March 27, 2024

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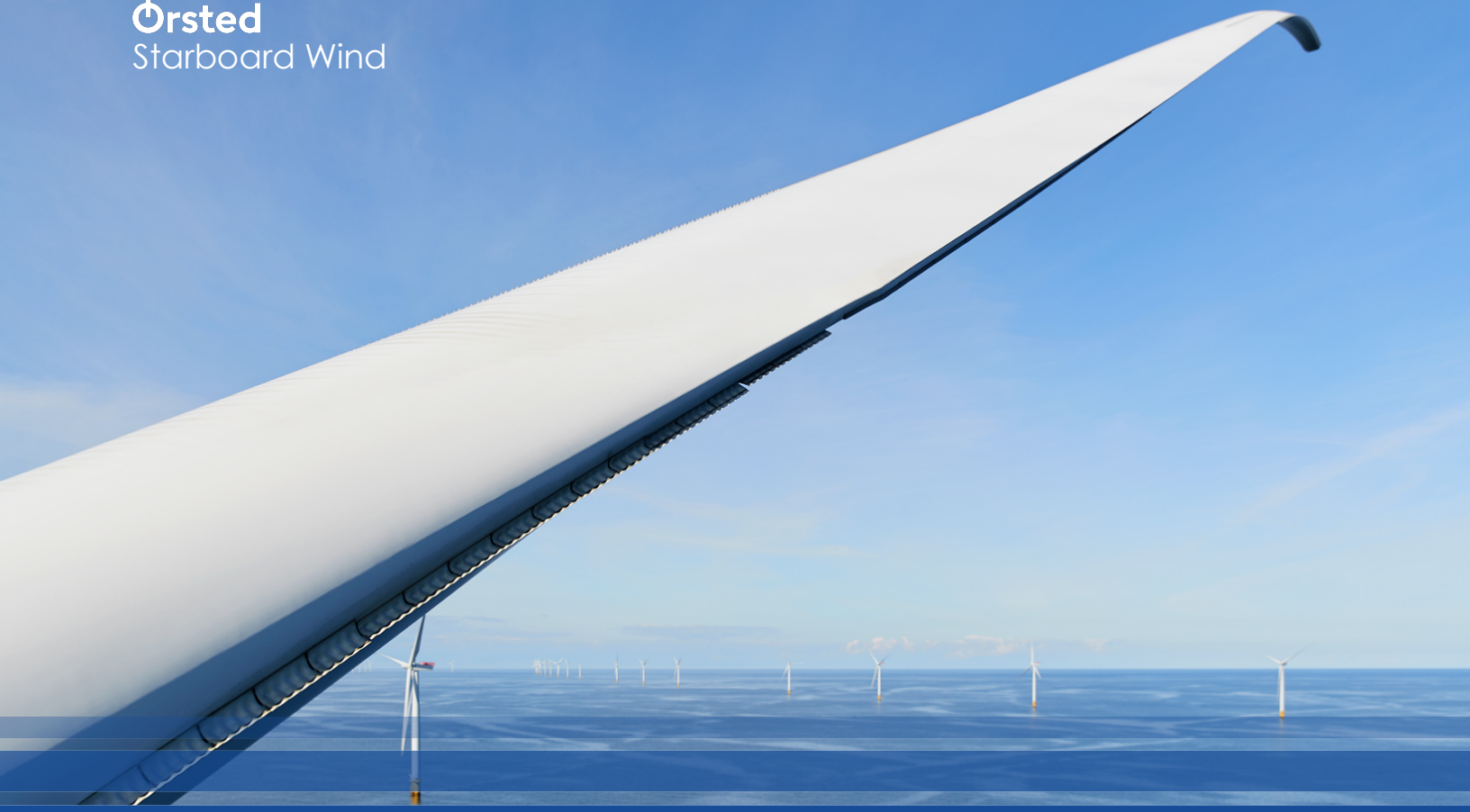
Starboard Wind



Long-Term Contract for Offshore Wind Energy

Prepared for:
The Narragansett Electric Company d/b/a Rhode Island Energy

Submitted by:
Bay State Wind LLC
56 Exchange Terrace
Providence, RI 02903

Portions of this proposal contain confidential, proprietary, and/or commercially sensitive information which has been redacted from the "Public Version" of this proposal. Bay State Wind LLC (d/b/a Starboard Wind) has submitted a "Confidential Version" of this proposal which includes the redacted information, and which should be treated as a non-public record that is exempt from disclosure to the extent permitted under applicable laws and/or as expressly set forth in the Request for Proposals.

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Section 1 - Certification, Project, and Pricing Data	
The Certification, Project, and Pricing Data ("CPPD") document is a Microsoft Excel workbook that is provided on the website at www.ricleanenergyrfp.com/2023-osw-rfp/. *Bidders are required to provide firm pricing for 240 days from the date of bid submission. The bidder must also sign the certification form found in Appendix A verifying that the prices, terms, and conditions of the proposal are valid for at least 240 days. An officer or duly authorized representative of the bidder is required to sign the Proposal Certification Form.*	Section 1 Attachments 1-1, 1-2, and 1-3
Section 2 - Executive Summary	
The bidder is required to provide an executive summary of the project proposal that includes a complete description of the proposed generation bid, the delivery point located within ISO-NE, the proposed contract term and pricing schedule, the interconnection plan, the overall project schedule, the additional ACES requirements, and other factors the bidder deems to be important. A table summarizing the proposal(s), including details such as generation project location, interconnection location(s), capacity (MW), commercial operation date, pricing ($/MWh), etc., is encouraged.	Section 2
Section 3 - Operational Parameters	
3.1 Maintenance Outage Requirements – Specify partial and complete planned outage requirements in weeks or days for all major equipment and associated facilities required for the delivery of energy from the generation facilities to the delivery point. Also, list the number of months required for any outage cycle(s) to repeat (e.g., list time interval of minor and major overhauls, and the duration of overhauls).	Section 3.1
3.2 Operating Constraints – Specify all the expected operating constraints and operational restrictions for the project (i.e., limits on the number of hours a unit may be operated per year or unit of time), differentiating those that may be variable or situational in nature.	Section 3.2
3.3 Reliability – Describe how the proposal would provide enhanced electricity reliability to Rhode Island, including its impact on transmission constraints. Describe if your proposal contains any specialized equipment to improve reliability during cold weather conditions, and how that may impact overall generator output.	Section 3.3
3.4 Moderation of System Peak Load – Describe how the proposal would contribute to moderating system peak load requirements and provide the following information: *i. Estimated average output for each summer period (June- September) from 3:00 - 7:00 pm* *ii. Estimated average output for each winter period (October-May) from 4:00 – 9:00 pm*	Section 3.4

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Section 4 - Energy Resource and Delivery Plan	
For Eligible Facilities, the bidder is required to provide an energy resource and a production/delivery profile for its proposed project, including supporting documentation. The energy resource and profile information should be consistent with the type of technology/resource option proposed and the term proposed. Bidders should respond to all information requests which are relevant to the bid in a timely manner.	Section 4
4.1 Provide a summary of all collected wind data for the proposed site. Identify when and how (e.g. meteorological mast or LiDAR – for "Light Detection and Ranging") the data was collected and by whom. *Indicate where the data was collected and its proximity to the proposed 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 collection efforts that are planned or ongoing.* *Provide (a) at least one year of hourly wind resource data. Real Data collected from the site is preferred, though projected data is permissible. Methodology must also be included. And (b) a wind resource assessment report for the proposed facility from a qualified unaffiliated third-party wind resource assessment firm.* *Include an analysis of the available wind data which addresses the relationship between wind conditions and electrical output. Provide a projection of net hourly energy production and net annual energy production based on the 2012 wind resource data. Also, bidders shall provide the net annual energy production ab both the P50 and P90 levels.* *Provide a site-adjusted power curve. Each curve should list the elevation, temperature and air density used.* *Identify the assumptions for losses in the calculation of projected annual energy production, including each element in the calculation of losses.*	Section 4.1 Attachments 4-1, 4-2, and 4-3
4.2 Offshore Wind Energy Generation Delivery Plan *Please provide an energy delivery plan and production/delivery profile for the proposed project, including supporting documentation. The energy delivery plan and production/delivery profile must provide the expected Offshore Wind Energy Generation to be delivered into the ISO-NE market settlement system and permit the Evaluation Team to determine the reasonableness of the projections for purposes of Sections 2.2.2.3 Eligible Products, 2.2.2.4 Allowable Contract Term, 2.2.2.5 Minimum/Maximum Contract Size and Allowable Alternative Bids, and 2.2.3.4 Interconnection and Delivery Requirements. Such information should be consistent with the energy resource plan and production/delivery profile provided above and considering any and all constraints to physical delivery into ISO-NE.*	Section 4.2
Section 5 - Financial/Legal	
Bidders are required to demonstrate the financial viability of their proposed project. Bidders should provide the following information	Section 5
5.1 Please submit information and documentation that demonstrates that a long-term contract resulting from this RFP Process would either permit the bidder to finance its proposal that would otherwise not be financeable or assist the bidder in obtaining financing of its proposal.	Section 5.1

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5.2 Please provide a description of the business entity structure of the bidder's organization from a financial and legal perspective, including all general and limited partners, officers, directors, managers, members and shareholders, involvement of any subsidiaries supporting the project, and the providers of equity and debt during project development. Provide an organization chart showing the relationship between the equity and debt participants and an explanation of the relationships. For jointly owned facilities, identify all owners and their respective interests, and document the bidder's right to submit a binding proposal.	Section 5.2
5.3 Please provide a description of the financing plan for the project as described in Section 2.2.3.5, including construction and term financing. The financing plan should address the following: *i. Who will finance the project (or are being considered to finance the project) and the related financing mechanism or mechanisms that will be used (i.e. convertible debenture, equity or other) including repayment schedules and conversion features* *ii. The project's existing initial financial structure and projected financial structure* *iii. Estimated total project costs, including construction costs, and estimated annual spend on the project during development, construction, and operation* *iv. Estimated total project cost, broken down into nine categories:* *- Development costs, such as engineering and design, legal services, geological surveys and analysis, permitting, community relations/public relations, financial advisory services, management, and administrative* *- Development costs related to ports and staging* *- Offshore turbines and their associated foundation and array cabling costs* *- Offshore substation(s) and their associated foundation(s) cost* *- Offshore export cable cost* *- Onshore construction costs, including the cabling, onshore substation(s) if any, and interconnection to the grid* *- Transmission system upgrades* *- Operations & maintenance* *- All other costs, such as financing, investments not included in the above categories, etc.* *v. The projected capital structure, including expected sources of debt and equity financing, during development, construction, and operation, and if there are other competing existing or potential future obligations that may result in changes to the financing plan* *vi. Indicate whether the bidder has used the proposed financing strategy before for projects of similar size and type, if any issues arose, and how those issues were resolved* *vii. 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* *viii. Describe if you have any mechanisms that you will utilize to de-risk inflationary and commodity cost increases for the project* *In addition, the financing plan should address the status of the above activities as well as the financing of development and permitting costs. All bidders are required to provide this information.*	Section 5.3

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5.4 Provide documentation illustrating the experience of the bidder in securing financing for projects of similar size and technology as required in Section 2.2.3.6. For each project previously financed, provide the following information: *i. Project name and location* *ii. Project type and size* *iii. Date of construction and permanent financing* *iv. Form of debt and equity financing* *v. Current status of the project* *vi. Role in project development, construction, and operation*	Section 5.4
5.5 Please provide evidence that the bidder has the financial resources and financial strength to complete and operate the project as planned.	Section 5.5
5.6 Provide complete copies of the most recent audited financial statement and annual report for each bidder for each of the past three years; including affiliates of the bidder (if audited statements are not available, reviewed or compiled statements are to be provided). Also, provide the credit ratings from Standard & Poor's and Moody's (the senior unsecured long term debt rating or if not available, the corporate rating) of the bidder and any affiliates and partners.	Section 5.6
5.7 Please also include a list of the board of directors, officers, and trustees for the past three years and any persons who the bidder knows will become officers, board members or trustees.	Section 5.7
5.8 The bidder should demonstrate its ability (and/or the ability of its credit support provider) to provide the required security as described in Section 2.2.3.9, including its plan for doing so.	Section 5.8
5.9 Provide a description of any current or recent credit issues/credit rating downgrade events regarding the bidder or affiliate entities raised by rating agencies, banks, or accounting firms.	Section 5.9
5.10 Describe the role of the Federal Production Tax Credit ("PTC") or Investment Tax Credit ("ITC") as newly revised by the Inflation Reduction Act, and any other incentives, on the financing of the project. In the response, please describe (a) your plan to qualify for the ITC/PTC and the level of the ITC/PTC for which you plan to qualify, (b) the facilities, investment in which, the ITC is expected to apply, (c) your plan to utilize the tax credits and the relationship to your financing plan, and (d) how qualification for the ITC/PTC is reflected in your proposed pricing. If a bidder assumes that such credits, subsidies, grants or incentives will not be available for its Eligible Facility, it should state how it would propose to share the benefits of those credits, subsidies, grants or incentives with Rhode Island Energy's customers if they subsequently become available. Bidders may propose adjustments to the contract price based on an increase in any state or federal tax credit or other government grant or subsidy.	Section 5.10
5.11 Describe the bidder's plan to adhere to the domestic supply rules set forth in the Build America, Buy America Act and the act's implications on access to federal funding, cost of materials, and supply chains.	Section 5.11

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5.12 Describe how the bidder would consider Rhode Island Energy customers in the event of the availability or receipt of any tax credit or other government grant or subsidy not contemplated in their proposals. Bidders must state their assumptions regarding the availability of federal or state tax credits, subsidies, or grants or other incentives.	Section 5.12
5.13 Bidders must disclose any litigation or disputes in the last three years related to projects developed, owned, or managed by bidder or any of its affiliates in the United States or related to any energy product sale agreement.	Section 5.13
5.14 What is the expected operating life of the proposed project? What is the depreciation period for all substantial physical aspects of the bid, including generation facilities, delivery facilities to move power to the grid, and mandatory and voluntary transmission system upgrades?	Section 5.14
5.15 Has the bidder already obtained financing, or a commitment of financing, for the project? If financing has not been obtained, explain how obtaining a long-term agreement as proposed will help you in obtaining financing for the proposed project, in obtaining more favorable terms for the financing of the proposed project, or in supporting the future capital investment.	Section 5.15
5.16 State whether the bidder or its affiliates have executed agreements with respect to energy, RECs and/or capacity for the proposed project (including any agreements that have been terminated) and provide information regarding the associated term and quantities, and whether bidder has been alleged to have defaulted under or breached any such agreement.	Section 5.16
5.17 List all of the bidder's affiliated entities and joint ventures transacting business in the energy sector.	Section 5.17
5.18 Has bidder, or any affiliate of bidder, in the last five years, (a) consented to the appointment of, or been taken in possession by, a receiver, trustee, custodian or liquidator of a substantial part of its assets, (b) filed a bankruptcy petition in any bankruptcy court proceeding, (c) answered, consented or sought relief under any bankruptcy or similar law or failed to obtain a dismissal of an involuntary petition, (d) admitted in writing of its inability to pay its debts when due, (e) made a general assignment for the benefit of creditors, (f) was the subject of an involuntary proceeding seeking to adjudicate that Party bankrupt or insolvent, (g) sought reorganization, arrangement, adjustment, or composition of it or its debt under any law relating to bankruptcy, insolvency or reorganization or relief of debtors?	Section 5.18
5.19 Briefly describe any known conflicts of interest between bidder or an affiliate of bidder and Rhode Island Energy, or any affiliates of the foregoing.	Section 5.19
5.20 Describe any litigation, disputes, claims or complaints involving the bidder or an affiliate of bidder, against Rhode Island Energy or any affiliate of Rhode Island Energy.	Section 5.20
5.21 Describe any litigation, disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, involving bidder or an affiliate of bidder, and relating to the purchase or sale of energy, capacity or renewable energy certificates or products.	Section 5.21
5.22 Confirm that neither bidder nor any directors, employees or agents of bidder, nor any affiliate of bidder are currently under investigation by any governmental agency, and that none of the above have in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction involving conspiracy, collusion or other impropriety with respect to bidding on any contract, or have been the subject of any debarment action (detail any exceptions).	Section 5.22
5.23 Identify all regulatory and other approvals needed by bidder to execute a binding sale agreement.	Section 5.23

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5.24 Describe how the project will conform to FERC's applicable regulatory requirements, including, but not limited to, FERC requirements relating to allocation of transmission capacity and open access, the justness and reasonableness of rates, the potential for undue preference or discrimination, and affiliate dealings, if any. Describe how your proposed approach is consistent with FERC precedent and ratemaking principles.	Section 5.24
5.25 Describe and document any and all direct and indirect affiliations and affiliate relationships (contractual, financial, or otherwise) in the past three years between the bidder and Rhode Island Energy and its affiliates, including all relationships in which Rhode Island Energy or its affiliates has a financial or voting interest (direct or indirect) in the bidder or the bidder's proposed project. These relationships include: ** Corporate or other joint arrangements, joint ventures, joint operations whether control exists or not* ** Minority ownership (50% or less investee)* ** Joint development agreements* ** Operating segments that are consolidated as part of the financial reporting process* ** Related parties with common ownership* ** Credit, debenture, and financing arrangements, whether a convertible equity feature is present or not* ** Wholly owned subsidiaries* ** Commercial (including real property) relationships with Rhode Island Energy*	Section 5.25
Section 6 - Siting, Interconnection, and Deliverability	
This section of the proposal addresses project location, siting, real property rights, and interconnection issues. Bidders should ensure that the threshold criteria outlined in Section 2.2 of the RFP are verified in their responses. If multiple interconnection points are being submitted, Section 6 of Appendix A to the RFP must be completed for each interconnection point. Please specify all active requests which have not been superseded by subsequent requests and information regarding the status of each. To the extent that the bidder provides an alternative interconnection scenario based on ISO-NE proposed interconnection process changes, the bidder must include studies using the proposed ISO-NE process. Any such studies must be accompanied with clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions.	Section 6
6.1 An Eligible Bidder must demonstrate that is has a federal lease for an offshore wind energy generation site, as described in Section 2.2.2.2, as well as a valid lease, or option to lease, for marine terminal facilities necessary for staging and deployment of major project components to the project site.	Section 6.1 Attachments 1-1, 6-1, and 6-2
6.2 Plans, including a map of the Eligible Facility site that clearly delineates the perimeter of the area in which offshore wind turbines will be placed, the proposed offshore routes to the project site, the proposed onshore routes to the interconnection location, and all proposed substations or areas of other major equipment. To the extent that alternative routes for offshore and onshore interconnection facilities have been considered in developing the bid, maps showing these locations should also be provided. Maps should be of scales required to identify significant marine or terrestrial features, e.g., shellfish management areas, parks, highways, etc. If the bidder has not secured all of its real property rights onshore, it must provide at least one alternative for each unsecured real property right. For each route the bidder must: (i) specifically describe the portions of the route for which the bidder has acquired sufficient rights to locate its Offshore	Section 6.2

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Delivery Facilities proposed and (ii) provide a reasonable and achievable detailed plan (with a timeline) to acquire sufficient rights to the remainder of the necessary Offshore Delivery Facilities locations.	
6.3 A map showing the location of the marine terminal facility.	Section 6.3
6.4 A description of all leases, agreements, easements, and related documents granting the right to use the Eligible Facility site and associated Offshore Delivery Facilities, as well as the marine terminal for deployment of major project components, and detail which have been obtained. Provide a detailed plan and timeline to secure the remaining leases, agreements, easements, and related documents. Provide copies of any leases, agreements, easements, or related documents obtained, upon request.	Section 6.4 Attachments 1-1 and 6-3
6.5 A description of the area surrounding any land-based project area, including the marine terminal for deployment of major project components (e.g., foundations, towers, blades, rotors, offshore substations) and all transmission and interconnection facility locations.	Section 6.5
6.6 Identify any joint use of existing or proposed real property rights and/or easements.	Section 6.6
6.7 The bidder must detail the status (and conclusions, as available) of interconnection applications and studies. Further, bidders must describe how proposals would be affected if the Eligible Facility is connected to regionalized offshore transmission facilities.	Section 6.7 Attachment 6-5
6.8 All project submitted by bidders must have filed an interconnection request with ISO-NE, seeking Capacity Network Resource service. The bidder must have a completed ISO-NE Feasibility Study, or a Cluster Enabling Transmission Upgrade Regional Planning Study (also known as a Cluster Resource Integration Study) as defined in Schedule 22, or a highly comprehensive and credible interconnections study performed by a third-party in accordance with the ISO-NE methodology and NCIS as defined by the ISO-NE Planning Procedure 5-6, that includes the proposed project prior to bid submission. Projects that have received their I.3.9 approval from ISO-NE must identify that approval and include such documentation in their proposal. Bidders may submit additional supporting third-party technical reports or interconnection studies, which should approximate the ISO-NE interconnection process, including but not limited to clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions. If any third-party studies contain CEII information, bidders should submit non-CEII summaries of such studies with the proposal, and provide the full documents upon Rhode Island Energy submitting documentation that recipients have appropriate CEII clearance.	Section 6.8 Attachments 6-5, 6-6, and 6-7
6.9 Each proposal must include a commitment to interconnect to the ISO-NE PTF at a CCIS and NCIS level. Each proposal must include a commitment to complete the Forward Capacity Auction Qualifications ("FCAQ") process set forth in Section III.13.1 of Market Rule 1 of ISO-NE's Transmission Markets and Services Tariff, and to meet all FCAQ requirements in order to establish its ability to interconnect at this level.	Section 6.9
6.10 To the extent that ISO-NE studies have not yet been conducted to ascertain the network upgrades and other interconnection costs required to achieve such CCIS interconnection at the time of bidding, a bidder may include a preliminary non-binding overlapping impact study conducted by ISO-NE to identify the potential upgrades and associated costs that would be required by ISO-NE's CCIS interconnection determination, or may identify such costs through relevant studies and analyses performed by them or their consultants that approximate the ISO-NE capacity interconnection process. These studies and their supporting documentation, assumptions and data must match closely ISO-NE study requirements for CCIS interconnection. Rhode Island Energy expects bidders to provide	Section 6.10 Attachment 6-8

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studies that are consistent with ISO-NE's approach and that approximate what the ISO-NE results would be. Proposals with a Qualification Determination Notification ("QDN") from ISO-NE for their proposed capacity amount and commitment period must include all QDN documentation in their proposal. All projects that do not have QDN for their proposed capacity amount and commitment period must provide a study performed by ISO-NE or a third party in accordance with ISO-NE Planning Procedure 10 in order to prove ability to interconnect at the CCIS.	
6.11 Each Bidder's proposal must include the ISO-NE FCA Wind Qualification Template spreadsheet to approximate the qualified capacity associated with its proposed project, and if the bidder has not completed an ISO-NE preliminary non-binding overlapping impact study but has provided an equivalent third-party overlapping impact study, the bidder should include a description of how the ISO-NE FCA Wind Qualification Template spreadsheet was utilized in that analysis. The final amount of capacity will be determined under the FCAQ process. In addition, bidders are encouraged to provide any additional data, studies, or information on forecast methodologies they believe would facilitate analysis of their bids' Wind Qualification analysis.	Section 6.11 Attachment 6-9
6.12 To assist in identifying potential additional constraints on the project's deliverability, bidders must perform and provide an Informative Deliverability Study according to the criteria defined in Appendix F. This study is in addition to the required NCIS and CCIS studies discussed above. Its purpose is simply to identify system constraints under specified generation dispatch conditions, not to address the constraints with system upgrades or reductions in proposed delivery profile. Provide a description of the findings of the deliverability constraint analysis, including but not limited to a list of thermal overloads and voltage violations identified.	Section 6.12
6.13 Bidders shall include a scenario analysis in their studies that shows how changes in the project interconnection queue could impact their interconnection costs using the current ISO-NE interconnection rules. Bidders are encouraged to include additional reports, analysis and studies that support their interconnection and deliverability.	Section 6.13
6.14 Provide a copy of an interconnection agreement, if any, executed by the bidder with respect to the proposed project. If an interconnection agreement has not been executed, please provide the steps that need to be completed before an interconnection agreement can be executed and the associated timeline. Please also provide the status and expected completion date of any additional interconnection studies already underway with ISO-NE and/or the transmission owner. All studies must follow the current ISO-NE interconnection procedures and detail any assumptions regarding resources and corresponding network upgrades ahead of the project in the ISO-NE interconnection queue. All network upgrades and assumptions identified in these studies must be clearly documented and included in the bid price.	Section 6.14
6.15 Please provide cost estimates for any necessary network upgrades identified in the studies identified.	Section 6.15
6.16 Provide the electrical models of all energy resources supporting the proposed project in accordance with the filing requirements of the ISO-NE Tariff Schedule 22 and 23.	Section 6.16 Attachment 6-10
6.17 Provide a copy of an electrical one-line diagram showing the interconnection facilities, the relevant facilities of the transmission and/or distribution provider, and any required network upgrades identified in the studies required in section 6 of this document.	Section 6.17 Attachment 6-11

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6.18 Specify and describe the current or new interconnection facilities (lines, transformers, switching equipment, system protection and controls, etc.) that bidder owns or is intending to construct or have constructed in order to deliver the proposed energy.	Section 6.18
6.19 Incremental Data Requirements - IDV file(s) in PSSE v34 format modeling all upgrades to the transmission network identified in the studies required in section 6 of this document. *If the bidder does not use PSSE, provide in text format necessary modeling data as follows:* *Line Data (voltage and thermal ratings)* *Impedances (r, X and B)* *Line Length (bus numbers and names)* *Transformer data (including Phase shifting transformers if applicable)* *Terminal voltages, thermal ratings, impedance* *Reactive compensation models as necessary* *Other changes to the model that would occur due to a Project such as terminal changes for lines/transformer/generator leads/loads etc.*	Section 6.19
6.20 Please detail with supporting information and studies (as available) that the production/delivery profile contemplated in your proposal reflects constraints or curtailment, if any, after the upgrades that are expected to take place pursuant to interconnection at an equivalent to the CCIS. If the project is planning to make any voluntary upgrades beyond those associated with the CCIS-equivalent standard, as more fully described in the RFP, please describe the transmission network upgrades necessary, their estimated cost (for which the bidder would have cost responsibility), and the impact on the proposed generation schedule by reducing remaining constraints or curtailments.	Section 6.20
6.21 REC/Environmental Attribute Delivery Plan *Please provide documentation and information demonstrating that the project will deliver GIS Certificates representing the associated RECs and any other Environmental Attributes, as applicable. The RECs and environmental attributes associated with energy generation must be delivered into Rhode Island Energy's NEPOOL GIS accounts. All bidders must include sufficient information and documentation that demonstrates that the bidder will utilize an appropriate tracking system to ensure a unit-specific accounting of the delivery of unit-specific and unit contingent of energy and RECs.* *Please describe whether transfer of all GIS Certificates is authorized under the current ISO-NE GIS rules and protocols, or if a rule or protocol change is required. To the extent such a change is required, please provide regarding the proposal and the process for implanting the change.*	Section 6.21
Section 7 - Environmental Assessment and Environmental and Fisheries Mitigation Plan, Permit Acquisition Plan, and Environmental Attributes Certification	
This section addresses environmental and other regulatory issues associated with project siting, development, and operations for all aspects of the project (including generation, delivery, interconnection, etc.) and in all jurisdictions (federal, all interested states, etc.).	Section 7

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7.1 A description of all regulatory body approvals, such as permits, assents, and licenses for the use and operation of the Eligible Facility site and associated Offshore Delivery Facilities, including zoning, and detail which have been obtained. Provide a detailed plan and timeline to secure the remaining regulatory body approvals for all offshore and onshore routes. Include a project permit and approval assessment which describes, in narrative form, each segment of the process, the required permit or approval, the status of the request or application and the basis for projection of success by the milestone date. All requirements should be included on the project schedule in Section 9. Provide copies of any regulatory body approvals obtained, upon request.	Section 7.1
7.2 A description of the stakeholder engagement plan, including identification of groups of stakeholders to be included, engagement goals for each such group, engagement activities and community partnerships included in the plan, and demonstrated evidence of past and current productive relationships with project stakeholders.	Section 7.2 Attachment 7-1
7.3 An Environmental Characterization, which refers to a thorough, desktop-level review of the environmental characteristics of both the offshore and onshore areas impacted by the project, including the alternative routes proposed if site control has not been acquired for all real property rights, and provides a review of those areas for natural or cultural resource sensitivity with a description of how this determination was made. If multiple routes are provided or required in your submission, a review of the positive and negative reasoning for each route and a determination of a preferred routs is preferred. In addition, the Environmental Characterization must describe the environmental impacts of the Proposed Facility on environmental justice communities and plans to mitigate those impacts.	Section 7.3
7.4 Environmental and Fisheries Mitigation Plan (EFMP) *Provide an EFMP per Section 2.2.3.7, including a confirmation of agreeance to the Site and Environmental Data Transparency, Fisheries Compensation, Noise Mitigation, Monitoring Acoustic Attenuation, and Regional Collaboration paragraphs.*	Section 7.4 Attachment 7-3
7.5 Explain how the proposed project advances the objectives of achieving a reliable, clean energy future that is consistent with meeting regional greenhouse gas reduction goals as established by the 2021 Act on Climate.	Section 7.5
7.6 Provide documentation demonstrating that the project will be qualified as an eligible renewable energy resource conforming to R.I.G.L. § 39-26-5.	Section 7.6
7.7 Identify any existing, preliminary, or pending claims or litigation, or matters before any federal agency or any state legislature or regulatory agency that might affect the feasibility of the project or the ability to obtain or retain the required permits for the project.	Section 7.7
7.8 Describe any investments that will be included with your facility to improve its emissions profile.	Section 7.8
Section 8 - Engineering and Technology; Commercial Access to Equipment	
This section includes questions pertinent to the engineering design and project technology. This section must be completed for a project that includes new facilities or capital investments for both generation and transmission components, if applicable. Bidders should 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.	Section 8

