeholders, including fishing communities, environmental groups, and local communities. [redacted]

### 14.2.1 Regulatory Stakeholders

[redacted]

NYSERDA has identified environmental and regulatory issues related to the development of offshore wind in New York in the New York Offshore Wind Master Plan. [redacted]

[redacted]

[redacted]

### 14.2.3 Other Stakeholders

With regard to non-regulatory stakeholders, the Proposer's organization continually refines its Community Outreach Plan for a consistent approach that will allow the Project to benefit from the experience of affiliated offshore wind projects. As part of that effort, the Proposer's organization will continue to enhance and leverage its Community Outreach Plan to identify and engage various interests, including local communities, environmental groups, fishing communities, recreational boating groups, low income populations, and labor and local business interests. [redacted] As part of that plan, the Proposer will proactively reach out to local communities in New York through informational meetings, press releases, website promotion, and social media, and [redacted]

## 14.3 Environmental Monitoring and Research Pre-, During- and Post-Construction

E.3 Environmental research and peer-reviewed publication of research findings is key to advancing the scientific knowledge of how offshore wind energy development might affect marine ecosystems and wildlife. Proposers are encouraged to publish their own work in scientific journals and to coordinate with scientists and regulators interested in investigating environmental and wind energy-related scientific questions.

Because offshore wind energy development is in early stages in the US, there is little empirical information as to the effects such development may have on ecological communities specific to the New York Bight. Transparency in new research and peer reviewed publication of results bring higher value, allowing others to build on that work. Thoughtfully planned, designed and implemented pre-, during- and post-construction monitoring and research to understand wildlife responses and potential effects from development is key for adaptive management. Further, multiple regional sites working together and coordinating monitoring and research in a consistent manner would bring additional value to the scientific understanding of how development of offshore wind energy is affecting regional resources.

The Proposer must (to the extent possible at this stage) describe how, for large whales (particularly the North Atlantic right whale), other marine mammals, sea turtles, birds, bats, fish and invertebrates, it plans to conduct scientifically sound, statistically rigorous studies to accomplish the following:

1. Establish baseline data on the presence of these types of wildlife within the area of the proposed Project (including areas where Project-related vessels would travel to reach the Project area);

### 14.3.1 Baseline Data

The Proposer is committed to collaborative studies pre-, during-, and post-construction. [redacted]. Specific to marine biological resources, a number of studies have been conducted in the northern Atlantic OSC by various agencies and organizations. The Proposer will utilize the extensive data collected by these studies to establish baseline data within the Project Area. [redacted]

2. Assess and quantify (to the extent practical) changes attributable to Project activities; and

3. Monitor for impacts on these types of wildlife during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

In the event that these activities cannot be clearly defined at this stage, the Proposer must describe how it will approach these questions and data gaps.

The Proposer must describe how it plans to make environmental data available in accordance with Section 2.2.6 of the RFP.

### 14.3.2 Impact Monitoring

[redacted]

[redacted]

The Proposer will work with federal and state agencies to determine appropriate and practicable marine wildlife monitoring and mitigation methods during the construction, operation, and decommissioning phases of the Project. [redacted]

## 14.4 Supporting Other Environmental Research

The selected Proposer will be required to coordinate with independent scientists supported by third parties for the purpose of research and publication in peer reviewed journals. This coordination may include the provision of reasonably requested Project data, and access to the Project area to examine environmental sensitivities and/or the impacts of offshore wind energy development on the environment.

The Proposer must describe how such requests will be considered and processed, and any restrictions on data provision or access the Proposer believes may be required to protect trade secrets or maintain site security.

The Proposer may also elect to identify a level of financial commitment that will be appropriated to leverage third-party environmental research funding, including federal or State-supported research, or that the Proposer would be willing to contribute to a general fund for supporting third-party research into relevant ecological communities and the effects of offshore wind energy development. Such financial commitments will be favorably considered in the proposal review process.

### 14.4.1 Third Party Research

The Project Area will be accessible by vessels, including research vessels, for independent scientists to examine any environmental sensitivities as a result of the Project. [redacted]

## 14.5 Marine Mammals and Sea Turtles

The development of offshore wind energy poses some concerns about effects on marine mammals and sea turtles, primarily related to the introduction of man-made sounds, changes in ship traffic, and the long-term presence of turbines in the ocean.