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8.1 Provide a reasonable but preliminary engineering plan which includes the following information: *i. Type of generation and transmission technology, if applicable* *ii. Major equipment to be used* *iii. Manufacturer of the equipment* *iv. Status of acquisition of the equipment* *v. Whether the bidder has a contract for the equipment. If not, describe the bidder's plan for securing equipment and the status of any pertinent commercial arrangements* *vi. Equipment vendors selected/considered* *vii. History of equipment operations* *viii. If the equipment manufacturer has not yet been selected, identify in the equipment procurement strategy the factors under consideration for selecting the preferred equipment* *ix. How the proposed equipment adheres to the domestic supply rules set forth in the Build America, Buy America Act.*	Section 8.1
8.2 If the bidder has not yet selected the major equipment for a project, please provide a list of the key equipment suppliers under consideration, and how the bidder plans to mitigate the risks of long-lead items on the schedule and cost volatility on the financial viability of the project.	Section 8.2
8.3 Please identify the same or similar equipment by the same manufacturer that are presently in commercial operation including the number installed, installed capacity and estimated generation for the past three years.	Section 8.3
8.4 For less mature technologies, provide evidence (including identifying specific applications) that the technology to be employed for energy production is ready for transfer to the design and construction phases. Also, address how the status of the technology is being considered in the financial plan for the project.	Section 8.4
8.5 Please indicate if the bidder has a full and complete list of equipment needed for all physical aspects of the bid, including generation facilities, transmission lead lines, and mandatory and voluntary transmission system upgrades. If not, identify the areas of uncertainty and when the full and complete list of equipment will be identified.	Section 8.5
8.6 Please indicate if the bidder has secured its equipment for all physical aspects of the bid, including generation facilities, transmission lead lines, and mandatory and voluntary transmission system upgrades. If not, identify the long-lead equipment and describe the timing for securing this equipment.	Section 8.6
Section 9 - Project Schedule	
A bidder must demonstrate that its proposal can be developed, financed, and constructed and be technically viable within a commercially reasonable timeframe. The bidder is required to provide sufficient information and documentation that shows that the bidder's resources, process, and schedule are adequate for the acquisition of all real property rights, permits and approvals for all aspects of the project and for the financing of the project consistent with the proposed project milestone dates. *Bidders are required to provide a complete critical path schedule for the project from the notice of selection of the project for contract consideration to the start of commercial operations. For each project element, list the start and end date.*	Section 9

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
9.1 Identify the elements on the critical path. The schedule should include, at a minimum: *i. Acquisition of all required real property rights necessary for construction and operation* *ii. Receipt of all permits necessary to construct and operate the facility* *iii. Execution of interconnection agreement with ISO-NE and interconnecting utility* *iv. Costing of construction financing* *v. Major material purchase order/contract agreements in-place, including turbines, foundations, cables, and substations* *vi. Major material delivery for use, including turbines, foundations, cables, and substations* *vii. Vessel procurement and/or contracting* *viii. Commencement of construction* *ix. Commercial Operation Date* *x. Any other elements that could influence the project schedule (e.g., adherence to Build America, Buy America Act)* *Bidders must demonstrate that their projects have a credible operation date. The term "credible operation date" means the project is more likely than not to come on line by the date that is projected within the proposal, as evidenced by documents filed by a bidder show, at a minimum, the following:* *- material progress toward and plan for acquisition of all required real property rights* *- commencement of and plan for permitting* *- viable wind resource assessment* *- Environmental Characterization* *- viable financing plans* *- evidence of material vendor activity* *- viable Construction and Logistics Plan for offshore and onshore work*	Section 9.1 Attachment 9-1
9.2 Describe what mechanisms the bidder will utilize to mitigate lead time volatility, in order to better meet the project schedule. *Section 10 - Construction and Logistics*	Section 9.2
Section 10 – Construction and Logistics	
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 delivery facilities support structures, and other major components associated with delivery facilities and, and the storage facility (as applicable). Please provide a construction plan that captures the following objectives:	Section 10
10.1 Please list the major tasks or steps associated with deployment of the proposed project and the necessary specialized equipment (e.g. vessels, cranes).	Section 10.1
10.2 Please describe your general approach to contractor management, including how may contractor bid packages you plan on pursuing. Within each contractor bid package, explain who will be manufacturing, transporting, and installing the major equipment, including but not limited to the wind turbines,	Section 10.2

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
advanced foundation component, foundations, cabling, offshore substation, and onshore construction work. Please describe any current agreements for this project, and the approach for procuring the remainder.	
10.3 Please provide documentation to demonstrate site control for all marine terminals and other waterfront facilities that will be used to stage, assemble, and deploy the project for each stage of construction. *i. Evidence that the bidder or the equipment/service provider have a valid lease, or option to lease, a marine terminal and/or waterfront facility for construction of the offshore wind energy project (e.g., by virtue of ownership or land development rights obtained from the owner).* *ii. If not available, describe the status of acquisition of real property rights for necessary marine terminal and/or waterfront facilities, any options in place for the exercise of these rights and describe the plan for securing the necessary real property rights, including the proposed timeline. Include these plans and the timeline in the overall project schedule. Provide any agreements, options, or other materials reflecting the bidder's efforts so far to secure real property rights (and any letters of intent to the extent signed agreements are not in place).* *iii. Identify any joint use of existing or proposed real property rights for marine terminal or waterfront facilities.*	Section 10.3
10.4 Please describe the proposed approach for staging and deployment of major project components to the project site. Indicate the number, type and size of vessels that will be used, and their respective roles, as well as the projected timing of their use. Please include specific information on how the bidder's deployment strategy will conform to requirements of the Merchant Marine Act of 1920 (the Jones Act).	Section 10.4
10.5 Please describe how you plan to mitigate the risk of project delays due to lack of availability of wind turbine installation vessels, as well as heavy lift vessels used for foundation and offshore substation installation.	Section 10.5
Section 11 - Operations and Maintenance	
Projects that can demonstrate that the operation and maintenance ("O&M") plan, level of funding, and mechanism for funding will ensure reliable operations during the term of the contract or the tariff are preferred.	Section 11
11.1 Provide an O&M plan for the project that demonstrates the long-term operational viability of the proposed project. The plan should include a discussion of the staffing levels proposed for the project, the expected role of the project sponsor or outside contractor, scheduling of major maintenance activity, and the plan for testing equipment.	Section 11.1
11.2 Describe in detail the proposed O&M funding mechanism and funding levels to support planned and unplanned O&M requirements.	Section 11.2
11.3 Describe the terms (or expected terms) of the warranties and/or guarantees on major equipment that the bidder is utilizing or proposing to utilize.	Section 11.3
11.4 Describe the status of the project sponsor in securing any O&M agreements or contracts. Include a discussion of the sponsor's plan for securing a medium-term or long-term O&M contract, including the expected provider of O&M services.	Section 11.4
11.5 Provide examples of the bidder's experience with O&M services for other similar projects.	Section 11.5

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
Section 12 - Project Management/Experience	
Bidders are required to demonstrate project experience and management capability to successfully develop (for a project that includes new facilities or capital investment) and operate the project proposed. Rhode Island Energy is particularly interested in project teams that have demonstrated success in projects of similar type, size and technology and, for projects that include new facilities or capital investment, can demonstrate an ability to work together effectively to bring the project to commercial operation in a timely fashion.	Section 12
12.1 Provide an organizational chart for the project that lists the project participants and identifies the corporate structure, including general and limited partners.	Section 12.1
12.2 For a project that includes new facilities or capital investment, provide statements that list the specific experience of the bidder and each of the project participants (including, when applicable, the bidder, partners, EPC contractor and proposed contractors), in developing, financing, owning, and operating generating or transmission facilities (as applicable), other projects of similar type, size and technology, and any evidence that the project participants have worked jointly on other projects.	Section 12.2
12.3 Provide a management chart that lists the key personnel dedicated to this project and provide resumes of the key personnel. For Eligible Facilities that are not yet in-service, key personnel of the bidder's development team having substantial project management responsibilities must have: *i. Successfully developed and/or operated one or more projects of similar size or complexity or requiring similar skill sets; and* *ii. For a project that includes new facilities or capital investment, experience in financing power generation projects (or have the financial means to finance the project on the bidder's balance sheet)*	Section 12.3 Attachment 12-1
12.4 Provide a listing of all projects the project sponsor has successfully developed or that are currently under construction. Provide the following information as part of the response: *i. Name of the project* *ii. Location of the project* *iii. Project type, size, and technology* *iv. A description of the role the bidder had in the project, including if they still currently own and have a role in the operations of each facility* *v. Commercial operation date* *vi. Estimated and actual capacity factor of the project for the past three years* *vii. Availability factor of the project for the past three years* *viii. References, including the names and current addresses and telephone numbers of individuals to contact for each reference*	Section 12.4

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
12.5 With regard to the bidder's project team, identify and describe the entity responsible for the following, as applicable: *i. Construction Period Lender, if any* *ii. Operating Period Lender and/or Tax Equity Provider, as applicable* *iii. Financial Advisor* *iv. Environmental Consultant* *v. Facility Operator and Manager* *vi. Owner's Engineer* *vii. EPC Contractor (if selected)* *viii. Transmission Consultant* *ix. Legal Counsel*	Section 12.5
12.6 Provide details of the bidder's experience in ISO-NE other Markets affected by the bid. With regard to bidder's experience with ISO-NE markets, please indicate the entity that will assume the duties of Lead Market Participant for your Project. Please provide a summary of the proposed Lead Market Participant's experience with each of the ISO-NE markets.	Section 12.6
Section 13 - Alternative Bid Proposals	
13.1 Per Section 2.2.2.5 of the Request for Proposals, bidders may submit alternative project proposals, based on varying aspects of the proposed project: *• Contract Term Length* *• Additional Pricing Offer* *• Production/Delivery Profile* *• In-service Date* *• Project Size* *• Technology Type* *• Delivery Location* *Each submitted proposal must be accompanied by a non-refundable bid fee, which will be used to offset the cost of the evaluation of proposals. Bid fee instructions will be sent upon request to bidders who contact the Official Contact listed in Section 3.5.*	Section 13
Section 14 - Economic Benefits to the State of Rhode Island	
Bidders must provide annual estimates for all economic benefits, including employment, expenditures, and investments, and identify the specific in-state commitments during the development, construction and operation and maintenance phases of the project. Bidders are required to fill out the Economic Development Summary Sheet Workbook provided as an addendum to this Appendix.	Section 14

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
14.1 For the direct economic benefits to the State of Rhode Island, please provide an estimate of the number of jobs to be created directly during project development and construction (for a project that includes new facilities or capital investment), and during operations, and a general description of the types of jobs created, estimated annual compensation, the employer(s) for such jobs, and the location. Please treat the development, construction, and operation periods separately in your response.	Section 14.1 Attachment 14-1
14.2 Describe the proposed project's commitment to the following: investing in offshore wind-related environmental research, monitoring and mitigation sponsored by the DEM and/or the Rhode Island Coastal Resource Management Council; investing in workforce development and environmental research facilities to support the offshore wind industry; utilizing port facilities and office space; and investing in development activities that directly benefit economically distressed areas and/or low-income populations.	Section 14.2
14.3 Please describe any other direct economic benefits to the State of Rhode Island (either positive or negative) that could result from the proposed project, such as creating property tax revenues or purchasing capital equipment, materials, or services for Rhode Island businesses. Please provide the location(s) where these economic development benefits are expected to occur.	Section 14.3
14.4 To the extent not already specified elsewhere in your response, please describe any additional benefits or impacts associated with the proposed project.	Section 14.4
14.5 The Section 14 Addendum: Economic Development Summary Sheet is a Microsoft Excel workbook provided on ricleanenergyrfp.com. Please fill out and submit the Section 14 Addendum to accompany responses in this section.	Section 14.5 Appendix A.2
Section 15 - Diversity, Equity, and Inclusion Plan	
15.1 The Diversity, Equity and Inclusion Plan should describe the proposed strategy to actively promote access to employment and contracting opportunities for, and to actively recruit, diverse workers, vendors, contractors, and investors, and include how the direct, specific and measurable employment and contracting benefits created by the proposed project provides employment and procurement/contracting opportunities for minorities, women, veterans, LBGT and persons with disabilities. A Diversity, Equity and Inclusion Plan must contain, at a minimum, a Workforce Diversity Plan, a Supplier Diversity Plan, and a DEI Stakeholder Engagement Plan.	Section 15
15.1.1 The Workforce Diversity Plan should include descriptions of each type, duration, and salary bands of the employment created, as well as identify the recruitment efforts aimed at hiring diverse candidates for these employment opportunities. This plan should include goals for Workforce Diversity, as well as a plan for monitoring success against these goals, how the metrics will be calculated, how often they will be calculated and reported, and a process for improving the process over time if goals are not met. If a significant portion of the labor force will be sub-contracted, the plan should be inclusive of sub-contractors.	Section 15.1
15.1.2 The Supplier Diversity Program should include descriptions of the subcontracting, vendor, investor, and ancillary (operational) business opportunities that will be provided by diverse businesses, as well as identify the efforts aimed at engaging diverse candidates for these opportunities. This plan should include a form of expenditure goals for Supplier Diversity, as well as a plan for monitoring success against these goals, how the metrics will be calculated, how often the metrics will be calculated and reported, and a process for improving the process over time if goals are not met.	Section 15.2

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
15.1.3 The DEI Stakeholder Engagement Plan considers how the bidder will engage with project stakeholders. It includes an identification of groups of stakeholders to be included (e.g., tribal communities, economically-disadvantaged communities, environmental justice advocates, and fishing communities), project impacts on each stakeholder and associated mitigation plans, and engagement goals and activities for each group. It also should include a description of community partnerships and evidence of past and current stakeholder engagement.	Section 15.3 Attachment 7-1
Section 16 - List of Rhode Island Vendors and Domestic Supply Chain Opportunities	
Bidders are required to identify Rhode Island vendors and other domestic offshore wind supply chain opportunities associated with the project.	Section 16
16.1 Please list the Rhode Island vendors that have been identified to potentially supply the project, as well as any Rhode Island vendors that you have an existing commitment with for this project.	Section 16.1
16.2 Please list the domestic vendors that have been identified to potentially supply the project, as well as any domestic vendors that you have an existing commitment with for this project.	Section 16.2
16.3 Please identify the project's plans to invest in supply chain and infrastructure improvements to support the offshore wind industry, if any.	Section 16.3
Section 17 - Plans for Construction Labor Agreement	
Bidders are required to submit a plan outlining their intentions with respect to the negotiation of project labor agreements to cover construction activities.	Section 17
17.1 As part of the contract negotiation process, the bidder must commit to enter into a labor peace agreement with at least one bona fide labor organization either where such bona fide labor organization is actively representing employees providing necessary construction, operations and maintenance services for the project at the time of such agreement or upon notice from a bona fide labor organization that is attempting to represent employees who will provide necessary operations and maintenance services for the renewable energy system employed in the state or the region. The maintenance of such labor peace agreement will be an ongoing material condition of any continuation of payments under the PPA. *Describe the Bidder's plan to enter into a labor peace agreement and/or plan for project employee representation by a labor organization.*	Section 17.1
17.2 Bidders must commit to pay each construction, operations and maintenance employee wages and benefits that are not less than the prevailing wage and fringe benefit rates at the journeyman level that are prescribed by the Rhode Island Department of Labor and Training, or other applicable laws, rules or regulations in the state or region, and not less than the prevailing wage rates for employees for which there is no classification prescribed by the Rhode Island Department of Labor and Training, or other applicable laws, rules or regulations in the state or region. Bidders must also commit to pay benefits and wages not less than the rate applicable to apprentices for the pertinent classification prescribed by the Rhode Island Department of Labor and Training, or other applicable laws, rules or regulations in the state or region if the worker is a participant in an approved apprenticeship program and the approved apprenticeship program maintains a direct entry agreement with a certified pre-apprenticeship training program. *Describe the Bidder's plan to compensate project employees and apprentices not less than the prevailing wage.*	Section 17.2

Rhode Island 2023 Offshore Wind RFP - Appendix A Requirements	Bid Package Section
Section 18 - Exceptions to Form PPAs	
Please attach an explanation of any exceptions to the Form PPA set forth in Appendix C. Comments to the proposed Form PPA must include any specific alternative provisions in a redline format to the Form PPA. ***Bidders are discouraged from proposing material changes to the Form PPA.***	Section 18 Attachments 18-1 and 18-2
Section 19 - Exceptions to Commitment Agreement	
Please attach an explanation of any exceptions to the Commitment Agreement set forth in Appendix E to this Notice, including any specific alternative provisions in a redline format to the Commitment Agreement. *Bidders must include a marked version showing any proposed changes to the Commitment Agreement with their bid, and it is assumed that bidders would be willing to execute the marked-up agreement included in their bids.* ***Bidders are discouraged from proposing material changes to the Commitment Agreement.***	Section 19 Attachments 19-1 and 19-2

List of Abbreviations

°C	degrees Celsius
°F	degrees Fahrenheit
AC	alternating current
AEP	annual energy production
AFC	Advanced Foundation Components
AIS	automatic identification system
amsl	above Mean Sea Level
ASIT	Air-Sea Interaction Tower
BMPs	best management practices
BOEM	Bureau of Ocean Energy Management
BOEM Guidance	BOEM Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR 585
CAMOS	Cable Monitoring System
CBO	community-based organization
CCIS	Capacity Capability Interconnection Standard
CEII	Critical Energy Infrastructure Information
CFR	Code of Federal Regulations
CIM	Crisis Incident Management
CLV	cable lay vessel
CMR	Code of Massachusetts Regulations
COD	commercial operations date
COP	Construction and Operations Plan
CPA	Connecticut Port Authority
CPI	consumer price index
CRMC	Coastal Resources Management Council
CRMP	Coastal Resources Management Program
CTV	Crew Transfer Vessel
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
Daymark	Daymark Energy Advisors
DBE	Disadvantaged Business Enterprise
DC	direct current
DEI	diversity, equity, and inclusion
DKK	Danish krone (currency)
DoD	Department of Defense
DoD Clearinghouse	Office of the Assistant Secretary of Defense for Energy, Installations, and Environment, DoD Siting Clearinghouse
Dorcas International	Dorcas International Institute of Rhode Island
DP	dynamic positioning
DPU	Department of Public Utilities
DTS	Distributed Temperature Sensors
EBCAP	East Bay Community Action Program
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EIS	Environmental Impact Statement

EMF	electromagnetic fields
EO EEA	Massachusetts Executive Office of Energy and Environmental Affairs
EPA	United States Environmental Protection Agency
EPC	engineering, procurement, and construction
ERCC	Emergency Response Coordination Center
ERP	Emergency Response Plan
ESA	Endangered Species Act
EUR or €	euro (currency)
FAA	Federal Aviation Administration
FCAQ	Forward Capacity Auction Qualifications
FCC	Federal Communications Commission
FDR	Facility Design Report
FERC	Federal Energy Regulatory Commission
FID	Final Investment Decision
FIR	Fabrication and Installation Report
FLiDAR	floating light detection and ranging buoy
FOC	fiber optic cables
ft	feet
FTE	full-time equivalent
Gabel	Gabel & Associates
GBP	British pound (currency)
GE	General Electric
GIS	Generation Information System
GLD	Geographic Location Description
GRIP	Department of Energy Grid Resilience and Innovation Partnerships
GW	gigawatt
GWh	gigawatt hours
HDD	Horizontal Directional Drill
HLV	heavy lift vessel
HMI	Human Machine Interface
HSE	Health, Safety, and Environment
HTV	Heavy Transport Vessel
HVAC	high voltage alternating current
HVDC	high voltage direct current
IDS	Informative Deliverability Study
IRA	Inflation Reduction Act
IRS	Internal Revenue Service
ISO-NE	ISO New England
ITC	Investment Tax Credit
JUV	Jack-Up Vessels
JV	Joint Venture
kg	kilogram
km	kilometer
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
LERT	Local Emergency Response Team
LGBTQIA+	lesbian, gay, bisexual, trans, queer, questioning, intersex, asexual, and more

LGIA	Large Generator Interconnection Agreement
LiDAR	light detection and ranging
LNM	Local Notice to Mariners
LUV	light utility vessel
m	meter
m/s	meters per second
MBUAR	Massachusetts Board of Underwater Archaeological Resources
MA CZM	Massachusetts Coastal Zone Management
MA EFSB	Massachusetts Energy Facilities Siting Board
MARA	Marine Archaeological Resources Assessment
MassDEP	Massachusetts Department of Environmental Protection
MassDOT	Massachusetts Department of Transportation
MBE	Minority Business Enterprise
MEC	munitions and explosives of concern
MEPA	Massachusetts Environmental Policy Act
MGL	Massachusetts General Laws
MHC	Massachusetts Historical Commission
mi	mile
MOU	Memorandum of Understanding
MSIR	Marine Site Investigation Report
MW	megawatt
MWBE	Minority and Women Owned Business Enterprise
MWh	megawatt-hour
NABTU	North America's Building Trades Unions
N/A	not applicable
NBEP	Narragansett Bay Estuary Program
NCIS	Network Capability Interconnection Standard
NEPA	National Environmental Policy Act
NEPOOL	New England Power Pool
nm	nautical mile
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration National Marine Fisheries Service
NOI	Notice of Intent
NOWA	National Offshore Wind Agreement
NOWI	National Offshore Wind Institute
NPCC	Northeast Power Coordinating Council
NPDES	National Pollutant Discharge Elimination System
NTD	New Taiwan dollar (currency)
NYSERDA	New York State Energy Research and Development Authority
O&M	Operations and Maintenance
Ocean SAMP	Rhode Island Ocean Special Area Management Plan
OCS	Outer Continental Shelf
ODEO	Office of Diversity, Equity and Opportunity
OEM	original equipment manufacturer
OREC	Offshore Wind Renewable Energy Certficate
OSRP	Oil Spill Response Plan
PATON	Private Aids to Navigation
PCMF	Avian and Bat Post-Construction Monitoring Framework

PCMP	Avian and Bat Post-Construction Monitoring Plan
PLA	Project Labor Agreement
POI	point of interconnection
PPA	power purchase agreement
ProvPort	Port of Providence
PSO	Protected Species Observer
PSV	Platform Supply Vessel
QMTC	Quonset Multimodal Terminal Center
QTU	Forward Capacity Market Qualification Transmission Upgrades
RCM	Reliability-Centered Maintenance
RECs	renewable energy credits
RFP	Request for Proposal
RHA	Rivers and Harbors Appropriation Act of 1899
RIBCTC	Rhode Island Building and Construction Trades Council
RICR	Rhode Island Code of Regulations
RI CRMC	Rhode Island Coastal Resources Management Council
RIDEM	Rhode Island Department of Environmental Management
RI EFSB	Rhode Island Energy Facility Siting Board
RIGL	Rhode Island General Laws
RIPDES	Rhode Island Pollutant Discharge Elimination System
ROD	Record of Decision
ROSA	Responsible Offshore Science Alliance
RWSC	Regional Wildlife Science Collaborative
SBTi	Science Based Target Initiative
SCADA	Supervisory Control and Data Acquisition
SDP	Supplier Diversity Program
SDO	Supplier Diversity Office
SESC Plan	Soil Erosion and Sediment Control Plan
sf	square feet
SLT	Senior Leadership Team
SOV	Service Operation Vessel
SPA	Spare Part Agreement
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
SPMT	Self Propelled Modular Transporters
STATCOM	Static Synchronous Compensator
SWA	Service Warranty Agreement
SWPPP	Stormwater Pollution Prevention Plan
TARA	Terrestrial Archaeological Resources Assessment
the Hub	U.S. Engineering and Project Construction Management Hub in Rhode Island
the Project	Starboard Wind
the Proposer	Bay State Wind LLC
TP	transition piece
TSA	Turbine Supply Agreement
U.S.	United States
U.S.C.	United States Code
UK	United Kingdom
USACE	United States Army Corps of Engineers
USD	United States dollars (currency)

USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
UXO	unexploded ordnance
VBE	Veteran Business Enterprise
W2W	Walk-to-Work
WBE	Women Business Enterprise
WEA	Wind Energy Area
WOTUS	Waters of the United States
WPA	Wetlands Protection Act
WQC	Water Quality Certification
WTG	wind turbine generator
XLPE	cross-linked polyethylene

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Section 1

Certification, Project and Pricing Data

1 Certification, Project, and Pricing Data

The Certification, Project, and Pricing Data ("CPPD") document is a Microsoft Excel workbook that is provided on the website at www.ricleanenergyrfp.com/2023-osw-rfp/.

Bidders are required to provide firm pricing for 240 days from the date of bid submission. The bidder must also sign the certification form found in Appendix A verifying that the prices, terms, and conditions of the proposal are valid for at least 240 days. An officer or duly authorized representative of the bidder is required to sign the Proposal Certification Form.

[redacted]

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Section 2

Executive Summary

Ørsted

Setting Rhode Island's Future In Motion

Starboard Wind
Our response to Rhode Island's Offshore Wind Solicitation

Castle Hill Lighthouse, Newport, Rhode Island

Executive Summary

March 2024

Setting Rhode Island's Future in Motion

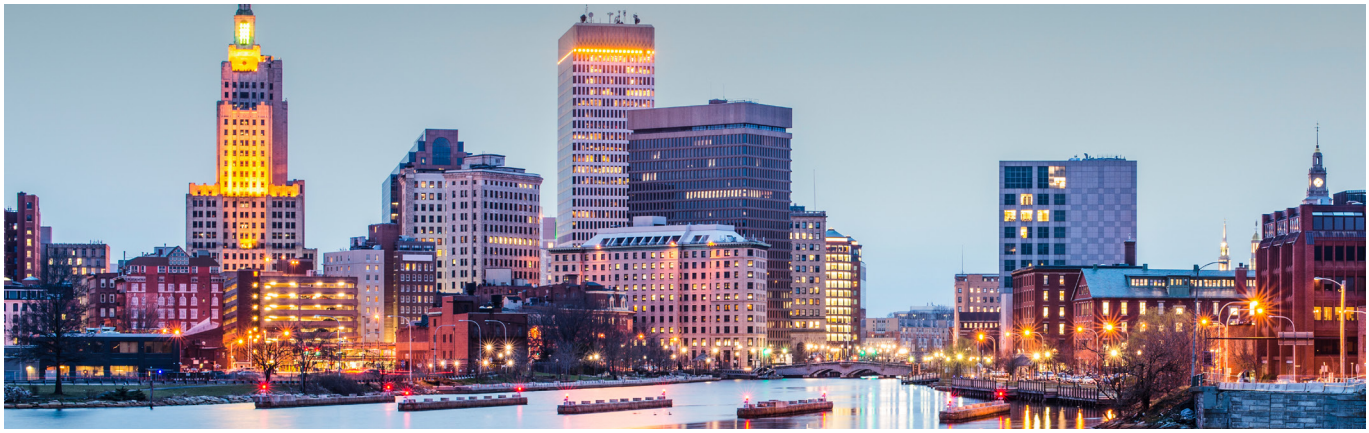

Figure 2.1 Providence, Rhode Island

For a decade, Ørsted has partnered closely with Rhode Island to position the Ocean State at the center of America's offshore wind industry. Working together, we have set the standard for offshore wind development and generation in the U.S., while creating hundreds of good-paying local jobs and placing Rhode Island on the path to its clean energy future. Today, we are pleased to submit a new proposal that will build on Rhode Island's offshore wind leadership and deepen our commitment to the state: *Starboard Wind*.

Starboard Wind offers 1,184 megawatts of cost-competitive clean energy generation capacity, driving Rhode Island toward its climate mandate while fostering its blue economy. Leveraging and expanding the State's existing offshore wind supply chain and local expertise, Starboard Wind would lock in affordable energy for Rhode Islanders for decades to come.

Amid recent macroeconomic challenges for offshore wind, Ørsted has stood behind its commitments in Rhode Island and New England and continued delivering on our promises here. We're active across Rhode Island today, creating a broad range of jobs for blue- and white-collar workers. Wind off our coast turns the blades at the Block Island Wind Farm, generating reliable clean energy for state residents. Our investments at ProvPort and Quonset have resulted in vital new economic activity at those key facilities. Hundreds of local union workers at ProvPort are busy assembling components for Rhode Island's second offshore wind farm, Revolution Wind. Our Operations and Maintenance facility will service Ørsted's portfolio of wind farms for decades to come, with both crew vessels and the U.S. industry's first ever heliservice contract for offshore wind based at Quonset. Through our partnership with the Community College of Rhode Island, Building Futures, and the Rhode Island Department of Labor and Training, a new, state-of-the-art wind safety training center recently opened its doors at CCRI. And Rhode Island's offshore wind industry is only in its early innings, with great things still to come.

While our proposal for Starboard Wind is new, we have been developing the project site since 2015, providing us with extensive site data and insights into how to construct the project successfully. The location is among the most advantageous in North America for offshore wind development, offering Rhode Islanders access to a world-class wind resource that can provide huge amounts of energy that is renewable, reliable and affordable.

Put simply, Rhode Island is home to us. It's where we have our co-U.S. headquarters and where many of our team members choose to raise their families. It's the state where we sparked a new American energy industry and began building a new domestic supply chain. Starboard Wind is the next chapter in Rhode Island's clean energy story, and we look forward to continuing to make history together.

David Hardy
Group EVP and CEO, Americas at Ørsted

General Introduction

The Next Chapter of Rhode Island's Offshore Wind Story

As the State's trusted, local partner in offshore wind development, Ørsted is committed to supporting Rhode Island with its transition to 100% renewable energy by 2033. It is with this commitment that we are pleased to submit Starboard Wind, a 1,184-megawatt (MW) project, in response to Rhode Island Energy's 2023 offshore wind request for proposal, 'Long-Term Contracts for Offshore Wind Energy'.

By taking Final Investment Decision (FID) on Revolution Wind in October 2023, Ørsted reconfirmed its commitment to the State of Rhode Island, pledging to deliver 400 MW of clean, affordable offshore wind power to the Ocean State. We are proud of this significant milestone and all that we have delivered to Rhode Island since the inception of offshore wind in the United States (U.S.). Our partnership started in 2016 with the development of Ørsted's Block Island Wind project. Here stands the 'starting five,' the first five offshore wind turbines installed in U.S. waters, and a flagship for energy security and affordable clean energy. We have also now completed construction of South Fork Wind, the first utility scale offshore wind farm in the U.S. Building on this momentum, with the addition of the Starboard Wind project, three-quarters of Rhode Island's annual electricity demand will be covered by clean, local, and affordable energy, delivered by a proven partner.

Rhode Islanders deserve to reap all the benefits offshore wind can provide. From day one, Ørsted has led and championed the development of offshore wind in Rhode Island, with a pledge to maximize advantages for its residents. Through Revolution Wind, we have invested $40 million in building and improving port facilities and developing infrastructure to support offshore wind farm construction and operations. In addition, we have injected $4 million into efforts such as supply chain development activities and training initiatives with local partners that have successfully brought new companies and workers into the offshore wind industry, creating opportunities across the State.

Looking ahead, Ørsted will continue to bolster the Ocean State's economy with good-paying jobs and additional supply chain and infrastructure investments. With Starboard Wind, we will create more than 3,800 job-years, drive economic activity at the Port of Providence (ProvPort) and Port of Davisville at Quonset, and deliver over $40 million in grants and funds. Starboard Wind is submitting multiple proposals, and depending on the proposal selected, Rhode Island will benefit from more than $1.1 billion in total economic development, including more than $600 million to disadvantaged communities in Rhode Island.

For Ørsted, Rhode Island is home—to our U.S. co-headquarters and key team members, the birthplace of offshore wind, and one of the leading supply chains in the country. With Starboard Wind, we offer the Ocean State reliable, clean energy at an affordable price, put constructibility front and center, and bring tangible benefits to Rhode Islanders to continue making our hometown proud.

Figure 2.2 South Fork Wind components ready for load at New London State Pier, 2023

Financial Proposal

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Figure 2.3 Advanced Foundation Components (AFCs) being assembled at ProvPort for Revolution Wind, 2023

Starboard Wind at a Glance

Ørsted appreciates the increased focus that Rhode Island is placing on project viability in this solicitation round. Starboard Wind represents a mature and highly feasible project based on the following key pillars:

Deep site knowledge: Ørsted has been developing the OCS-A 0500 Lease Area, where Starboard Wind will be located, since 2015. There is extensive site data and a deep understanding of how to design and construct the Project successfully.

[redacted]

Project Viability

Ørsted is the world's first, largest and most experienced developer. With nearly 2,000 turbines at sea, we operate more offshore wind farms than any other company in the world.

As the global leader in developing, financing, constructing, and operating offshore wind farms, Ørsted brings more than 30 years of experience to Starboard Wind. We have been trusted to build 28 offshore wind farms, more than any other developer across the globe, with currently 27.8 GW total installed, under construction, and awarded renewable energy capacity[1]. Most recently, we have taken FID on Hornsea 03, the world's single largest offshore wind farm, which will have a capacity of 2.9 GW.

[1] https://orstedcdn.azureedge.net/-/media/annual-report-2023/orsted-ar-2023.pdf

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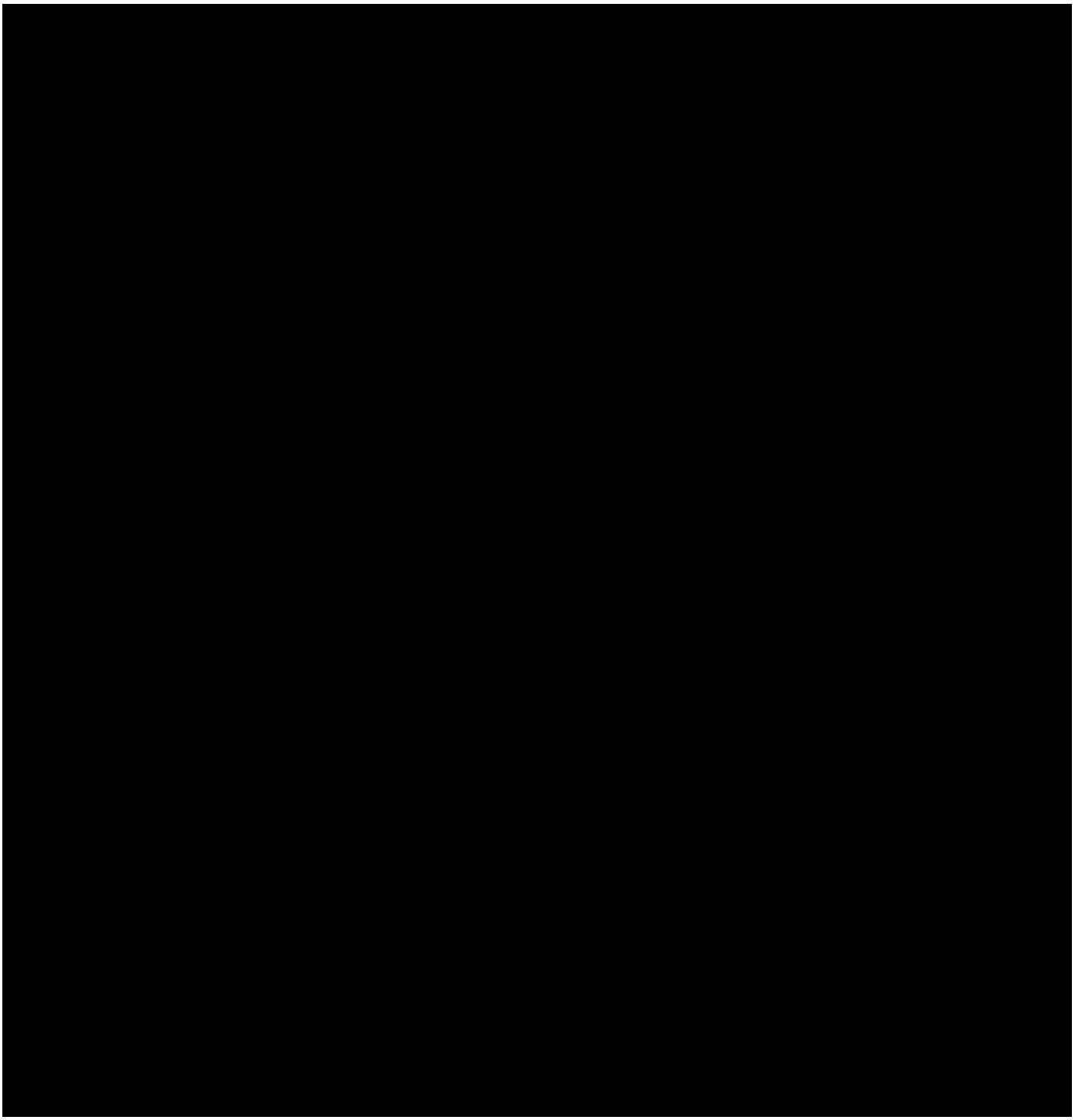
[redacted]	[redacted]

A Long-Standing, Committed Partner

Keeping Rhode Island at the Center of the Blue Economy

[redacted]
Our corporate co-headquarters is located in Providence, and workers in our logistics and construction office in Quonset are preparing for the offshore construction of our next commercial-scale project that will serve the Ocean State— Revolution Wind. Additionally, more than 100 workers are onsite daily at our construction hub at ProvPort assembling AFC. [redacted]

Figure 2.6 Technicians at Site



We are ready to deliver for Rhode Island

We live up to our promises.

Ørsted's team is fully equipped to deliver Starboard Wind

Technical Capability

Market leader with **30+ years' experience** in offshore wind

28 offshore wind farms built and operated across three continents

Nearly **2,000 turbines installed** at sea

Unmatched experience of **gigawatt-scale** projects

Built **first utility scale offshore wind farm** in the U.S.

Our Business Partners

Ørsted is a longstanding partner of many organizations who make Rhode Island a better place to work, learn and live. [redacted]

[redacted]

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Figure 2.7 Installation Vessel During Construction

Setting Rhode Island's Future in Motion

Deepening Our Commitment to Rhode Island

As the nation's front runner in offshore wind, Rhode Island has earned the title of the Ocean State in more ways than one. As a trusted long-term partner, Ørsted has gained a deep understanding of what it takes to develop offshore wind locally. What's more, Ørsted keenly understands the importance of this burgeoning industry to Rhode Island—to its climate goals, local industry, and all Rhode Islanders. It is with this understanding that Ørsted submits Starboard Wind, a project that we firmly believe delivers the State's requirements and is worthy of calling Rhode Island home.

[redacted]

[redacted]

We are proud of the commitment we have made to our hometown through Block Island Wind and the imminent construction of Revolution Wind. Now is the time to secure Rhode Island's nation-leading offshore wind legacy, and we believe that Starboard Wind is the project to set that future in motion, today.

Figure 2.8 A Cohort of Apprentices Training with Building Futures Rhode Island

Let's create a world that runs entirely on green energy

www.orsted.com

Ørsted

Ørsted
Starboard Wind

Section 3

Operational Parameters

3 Operational Parameters

Unique among offshore wind developers, Ørsted has an end-to-end operating model, which means that we develop, construct, operate, own, and decommission our own wind projects. [redacted]

[redacted]

[redacted]

[redacted]

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[redacted]

[redacted]

[redacted]

3.1 Maintenance Outage Requirements

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

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3.2 Operating Constraints

Specify all the expected operating constraints and operational restrictions for the project (i.e., limits on the number of hours a unit may be operated per year or unit of time), differentiating those that may be variable or situational in nature.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted] Ørsted focuses on continuously developing industry leading emergency response provisions so that if and when emergencies occur, they can be handled in the quickest and safest manner possible while minimizing risk to both humans and the environment.

3.3 Reliability

Describe how the proposal would provide enhanced electricity reliability to Rhode Island, including its impact on transmission constraints. Describe if your proposal contains any specialized equipment to improve reliability during cold weather conditions, and how that may impact overall generator output.

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3.4 Moderation of System Peak Load

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

i) Estimated average output for each summer period (June- September) from 3:00 - 7:00 pm

ii) Estimated average output for each winter period (October-May) from 4:00 – 9:00 pm

[redacted]

The generated power from a wind farm depends highly on the present wind conditions and will fluctuate over time. Therefore, understanding the wind conditions at the Project location is crucial to be able to predict the general production during System Peak Load. [redacted]

[redacted] Ørsted has estimated the following net energy production for an average hour during the specified time frames:

- [redacted]
- [redacted]

[redacted]

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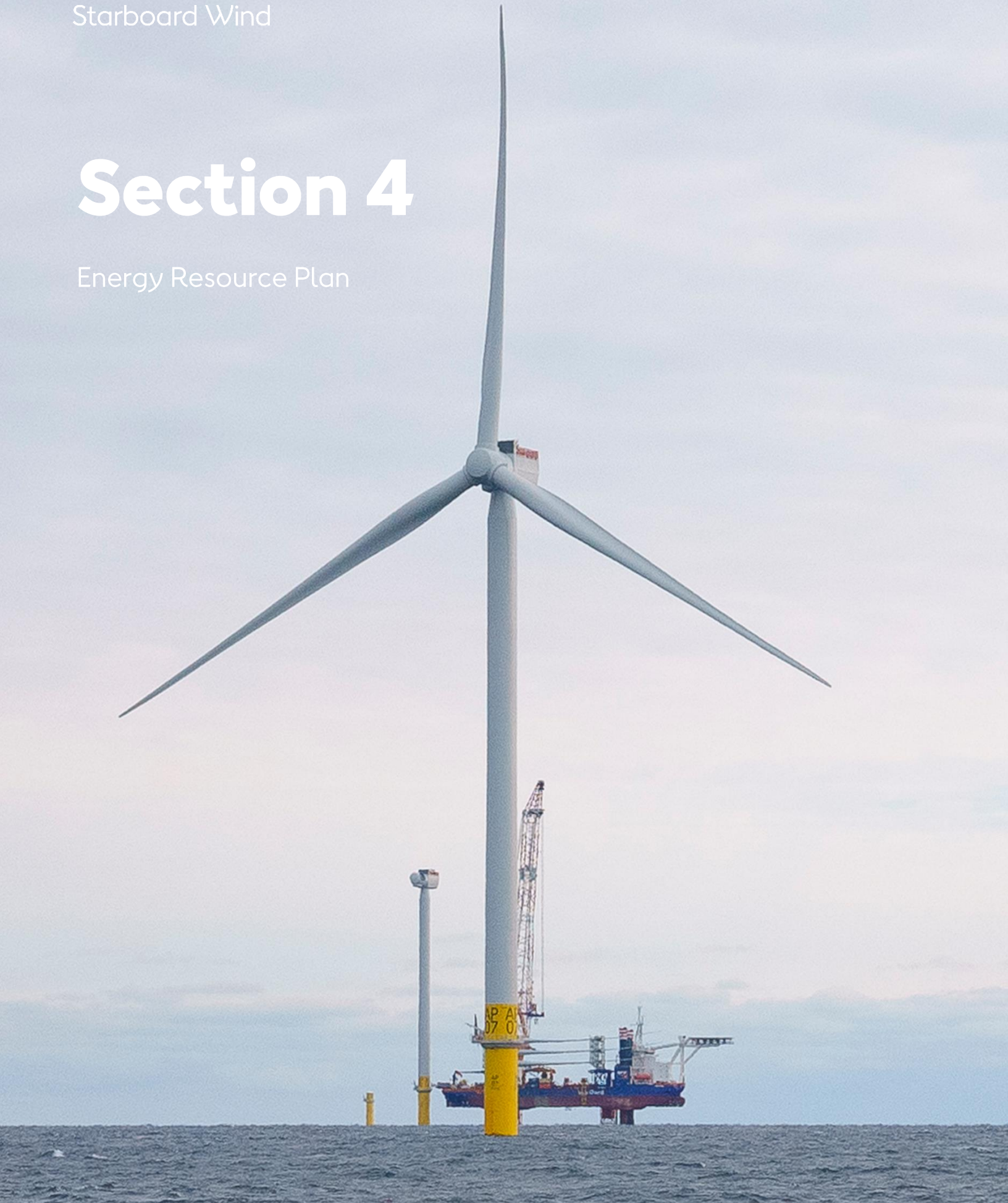
Starboard Wind

Section 4

Energy Resource Plan



4 Energy Resource and Delivery Plan

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

A robust assessment of the production profile is key to the overarching financial health of any offshore wind project. [redacted]

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

Ørsted is happy to provide any additional information that Rhode Island Energy requests in support of the Project's energy estimates.

4.1 Wind Data

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

Indicate where the data was collected and its proximity to the proposed 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 collection efforts that are planned or ongoing.

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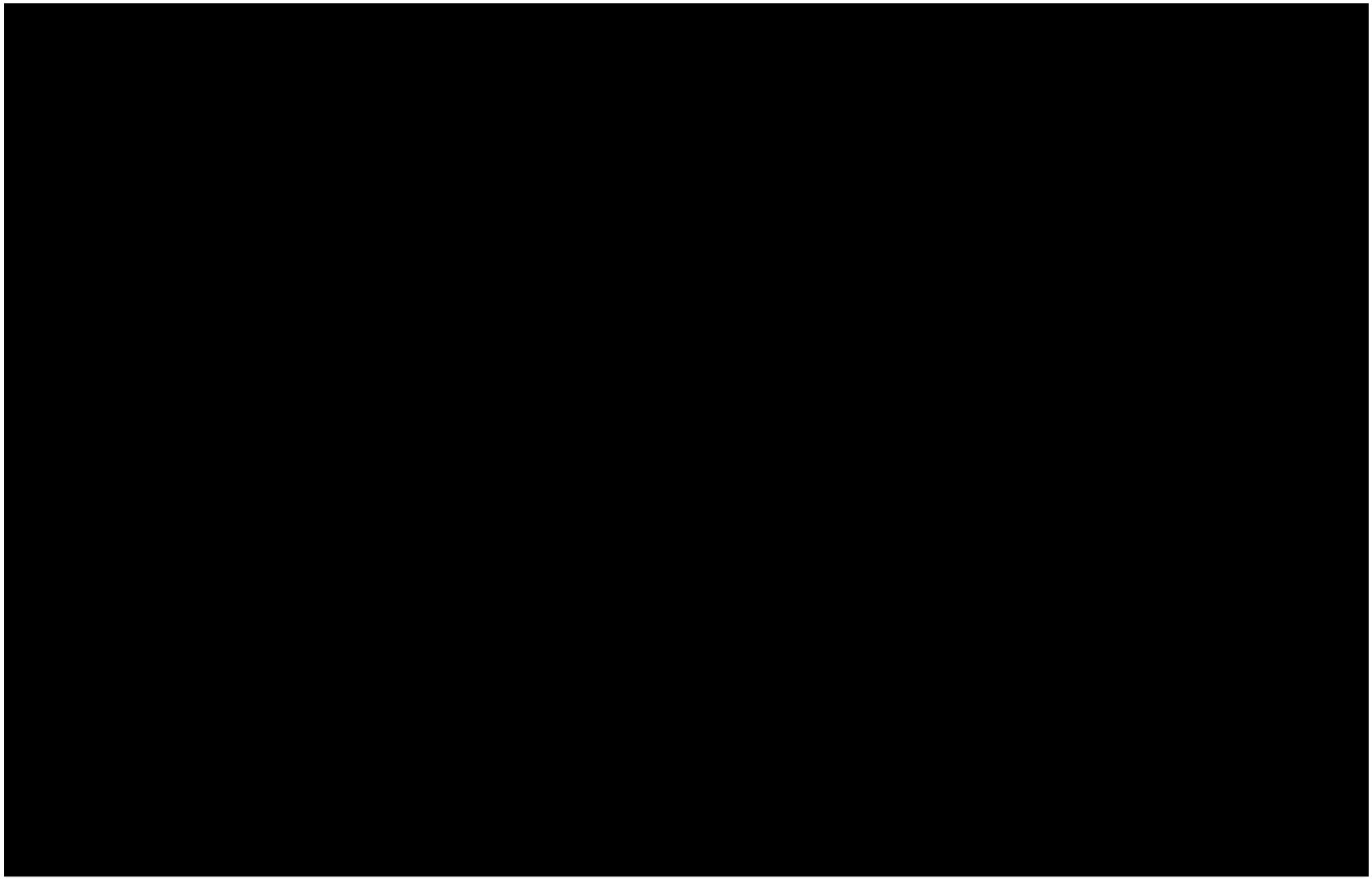

[redacted]

[redacted]

[redacted]

4.1.4 Wind Resource Data

Provide (a) at least one year of hourly wind resource data. Real Data collected from the site is preferred, though projected data is permissible. Methodology must also be included. And (b) a wind resource assessment report for the proposed facility from a qualified unaffiliated third-party wind resource assessment firm. Include an analysis of the available wind data which addresses the relationship between wind conditions and electrical output. Provide a projection of net hourly energy production and net annual energy production based on the 2012 wind resource data. Also, bidders shall provide the net annual energy production at both P50 and P90 levels.

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

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

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4.2 Offshore Wind Energy Generation Delivery Plan

Please provide an energy delivery plan and production/delivery profile for the proposed project, including supporting documentation. The energy delivery plan and production/delivery profile must provide the expected Offshore Wind Energy Generation to be delivered into the ISO-NE market settlement system and permit the Evaluation Team to determine the reasonableness of the projections for purposes of Sections 2.2.2.3 Eligible Products, 2.2.2.4 Allowable Contract Term, 2.2.2.5 Minimum/Maximum Contract Size and Allowable Alternative Bids, and 2.2.3.4 Interconnection and Delivery Requirements. Such information should be consistent with the energy resource plan and production/delivery profile provided above and considering any and all constraints to physical delivery into ISO-NE.

[redacted]

[redacted]

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Starboard Wind

Section 5

Financial / Legal

5 Financial/Legal

Bidders are required to demonstrate the financial viability of their proposed project. Bidders should provide the following information:

5.1 Long-Term Contract Financing

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

[redacted]

5.2 Business Entity Structure

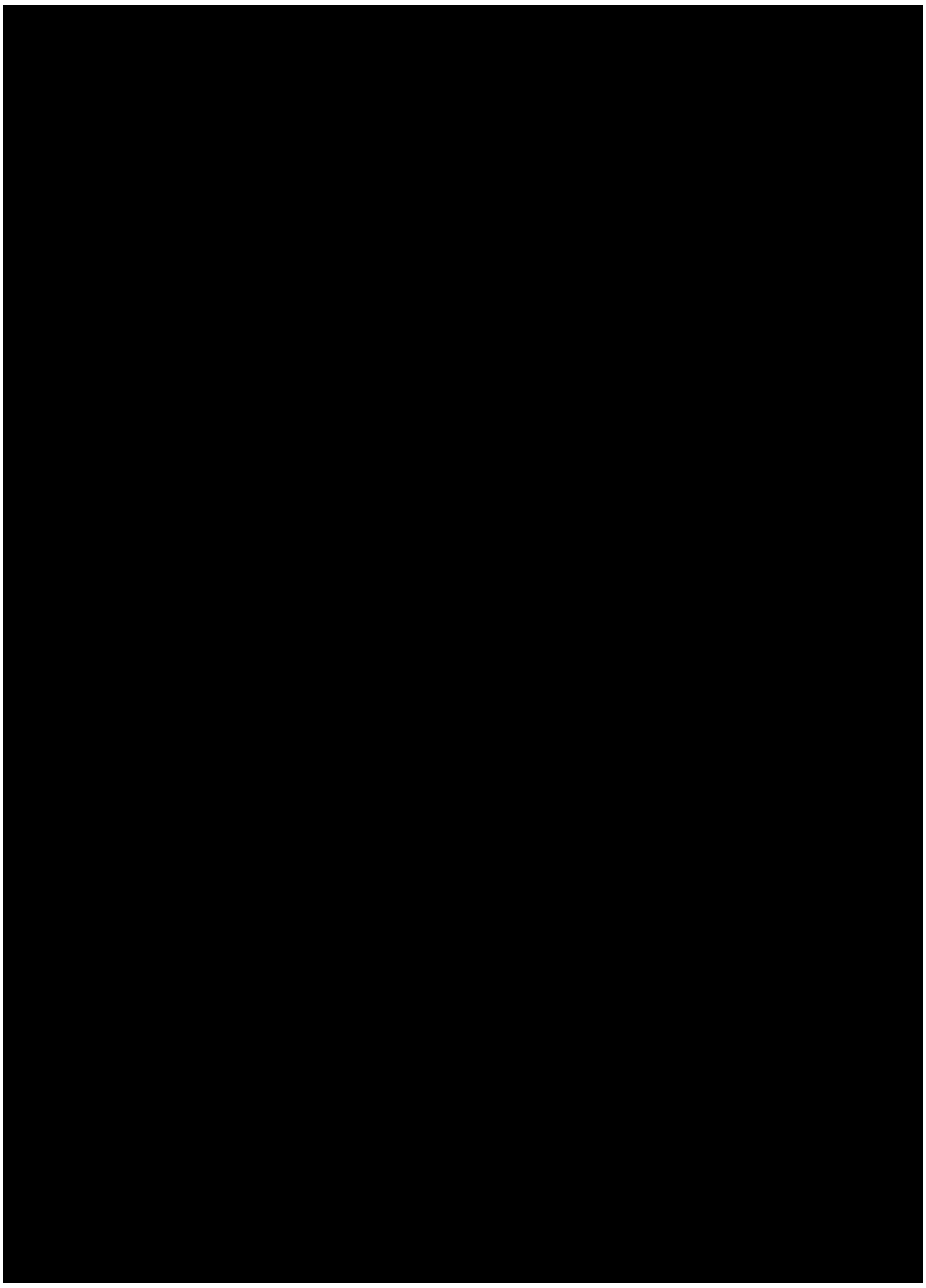
Please provide a description of the business entity structure of the bidder's organization from a financial and legal perspective, including all general and limited partners, officers, directors, managers, members and shareholders, involvement of any subsidiaries supporting the project, and the providers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

The Proposer (Bay State Wind LLC) is a wholly-owned indirect subsidiary of Ørsted A/S and is managed by its affiliate Orsted Wind Power North America LLC (which is likewise a wholly-owned indirect subsidiary of Ørsted A/S). The Proposer holds BOEM Renewable Energy Lease No. OCS-A 0500, within the area of the U.S. Outer Continental Shelf (OCS) covered by which the Project will be located (the Lease Area). If the Proposer is successful in the RFP, [redacted] Ørsted A/S and its affiliates are funding the Proposer's operations by providing equity contributions to the Proposer's North American affiliates (including Orsted Wind Power North America LLC).

5.2.1 Organization Chart

An organization chart depicting the corporate structure is provided in Figure 5.1. Ørsted owns, sometimes jointly, more than 100 entities active in the energy sector.[1]

[1] https://orsted.com/company-overview



5.3 Financing Plan

Please provide a description of the financing plan for the project as described in Section 2.2.3.5, including construction and term financing. The financing plan should address the following:

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

ii. The project's existing initial financial structure and projected financial structure.

iii. Estimated total project costs, including construction costs, and estimated annual spend on the project during development, construction, and operation.

iv. Estimated total project cost, broken down into nine categories:

- Development costs, such as engineering and design, legal services, geological surveys and analysis, permitting, community relations/public relations, financial advisory services, management, and administrative.

- Development costs related to ports and staging.

- Offshore wind turbines and their associated foundation and array cabling costs.

- Offshore substation(s) and their associated foundation(s) cost.

- Offshore export cable cost.

- Onshore construction costs, including the cabling, onshore substation(s) if any, and interconnection to the grid.

- Transmission system upgrades.

- Operations & maintenance.

- All other costs, such as financing, investments not included in the above categories, etc.

v. The projected capital structure, including expected sources of debt and equity financing, during development, construction, and operation, and if there are other competing existing or potential future obligations that may result in changes to the financing plan.

vi. Indicate whether the bidder has used the proposed financing strategy before for projects of similar size and type, if any issues arose, and how those issues were resolved.

vii. 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.

viii. Describe if you have any mechanisms that you will utilize to de-risk inflationary and commodity cost increases for the project.

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

[redacted]

Ørsted is the global leader in financing, developing, constructing, and operating offshore wind. It currently has approximately 28 GW total installed, under construction, and awarded renewable energy capacity globally, cementing its position as the global leader in offshore wind.

Ørsted is a publicly traded company with a market capitalization of approximately $24 billion (as of February 2024) and an annual operating cash flow of approximately $4.1 billion for fiscal year 2023, an increase of 139% versus fiscal year 2022.

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Ørsted has the largest offshore development portfolio in the U.S. as well as the most advanced projects in the nation, with South Fork Wind achieving first power in 2023 (COD expected Q1 2024), Revolution Wind under construction with anticipated commercial operation during the second half 2025, and Sunrise Wind in late-stage development with anticipated commercial operation in 2026. [redacted]

[redacted]

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[redacted]

[redacted]

At a corporate level, Ørsted leverages its vast experience to manage risk, including those risks specifically related to inflation and commodities. Among other things, this extends to managing risk profiles under major partner and supplier agreements, timing execution of such agreements appropriately, and working with partners and suppliers to minimize exposure to market volatility.

[redacted]

[redacted]

5.4 Experience

Provide documentation illustrating the experience of the bidder in securing financing for projects of similar size and technology as required in Section 2.2.3.6. For each project previously financed, provide the following information:

Project name and location

ii. Project type and size

iii. Date of construction and permanent financing

iv. Form of debt and equity financing

v. Current status of the project

vi. Role in project development, construction, and operation

As a result of more than 30 years of development experience, Ørsted is well equipped to successfully develop, finance, construct, operate, and maintain the Project.

As the leading offshore wind developer in the nation, Ørsted has established an unmatched offshore wind project portfolio. Information regarding the Proposer's previously financed projects, including project name and location, project type and size, in-service date, permanent financing, form of debt and equity financing, status, and role in project development, construction, and operation is presented in Table 5.1. Refer to Section 12 for additional details regarding Ørsted's projects beyond Bay State Wind LLC.

Table 5.3: Bay State Wind LLC Project Financing

Project	Project Type	Project Size	In-Service Date	Permanent Financing Date	Form of Debt and Equity Financing	Status	Role
Sunrise Wind (New York)	Offshore Wind	924 MW	2026 (anticipated)	2024 (anticipated)	100% Equity Contributions from Ørsted and Eversource Joint Venture (JV)	Under Contract	Full Scope – developer, constructor, operator, owner
Revolution Wind (Rhode Island)	Offshore Wind	400 MW	2025 (anticipated)	2023	100% Equity Contributions from Ørsted and Eversource JV	Under Contract, construction initiated	Full Scope – developer, constructor, operator, owner
Revolution Wind (Connecticut)	Offshore Wind	304 MW	2025 (anticipated)	2023	100% Equity Contributions from Ørsted and Eversource JV	Under Contract, construction initiated	Full Scope – developer, constructor, operator, owner
South Fork Wind (New York)	Offshore Wind	130 MW	2023	2022	100% Equity Contributions from Ørsted and Eversource JV	Operational	Full Scope – developer, constructor, operator, owner
[redacted]							

5.5 Financial Resources

Please provide evidence that the bidder has the financial resources and financial strength to complete and operate the project as planned.

As described throughout Section 5, Ørsted is a stable energy company with robust balance sheets that reflect the financial strength needed to complete and operate the Project in the ordinary course of business.

Financial and cash flow data is provided in Tables 5.4 and 5.5. Annual reports are referenced in Section 5.6.

Table 5.4: Ørsted Selected Consolidated Financial Data - Balance Sheet and Income Statement

	(Millions of Dollars)		
	2023	2022	2021
Balance Sheet Data:			
Total Assets	40,764	45,550	39,205
Capital Employed	18,149	18,284	15,865
Income Statement Data:			
Revenue	11,491	16,590	11,262
EBIT	(2,588)[1]	2,867	2,348

[1]EBIT excl. 2023 Impairments 1,293

From Ørsted 2023 Annual Report

Assumes DKK to USD exchange rate of 0.145

Table 5.5: Ørsted Selected Consolidated Cash Flow Data - Funds from Operations and Debt Issuances

	(Millions of Dollars)		
	2023	2022	2021
Cash flow from operating activities	4,137	1,728	1,761
Interest-bearing net debt	6,869	4,432	3,520

From Ørsted 2023 Annual Report

Assumes DKK to USD exchange rate of 0.145

As demonstrated, Ørsted has a cashflow from operating activities of $4.1 billion (2023) and a market capitalization of approximately $24 billion. Ørsted possess deep capital-market expertise, as evidenced by its ability to routinely access the public debt and equity markets. For example, during 2022, Ørsted conducted three debt capital markets transactions issuing EUR 1.35 billion in bonds in May and GBP 950 million/EUR 900 million in September, both under Ørsted's EUR 15 billion European bond issuance program, and EUR 500 million subordinated capital securities (hybrid capital) in December.

5.6 Financial Statements and Annual Reports

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

Ørsted's annual reports for the past three fiscal years (ending December 31, 2023) are publicly available:

- Ørsted's annual report - 2023[2]
- Ørsted's annual report - 2022[3]
- Ørsted's annual report - 2021[4]

[redacted]

The current senior unsecured (long-term) debt ratings of Ørsted are provided in Table 5.6. Following Ørsted's 2023 annual report, S&P changed its rating from BBB+ (negative) to BBB (stable), whereas Fitch changed its rating from BBB+ (negative) to BBB+ (stable). Ørsted's ratings remain above investment grade.

Table 5.6: Ørsted Credit Ratings (as of February 2024)

S&P	Moody's	Fitch
BBB (stable)	Baa1 (negative)	BBB+ (stable)

5.7 Directors, Officers, and Trustees

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

The Proposer has no directors, officers, or trustees. [redacted]

5.8 Security Requirements

The bidder should demonstrate its ability (and/or the ability of its credit support provider) to provide the required security as described in Section 2.2.3.9, including its plan for doing so.

Ørsted has ample resources to provide bid security. As of December 31, 2023, Ørsted's financial resources made up DKK 90.7 billion ($13.1 billion) split on cash and liquid bond position of DKK 39.6 billion ($5.8 billion) and committed credit facilities of DKK 51.1 billion ($7.4 billion). Furthermore, in February 2023 Ørsted issued green bonds totaling EUR 2.00 billion (approximately $2.16 billion).