Sounds resulting from bottom surveys, ships, and pile driving may risk introducing possible changes in mammal behavior, including effective habitat reduction because of sound avoidance, interruption of life-cycle activities, and injury to hearing. For some marine mammals, low-frequency sounds such as pile driving, if performed in close proximity to an animal, can potentially cause permanent damage to hearing or temporarily make it difficult for the animal to hear predators, prey, and each other.

The Proposer must provide a description of how it will work to understand and minimize the Project's risk to marine mammals and sea turtles, with special attention to highly vulnerable and endangered species such as the North Atlantic right whale. At a minimum this should consist of:

1. A basic description of what is known about the proposed site in terms of marine mammal and sea turtle assemblage, temporal and spatial use of the site, and which species the Proposer believes to be of greatest concern and why;

### 14.5.1 Site Characterization

To support the assessment of marine mammals, BOEM has issued *Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 Subpart F* (Marine Mammal and Sea Turtle Guidelines; BOEM 2019). In support of development of the Project, marine mammal and sea turtle resources will be assessed to comply with BOEM's site characterization requirements in 30 CFR § 585.626(3).

[redacted] It is important to recognize when characterizing marine wildlife that they are mobile species with occurrences that vary from year to year and from season to season. Typically, the waters associated with the Project Area are used by

marine mammals for foraging, transiting, or migrating. The presence and/or absence of marine mammals within these waters can be affected by a variety of parameters including water temperature, movements or availability of prey, and human presence or disturbance.

[redacted]

2. A description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases of Project development. This should include, at a minimum:

a. Anticipated pre- and post-construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site;

b. Minimum size of exclusion zone intended to be monitored during geophysical surveys and construction;

c. Planned approaches to understanding marine mammal and sea turtle presence and absence within the development site exclusion zone during site assessment and construction (e.g., a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.);

d. Proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury or harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and

### 14.5.2 Mitigation Measures

[redacted]

[redacted]

e. Proposed equipment and technologies the Proposer would use to reduce the amount of sound at the source, if any.

[redacted]

3. A description of how the Proposer will seek to minimize the risk of ship strikes through timing, speed restrictions (e.g., stakeholders have suggested speed restrictions of 10 knots during time periods with high densities of species of concern), use of shipping lanes, and conformance to the National Oceanic and Atmospheric Administration guidance to avoid ship collision with whales (https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-ship-strikes-north-atlantic-right-whales).

### 14.5.3 Ship Strike Reduction

The Proposer recognizes the importance of minimizing the risk of ship strikes. [redacted]

[redacted]

## 14.6 Birds and Bats

Offshore wind energy has the potential to adversely impact birds and bats during siting, construction, and operation. Impacts include direct mortality from collisions with wind turbines and other structures, habitat loss, displacement, and sensory disturbances from sound and light. Since offshore wind is a new industry in the Atlantic and all potential impacts are not known, it is critical that current use by birds and bats is well understood before construction and use and impacts continue to be monitored during and post- construction so that unexpected impacts can be mitigated for.

The Proposer must provide a description of how it will work to understand and minimize the Project's risk to birds and bats. At a minimum this should include:

1. A description of what is known about the proposed site in terms of bird and bat assemblages, temporal and spatial use of the site by key species, and which species the Proposer believes to be of greatest concern and why;

### 14.6.1 Site Characterization

#### Birds

A large number of bird species occur in or potentially fly over the Lease Area. [redacted]

#### Bats

[redacted]

[redacted]

2. The planned approach that the Proposer will use to evaluate risks to birds and bats generally, and those of greatest concern specifically;

### 14.6.2 Survey Plans

[redacted]

The Proposer anticipates that additional avian surveys may be conducted within New York State nearshore waters, [redacted] pending consultation with state and federal wildlife agencies. The results of these studies and consultations will be used to inform Project design and identification of appropriate mitigation and minimization measures.

The Proposer has also reviewed the studies [redacted] including published data of bat occurrences in offshore and nearshore environments [redacted] as well as the NYSERDA Offshore Wind Master Plan Birds and Bats Study. [redacted] Bat occurrence onshore is well-documented, [redacted] The Proposer expects surveys for bat species to be conducted for the onshore portions of the Project, if appropriate, pending consultation with federal and state wildlife agencies and in accordance with applicable permit requirements.