[2] https://orstedcdn.azureedge.net/-/media/annual-report-2023/orsted-ar-2023.pdf?rev=526307f68e2047b3a1df8dd2cdf719ec&hash=E6069E12C1792AD620FA12898587394C
[3] https://via.ritzau.dk/ir-files/13560592/6237/9071/Ørsted annual report 2022.pdf
[4] https://orstedcdn.azureedge.net/-/media/annual2021/annual-report-2021.ashx?rev=9d4904ddf4c44594adab627f7e4c62be&hash=69CE31C5D5935DD0DB46313E3BDEC952

Ørsted plans to issue a letter of credit on behalf of the Proposer in an amount equal to the required security.

5.9 Credit Issues

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

See Table 5.6 above for Ørsted's latest credit ratings. As noted, the S&P rating and outlook changed from BBB+ (negative) to BBB (stable), while Fitch changed outlook from BBB+ (negative) to BBB+ (stable). Despite the S&P downgrade, a stable outlook by both S&P and Fitch indicates confidence in Ørsted's forward looking plan. Ørsted does not have any current or recent credit issues 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. Ørsted is well regarded and maintains an investment grade credit profile.

5.10 Financial Incentives

Describe the role of the Federal Production Tax Credit ("PTC") or Investment Tax Credit ("ITC") as newly revised by the Inflation Reduction Act, and any other incentives, on the financing of the project. In the response, please describe:

(a) your plan to qualify for the ITC/PTC and the level of the ITC/PTC for which you plan to qualify,

(b) the facilities, investment in which, the ITC is expected to apply,

(c) your plan to utilize the tax credits and the relationship to your financing plan, and

(d) how qualification for the ITC/PTC is reflected in your proposed pricing. If a bidder assumes that such credits, subsidies, grants or incentives will not be available for its Eligible Facility, it should state how it would propose to share the benefits of those credits, subsidies, grants or incentives with Rhode Island Energy's customers if they subsequently become available. Bidders may propose adjustments to the contract price based on an increase in any state or federal tax credit or other government grant or subsidy.

[redacted]

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5.11 Domestic Supply

Describe the bidder's plan to adhere to the domestic supply rules set forth in the Build America, Buy America Act and the act's implications on access to federal funding, cost of materials, and supply chains.

[redacted]

5.12 Tax Credits or Subsidies

Describe how the bidder would consider Rhode Island Energy customers in the event of the availability or receipt of any tax credit or other government grant or subsidy not contemplated in their proposals. Bidders must state their assumptions regarding the availability of federal or state tax credits, subsidies, or grants or other incentives.

[redacted]

[redacted]

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5.13 Project Litigations or Disputes

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

Pending litigation information can be found in the annual reports in Section 5.6, which disclose material litigations involving Ørsted A/S and its subsidiaries. [redacted]

The only litigation directly relevant to the Project was Save Long Beach Island et al. v. U.S. Department of Commerce et al., Civ. No. 23-1886 (D.N.J.), in which the plaintiffs challenged marine mammal incidental take authorizations associated with site-characterization surveys for multiple offshore wind projects in development off the East Coast of the U.S. (including surveys within the Lease Area). The court dismissed the case on February 29, 2024.

Since February 2021, nine lawsuits have been filed against federal, New York State, and local government entities challenging their approvals for the South Fork Wind project, recently constructed by the Proposer's affiliate, South Fork Wind, LLC:

- Citizens for the Preservation of Wainscott v. Town of East Hampton, No. 601847/2021 (N.Y. Sup. Ct. [Suffolk County]) (filed Feb. 2, 2021) ("Town of East Hampton")
- Allco Renewable Energy Ltd. et al. v. Haaland et al., Civ. No. 21-11171 (D. Mass.) (filed July 8, 2021) ("Allco Renewables")
- Kinsella v. N.Y. Pub. Serv. Comm'n & N.Y. Dep't of Pub. Serv., No. 2021-06572 (N.Y. App. Div. [2d Dep't]) (filed Sept. 10, 2021)
- Citizens for the Preservation of Wainscott v. N.Y. Pub. Serv. Comm'n et al., No. 2021-06582 (N.Y. App. Div. [2d Dep't]) (filed Sept. 10, 2021)

- Kinsella et al. v. Long Island Power Auth. et al., No. 621109/2021 (N.Y. Sup. Ct. [Suffolk County]) (filed Nov. 9, 2021)
- Mahoney et al. v. U.S. Dep't of the Interior et al., Civ. No. 22-1305 (E.D.N.Y.) (filed Mar. 9, 2022)
- Kinsella v. Bureau of Ocean Energy Mgmt. et al., Civ. No. 22-2147 (D.D.C.) (filed July 20, 2022)
- Preservation Soc'y of Newport Cty. v. Haaland et al., Civ. No. 23-3510 (D.D.C.) (filed Nov. 22, 2023)
- Se. Light Found. v. Haaland et al., Civ. No. 23-3514 (D.D.C.) (filed Nov. 22, 2023)

One of the lawsuits (Citizens for the Preservation of Wainscott v. N.Y. Pub. Serv. Comm'n et al.) has been decided on the merits in favor of the South Fork Wind project. Three of the lawsuits (Citizens for the Preservation of Wainscott v. Town of East Hampton, Allco Renewables, and Mahoney) have been dismissed by courts (with no appeal pursued). The other five remain pending. South Fork Wind, LLC has intervened or has been named as a respondent in all the cases and is defending the challenged governmental action(s) in all of the still pending cases.

In addition, two companion lawsuits to the most recently filed South Fork Wind project lawsuits have been filed against Federal officials challenging their approvals for the Revolution Wind project, which is currently being developed by the Proposer's affiliate, Revolution Wind, LLC:

- Preservation Soc'y of Newport Cty. v. Haaland et al., Civ. No. 23-3513 (D.D.C.) (filed Nov. 22, 2023)
- Se. Light Found. v. Haaland et al., Civ. No. 23-3515 (D.D.C.) (filed Nov. 22, 2023)

Revolution Wind, LLC has intervened in both lawsuits. Furthermore, a state-court lawsuit was filed on June 12, 2023 against the Rhode Island Coastal Resources Management Council regarding its Coastal Zone Management Act consistency certification concurrence for Revolution Wind, LLC (*Green Oceans v. Coastal Resources Management Council*, Civ. No. NC-2023-0206 (R.I. Super. Ct. Newport Cty.)).

Finally, a Federal-court lawsuit was filed on January 16, 2024 against Federal officials challenging their approvals for the projects being developed by the Proposer's affiliates Revolution Wind, LLC and South Fork Wind, LLC (Green Oceans et al. v. U.S. Dep't of Interior et al., Civ. No. 24-141 (D.D.C.)).

[redacted]

5.14 Project Operating Life

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

[redacted]

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

5.15 Financing Commitments

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

[redacted]

5.16 Project Agreements

State whether the bidder or its affiliates have executed agreements with respect to energy, RECs and/or capacity for the proposed project (including any agreements that have been terminated) and provide information regarding the associated term and quantities, and whether bidder has been alleged to have defaulted under or breached any such agreement.

[redacted]

5.17 Affiliated Entities and Joint Ventures

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

As stated in Section 5.2, the Proposer—Bay State Wind LLC—is a wholly owned indirect subsidiary of Ørsted A/S. Ørsted A/S also indirectly holds 50% of the equity interests in North East Offshore, LLC, which is a 50/50 joint venture between Eversource Investment LLC and Orsted North America Inc. North East Offshore, LLC is also the sole owner of the following Delaware limited liability companies, all of which transact business in the energy sector:

- Revolution Wind, LLC
- South Fork Wind, LLC
- Sunrise Wind LLC

Please see Ørsted's 2023 Annual Report (Section 5.6) for complete lists of corporate entities.

5.18 Debt History

Has bidder, or any affiliate of bidder, in the last five years,

(a) consented to the appointment of, or been taken in possession by, a receiver, trustee, custodian or liquidator of a substantial part of its assets,

(b) filed a bankruptcy petition in any bankruptcy court proceeding,

(c) answered, consented or sought relief under any bankruptcy or similar law or failed to obtain a dismissal of an involuntary petition,

(d) admitted in writing of its inability to pay its debts when due,

(e) made a general assignment for the benefit of creditors,

(f) was the subject of an involuntary proceeding seeking to adjudicate that Party bankrupt or insolvent,

(g) sought reorganization, arrangement, adjustment, or composition of it or its debt under any law relating to bankruptcy, insolvency or reorganization or relief of debtors?

The Proposer and its affiliates have not taken any of the above-described actions in the last five years. [redacted]

5.19 Conflicts of Interest

Briefly describe any known conflicts of interest between bidder or an affiliate of bidder and Rhode Island Energy, or any affiliates of the foregoing.

The Proposer and its affiliates are unaware of any conflicts of interest with Rhode Island Energy or any of its affiliates.

5.20 Litigations or Disputes with Rhode Island Energy

Describe any litigation, disputes, claims or complaints involving the bidder or an affiliate of bidder, against Rhode Island Energy or any affiliate of Rhode Island Energy.

[redacted]

5.21 Purchase or Sale Disputes

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

[redacted] Other than these cases, which are disclosed out of an abundance of caution, the Proposer is not aware that it or any of its affiliates is involved in any litigation, disputes, claims or complaints, or events of default or other failure to satisfy contract obligations, or failure to deliver products, relating to the purchase or sale of energy, capacity, or RECs or other electricity products in the U.S. Additional discussion of pending litigation is provided in Section 5.13.

[redacted]

5.22 Investigations or Convictions

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

The Proposer is not aware that it—or any of its directors, employees, or agents (when acting in their professional capacities on behalf of the Proposer or any of its wholly-owned affiliates), or any of its wholly-owned affiliates—is currently under investigation by any governmental agency, or that any of the above have in the last four years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction involving conspiracy, collusion, or other impropriety with respect to bidding on any contract, or have been the subject of any debarment action.

5.23 Regulatory Approvals for Binding Sale

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

The Proposer has received the necessary internal approvals of the draft PPA markup. To the extent any changes to the markup are made, further approvals may be required. The Proposer understands that pursuant to Rhode Island General Laws (RIGL) § 39-31-6, such PPA would also require approval by the Rhode Island Public Utilities Commission to become effective.

5.24 FERC Requirements

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

[redacted]

5.25 Affiliations with Rhode Island Energy

Describe and document any and all direct and indirect affiliations and affiliate relationships (contractual, financial, or otherwise) in the past three years between the bidder and Rhode Island Energy and its affiliates, including all relationships in which Rhode Island Energy or its affiliates has a financial or voting interest (direct or indirect) in the bidder or the bidder's proposed project. These relationships include:

- Corporate or other joint arrangements, joint ventures, joint operations whether control exists or not

- Minority ownership (50% or less investee)

- Joint development agreements

- Operating segments that are consolidated as part of the financial reporting process

- Related parties with common ownership

- Credit, debenture, and financing arrangements, whether a convertible equity feature is present or not

- Wholly owned subsidiaries

- Commercial (including real property) relationships with Rhode Island Energy.

[redacted]

[redacted]

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Starboard Wind

Section 6

Siting, Interconnection, and Deliverability

6 Siting, Interconnection, and Deliverability

This section of the proposal addresses project location, siting, real property rights, and interconnection issues. Bidders should ensure that the threshold criteria outlined in Section 2.2 of the RFP are verified in their responses. If multiple interconnection points are being submitted, Section 6 of Appendix A to the RFP must be completed for each interconnection point. Please specify all active requests which have not been superseded by subsequent requests and information regarding the status of each. To the extent that the bidder provides an alternative interconnection scenario based on ISO-NE proposed interconnection process changes, the bidder must include studies using the proposed ISO-NE process. Any such studies must be accompanied with clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions.

[redacted]

6.1 Real Property Rights

An Eligible Bidder must demonstrate that is has a federal lease for an offshore wind energy generation site, as described in Section 2.2.2.2, as well as a valid lease, or option to lease, for marine terminal facilities necessary for staging and deployment of major project components to the project site.

Federal Lease

Ørsted has a Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS-A 0500). Under Addendum D to the Lease, BOEM will grant the rights for the location and operation of the export cable from the Lease Area to the boundary of federal and state waters. That grant will occur in the normal course of the regulatory process, in which BOEM approves the Construction and Operations Plan (COP) for the Project and issues a Record of Decision (ROD) on the approval of the COP. Attachment 1-1 includes the demonstration of federal lease ownership.

New London State Pier

Starboard Wind will utilize New London State Pier for foundation and WTG staging and deployment. The Project will leverage Ørsted's existing Harbor Development Agreement[1] that was signed in February 2020 with the Connecticut Port Authority (CPA) which provides a long-term tenancy at New London State Pier in New London, Connecticut. This tenancy commenced in 2023 and will remain in place until 2032, with the potential for a 7-year extension. The Harbor Development Agreement includes a full re-development of the

[1] http://statepiernewlondon.com/wp-content/uploads/2020/11/20200211-Harbor-Development-Agreement.zip
http://statepiernewlondon.com/wp-content/uploads/2022/04/HDA-Second-Amendment-Schedule-2.pdf;
http://statepiernewlondon.com/wp-content/uploads/2022/04/HDA-Second-Amendment-Schedule-4.pdf
http://statepiernewlondon.com/wp-content/uploads/2022/04/HDA-Second-Amendment-Fully-Executed-6-29-21.pdf

State Pier terminal at the port of New London for the purpose of enabling marshalling and load-out of WTG components and other major offshore wind components like monopile foundations.

[redacted]

[redacted]

[redacted]

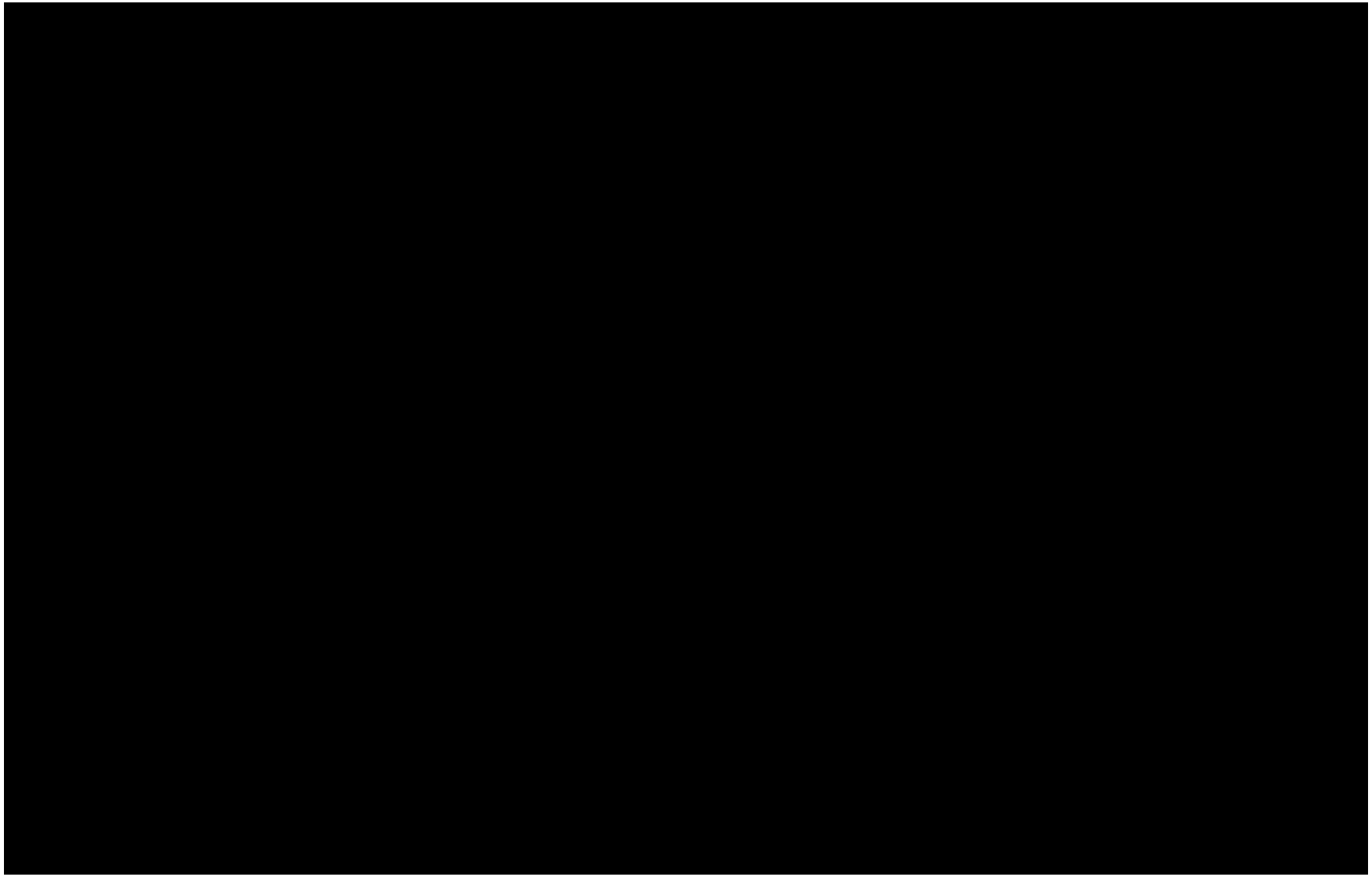
[redacted]

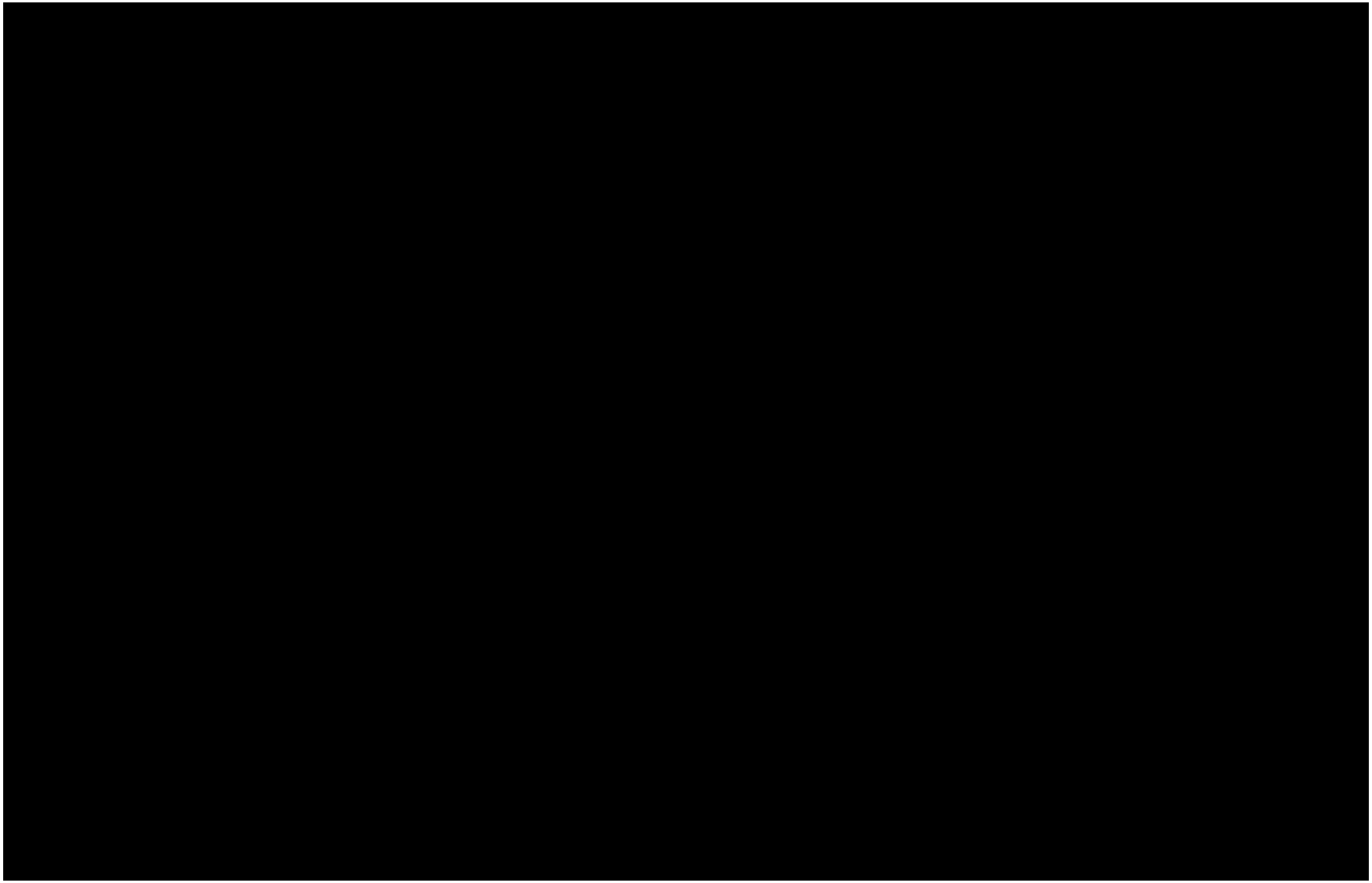
6.2 Site Plans

Plans, including a map of the Eligible Facility site that clearly delineates the perimeter of the area in which offshore wind turbines will be placed, the proposed offshore routes to the project site, the proposed onshore routes to the interconnection location, and all proposed substations or areas of other major equipment. To the extent that alternative routes for offshore and onshore interconnection facilities have been considered in developing the bid, maps showing these locations should also be provided. Maps should be of scales required to identify significant marine or terrestrial features, e.g., shellfish management areas, parks, highways, etc. If the bidder has not secured all of its real property rights onshore, it must provide at least one alternative for each unsecured real property right. For each route the bidder must: (i) specifically describe the portions of the route for which the bidder has acquired sufficient rights to locate its Offshore Delivery Facilities proposed and (ii) provide a reasonable and achievable detailed plan (with a timeline) to acquire sufficient rights to the remainder of the necessary Offshore Delivery Facilities locations.

[redacted]

[redacted]





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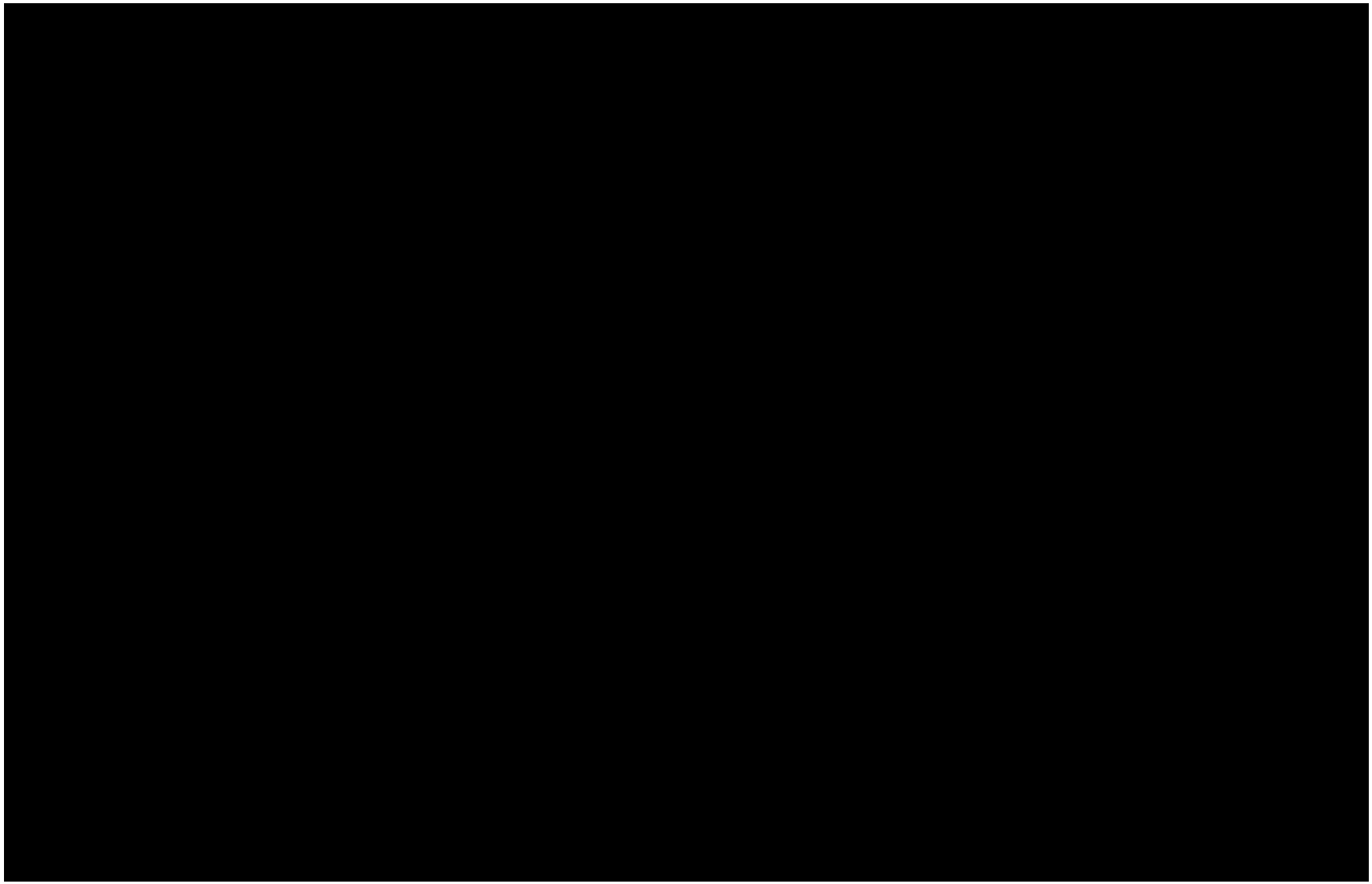

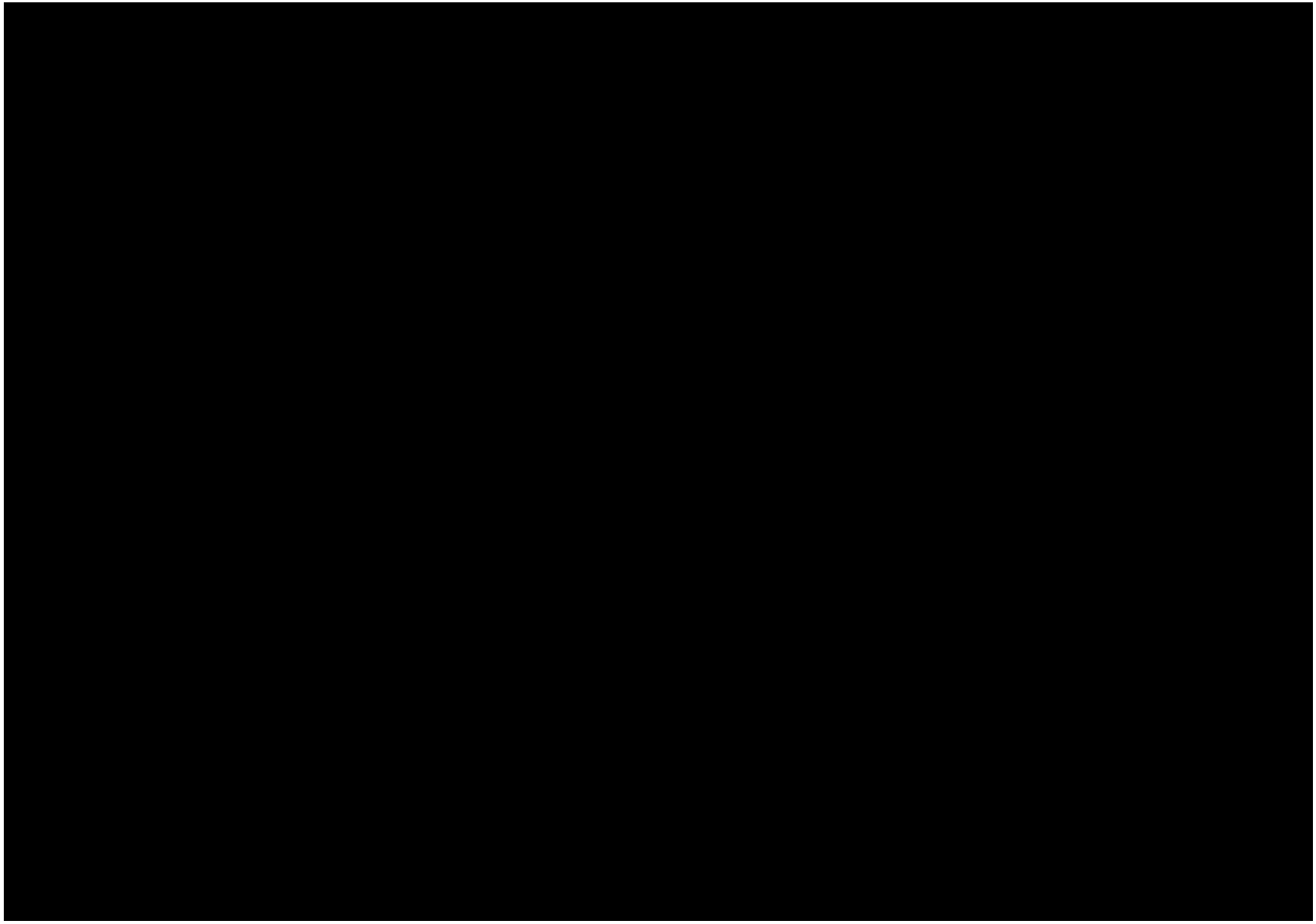

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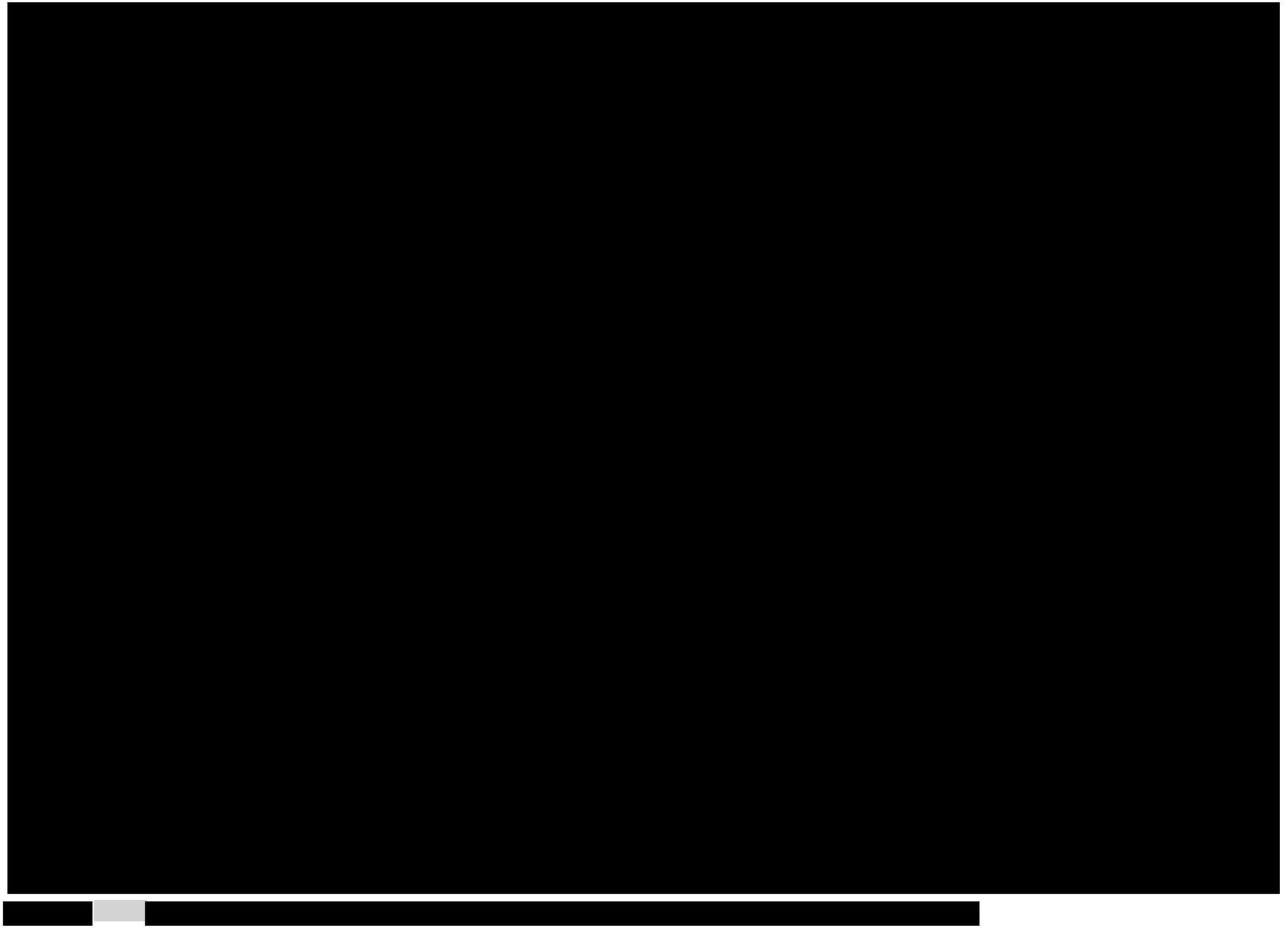
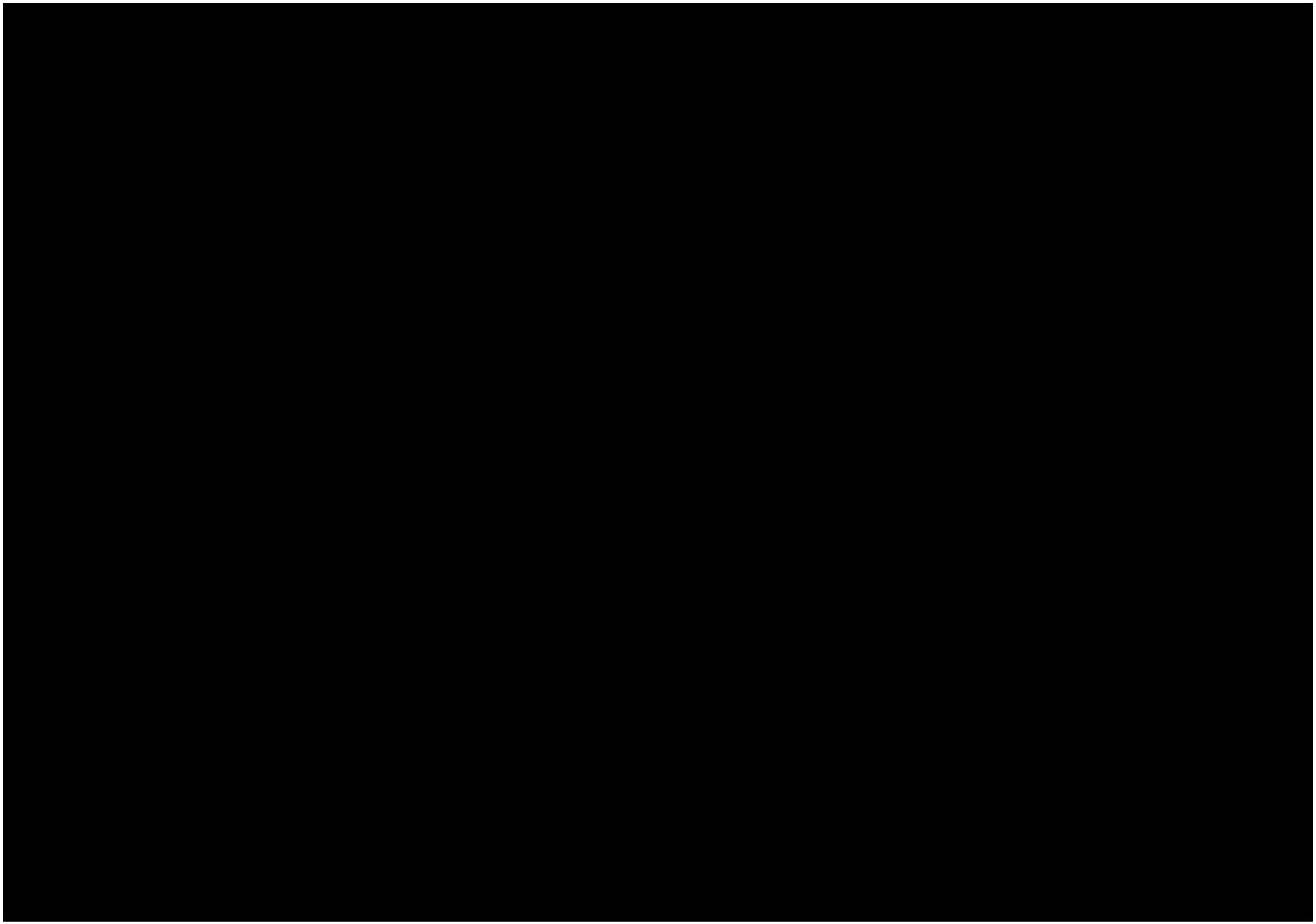


6.3 Marine Terminal Facility

A map showing the location of the marine terminal facility.

[redacted]



6.4 Property Rights Documentation

A description of all leases, agreements, easements, and related documents granting the right to use the Eligible Facility site and associated Offshore Delivery Facilities, as well as the marine terminal for deployment of major project components, and detail which have been obtained. Provide a detailed plan and timeline to secure the remaining leases, agreements, easements, and related documents. Provide copies of any leases, agreements, easements, or related documents obtained, upon request.

6.4.1 Offshore Site Control

Ørsted has a Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS-A 0500) as shown in Attachment 1-1. Under Addendum D to the Lease, BOEM will grant the rights for the location and operation of the export cable from the Lease Area to the boundary of federal and state waters. As the export cable will go through both Rhode Island and Massachusetts waters, permitting approval from both states will be required. More detail on permitting timelines is provided in Section 7.

[redacted]

6.5 Land-Based Project Area

A description of the area surrounding any land-based project area, including the marine terminal for deployment of major project components (e.g., foundations, towers, blades, rotors, offshore substations) and all transmission and interconnection facility locations.

[redacted]

[redacted]

[redacted]

POI

The National Grid Brayton Point substation is contained with the Brayton Point LLC development, almost at the center of the compound. [redacted]

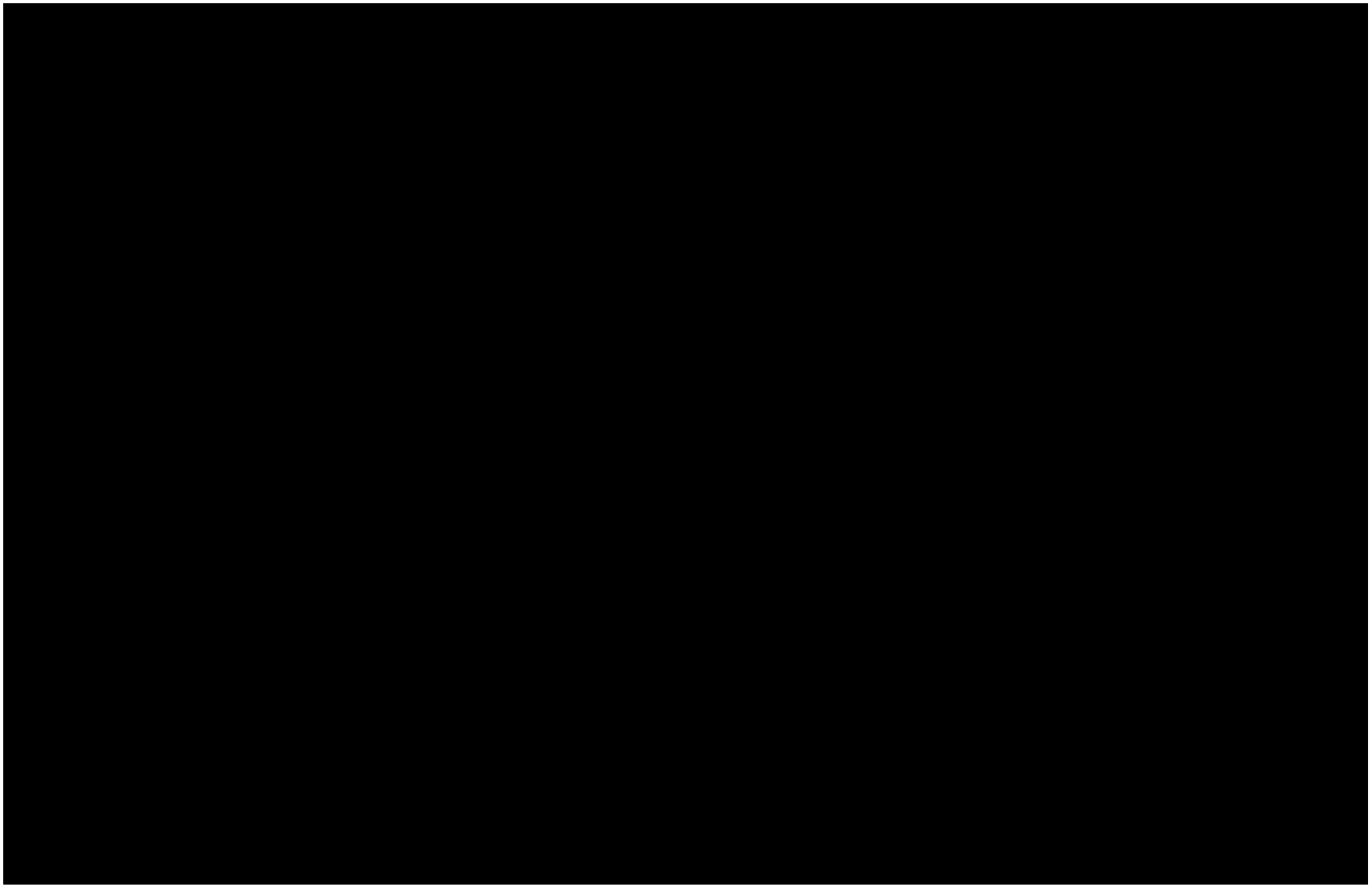
Area Surrounding New London State Pier

The New London State Pier terminal is controlled by the CPA and the terminal is operated by Gateway Terminals. The terminal has two operating commercial berths and several lay-by berths for smaller marine crafts and is duly approved under a U.S. Coast Guard International Port Security Program safety plan. The immediate surroundings consist of mostly marine industrial zones, and the main working areas are occupied by the Connecticut Department of Transportation, Amtrak, Cross Sound Ferry, and General Dynamics.

[redacted]

[redacted]

[redacted]



[redacted]

[redacted]

6.6 Joint Use

Identify any joint use of existing or proposed real property rights and/or easements.

[redacted]

6.7 Interconnection Applications and Studies

The bidder must detail the status (and conclusions, as available) of interconnection applications and studies. Further, bidders must describe how proposals would be affected if the Eligible Facility is connected to regionalized offshore transmission facilities.

[redacted]

6.8 Interconnection Request

All project submitted by bidders must have filed an interconnection request with ISO-NE, seeking Capacity Network Resource service. The bidder must have a completed ISO-NE Feasibility Study, or a Cluster Enabling Transmission Upgrade Regional Planning Study (also known as a Cluster Resource Integration Study) as defined in Schedule 22, or a highly comprehensive and credible interconnections study performed by a third-party in accordance with the ISO-NE methodology and NCIS as defined by the ISO-NE Planning Procedure 5-6, that includes the proposed project prior to bid submission. Projects that have received their I.3.9 approval from ISO-NE must identify that approval and include such documentation in their proposal. Bidders may submit additional supporting third-party technical reports or interconnection studies, which should approximate the ISO-NE interconnection process, including but not limited to clear documentation of study technical and cost assumptions, reasoning, and justification of such assumptions. If any third-party studies contain CEII information, bidders should submit non-CEII summaries of such studies with the proposal, and provide the full documents upon Rhode Island Energy submitting documentation that recipients have appropriate CEII clearance.

[redacted]

6.9 Forward Capacity Auction Qualifications

Each proposal must include a commitment to interconnect to the ISO-NE PTF at a CCIS and NCIS level. Each proposal must include a commitment to complete the Forward Capacity Auction Qualifications ("FCAQ") process set forth in Section III.13.1 of Market Rule 1 of ISO-NE's Transmission Markets and Services Tariff, and to meet all FCAQ requirements in order to establish its ability to interconnect at this level.

[redacted]

6.10 Potential Upgrades

To the extent that ISO-NE studies have not yet been conducted to ascertain the network upgrades and other interconnection costs required to achieve such CCIS interconnection at the time of bidding, a bidder may include a preliminary non-binding overlapping impact study conducted by ISO-NE to identify the potential upgrades and associated costs that would be required by ISO-NE's CCIS interconnection determination, or may identify such costs through relevant studies and analyses performed by them or their consultants that approximate the ISO-NE capacity interconnection process. These studies and their supporting documentation, assumptions and data must match closely ISO-NE study requirements for CCIS interconnection. Rhode Island Energy expects bidders to provide studies that are consistent with ISO-NE's approach and that approximate what the ISO-NE results would be. Proposals with a Qualification Determination Notification ("QDN") from ISO-NE for their proposed capacity amount and commitment period must include all QDN documentation in their proposal. All projects that do not have QDN for their proposed capacity amount and commitment period must provide a study performed by ISO-NE or a third party in accordance with ISO-NE Planning Procedure 10 in order to prove ability to interconnect at the CCIS.

[redacted]

6.11 Qualified Capacity

Each Bidder's proposal must include the ISO-NE FCA Wind Qualification Template spreadsheet to approximate the qualified capacity associated with its proposed project, and if the bidder has not completed an ISO-NE preliminary non-binding overlapping impact study but has provided an equivalent third-party overlapping impact study, the bidder should include a description of how the ISO-NE FCA Wind Qualification Template spreadsheet was utilized in that analysis. The final amount of capacity will be determined under the FCAQ process. In addition, bidders are encouraged to provide any additional data, studies, or information on forecast methodologies they believe would facilitate analysis of their bids' Wind Qualification analysis.

The ISO-NE FCA Wind Qualification Template spreadsheet has been completed and is provided in Attachment 6-9.

6.12 Informative Deliverability Study

To assist in identifying potential additional constraints on the project's deliverability, bidders must perform and provide an Informative Deliverability Study according to the criteria defined in Appendix F. This study is in addition to the required NCIS and CCIS studies discussed above. Its purpose is simply to identify system constraints under specified generation dispatch conditions, not to address the constraints with system upgrades or reductions in proposed delivery profile. Provide a description of the findings of the deliverability constraint analysis, including but not limited to a list of thermal overloads and voltage violations identified.

[redacted]

6.13 Scenario Analysis

Bidders shall include a scenario analysis in their studies that shows how changes in the project interconnection queue could impact their interconnection costs using the current ISO-NE interconnection rules. Bidders are encouraged to include additional reports, analysis and studies that support their interconnection and deliverability.

[redacted]

6.14 Interconnection Agreement

Provide a copy of an interconnection agreement, if any, executed by the bidder with respect to the proposed project. If an interconnection agreement has not been executed, please provide the steps that need to be completed before an interconnection agreement can be executed and the associated timeline. Please also provide the status and expected completion date of any additional interconnection studies already underway with ISO-NE and/or the transmission owner. All studies must follow the current ISO-NE interconnection procedures and detail any assumptions regarding resources and corresponding network upgrades ahead of the project in the ISO-NE interconnection queue. All network upgrades and assumptions identified in these studies must be clearly documented and included in the bid price.

[redacted]

6.15 Network Upgrades

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

[redacted]

6.16 Electrical Models

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

[redacted]

6.17 Electrical Diagram

Provide a copy of an electrical one-line diagram showing the interconnection facilities, the relevant facilities of the transmission and/or distribution provider, and any required network upgrades identified in the studies required in section 6 of this document.

[redacted]

6.18 Interconnection Facilities

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

[redacted]

6.19 Incremental Data Requirements

Incremental Data Requirements - IDV file(s) in PSSE v34 format modeling all upgrades to the transmission network identified in the studies required in section 6 of this document.

If the bidder does not use PSSE, provide in text format necessary modeling data as follows:

Line Data (voltage and thermal ratings)

Impedances (r, X and B)

Line Length (bus numbers and names)

Transformer data (including Phase shifting transformers if applicable)

Terminal voltages, thermal ratings, impedance

Reactive compensation models as necessary

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

[redacted]

6.20 Production/Delivery Profile

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

[redacted]

6.21 REC/Environmental Attribute Delivery Plan

Please provide documentation and information demonstrating that the project will deliver GIS Certificates representing the associated RECs and any other Environmental Attributes, as applicable. The RECs and environmental attributes associated with energy generation must be delivered into Rhode Island Energy's NEPOOL GIS accounts. All bidders must include sufficient information and documentation that demonstrates that the bidder will utilize an appropriate tracking system to ensure a unit-specific accounting of the delivery of unit-specific and unit contingent of energy and RECs.

Please describe whether transfer of all GIS Certificates is authorized under the current ISO-NE GIS rules and protocols, or if a rule or protocol change is required. To the extent such a change is required, please provide regarding the proposal and the process for implanting the change.

[redacted]

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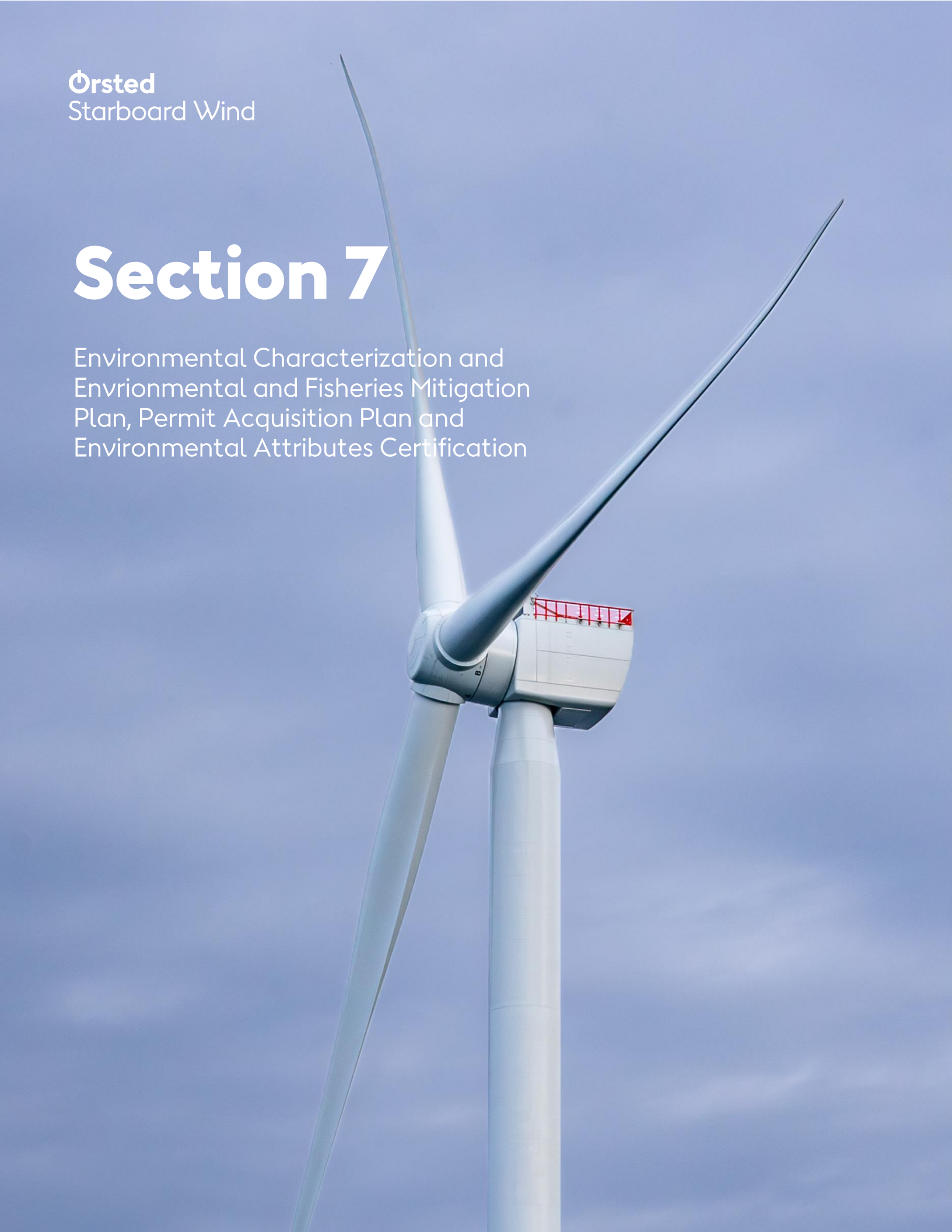
Section 7

Environmental Characterization and Envrionmental and Fisheries Mitigation Plan, Permit Acquisition Plan and Environmental Attributes Certification



7 Environmental Assessment and Environmental and Fisheries Mitigation Plan, Permit Acquisition Plan and Environmental Attributes Certification

This section addresses environmental and other regulatory issues associated with project siting, development, and operations for all aspects of the project (including generation, delivery, interconnection, etc.) and in all jurisdictions (federal, all interested states, etc.).

[redacted]

[redacted]

[redacted]

[redacted]

7.1 Permits, Licenses, Environmental Assessments and/or Environmental Impact Statements Required

A description of all regulatory body approvals, such as permits, assents, and licenses for the use and operation of the Eligible Facility site and associated Offshore Delivery Facilities, including zoning, and detail which have been obtained. Provide a detailed plan and timeline to secure the remaining regulatory body approvals for all offshore and onshore routes. Include a project permit and approval assessment which describes, in narrative form, each segment of the process, the required permit or approval, the status of the request or application and the basis for projection of success by the milestone date. All requirements should be included on the project schedule in Section 9. Provide copies of any regulatory body approvals obtained, upon request.

[redacted]

[redacted]

[redacted]

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[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

7.2 Stakeholder Engagement Plan

A description of the stakeholder engagement plan, including identification of groups of stakeholders to be included, engagement goals for each such group, engagement activities and community partnerships included in the plan, and demonstrated evidence of past and current productive relationships with project stakeholders.

The Stakeholder Engagement Plan provided in Attachment 7-1 describes Ørsted's commitment to collaborative, continuous, robust, inclusive, and transparent public involvement. In summary, the Starboard Wind team will seek to:

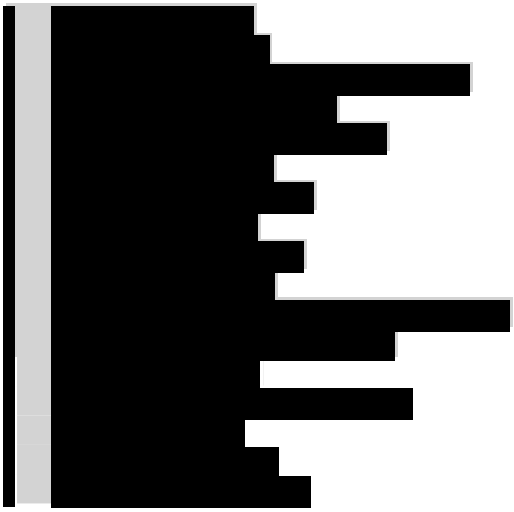
[redacted]

7.3 Environmental Characterization

An Environmental Characterization, which refers to a thorough, desktop-level review of the environmental characteristics of both the offshore and onshore areas impacted by the project, including the alternative routes proposed if site control has not been acquired for all real property rights, and provides a review of those areas for natural or cultural resource sensitivity with a description of how this determination was made. If multiple routes are provided or required in your submission, a review of the positive and negative reasoning for each route and a determination of a preferred routs is preferred. In addition, the Environmental Characterization must describe the environmental impacts of the Proposed Facility on environmental justice communities and plans to mitigate those impacts.

The following sections outline a preliminary environmental characterization for natural and cultural resources for both offshore and onshore areas impacted by the Project. Resources assessed include those most likely to experience adverse impacts requiring measures to avoid, minimize, and/or mitigate those impacts per regulatory or stakeholder concerns.

[redacted]



[redacted]

[redacted]

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[redacted]

[redacted]

[redacted]

7.4 Environmental and Fisheries Mitigation Plan

Provide an EFMP per Section 2.2.3.7, including a confirmation of agreeance to the Site and Environmental Data Transparency, Fisheries Compensation, Noise Mitigation, Monitoring Acoustic Attenuation, and Regional Collaboration paragraphs.

[redacted]

7.5 Reliable Clean Energy

Explain how the proposed project advances the objectives of achieving a reliable, clean energy future that is consistent with meeting regional greenhouse gas reduction goals as established by the 2021 Act on Climate.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

7.6 Eligible Renewable Energy Resource

Provide documentation demonstrating that the project will be qualified as an eligible renewable energy resource conforming to R.I.G.L. § 39-26-5.

[redacted]

7.7 Claims or Litigation

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

[redacted]

7.8 Emissions Profile

Describe any investments that will be included with your facility to improve its emissions profile.

[redacted]

Ørsted's Sustainability Initiatives

Ørsted's vision is a world that runs entirely on green energy. Ørsted develops, constructs, and operates offshore and onshore wind farms, solar farms, energy storage facilities, and bioenergy plants. Over the past 15 years, Ørsted has undergone a transformation from a fossil-fuel based energy company to a global leader in renewable energy, divesting its oil and gas business in 2017. Ørsted's aspiration is to become the world's leading green energy provider by 2030 by accelerating our global build-out of renewable energy, with the ambition to reach up to 38 GW of installed capacity by 2030.

Ørsted has also joined the Science Based Target Initiative (SBTi) Corporate Engagement Program to help develop targets for the environment that are aligned with scientific demands. Across industries, Ørsted uses shared tools and guidance to understand and measure Ørsted's impact and dependencies on biodiversity, land, water, and the ocean, and for stakeholders to hold Ørsted accountable.

In October 2021, SBTi launched its Corporate Net-Zero Standard, which provides a credible and independent assessment of whether companies with net-zero targets align their near- and long-term climate action with limiting global warming to 1.5°C. Ørsted is proud to be the first energy company—and one of only seven companies worldwide—to have a firm target to reach net-zero emissions across the full value chain (Scopes 1-3) by 2040, approved by the SBTi in 2021. This is a decade earlier than the 2050 global target for net-zero emissions.

Ørsted has been consistently ranked as the world's most sustainable energy company in Corporate Knights' Global 100 index of most sustainable corporations since 2019.[3] Ørsted aspires to be a globally recognized sustainability leader and to accelerate its efforts to operate in an even more sustainable way.

[3] Ørsted ranked the world's most sustainable energy developer (orsted.com)

Since 2006, Ørsted has reduced Scopes 1 and 2 emissions intensity by 87%. Ørsted is well on track to become carbon-neutral in energy generation and operations (Scopes 1–2) by 2025, and we will see our greenhouse gas emissions intensity reduced by at least 98% compared with 2006 levels.

Ørsted's next decarbonization frontier is to become net-zero in 2040 across the full value chain, which is why we established a supply chain decarbonization program two years ago. Ørsted's efforts are centered around three strategic pillars: 1) measurement and reporting; 2) supplier engagement; and 3) cross-sector collaborations, discussed in more detail below:

In 2021, Ørsted announced an immediate ban on the landfilling of wind turbine blades for which there is a lack of widely available recycling solutions. As part of a push towards a more circular use of resources, Ørsted has committed to reusing or recycling all decommissioned blades.

Ørsted recognizes that construction and generation of renewable energy can affect the environment. In 2021, we announced our ambition to deliver a net-positive impact on biodiversity across all renewable energy projects commissioned from 2030, at the latest. In addition to avoiding and minimizing negative impacts on biodiversity, we want to ensure that our renewable energy installations contribute positively to biodiversity.

We aspire to catalyze the transition towards a world that runs entirely on green energy and to be the preferred partner for customers, local communities, suppliers, and joint venture partners, enabling all stakeholders to realize the green transformation and its benefits. If awarded, the Project will promote delivery of Ørsted's decarbonization and sustainability goals.

Ørsted's approach to the Project is consistent with our commitment to transitioning to a clean energy future, and the Project will make a significant contribution toward Rhode Island's greenhouse gas reduction goals.

[redacted]

7.10 Biodiversity

In 2021, Ørsted announced its ambition for a net-positive impact on biodiversity for all its renewable energy projects commissioned by 2030 or later. [redacted]

[redacted]

[redacted]

Ørsted
Starboard Wind

Section 8

Engineering and Technology; Commercial Access to Equipment

8 Engineering and Technology; Commercial Access to Equipment

This section includes questions pertinent to the engineering design and project technology. This section must be completed for a project that includes new facilities or capital investments for both generation and transmission components, if applicable. Bidders should 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.

8.1 Preliminary Engineering Plan

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

i. Type of generation and transmission technology, if applicable

ii. Major equipment to be used

iii. Manufacturer of the equipment

iv. Status of acquisition of the equipment

v. Whether the bidder has a contract for the equipment. If not, describe the bidder's plan for securing equipment and the status of any pertinent commercial arrangements

vi. Equipment vendors selected/considered

vii. History of equipment operations

viii. If the equipment manufacturer has not yet been selected, identify in the equipment procurement strategy the factors under consideration for selecting the preferred equipment

ix. How the proposed equipment adheres to the domestic supply rules set forth in the Build America, Buy America Act.