[redacted]

3. Steps the Proposer will pursue to minimize risk to birds and bats (e.g. lighting); and

### 14.6.3 Risk Minimization

[redacted]

4. Identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time.

### 14.6.4 Technology

The Proposer is considering various approaches to post-construction monitoring to assess any Project-related impacts to bird species. [redacted]

## 14.7 Fish, Invertebrates and their Habitats

E.7 The principal potential risks of offshore wind energy development to fish, invertebrates and their habitats include possible changes to the seafloor and other habitats, increased sediment levels in the water column, noise and sensory disturbances, and direct harm to fish and invertebrate species from construction equipment. These changes could result in changes in predator/prey relationships, competition between species and changes to fish and invertebrate populations in and around the Project site.

The Proposer must provide a description of how it will work to understand and minimize the Project's risk to fish and invertebrates and their habitats. At a minimum this should include:

1. A basic description of what is known about the proposed site in terms of fish and invertebrate assemblage, and temporal and spatial variations in fish, invertebrates and their habitats at the proposed site. The use of collaborative monitoring models with the fishing community is encouraged to develop trusted baseline data

2. Identification of fish and invertebrate species the Proposer believes to be of greatest concern and why;

A variety of studies of fish and invertebrate resources and their habitats have been funded or conducted by BOEM, NOAA, RICRMC, RIDMF, CT DEEP, MADMF, MACZM, NYDEC, and NYSERDA, and the Proposer's organization in the waters of the northeast related to offshore wind development [redacted]. These studies [redacted] identify

the fish and invertebrate assemblages, as well as temporal and spatial variations in fish, invertebrates, and their habitats, present within the vicinity of the Project Area.

3. The planned approach that the Proposer will use to evaluate risks and impacts to fish, invertebrates and their habitats generally, and the species or habitats of greatest concern specifically;

In addition to conducting surveys, the Proposer has also been consulting with federal and state agencies and other stakeholders to build a baseline understanding of fisheries resources and to identify sensitive habitats and areas of particular concern in the Lease Area. The Proposer will continue these consultations with federal and stakeholders to gain a greater understanding of the resources and concerns within the Project Area and along the export cable route when evaluating potential risks and impacts.

Once construction of the Project begins, construction-related impacts to fisheries may include temporary, localized increases

in noise and turbidity and changes to substrate. Mobile fish and invertebrates are expected to temporarily leave the area in response to construction activity. Because identical or similar habitat is widely available in the immediate area, as identified in [redacted] existing studies, the temporary displacement is not considered significant. Populations of benthic organisms would not be diminished by the small area of sea floor that will be disturbed by construction.

Within several months of completion of construction, the abundance and distribution of benthic invertebrates is expected to return to pre-construction conditions. The introduction of the WTG [redacted] will likely support colonization of encrusting invertebrates, which will quickly lead to the development of biogenic habitat and associated communities centered on the structures.[25] The distribution of mobile species, including lobsters, groundfish, and pelagic predators, will likely shift to take advantage of the new source of shelter and prey. Impacts associated with construction related to the introduction of artificial structures will continue as long as the structures are in place, regardless of operation. Overall, the shift toward a structure-based community may be considered desirable by some user groups, including commercial and recreational fishermen, because it supports higher trophic level fish that are of commercial and recreational value.

[redacted] In coordination with federal and state agencies, results of these studies will inform the mitigation measures selected for the Project.

The Proposer will also conduct site-specific studies to examine the impact of the Project on marine resources. [redacted]

4. Steps the Proposer will pursue to minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment); and

[redacted]

[redacted]

[25] Miller et al. 2013. Marine renewable energy development: assessing the Benthic Footprint at multiple scales

[redacted]

5. Any Proposals for other research or measures taken to reduce risk or impacts to fish, invertebrates or their habitats (e.g., ecosystem or habitat enhancements).

[redacted]

# 15 COMMUNITY OUTREACH PLAN

6.4.15 Provide a community engagement plan that identifies proposed stakeholder engagement activities during construction and operation of the Project. A narrative description of the community engagement plan should be included in the Proposal Narrative. Discuss the status of implementing the community engagement plan. Include information on specific localized support and/or opposition to the Project of which Proposer is aware. Detailed supporting information, including copies of any agreements with communities and other constituencies impacted by the Project, not already covered in the Fisheries Mitigation Plan or the Environmental Mitigation Plan, and documentation identifying the level of public support for the Project including letters from public officials, community and local interest groups, newspaper articles, *etc*. should be included in the required Letters of Support for the Proposal attachment.

### The Local Developer

Sunrise Wind 2 is local; the Project team lives and works in the New York communities it serves and is here to stay. This team is already developing offshore wind farms in Long Island and cares deeply about how its members go about doing business. Developing and building the Project—and any project in the Ørsted-Eversource portfolio—successfully means building strong, open, and genuine relationships with community stakeholders. The joint venture hires local professionals, including fishing industry veterans, to build the best possible development and communication methods.

### Industry Experience

Building on the experience of two other offshore wind projects in New York, the Project will be delivered on time and with widespread public support because the Proposer's organization is the only team to have successfully managed community relations for an offshore wind farm in the U.S., in addition to hundreds of transmission projects around the northeast and dozens of offshore wind projects around the globe. Based on that experience, the Proposer's team also knows there will be real challenges ahead; however, the team will be the most prepared and skilled to overcome those challenges when they come.

### Our Approach

The Proposer's organization has been on the ground, working to bring offshore wind to New York for years. This team has implemented a comprehensive outreach and engagement plan that has built a broad base of understanding and accompanying stakeholder support for offshore wind generally, and for the Project as demonstrated by the letters and statements of support provided in [redacted].

The outreach plan for the Project also builds upon the hyper-local experience gained from the nearby South Fork Wind Project, where the "early and often" approach to engagement has proven both effective and essential, [redacted] with support from subject matter experts and the best available communication tools.

The team also makes a point of listening to outreach and incorporating feedback into project design. For example:

- On Block Island, the location of WTGs changed based on feedback from the fishing community, and working together with leading environmental groups, protocols were developed to protect whales and other marine life during construction.

[redacted]

The outreach plan will use a mix of social media, print, radio, TV and digital spots to convey Project details and how community members can engage with the Project team. Additionally, the team will meet with every local group that will have them, present before the local elected boards, and host outreach meetings. As in previous projects, the team will also engage community members one-on-one and in small groups, including concerned local, environmental, non-governmental organizations. For example:

[redacted]

[redacted]

[redacted]

Nonetheless, there will be obstacles and Project detractors regardless of how much outreach is made, or how sound the merits of the Project may be. In this electronic age, misinformation spreads quickly. The team has experienced this challenge in connection with nearly all of the offshore wind projects in the Ørsted-Eversource portfolio and have developed effective response strategies.

The goal is to ensure the decision makers have the information and support they need when they vote. The team will do this by supplying the facts, responding to misinformation when its released through social media, print, and radio, and by mobilizing allies to write letters to the editors, attend public meetings, and engage decision makers to ask them support the Project proactively and consistently over the course of the Project. Media also can help clarify the issues as they have many times before, as demonstrated in [redacted]

The outreach plan provided in [redacted] describes the team's commitment to robust, inclusive, and transparent public involvement, and details the approach to public engagement. It will:

1. Identify key stakeholders in the area of the proposed Project;
2. Advance public understanding of the Project and offshore wind generally;
3. Encourage and collect public input;
4. Disseminate information and Project details and progress to the public and other stakeholders;
5. Obtain local real estate rights for the onshore transmission route; and
6. Deliver the Project on-time with widespread support.

The plan should be viewed as a living document that will adapt as the market and the Project develops, serving as a point of reference to guide outreach efforts for the Project.

# 16 VISIBILITY AND VIEWSHED IMPACTS

6.4.16 Proposers must address a Project's visibility from shore. If a Project is proposed to include turbines less than 20 statute miles from the nearest shoreline point of any state, Proposers must explain (i) how the Project will minimize adverse impacts related to visibility of turbines, including potential impacts on the local and state economy and historic and visual resources, such as publicly-accessible viewsheds, and (ii) how consideration of economic and environmental concerns contributed to the proposed distance from shore.

Additionally, all Proposals, regardless of distance from the nearest shoreline, must include a visibility study that presents visual simulations of the proposed Offshore Wind Generation Facility. Visibility studies must include a map or maps along with supporting GIS shape files that depict the nearest coastline, the boundary of the proposed site to be developed and any other reasonable reference points (*e.g.*, coastal cities, historic sites, other wind energy areas). Simulations must be single frame, photographic images with superimposed simulations of the proposed wind turbine technology configured to represent a commercially-scaled and technically feasible scenario that is consistent with the proposed Project including operating capacity, wind turbine size, and generic spacing and configuration. Viewing instructions must be included on each simulation.