[redacted]

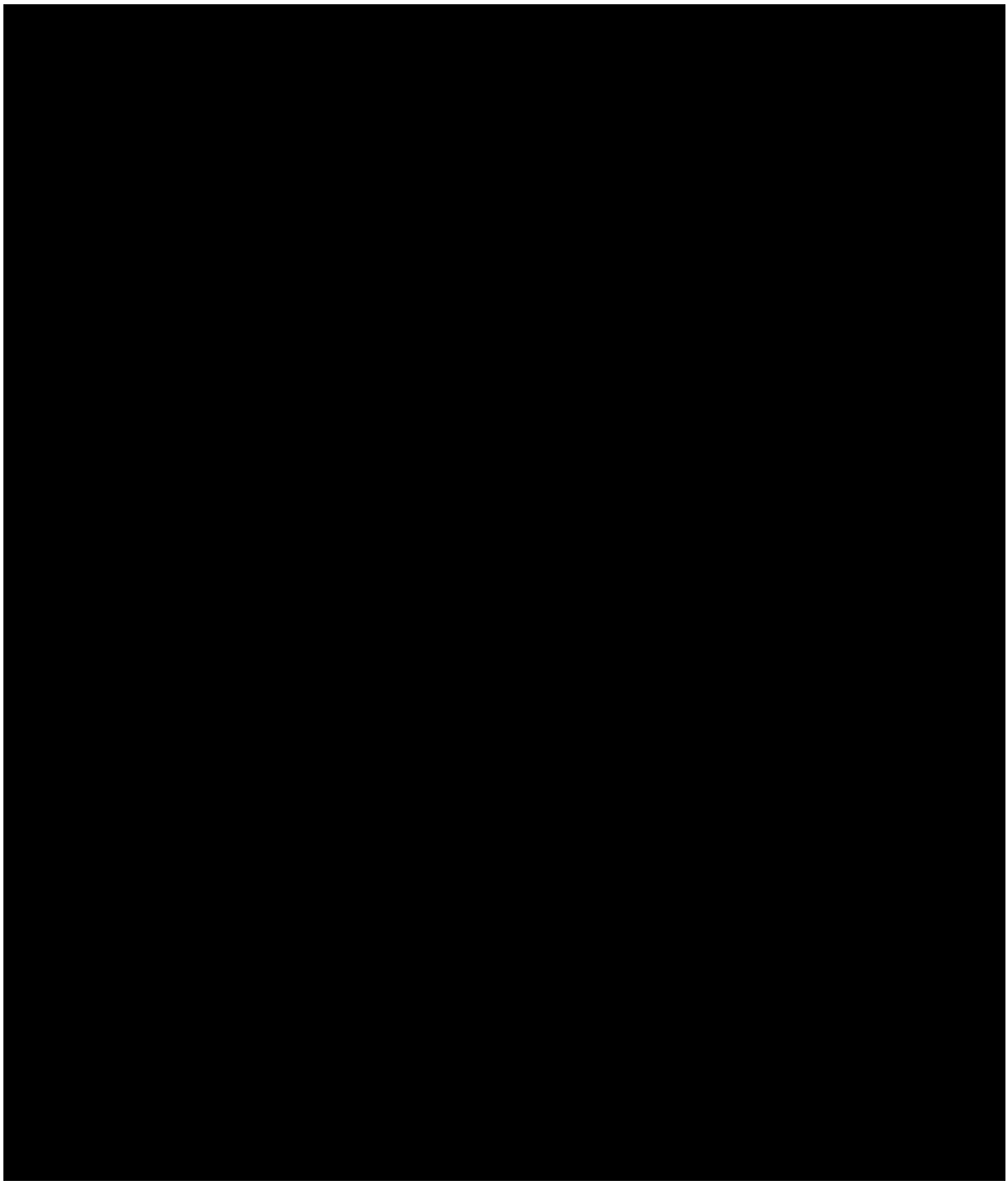
The Project is an 1,184-MW offshore wind facility that will interconnect to the ISO-NE system at Brayton Point POI using HVDC transmission. The generation facilities will be constructed in Ørsted's offshore Lease Area described in Section 6.

[redacted]

[redacted]

The preliminary engineering plan for the Project is comprised of the key components described in Table 8.1.

[redacted]



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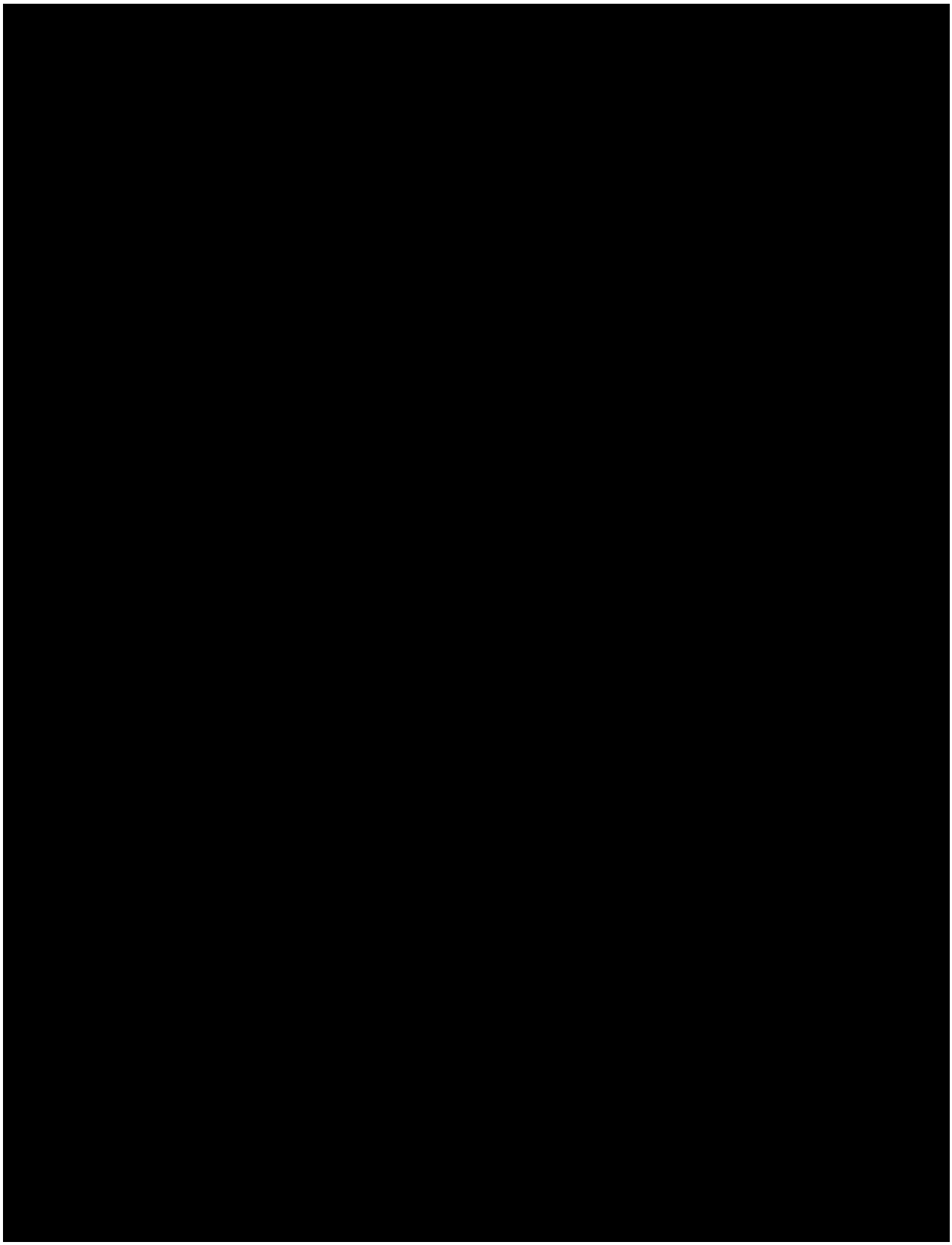


[redacted]

[redacted]

For additional information on 'Manufacturer of the equipment', 'Whether the bidder has a contract for the equipment' and 'Equipment vendors selected/considered', please see Section 8.2 and Table 8.3.

For further information on 'Equipment procurement strategy', please see Section 8.6.

Please see Section 5 for a discussion of domestic supply rules in the Build America, Buy America Act in relation to the Project.

8.2 Key Equipment Suppliers

If the bidder has not yet selected the major equipment for a project, please provide a list of the key equipment suppliers under consideration, and how the bidder plans to mitigate the risks of long-lead items on the schedule and cost volatility on the financial viability of the project.

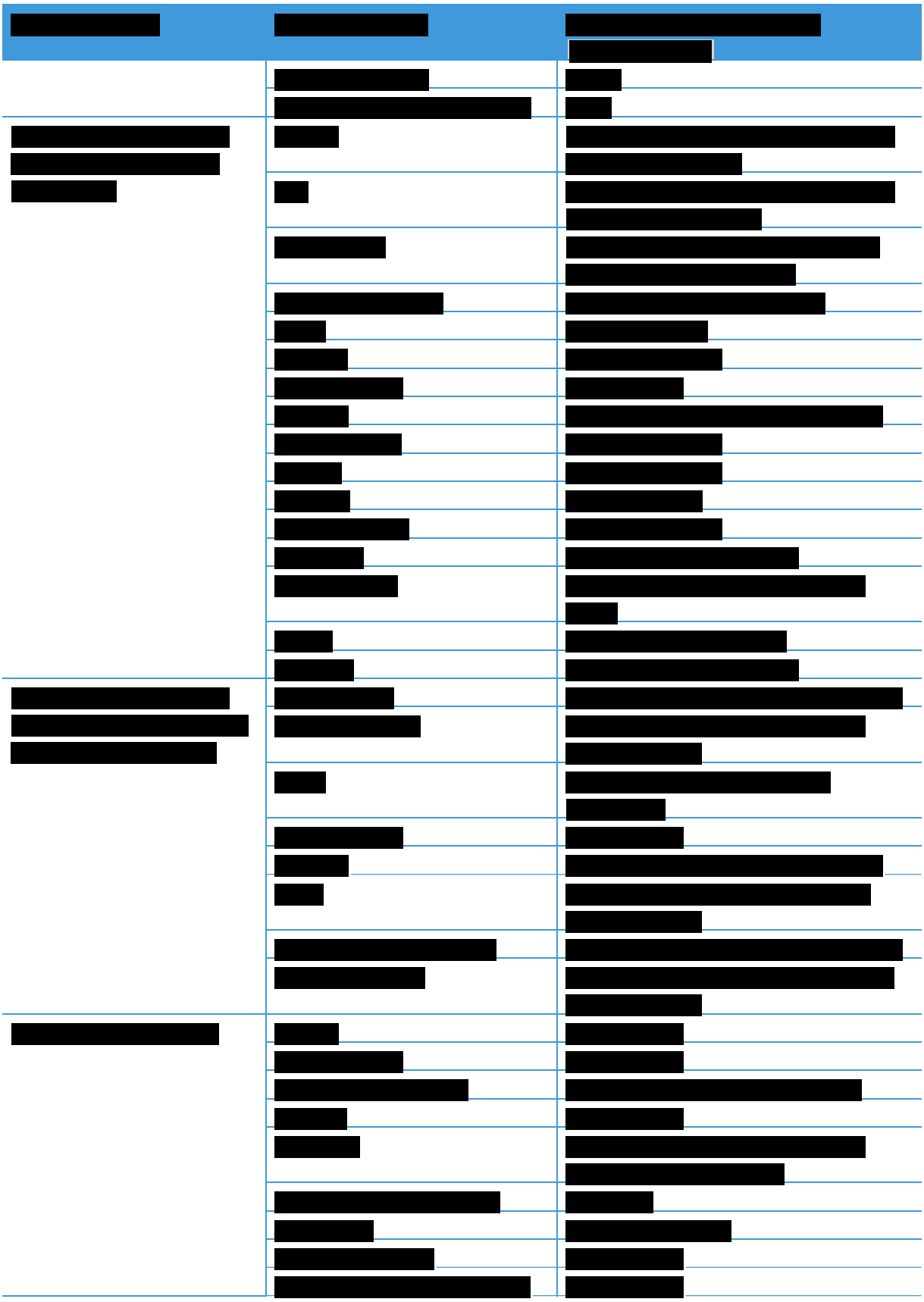
[redacted]

[redacted]

[redacted]

[redacted]

[redacted]



[redacted]

8.3 Manufacturer Installations

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

[redacted]

[redacted]

8.4 Technology Status

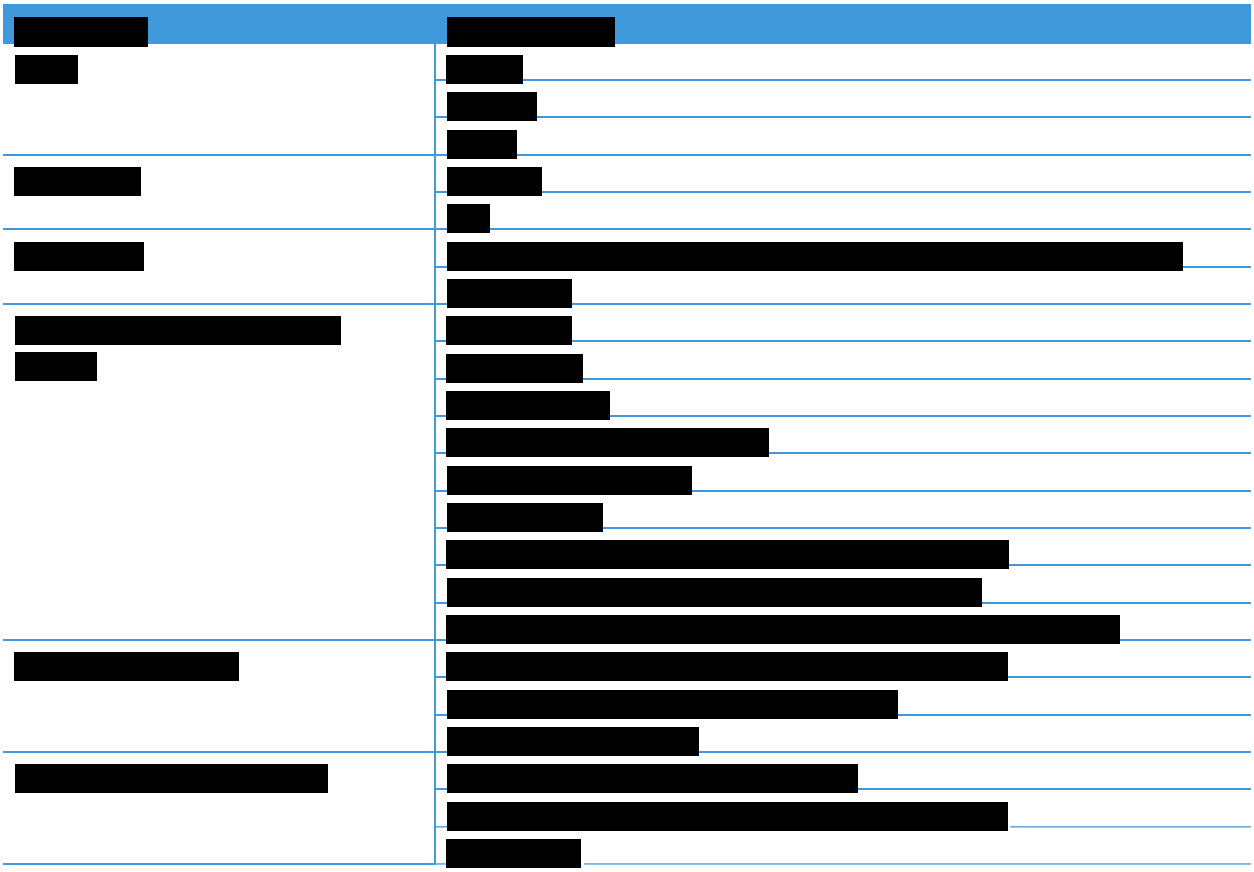
For less mature technologies, provide evidence (including identifying specific applications) that the technology to be employed for energy production is ready for transfer to the design and construction phases. Also, address how the status of the technology is being considered in the financial plan for the project.

[redacted]

8.5 Equipment List

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

[redacted]



8.6 Equipment Procurement

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

[redacted]

[redacted]

[redacted]

[redacted]

Ørsted
Starboard Wind

Section 9

Project Schedule

9 Project Schedule

A bidder must demonstrate that its proposal can be developed, financed, and constructed and be technically viable within a commercially reasonable timeframe. The bidder is required to provide sufficient information and documentation that shows that the bidder's resources, process, and schedule are adequate for the acquisition of all real property rights, permits and approvals for all aspects of the project and for the financing of the project consistent with the proposed project milestone dates.

Bidders are required to provide a complete critical path schedule for the project from the notice of selection of the project for contract consideration to the start of commercial operations. For each project element, list the start and end date.

[redacted]

[redacted]

Table 9.1: Summary of Ørsted's Offshore Wind Project Management Experience

Project Stage	Number of Wind Farms	Combined Capacity	Combined Number of Turbines
Fully commissioned	28	10,454 MW	[redacted]
Under construction	2	1,166 MW	105
FID	3	4,432 MW	323

9.1 Schedule and Critical Path

Identify the elements on the critical path. The schedule should include, at a minimum:

i. Acquisition of all required real property rights necessary for construction and operation

ii. Receipt of all permits necessary to construct and operate the facility

iii. Execution of interconnection agreement with ISO-NE and interconnecting utility

iv. Costing of construction financing

v. Major material purchase order/contract agreements in-place, including turbines, foundations, cables, and substations

vi. Major material delivery for use, including turbines, foundations, cables, and substations

vii. Vessel procurement and/or contracting

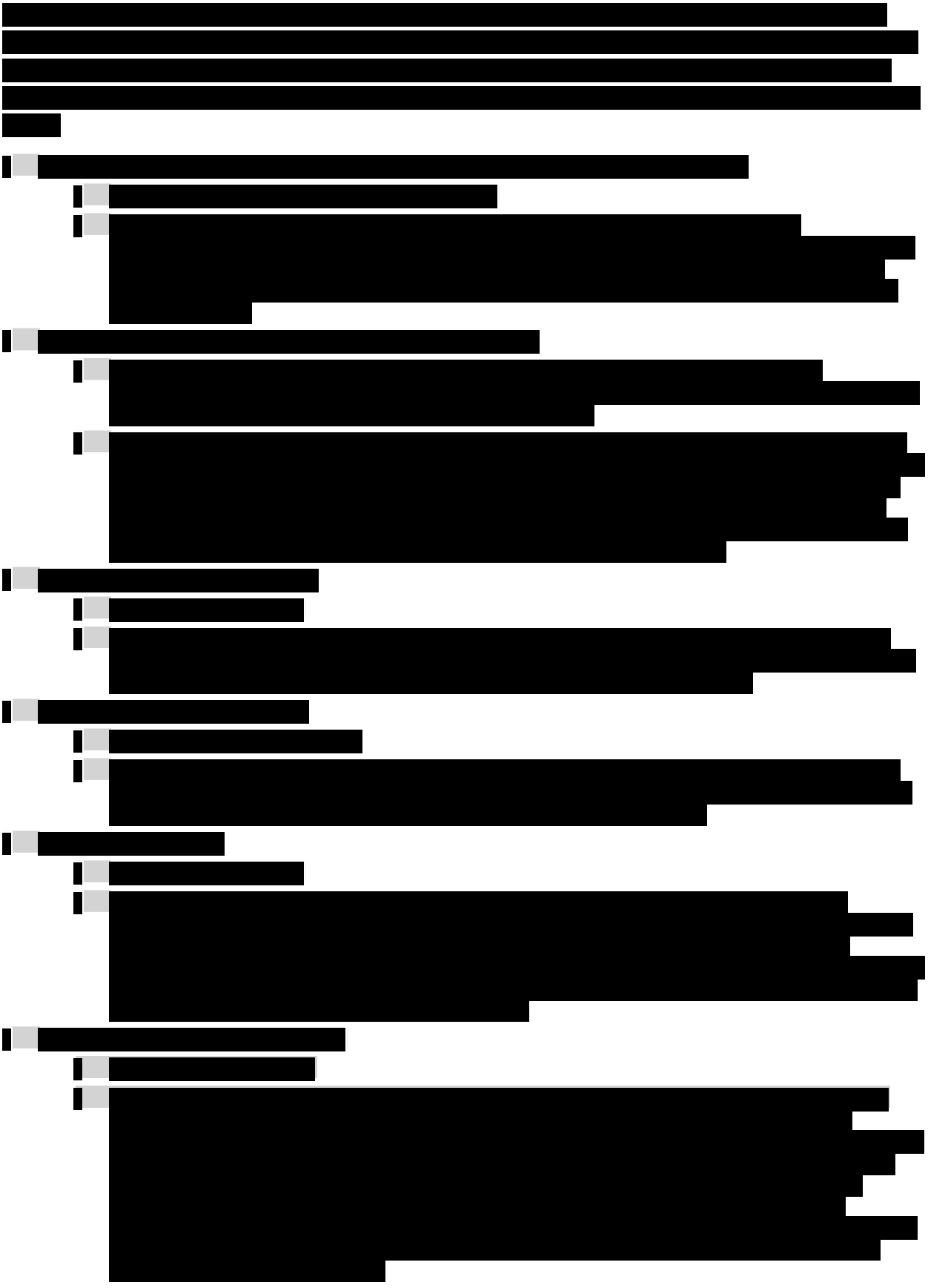
viii. Commencement of construction

ix. Commercial Operation Date

x. Any other elements that could influence the project schedule (e.g., adherence to Build America, Buy America Act)

Bidders must demonstrate that their projects have a credible operation date. The term "credible operation date" means the project is more likely than not to come on line by the date that is projected within the proposal, as evidenced by documents filed by a bidder show, at a minimum, the following:

- *material progress toward and plan for acquisition of all required real property rights*
- *commencement of and plan for permitting*
- *viable wind resource assessment*
- *Environmental Characterization*
- *viable financing plans*
- *evidence of material vendor activity*
- *viable Construction and Logistics Plan for offshore and onshore work*



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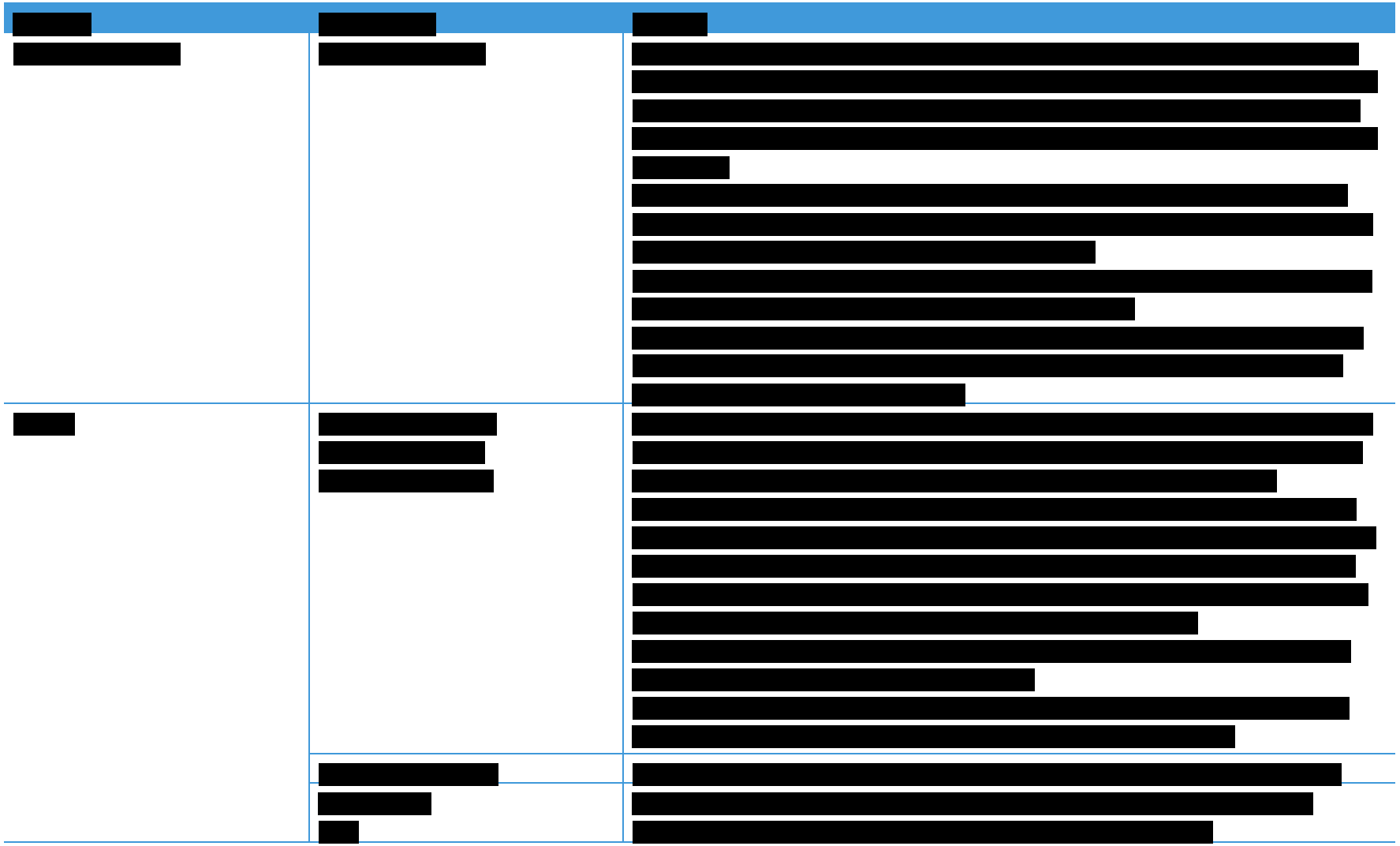

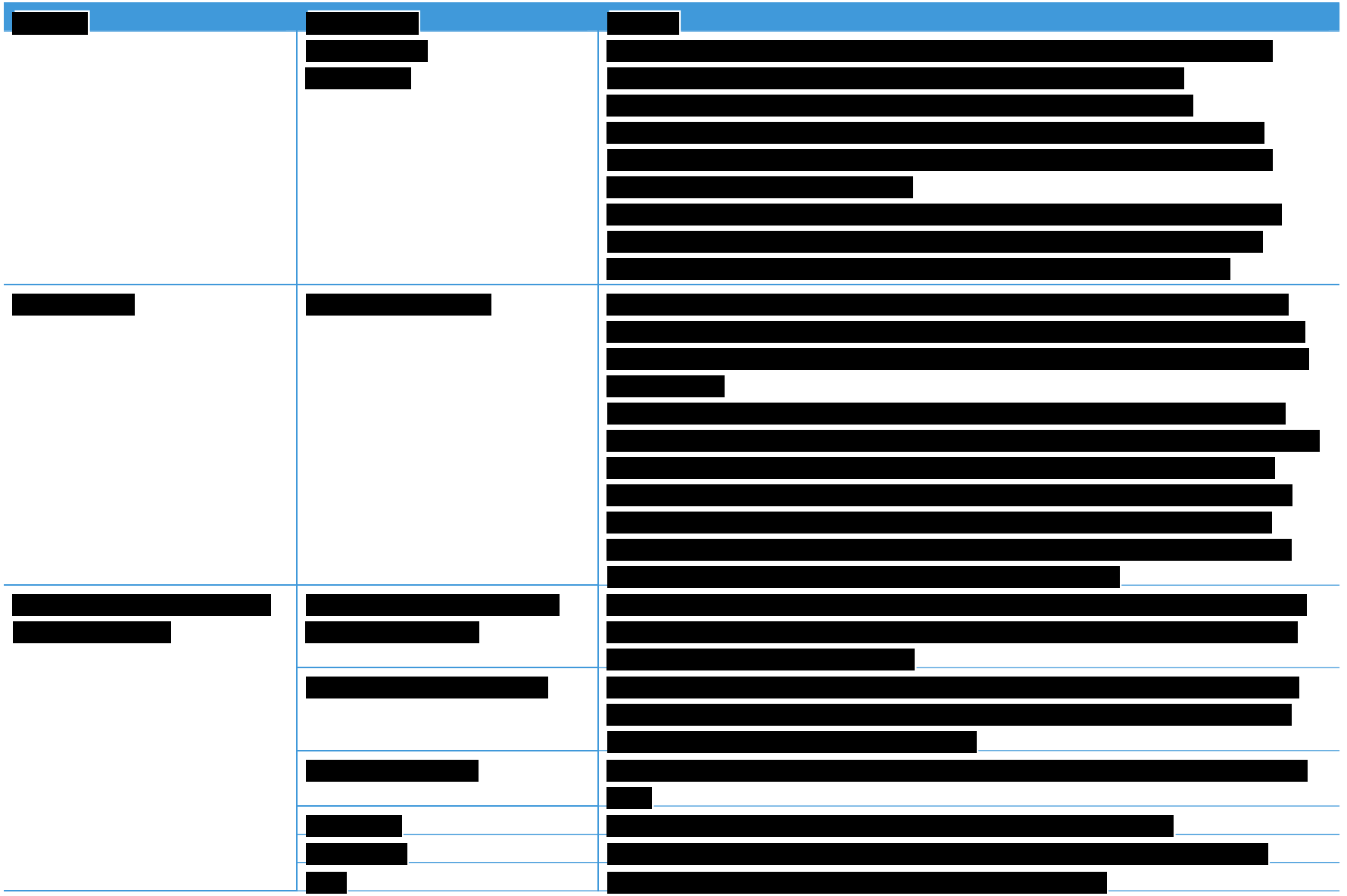

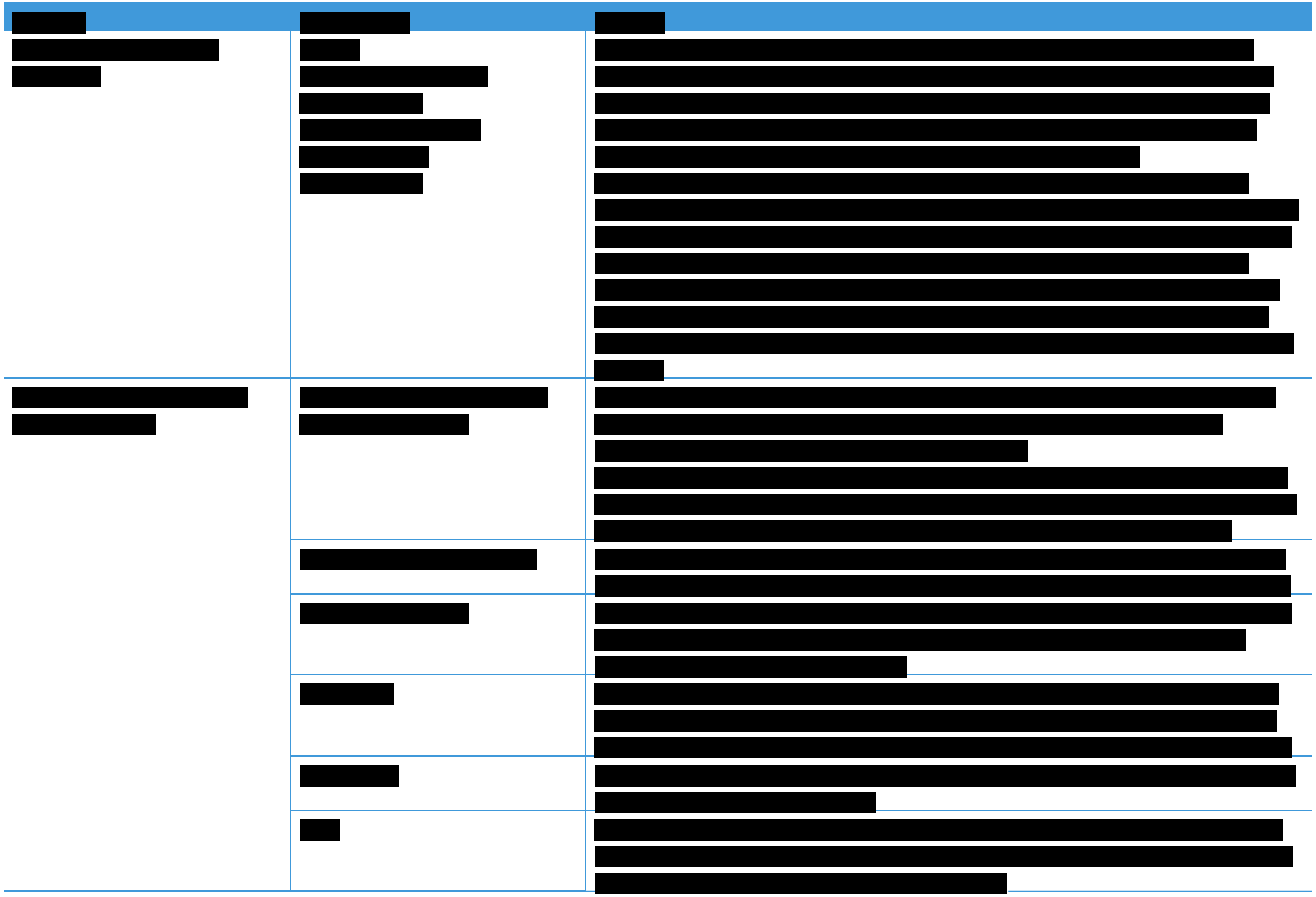

9.2 Schedule Volatility

Describe what mechanisms the bidder will utilize to mitigate lead time volatility, in order to better meet the project schedule.