Visual simulations must represent, at a minimum, clear, partly cloudy, and overcast conditions during early morning, mid-afternoon, and late day, as well as one simulation at night with the turbines lit under clear conditions. Visual simulations must be provided from a minimum of two representative vantage points which represent the closest points to shore from any turbine within the Offshore Wind Generation Facility and, if applicable, any sensitive or historic viewpoints within 20 statute miles of the nearest turbine. The visibility study must also include analysis of the percentage of time during which different visibility conditions are expected to occur based on past meteorological data.

The simulations must be provided in a format suitable to be printed or electronically viewed by the public and/or the Scoring Committee.

At more than [redacted] of Montauk, the closest point in New York to the wind generation site, visual simulations show negligible impact from New York's viewpoints, which is further mitigated by the curvature of the earth, wave height, and atmospheric conditions. Additionally, the closest inhabited shoreline to the Project WTGs is located [redacted].

[redacted]

[redacted]

Information regarding the visibility and viewshed impacts of the Project is found in Attachments 16-1 through 16-3. Attachment 16-1 provides a written assessment of the visibility and viewshed analysis including the potential impacts to visual resources. The visibility study considered views from publicly accessible lands with the closest proximity to the Project from two neighboring states; Massachusetts and New York. Attachment 16-2 provides the visual simulations of the Project from the shore of Cape Hero/Montauk Lighthouse, New York; Squibnocket Beach, Massachusetts; and Madaket Beach, Massachusetts. The photos demonstrate what the horizon will look like with Project WTGs at clear, partly cloudy, and overcast conditions during early morning, mid-afternoon, and late day, as well as one simulation at each location at night, with the WTGs lit under clear conditions. [redacted]

# 17 NEW YORK ECONOMIC BENEFITS NARRATIVE

6.4.17 Proposers must submit their claimed Incremental Economic Benefits by category using the Offer Data Form and support these claims by submitting an Economic Benefits Plan. All claimed expenditures and investments should be provided in nominal dollars (U.S.) at the time of Proposal submission.

The Proposal Narrative should include a high-level narrative summary of the Economic Benefits Plan for each Proposal included in the Submission. The Economic Benefits Plan for each Proposal should be submitted in a separate required Economic Benefits Plan attachment.

The Economic Benefits Plan must include descriptions and supporting documentation for their Incremental Economic Benefits Claims, as described below.

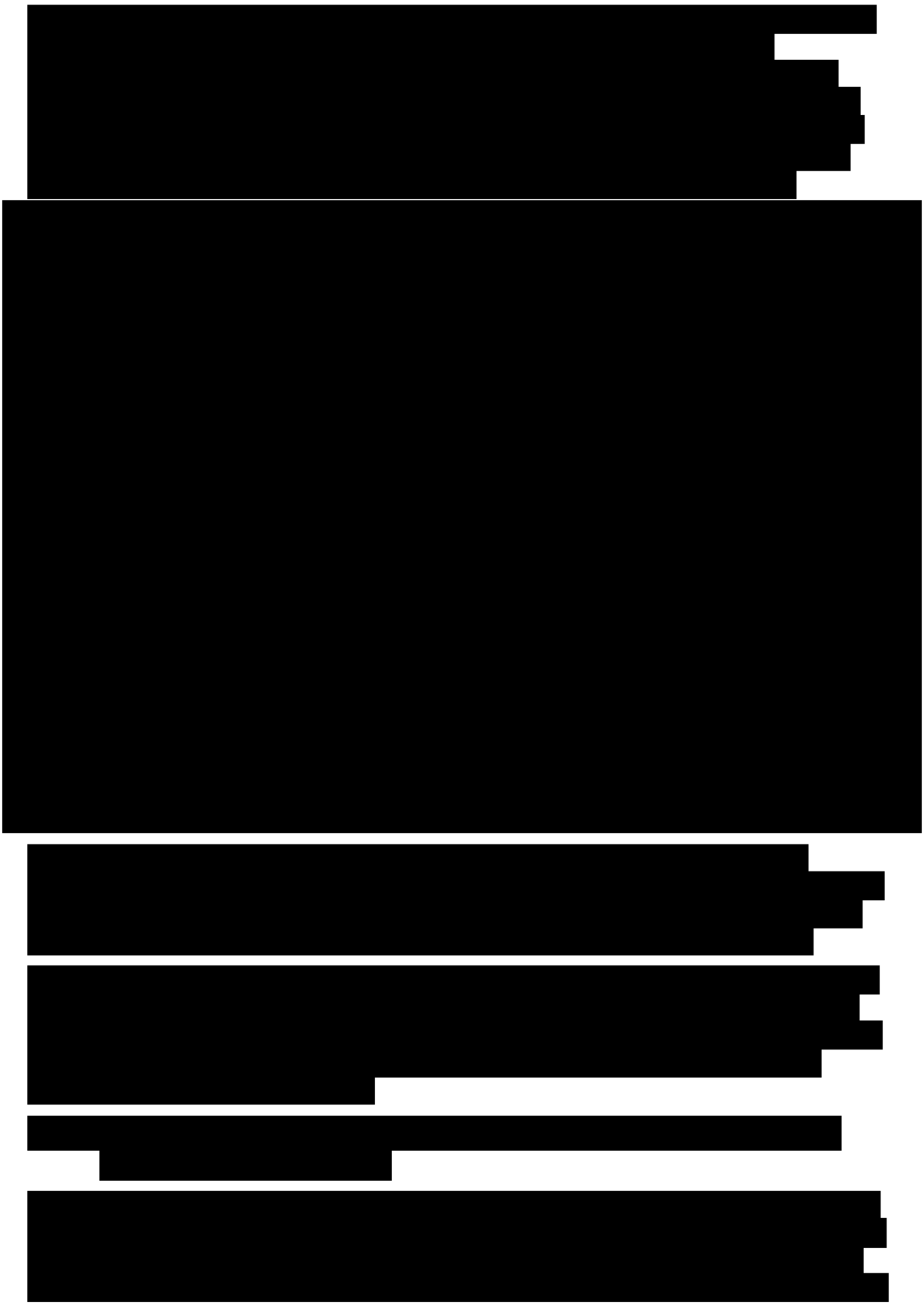
The prorated portion of investments in oversized transmission and interconnection facilities not needed to support the Offshore Wind Generation Facility shall not be included as an Economic Benefit.

As this RFP seeks to deliver a coordinated solution to the priorities of enabling offshore wind projects in New York and those activities, expenditures, and investments – including specifically the investment of up to $200 million in New York State funding in port infrastructure related to offshore wind.

Where every eligible proposal to this RFP, with the exception of the Required Standalone Proposal, must include a plan to leverage a portion, or the entirety of the available funding, the Economic Benefit Plan and associated Economic Benefit Claims made for every Proposal must be likewise supported by one or more Port Infrastructure Investment Plans as described in Appendix C.2.

[redacted]

[redacted]



[redacted]

[redacted]

## 17.3 Onshore and Offshore Construction Utilizing New York Businesses and Labor

Substantial local economic benefits will result from the construction of the Project's onshore and offshore assets. Specifically, the installation of the [redacted] will require a large number of skilled workers. The Proposer will rely heavily on organized labor for this work.

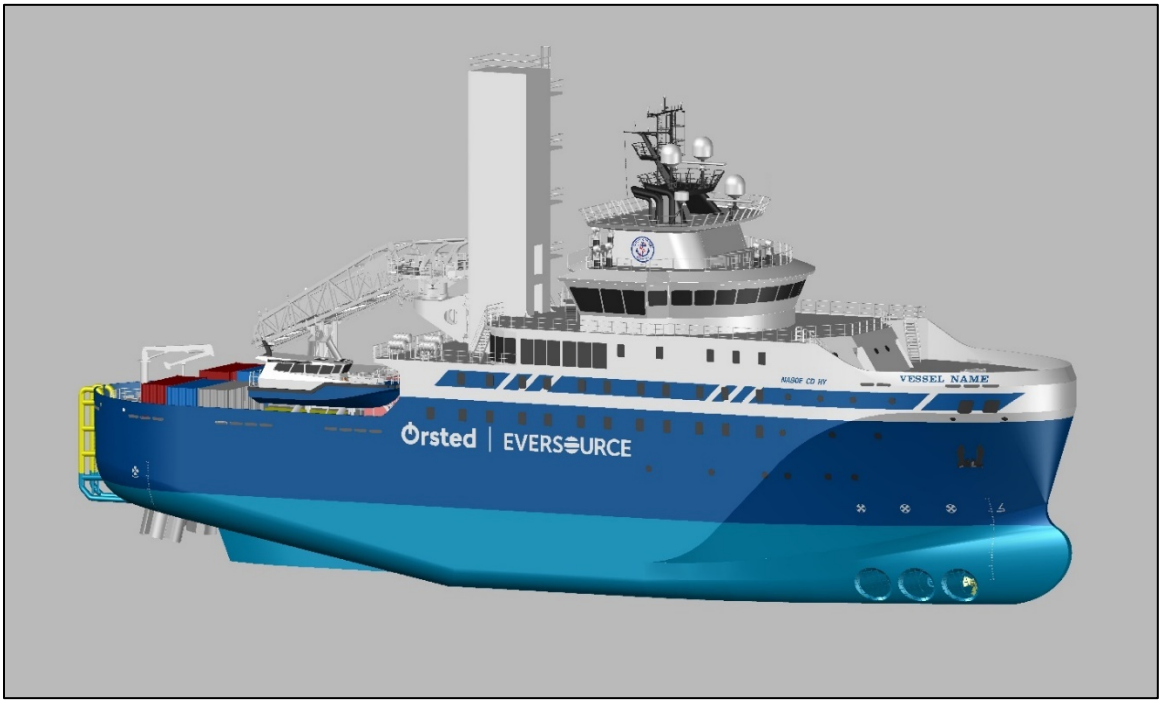
[redacted]