[redacted]

[redacted]

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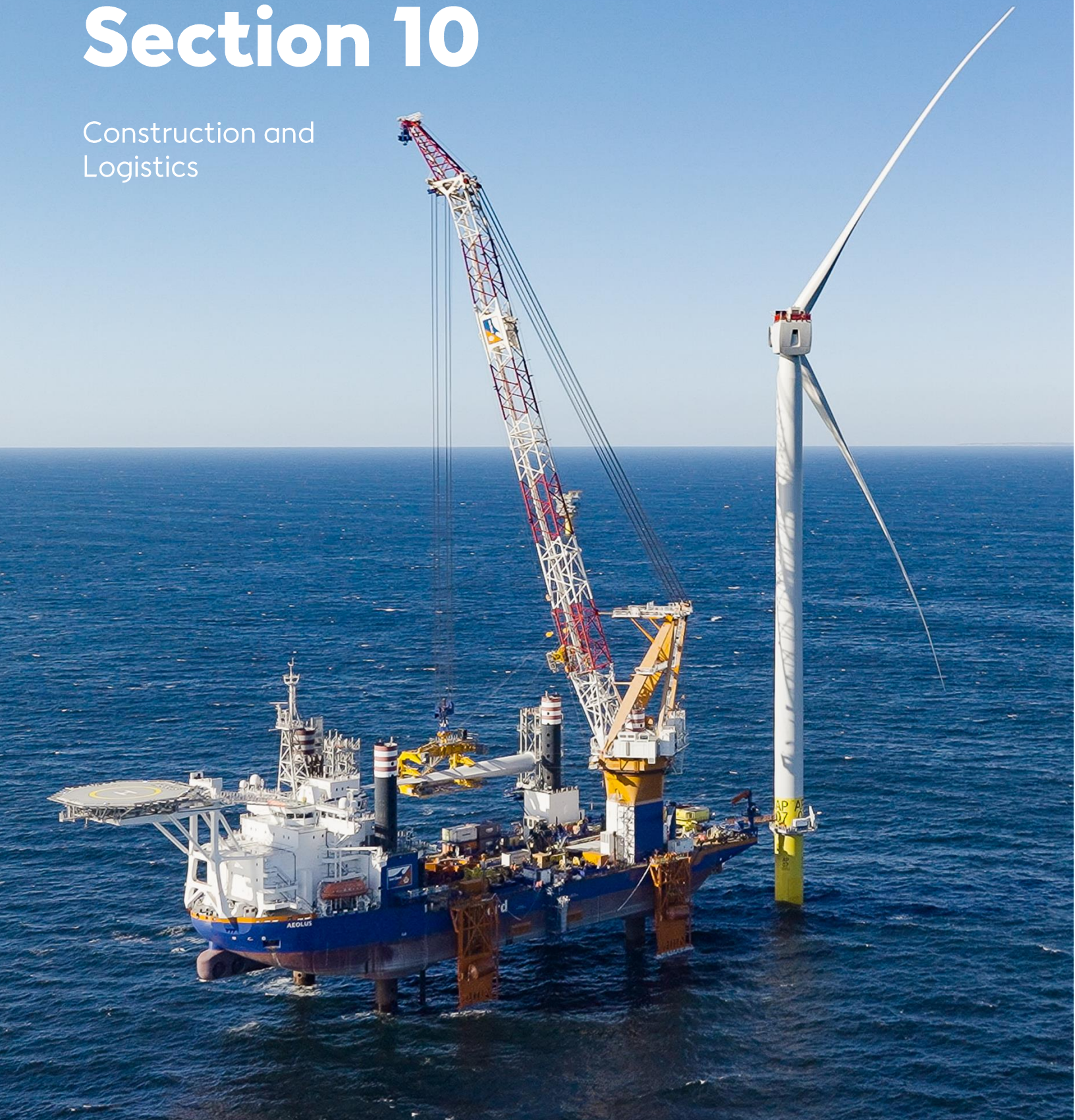
Section 10

Construction and Logistics



10 Construction and Logistics

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 delivery facilities support structures, and other major components associated with delivery facilities and, and the storage facility (as applicable). Please provide a construction plan that captures the following objectives:

[redacted]

[redacted]

[redacted]

- Section 10.1: Major tasks associated with project deployment
- Section 10.2: Contractor management
- Section 10.3: Site control for facilities
- Section 10.4: Staging and deployment
- Section 10.5: Vessel availability

10.1 Major Tasks Associated with Project Deployment

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

[redacted]

[redacted]

10.2 Contractor Management

Please describe your general approach to contractor management, including how may contractor bid packages you plan on pursuing. Within each contractor bid package, explain who will be manufacturing, transporting, and installing the major equipment, including but not limited to the wind turbines, advanced foundation component, foundations, cabling, offshore substation, and onshore construction work. Please describe any current agreements for this project, and the approach for procuring the remainder.

[redacted]

[redacted]

10.3 Site Control for Marine Terminals and Other Waterfront Facilities

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

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

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, including the proposed timeline. Include these plans and the timeline in the overall project schedule. Provide any agreements, options, or other materials reflecting the bidder's efforts so far to secure real property rights (and any letters of intent to extent signed agreements are not in place).

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 Table 10.1 and described in greater detail below. [redacted]

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

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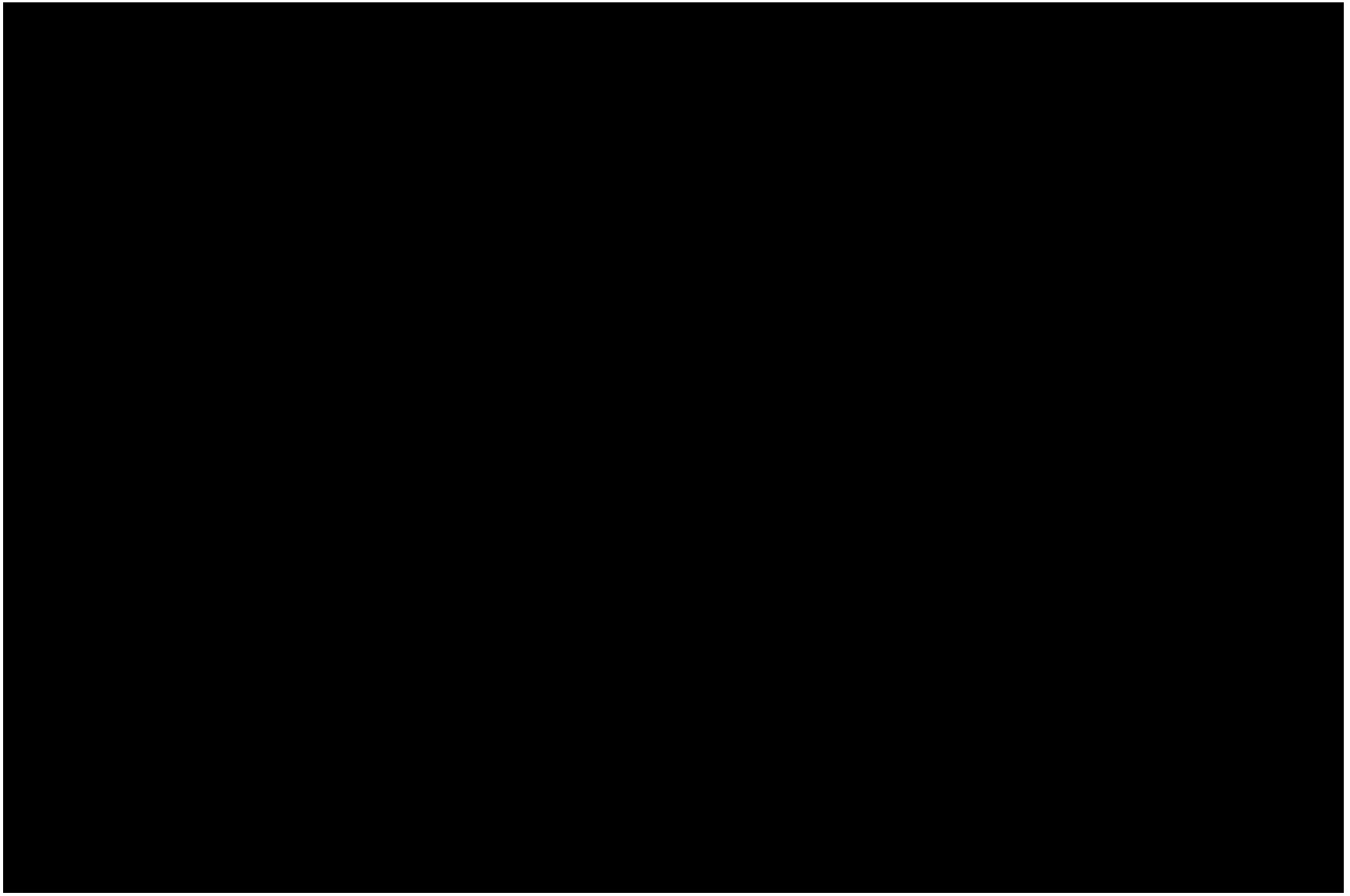

10.4 Staging and Deployment

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

[redacted]

[redacted]

[redacted]

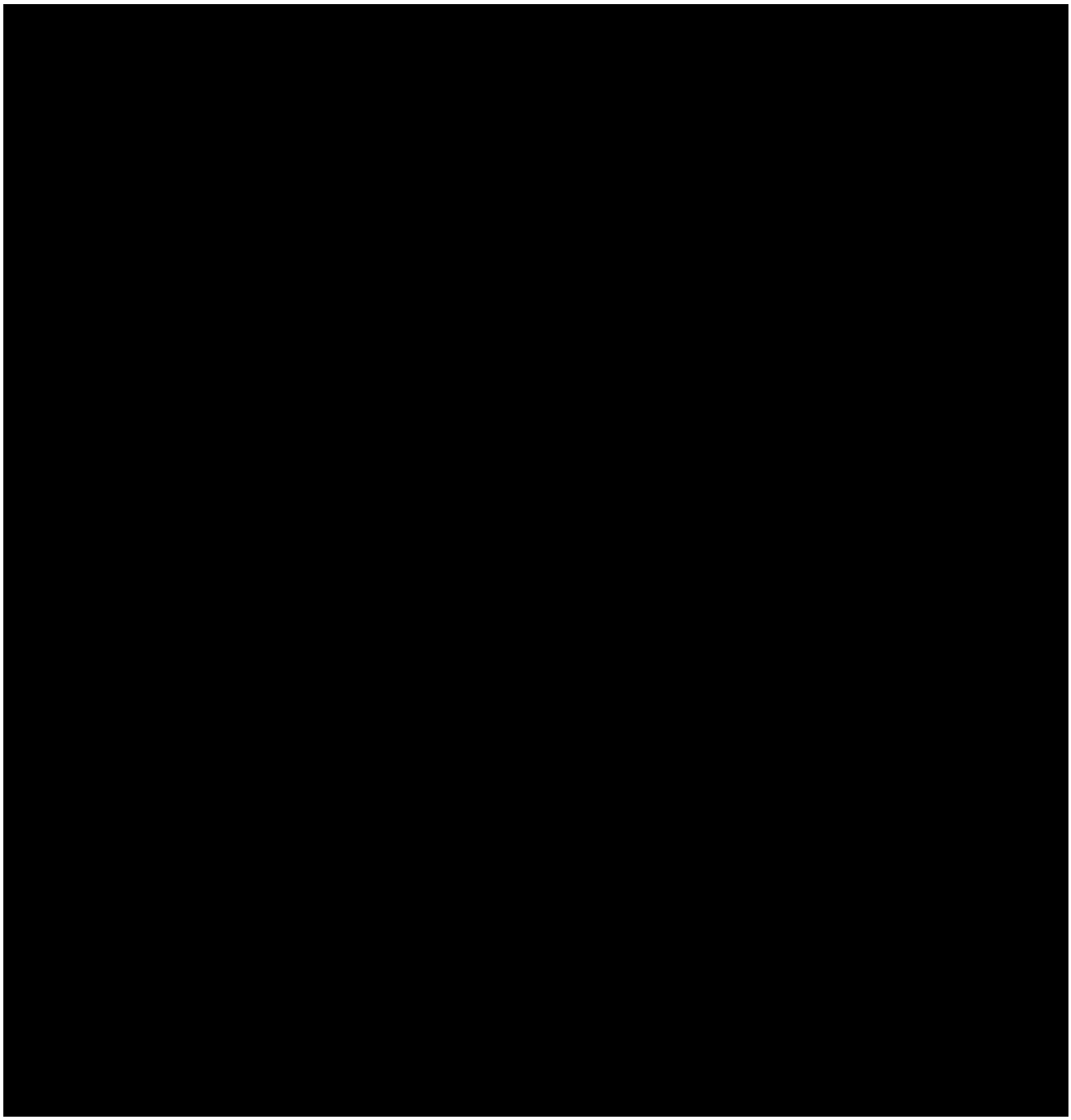

Figure 10.6: Tower Section in Pre-assembly at New London State Pier (South Fork Wind, 2023)

Figure 10.7: Towers and Blades Ready for Load-Out (South Fork Wind, 2023)

Figure 10.8: WTG Components Being Loaded Out at New London State Pier (South Fork Wind, 2023)

[redacted]

Figure 10.10: WTG Installation Vessel (South Fork Wind, 2023)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Figure 10.12: Representation of the First-Ever U.S.-Flagged, Jones Act-Qualified SOV (Constructed by Edison Chouest Offshore)

Figure 10.13: Construction of the First-Ever U.S.-Flagged, Jones Act-Qualified SOV

[redacted]

[redacted]

[redacted]

10.5 Vessel Availability

Please describe how you plan to mitigate the risk of project delays due to lack of availability of wind turbine installation vessels, as well as heavy lift vessels used for foundation and offshore substation installation.

[redacted]

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Section 11

Operations and Maintenance

11 Operations and Maintenance

Projects that can demonstrate that the operation and maintenance ("O&M") plan, level of funding, and mechanism for funding will ensure reliable operations during the term of the contract or the tariff are preferred.

Ørsted is the world's most experienced offshore wind operator, [redacted]

[redacted]

11.1 Operations and Maintenance Plan

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

Overview of the O&M Concept

[redacted]

11.2 Operations and Maintenance Funding

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

As described in Section 11.1 and elaborated on in Section 11.4, the O&M of this Project will be an integral, self-funded part of Ørsted's business for decades to come. [redacted] The financing of the overall Project is described in Section 5.

11.3 Warranty Terms/Equipment Guarantees

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

[redacted]

11.4 Operations and Maintenance Agreements

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

As described in Section 11.1, Ørsted will self-operate the Project, and it is not anticipated that this will change within the lifetime of the Project.

11.5 Operations and Maintenance Experience

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

Ørsted is an offshore wind operator with an unparalleled amount of experience both technically and geographically. Ørsted was the world's first company to commission an offshore wind farm, doing so in Vindeby, Denmark, in 1991. In 2023, the company still has the most capacity operated in the world, operating almost 2,000[1] turbines in 28 offshore wind farms in Europe, the U.S., and Taiwan.

- Longest experience: continuous operation of offshore wind farms since 1991
- Most offshore wind farms operated: 28 assets in Denmark, Germany, the Netherlands, the UK, Taiwan, and the U.S.
- Most capacity operated: 10,454 MW
- World's largest offshore wind farm operated: 1,386 MW (Hornsea 02)

Additional details on Ørsted's experience in development and operation of offshore wind projects are provided in Section 12.

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Section 12

Project Management / Experience

12 Project Management/Experience

Bidders are required to demonstrate project experience and management capability to successfully develop (for a project that includes new facilities or capital investment) and operate the project proposed, Rhode Island Energy is particularly interested in project teams that have demonstrated success in projects of similar type, size and technology and, for projects that include new facilities or capital investment, can demonstrate an ability to work together effectively to bring the project to commercial operation in a timely fashion.

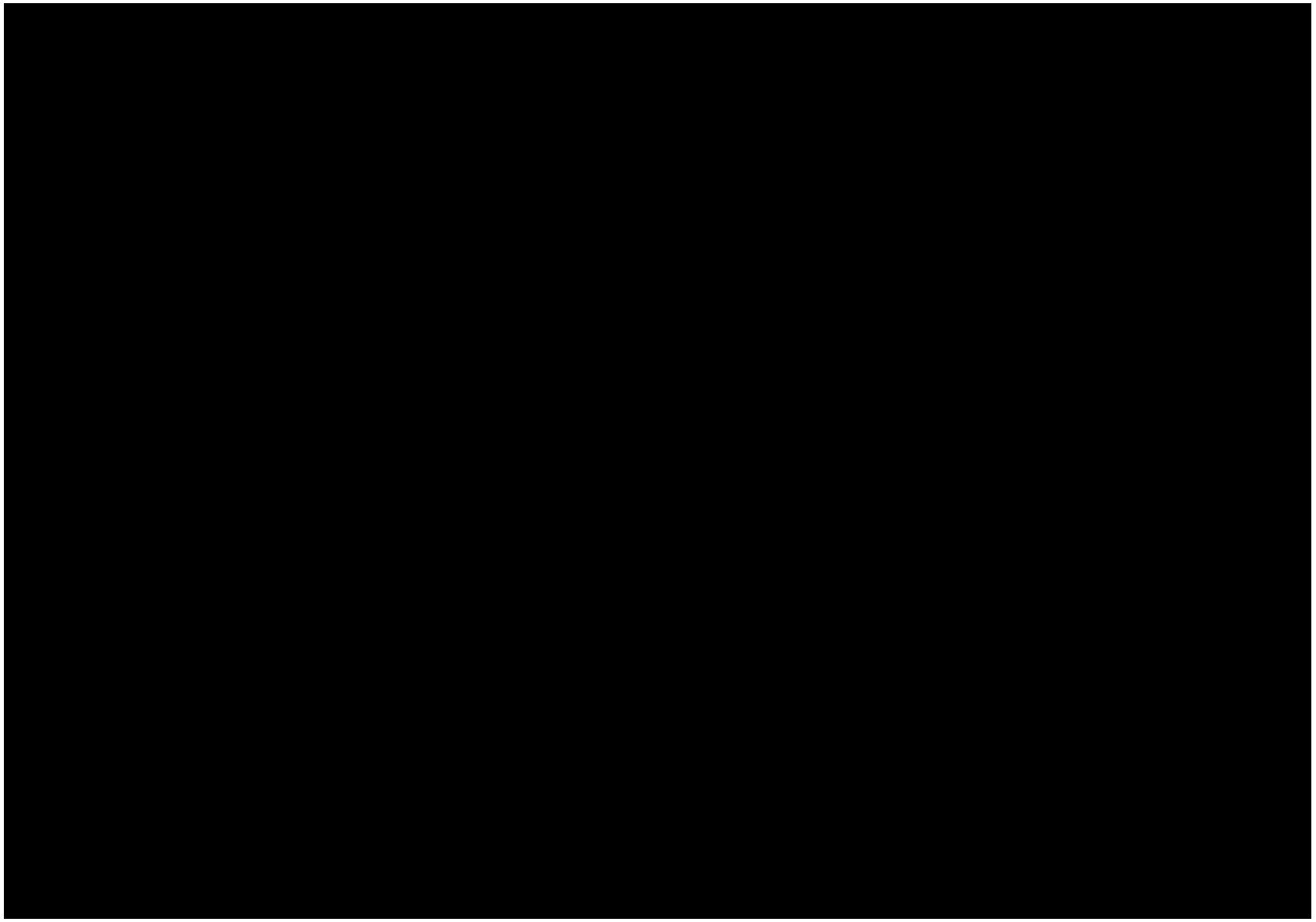
Ørsted is the largest offshore wind developer in the U.S. with nearly 2 GW under contract on the East Coast and is equipped with unparalleled development experience in the U.S. market. We are the owner and operator of the first offshore wind farm in the U.S. at Block Island, and we have successfully completed construction on South Fork Wind, the first utility scale offshore wind farm in the U.S. Additionally, we have started construction on Revolution Wind, and we are developing Sunrise Wind. [redacted]

12.1 Project Organizational Chart

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

[redacted]

The Project management structure and development organization is provided in Figure 12.1 below. Details related to corporate structure can be found in Section 5. Once construction of the Project commences, some roles will be exchanged with people specialized in project execution. [redacted] and similarly for other roles.



12.2 Development, Financing, Ownership, and Operating Experience

For a project that includes new facilities or capital investment, provide statements that list the specific experience of the bidder and each of the project participants (including, when applicable, the bidder, partners, EPC contractor and proposed contractors), in developing, financing, owning, and operating generating or transmission facilities (as applicable), other projects of similar type, size and technology, and any evidence that the project participants have worked jointly on other projects.

Section 5 details Ørsted's prior experience in developing, financing, owning, and operating projects of similar scope and scale. Additionally, detailed accounts and tables describing Ørsted's project experience are listed in Section 12.5.

12.3 Key Personnel

Provide a management chart that lists the key personnel dedicated to this project and provide resumes of the key personnel. For Eligible Facilities that are not yet in-service, key personnel of the bidder's development team having substantial project management responsibilities must have:

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

ii. For a project that includes new facilities or capital investment, experience in financing power generation projects (or have the financial means to finance the project on the bidder's balance sheet)

Key personnel directly involved in the management of this Project are identified in Table 12.1 below and resumes are provided in Attachment 12-1. [redacted]

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
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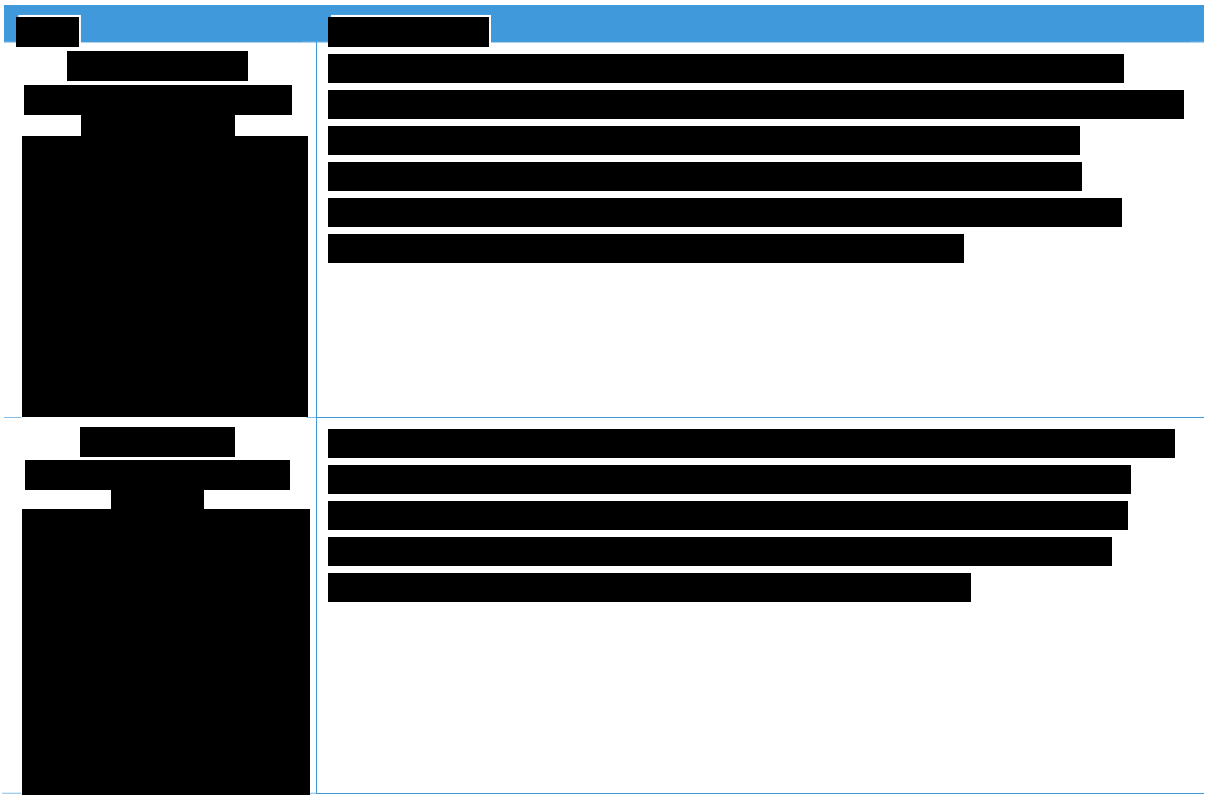

12.4 Project Experience

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

i. Name of the project

ii. Location of the project

iii. Project type, size, and technology

iv. A description of the role the bidder had in the project, including if they still currently own and have a role in the operations of each facility

v. Commercial operation date

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

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

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

[redacted]

Bay State Wind has secured several contracts to construct more than 1,700 MW of offshore wind in the Northeast:

- South Fork Wind will supply 132 MW to New York and is fully operational.
- Revolution Wind will supply 704 MW of clean energy to both Rhode Island (400 MW) and Connecticut (304 MW); FID was taken in Q4 2023, and COD is expected in 2025.
- Sunrise Wind will supply 924 MW to New York with an anticipated COD in 2026.

See further details in Table 12.2 below.

Table 12.2: Bay State Wind LLC Project Experience[1]

Project[1]	Location	Description	[redacted]	Role	Commercial Operation Date	Status
U.S.						
Sunrise Wind (New York)	Rhode Island-Massachusetts WEA/Massachusetts WEA / New York	Offshore Wind	[redacted]	Develop, construct, operate, and own	2026	Under Contract
Revolution Wind (Rhode Island)	Rhode Island-Massachusetts WEA / Rhode Island	Offshore Wind	[redacted]	Develop, construct, operate, and own	2025	Under Contract
Revolution Wind (Connecticut)	Rhode Island-Massachusetts WEA / Rhode Island	Offshore Wind	[redacted]	Develop, construct, operate, and own	2025	Under Contract
South Fork Wind (New York)	Rhode Island-Massachusetts WEA / New York	Offshore Wind	[redacted]	Develop, construct, operate, and own	2024	First power achieved 2023; COD expected Q1 2024

[1] Estimated capacity factor, actual capacity factor, and availability factor data for the past three years is not applicable.

[1] All Project team members listed in Section 12.6 have contributed in some manner to the projects listed in Table 12.2. More details can be provided upon request.

[redacted]

The Industry Leader

Ørsted is the world's first, largest and most experienced developer. With nearly 2,000 turbines at sea, we operate more offshore wind farms than any other company in the world. Going beyond the delivery of clean energy, Ørsted has championed the responsible build out of the offshore wind industry through a dedication to sustainability that is unparalleled. This industry leadership has been recognized through various awards and titles, such as being named on the CDP Climate Change A List and being the first energy company in the world to have its science-based net-zero emissions target validated by the SBTi. Most recently (January 2024), Ørsted was ranked the world's most sustainable energy developer on the Corporate Knight's Global 100 index.[2] Corporate Knights benchmarks a company's sustainability performance against its usual peers and across sectors, and we are proud to lead the industry by furthering the build out of renewable energy, in a sustainable way.

As the global industry leader in offshore wind, we have significant experience with the rigors and challenges of the offshore wind business. Ørsted currently has 27.8 GW total installed, under construction, and awarded renewable energy capacity (see Figure 12.2). Our existing activities span several markets across North America, Europe, and Asia Pacific. As a result, Ørsted is well practiced in adapting to, and thriving within, complex regulatory, permitting, and political environments. As the first and largest offshore wind developer, Ørsted has paved the way for offshore wind to scale to its current size. Demonstrably, Ørsted, in just three decades, has helped grow offshore wind energy from a demonstration concept powering a few thousand homes in Denmark to a large-scale energy technology that now powers millions across the world.

[2] https://orsted.com/en/media/news/2024/01/oersted-ranked-the-worlds-most-sustainable-energy--13770950#:~:text=Today%2C%20%C3%98rsted%20was%20ranked%20the,index%20for%20the%20fifth%20time.