[redacted]

In October 2020, the Proposer's organization announced the execution of a long-term charter agreement for the provision of the first-ever U.S.-flagged Jones Act-qualified Service Operations Vessel (SOV) (Figure 17.8). The 260+ feet long SOV will be the center piece of the offshore operations [redacted]

[redacted] See Attachment 17-7 for a press release regarding the contracting of this vessel.

**Figure 17.8 First-ever U.S.-flagged Jones Act-qualified Service Operations Vessel (SOV)**




[redacted]

[redacted]

[redacted]

### 17.5.3 Monitoring of Fisheries & Wildlife

The Proposer is committed to the principle that offshore wind and fishing can coexist while also minimizing impacts to the local environment. While conflicts among ocean users can seem inevitable, proactive dialogue, monitoring, and an openness to change can mitigate many of these conflicts. The Proposer will work with NYSERDA and the Environmental and Fisheries Technical Working Groups to ensure that the needs of the community are best served by fisheries and environmental monitoring programs. [redacted]

[redacted]

# 18 CARBON EMISSIONS AND EMBODIED CARBON

6.4.19 Proposers are required to describe how the Project will actively support the outcomes envisioned by New York's State's nation-leading climate legislation, the CLCPA, including its target of reducing greenhouse gas emissions 80% by the year 2050. In fulfillment of which, the Proposal should demonstrate a commitment to understanding the carbon footprint of the Proposed Project overall and a description of how, by design, the Project is actively seeking opportunities to reduce the amount of embodied carbon. To begin to provide some basic accountability for embodied carbon, the Proposal must describe the efforts undertaken by the Proposer, including any tools or methodologies used, to better understand and consider carbon intensity in design, sourcing and construction, and the steps that have been taken to minimize carbon emissions, including embodied carbon, from the proposed Project. The Proposer should also propose the methodology by which such reduction activities will be considered and integrated into the Project's design as the project evolves. Finally, the Proposer should include the proposed process by which the Proposer will validate, following commissioning of the Project, a final accounting of the Project's embodied carbon, including any methodology and certifiable environmental product declarations, to promote disclosure of the Project's ultimate carbon footprint and relatedly, the Project's energy and carbon payback periods.

## 18.1 Proposer Parent Companies

The Proposer belongs to a family of companies that are recognized leaders in the green energy industry and addressing climate change.

**Ørsted**

Already ranked as the most sustainable company in the world in the Corporate Knights 2020 Global 100 index of most sustainable corporations, Ørsted has made a commitment to going 100 percent renewable. In February 2020, Ørsted also launched a new program to become carbon neutral by 2040, and to be halfway towards its goal in 2032.

- Ørsted has reduced its carbon emissions by 86 percent, doing so much faster than what climate science outlines as necessary to limit global warming.
- By 2040, Ørsted is targeting carbon neutrality across its generating assets ([redacted]), operations, entire supply chain, and traded energy.
- 85 percent of Ørsted's capital is deployed toward green energy solutions in wind, biofuels, storage and customer solutions.

Through innovation and large-scale deployment of offshore wind technology, Ørsted has helped bring down the cost of offshore wind. It is now cheaper than newly built coal- and gas-fired power plants in most parts of the world. By lifting the offshore wind industry from a niche to a global and rapidly growing industry, Ørsted is positioned to deliver green energy to hundreds of millions of people.

**Eversource**

Eversource is focused on being a catalyst for clean energy development. Its strong commitment to sustainability is an important component of how Eversource conducts

business today and plans to demonstrate leadership well into the future. As a centerpiece of that commitment to clean energy, Eversource established an industry leading target to be carbon neutral by 2030.

Related initiatives include:

- Eversource allocates 7 percent of its annual revenues—or more than $500 million annually—to energy efficiency programs for its nearly 4 million customers. Its energy efficiency programs have been consistently ranked #1 in the country.
- Eversource recently constructed 70 MW of solar energy and divested its remaining fossil fueled generation.
- Eversource is constructing two utility scale battery storage facilities in coastal communities.
- Eversource has spent approximately $8 billion over the past 12 years to strengthen New England's high voltage electric grid. This has improved reliability and resiliency, while enabling more efficient and cleaner power to reach the region's customers.

More information is available at https://www.eversource.com/content/docs/default-source/investors/commitment-to-sustainability.pdf?sfvrsn=4b4ed562_0.

Through its carbon neutral by 2030 effort and other forward-thinking initiatives, Eversource is recognized as one of the greenest energy companies in the nation.

The Proposer's approach to the Project is consistent with its Owners' commitment to transitioning to a clean energy future, and the Project will make a significant contribution toward New York's greenhouse gas reduction goals.

[redacted]

[redacted]

## 18.4 Carbon Profile/Footprint

During operations, the Project will displace fossil fuel energy production, resulting in the reduction of greenhouse gas emissions and contributing to New York's climate change goals. To achieve these reductions, the Proposer will adopt installation techniques and procurement practices that are consistent with a commitment to green energy and climate change mitigation.

The manufacture of offshore wind farm components and fuel-linked emissions from vessels used to transport and install these components are among the most carbon-intensive activities in the Project's supply chain. Specifically, the mining and processing of steel, copper, aluminum, and other raw-materials used in turbine components are energy-intensive. The manufacturing processes for converting these into wind farm components adds to the carbon footprint.

Ørsted is committed a 50 percent reduction in the carbon emissions from its supply chain (and its energy trading) by 2032, as compared with 2018. As part of Ørsted's generating portfolio, the Project would be subject to these targets; this is fully supported by Eversource's targets and ambitions.

There are two key ways Ørsted will work towards a carbon neutral supply chain and carbon neutral projects.

[redacted]

- The first is by developing and designing projects that maximize construction efficiencies.
- The second is by engaging its suppliers to reduce carbon emissions from the manufacture and installation of renewable energy. Ørsted will encourage them to set emission reduction targets aligned with climate science and to run their operations on green energy.

Starting this year, Ørsted has been working closely with its top strategic suppliers, who account for more than 50 percent of its procurement spend, to:

- Disclose emissions and set science-based carbon reduction targets;
- Use 100 percent renewable energy when manufacturing offshore wind farm components; and
- Optimize its current vessel fleet and develop a plan to power that fleet with renewables.

Generating demand for low-carbon solutions and working with suppliers to drive scale and cost reduction will deliver the right decarbonization solutions in a fast and cost-effective way.

**Design and Construction**

In addition to sustainable sourcing, the Proposer has used offshore design standards and construction techniques to maximize environmental efficiencies in the installation of the Project. For example:

[redacted]

**Port Redevelopment**

The Project's PIIPs will be developed and constructed using sustainable techniques that will limit carbon emissions. The various port developments may include:

[redacted]

[redacted]

### Operation and Maintenance

While generating power, the WTGs do not produce greenhouse gas emissions. The operation and maintenance of the Project will produce minimal amounts of greenhouse gas emissions. Those emissions are associated with vessels and vehicles transporting personnel and activities associated with the operations and maintenance facility and pier operations. [redacted] Therefore, emissions that exist today will be reduced, if not eliminated, through the purposeful procurement program described above and the greater availability of technology to achieve these goals.

The corporate goals of carbon neutrality by 2030 (Eversource) and 2040 (Ørsted) will position the Project to appropriately address greenhouse gas emissions during operations as part of comprehensive corporate initiatives, both of which will be completed well in advance of the CLCPA's goal of reducing greenhouse gas emissions by 85 percent from 1990 levels by 2050.

[redacted]