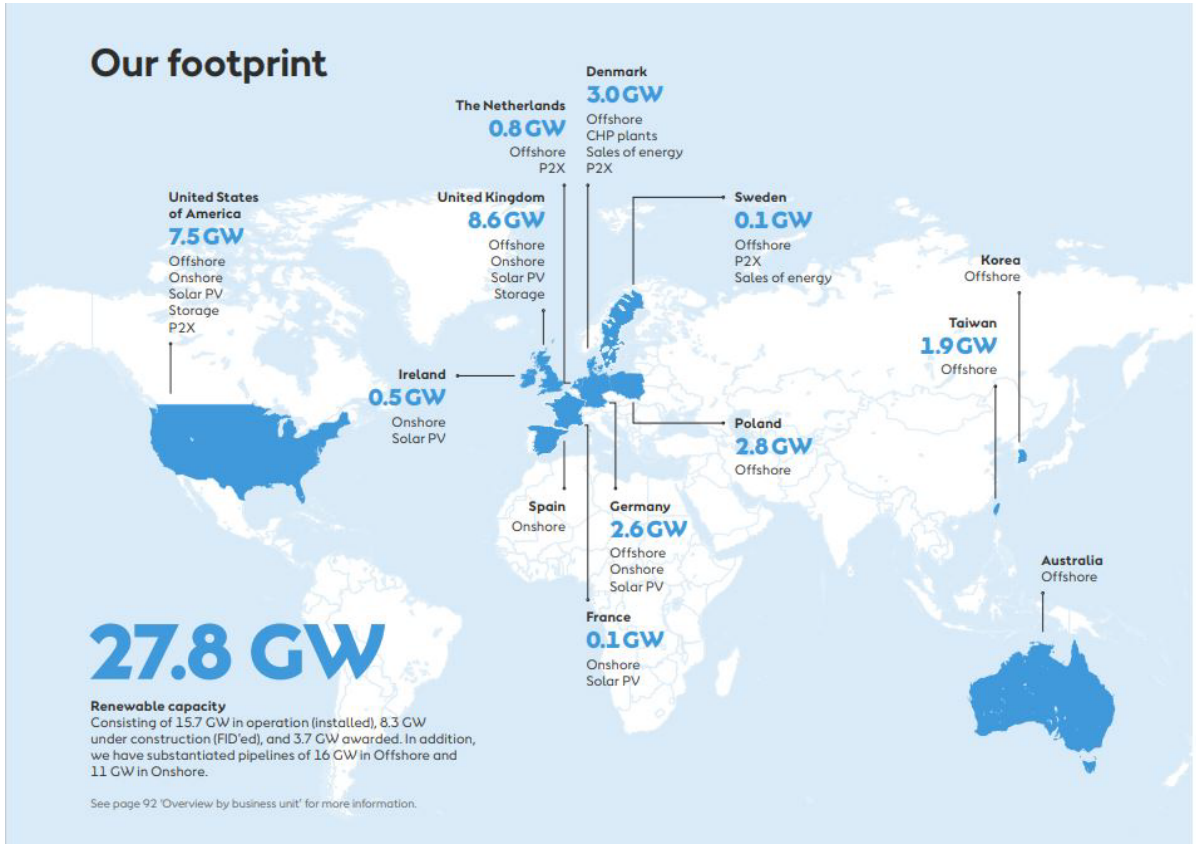

Figure 12.2: Our Global Footprint[3]

[3] https://orstedcdn.azureedge.net/-/media/annual-report-2023/orsted-ar-2023.pdf?rev=526307f68e2047b3a1df8dd2cdf719ec&hash=E6069E12C1792AD620FA12898587394C

We believe that clean energy goes hand-in-hand with long term benefits for communities, economies and the environment. Done right, the build-out of renewable energy can be a force for social justice, with the power to fundamentally reshape how our societies look and operate. At the core of our work, we have robust human rights practices in place across our entire business. That includes our own operations, our supply chains, and the communities where we are present. Beyond our core focus on human rights, we have dedicated sustainability programs that involve supporting thriving communities where we build and operate our renewable energy assets, developing skills and talent for the industry, and promoting a diverse, equitable and inclusive energy sector. In the U.S, we are providing job training, student scholarships, and supportive services that lead workers directly to high-quality careers. Through our union commitments and workforce development programs, Ørsted is setting high standards for clean energy jobs and bringing new opportunities to communities across the U.S.[4]

As the first offshore wind developer, Ørsted has been involved in scaling local offshore wind industries for the last three decades. Offshore wind is a job creator, both in the construction phase and the +30-year operational phase. Ørsted has throughout its existence worked closely with the supply chain of offshore wind to establish production facilities and O&M facilities in the countries where we operate. In the U.S. alone, Ørsted has invested billions in building out the supply chain and infrastructure needed to support clean energy projects. We want the benefits of our projects to reach beyond the states where they operate, supporting manufacturers, suppliers, and small business owners across the country. On a global scale, Ørsted is recognized as a leader in responsible tax practices and tax transparency. This supports our ambition to help build green energy in a way that gives back to society. Tax contributions are a key part of the positive social and economic impact we can make as a business. They help the local economies in which we operate to deliver valuable public services, such as healthcare, education, emergency services and transport, and build the infrastructure that allows communities to thrive. By being a responsible taxpayer and engaging with policymakers to support robust tax regulations, we support well-functioning societies, institutions, and regulations that are conducive to both people and business.

As a global sustainability leader[5] with a strong commitment to protect biodiversity, we have pledged to deliver a net-positive biodiversity impact from all new renewable energy projects we commission from 2030, at the latest. To do so, we collaborate with leading conservation experts and local communities to deliver clean energy projects that support natural ecosystems. Importantly, our commitment goes further than mitigating direct impacts on local ecosystems – we strive to help enhance and restore biodiversity in these environments. For example, we have donated more than $2 million to The Conservation Fund and The Nature Conservancy, and together with the local community, we are conserving and restoring up to 3,000 acres of tallgrass prairie around our Sunflower Wind Farm in Kansas. Furthermore, in Texas, we have taken steps to preserve almost 1,000 acres of the tallgrass prairie that grows around our Mockingbird Solar Farm.

[4] https://orsted.com/en/who-we-are/sustainability/green-transformation-that-works-for-people
[5] https://orsted.com/en/who-we-are/sustainability

Just over a decade ago, Ørsted was one of the most coal-intensive power utilities in Europe. Today, we are a global leader in the transition to green energy. Since developing the very first offshore wind farm, we have gone on to pioneer offshore wind in several new markets, creating jobs and economic development in the process. We are as committed as ever to leading the industry and enhancing how the build out of offshore wind can deliver a net-positive impact on surrounding communities, environments, and economies.

Exceptional Capabilities

As the driving force for offshore wind in the nation, Rhode Island deserves a partner with the most robust experience in delivering offshore wind. A partner who has scaled an industry, and in doing so, has learned the tough lessons necessary to refine and improve their operating model. As the industry leader, Ørsted is that partner for the Ocean State. Below are specific examples that illustrate our unparalleled experience in the build out of offshore wind.

- Ørsted remains the largest developer of offshore wind, with a healthy margin.
    - Ørsted currently operates a portfolio of 8.9 GW, compared to 4.9 GW for the next peer (outside mainland China).
- In 2023, Ørsted took FID on 5 GW of capacity, more than ever before.
    - Hornsea 03, (2,825 MW), the largest investment decision ever made in offshore wind.
    - Greater Changhua 2b and 4 (920 MW) off Taiwan.
    - Revolution Wind (704 MW) off Connecticut and Rhode Island.
    - Mockingbird Solar PV (471 MW).
    - Garreenleen Solar Farm (81 MW).
- We stay true to our vision and keep making tangible progress towards a world running entirely on green energy.
    - In 2022, we commissioned Hornsea 02, the largest offshore wind farm in the world.
    - In 2022, we took full ownership and FID on Flagship One, 70 MW, the largest e-methanol facility in Europe.
    - In 2023, we broke ground on Denmark's first Carbon Capture and Storage project, capturing a total of 430,000 tons biogenic carbon dioxide per year from 2026.
    - In 2024, we will finalize our coal phase-out.
- We are unwavering in our commitment to not just speed up deployment of renewable energy, but to also do it right.
    - We were the first energy company to have an SBTi-approved 1.5°C plan, and we are still on track to meet our short- and long-term goals.
    - For the fifth time, Ørsted was ranked the world's most sustainable energy developer[6] on the Corporate Knights' Global 100 index. Corporate Knights benchmarks a company's sustainability performance against its usual peers and across sectors.
    - In 2023, we were the first company ever to issue blue bonds, with a value of $100 million EUR, to support maritime protection and restoration projects in relation to our renewable energy projects.

[6] https://us.orsted.com/news-archive/2024/01/orsted-ranked-the-worlds-most-sustainable-energy-developer

- In 2022, Ørsted and North America's Building Trades Unions (NABTU) announced the first-of-its-kind PLA to construct offshore wind in the U.S. with an American union workforce.[7] Titled the National Offshore Wind Agreement (NOWA), it sets the bar for working conditions and equity, injects hundreds of millions of dollars in middle-class wages into the American economy, creates apprenticeships and career opportunities for communities most impacted by environmental justice, and ensures projects will be built with the safest and best-trained workers in America.
- In 2022, we obtained the Fair Tax Mark, becoming the first Danish multinational company to secure accreditation to the global gold standard of responsible tax conduct. Ultimately helping local economies where we operate to deliver valuable public services to their citizens.

Ørsted has the knowledge and experience, at every phase of offshore wind development, to design and implement solutions that are cost effective, tailored, and proven. To date, Ørsted has constructed 8.9 GW of offshore wind capacity, with another 19.2 GW installed, under construction, and awarded capacity, which is approximately 25% of global offshore wind capacity. In the U.S., Ørsted has helped Rhode Island pave the way for a new industry, and in doing so, has created well-paying jobs, invested in local communities, and delivered affordable energy to its residents. Detailed information regarding Ørsted's offshore wind portfolio is provided in Table 12.3. References are provided in Table 12.4.

U.S. Experience

In 2018, Ørsted acquired Deepwater Wind, the company that developed the nation's first offshore wind farm off Block Island, Rhode Island. The Deepwater Wind team gained invaluable experience working with regulators, stakeholders, suppliers, and U.S. construction contractors through the development and delivery of the Block Island Wind—experience and insights that are now part of Ørsted.

Ørsted is leading the buildout of an American offshore wind energy supply chain with nearly $2 billion of investment. New and expanded manufacturing facilities, port and shipyard development, and the creation of innovative clean energy technologies now span more than 40 states. Our U.S. team of over 700 employees is leading a stakeholder-centric approach to clean energy development that has made our company the go-to partner for states spanning the East Coast, as they seek to develop offshore wind resources and reach their climate targets.

In 2020, Ørsted completed its work supporting the EPC for Coastal Virginia Offshore Wind, a pilot project of Dominion Energy delivering power to Virginia. Ørsted is actively developing several projects in the Northeast, totaling 1,760 MW. Specifically, the South Fork Wind project achieved first power in late 2023, while the Revolution Wind project received FID in October 2023 and is in active construction as well. Sunrise Wind recently received its Final EIS from BOEM, a major federal permitting milestone for the project to move forward.

Additionally, Ørsted continues to grow its land-based renewable portfolio with 13 wind farms in operation across the U.S., delivering over 3,200 MW of clean power to over 800,000 American homes.

[7] https://us.orsted.com/news-archive/2022/05/national-offshore-wind-agreement

Table 12.3: Ørsted Project Experience

Project	Location	Description	Size and Project Technology	Commercial Operation Date	Status	Capacity Factor (Estimated)[1]			Capacity Factor (Actual)			Availability Factor (Actual)[2]		
						2020	2021	2022	2020	2021	2022	2020	2021	2022
U.S.														
Skipjack Wind	Maryland	Offshore Wind	966 MW; [redacted]	[redacted]	Under Development	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sunrise Wind	New York	Offshore Wind	924 MW; [redacted]	2026	Under Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Revolution Wind	Rhode Island / Connecticut	Offshore Wind	304 MW + 400 MW; [redacted]	2025	Under Construction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Fork Wind	New York	Offshore Wind	132 MW; [redacted]	2024	In Operation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Coastal Virginia Offshore Wind	Virginia	Offshore Wind	12 MW; Siemens Gamesa SWT-6.0-154	2020	In Operation[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Block Island Wind	Rhode Island	Offshore Wind	30 MW; GE 6 MW SWT	2016	In Operation	n/a	n/a	47.70%	45.5%	31.9%	41.8%	n/a	n/a	91.08%
Denmark														
Anholt	Kattegat	Offshore Wind	400 MW; Siemens Gamesa SWT-3.6-120	2013	In Operation	47.06%	47.61%	46.82%	52.1%	43.1%	47.3%	98.03%	96.59%	95.31%
Avedøre Holme	Øresund	Nearshore Wind	10.8 MW; Siemens Gamesa SWT-3.6-107/120	2009 / 2011	In Operation	n/a	n/a	n/a	39.9%	34.6%	38.6%	n/a	n/a	n/a
Horns Rev 1	North Sea	Offshore Wind	160 MW; Vestas V80-2 MW	2003	In Operation	n/a	n/a	n/a	30.7%	34.5%	38.7%	n/a	n/a	n/a
Horns Rev 2	North Sea	Offshore Wind	209.3 MW; Siemens Gamesa SWT-2.3-93	2010	In Operation	48.60%	49.85%	48.45%	44.7%	39.7%	44.3%	97.12%	96.61%	95.83%
Nysted	Fehmarnbel	Offshore Wind	165.6 MW; Bonus SWT 2.3-82	2003	In Operation	47.06%	47.61%	46.82%	32.5%	31.1%	28.6%	98.03%	96.59%	95.31%
Frederikshavn	Kattegat	Nearshore Wind	10.6 MW; Vestas V90-3.0, Nordex N90/2300, Bonus B82-2300	2003	Divested	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Middelgrunden	Øresund	Nearshore Wind	20 MW; Bonus B76/2000	2001	Divested	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vindeby	Smålandsfarvandet	Offshore Wind	4.95 MW; Bonus B35/450	1991	Decommissioned	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Germany														
Borkum Riffgrund West 3	North Sea	Offshore Wind	913 MW; [redacted]	[redacted]	Under Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gode Wind 3	North Sea	Offshore Wind	110 MW; [redacted]	[redacted]	Under Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Borkum Riffgrund 2	North Sea	Offshore Wind	450 MW; MVOW 8.3 MW-164	2018	In Operation	46.59%	46.34%	46.43%	38.7%	34.2%	33.1%	96.59%	97.72%	97.26%
Gode Wind 1	North Sea	Offshore Wind	330 MW; Siemens SWT 6.0-154	2016	In Operation	46.59%	46.34%	46.43%	38.9%	36.1%	35.1%	96.59%	97.72%	97.26%
Gode Wind 2	North Sea	Offshore Wind	252 MW; Siemens SWT 6.0-154	2016	In Operation	46.59%	46.34%	46.43%	38.6%	36.1%	35.1%	96.59%	97.72%	97.26%
Borkum Riffgrund 1	North Sea	Offshore Wind	312 MW; Siemens SWT 4.0-120	2015	In Operation	46.59%	46.34%	46.43%	39.5%	31.0%	29.2%	96.59%	97.72%	97.26%
Netherlands														
Borssele 1 & 2	North Sea	Offshore Wind	752 MW; Siemens Gamesa 8 MW	2020	In Operation	n/a	n/a	n/a	n/a	36,5%	57,8%	n/a	n/a	n/a
UK														
Hornsea 03	North Sea	Offshore Wind	2,800 MW; [redacted]	[redacted]	Under Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hornsea 02	North Sea	Offshore Wind	1,386 MW; SGRE-8.0-167	2022	In Operation	n/a	n/a	n/a	n/a	n/a	39.8%	n/a	96.01%	95.99%
Hornsea 01	North Sea	Offshore Wind	1,200 MW; SGRE-7.0-154	2020	In Operation	46.95%	46.79%	46.06%	48.0%	43.2%	47.2%	96.87%	96.01%	95.99%
Race Bank	North Sea	Offshore Wind	573 MW; SWT-6.0-154	2018	In Operation	46.95%	46.79%	46.06%	49.8%	42.6%	44.9%	96.87%	96.01%	95.99%

Project	Location	Description	Size and Project Technology	Commercial Operation Date	Status	Capacity Factor (Estimated)[1]			Capacity Factor (Actual)			Availability Factor (Actual)[2]		
						2020	2021	2022	2020	2021	2022	2020	2021	2022
Burbo Bank 1+2	Irish Sea	Offshore Wind	348 MW; SWT-3.6-107, V164-8.0 MW (MHI Vestas Offshore Wind)	2017	In Operation	46.95%	46.79%	46.06%	41.0%	32.0%	34.4%	96.87%	96.01%	95.99%
Westermost Rough	North Sea	Offshore Wind	210 MW; SWT-6.0-154	2015	In Operation	46.95%	46.79%	46.06%	50.7%	42.0%	44.8%	96.87%	96.01%	95.99%
West of Duddon Sands	Irish Sea	Offshore Wind	388.8 MW; SWT-3.6-120	2014	In Operation	46.95%	46.79%	46.06%	47.0%	37.2%	44.2%	96.87%	96.01%	95.99%
Gunfleet Sands Demo	Thames Estuary	Offshore Wind	12 MW; SWT-6.0-120	2013	In Operation	33.46%	34.34%	35.62%9	35.1%	22.3%	14.5%	91.29%	79.33%	43.14%
Lincs	North Sea	Offshore Wind	270 MW; SWT-3.6-120	2013	In Operation	46.95%	46.79%	46.06%	45.9%	39.2%	39.5%	96.87%	96.01%	95.99%
London Array 1	Thames Estuary	Offshore Wind	630 MW; SWT-3.6-120	2013	In Operation	n/a	n/a	n/a	46.1%	39.2%	37.5%	n/a	n/a	n/a
Walney 1+2	Irish Sea	Offshore Wind	367.2 MW; SWT-3.6-107, SWT-3.6-120	2011	In Operation	46.95%	46.79%	46.06%	43.9%	35.2%	40.9%	96.87%	96.01%	95.99%
Walney 3+4	Irish Sea	Offshore Wind	659 MW; MHI-Vestas V164-8.0MW (Walney 3) and SWT-7.0-154 (Walney 4)	2011	In Operation	46.95%	46.79%	46.06%	49.3%	37.6%	46.2%	96.87%	96.01%	95.99%
Gunfleet Sands 1+2	Thames Estuary	Offshore Wind	172.8 MW; SWT-3.6-107	2010	In Operation	46.95%	46.79%	46.06%	39.3%	31.9%	32.7%	96.87%	96.01%	95.99%
Barrow	Irish Sea	Offshore Wind	90 MW; V90-3 MW Offshore (Vestas)	2006	In Operation	36.97%	37.71%	37.08%	31.9%	29.5%	32.8%	83.42%	91.45%	89.10%
Taiwan														
Greater Changhua 2b&4	Taiwan Strait	Offshore Wind	924 MW; [redacted]	[redacted]	Under Contract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Greater Changhua 1&2	Taiwan Strait	Offshore Wind	905 MW; [redacted]	[redacted]	Under Construction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	95.14%
Formosa 1 - Phase 1&2	Taiwan Strait	Offshore Wind	Phase 1: 8 MW; 4.0 MW SWT-120, Phase 2: 120 MW; 6.0 MW SWT-154	2019	In Operation	n/a	n/a	n/a	43.5%	40.0%	43.8%	n/a	n/a	n/a

Notes:
Capacity factor and availability factor data is not yet available for 2023.
n/a is used for projects still under development or construction, as no production data exists, as well as for projects where Ørsted is not the operator.
[1] Due to the commercially sensitive nature of this information and limitations imposed on Ørsted by partnership contracts, the Proposer is prohibited from disclosing this information. Data has been provided on the assets where Ørsted is sole owner (Block Island Wind, Horns Rev 2, Gunfleet Sands Demo, Burbo Bank and Barrow). In all other cases, the table provides figures representing an average across each national portfolio. Since there is only one asset in the Netherlands, this information could not be disclosed. Site capacity is based upon the publicly available Ørsted fact book, which does not take overplanting, power boost, or export limit into account.
[2] Due to the commercially sensitive nature and contractual limitations (as outlined in footnote 1), Ørsted has provided availability figures as an average across each national portfolio. Since there is only one asset in the Netherlands, this information could not be disclosed. These availability figures are based on availability of the generating asset (i.e., WTGs). The data is based on Ørsted's confidential and proprietary data. Specific park data has been included for Block Island Wind, Horns Rev 2, Gunfleet Sands Demo, Burbo Bank, and Barrow, where Ørsted is the sole owner.
[3] Coastal Virgnia Offshore Wind was built by Ørsted, but it is now being operated by another party.
Source: Ørsted

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

12.5 Project Team

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

i. Construction Period Lender, if any

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

iii. Financial Advisor

iv. Environmental Consultant

v. Facility Operator and Manager

vi. Owner's Engineer

vii. EPC Contractor (if selected)

viii. Transmission Consultant

ix. Legal Counsel

12.5.1 Construction Period Lender

[redacted]

12.5.2 Operating Period Lender and/or Tax Equity Provider

[redacted]

12.5.3 Financial Advisor

[redacted]

12.5.4 Environmental Consultant

[redacted]

12.5.5 Facility Operator and Manager

[redacted]

12.5.6 Owner's Engineer

[redacted]

12.5.7 EPC Contractor (if selected)

[redacted]

12.5.8 Transmission Consultant

[redacted]

12.5.9 Legal Counsel

[redacted]

12.6 ISO-NE Market Experience

Provide details of the bidder's experience in ISO-NE other Markets affected by the bid. With regard to bidder's experience with ISO-NE markets, please indicate the entity that will assume the duties of Lead Market Participant for your Project. Please provide a summary of the proposed Lead Market Participant's experience with each of the ISO-NE markets.

[redacted]

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Starboard Wind

Section 13

Alternative Bid Proposals

13 Alternative Bid Proposals

Per Section 2.2.2.5 of the Request for Proposals, bidders may submit alternative project proposals, based on varying aspects of the proposed project:

- *Contract Term Length*
- *Additional Pricing Offer*
- *Production/Delivery Profile*
- *In-service Date*
- *Project Size*
- *Technology Type*
- *Delivery Location*

Each submitted proposal must be accompanied by a non-refundable bid fee, which will be used to offset the cost of the evaluation of proposals. Bid fee instructions will be sent upon request to bidders who contact the Official Contact listed in Section 3.5.

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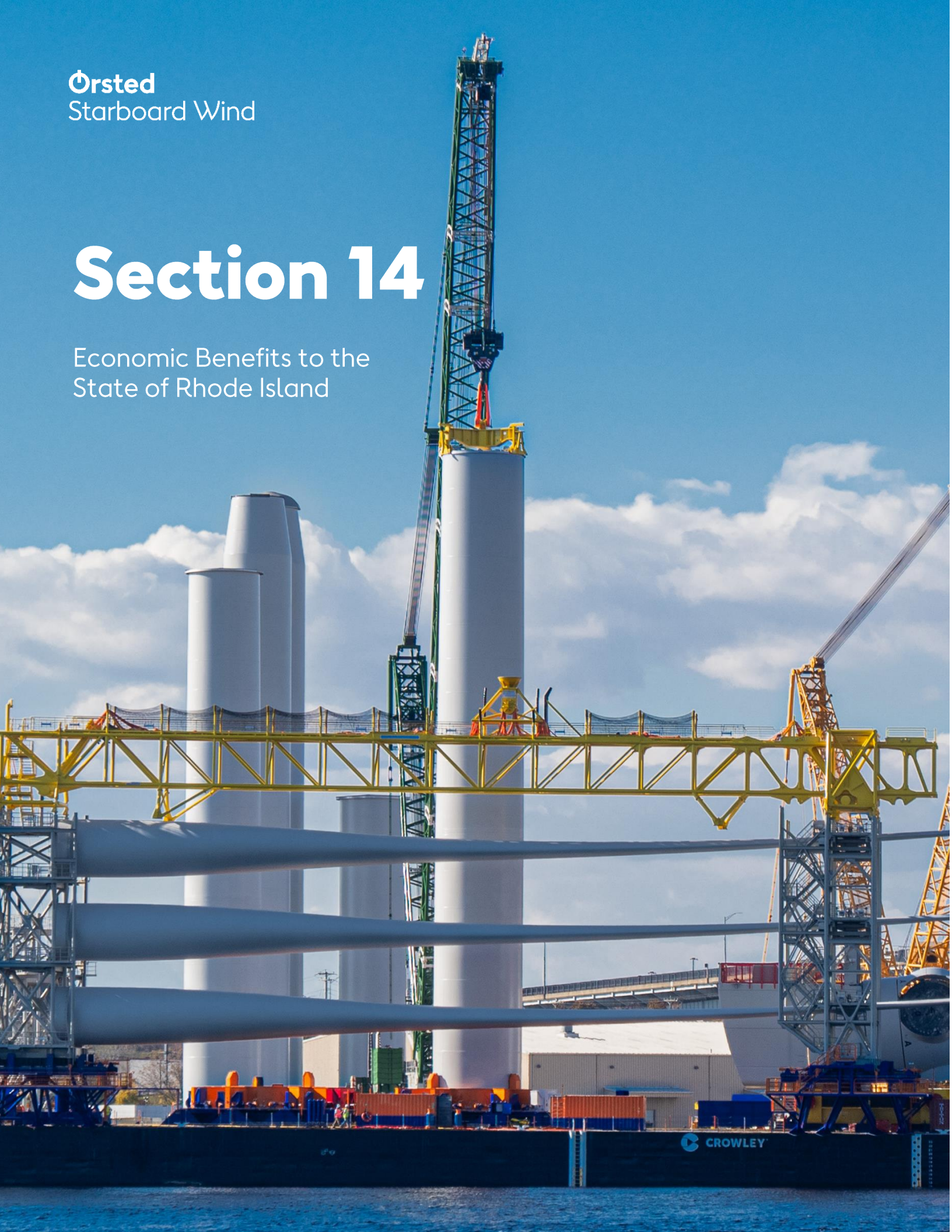
Ørsted
Starboard Wind

Section 14

Economic Benefits to the State of Rhode Island



14 Economic Benefits to the State of Rhode Island

Bidders must provide annual estimates for all economic benefits, including employment, expenditures, and investments, and identify the specific in-state commitments during the development, construction and operation and maintenance phases of the project. Bidders are required to fill out the Economic Development Summary Sheet Workbook provided as an addendum to this Appendix.

Starboard Wind has the potential to create over 4,000 direct job-years (same as FTEs[1]) along with almost 4,800 indirect and induced job-years in Rhode Island. The Project builds on Rhode Island's strengths and experience in offshore wind to maximize the economic development opportunity for the State, solidifying its leadership position in the U.S. offshore wind value chain. [redacted]

[redacted]

14.1 Direct and Indirect Economic Benefits to Rhode Island

For the direct economic benefits to the State of Rhode Island, please provide an estimate of the number of jobs to be created directly during project development and construction (for a project that includes new facilities or capital investment), and during operations, and a general description of the types of jobs created, estimated annual compensation, the employer(s) for such jobs, and the location. Please treat the development, construction, and operation periods separately in your response.

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14.2 Project Commitments

Describe the proposed project's commitment to the following: investing in offshore wind-related environmental research, monitoring and mitigation sponsored by the DEM and/or the Rhode Island Coastal Resource Management Council; investing in workforce development and environmental research facilities to support the offshore wind industry; utilizing port facilities and office space; and investing in development activities that directly benefit economically distressed areas and/or low-income populations.

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[redacted]

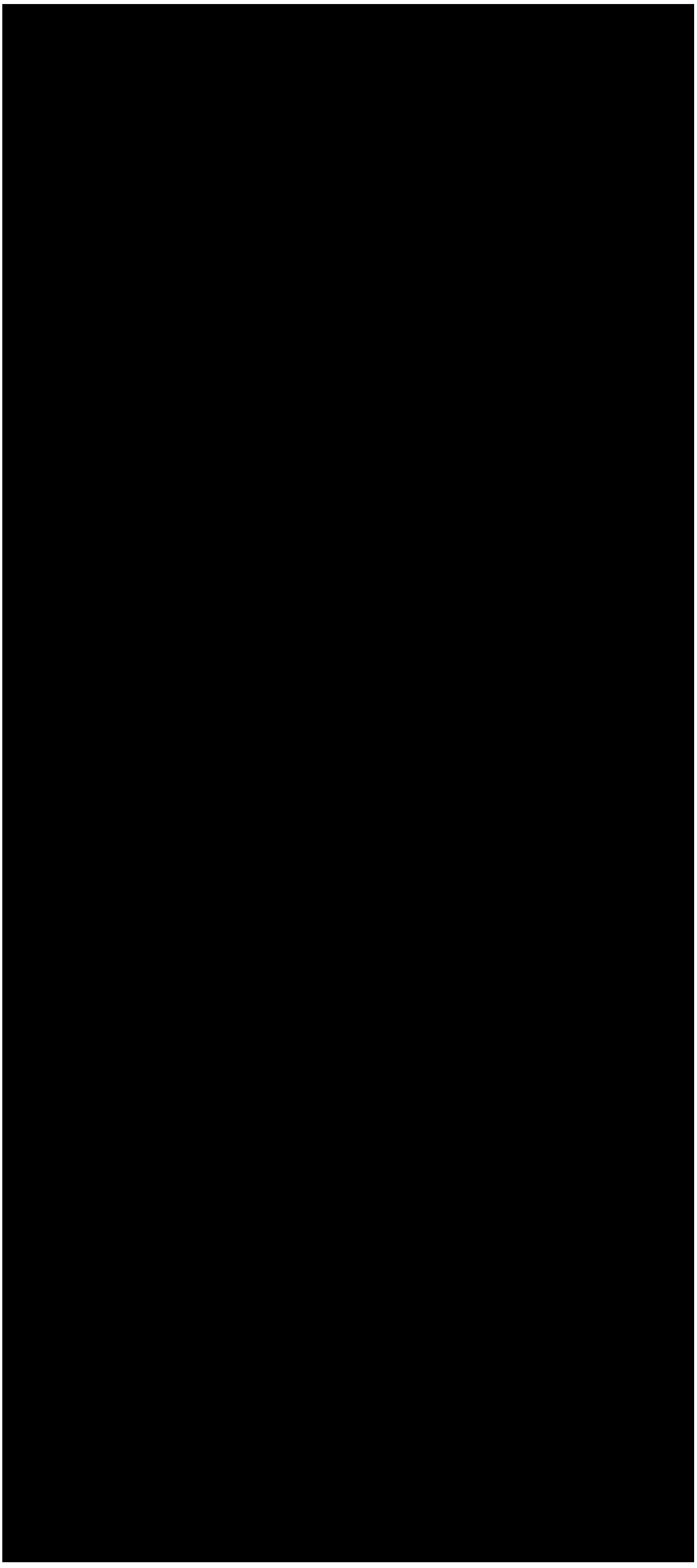

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Figure 14.2: Union Laborers at Work Fabricating AFC at ProvPort for Revolution Wind

Figure 14.3: AFC assembly at ProvPort for Revolution Wind

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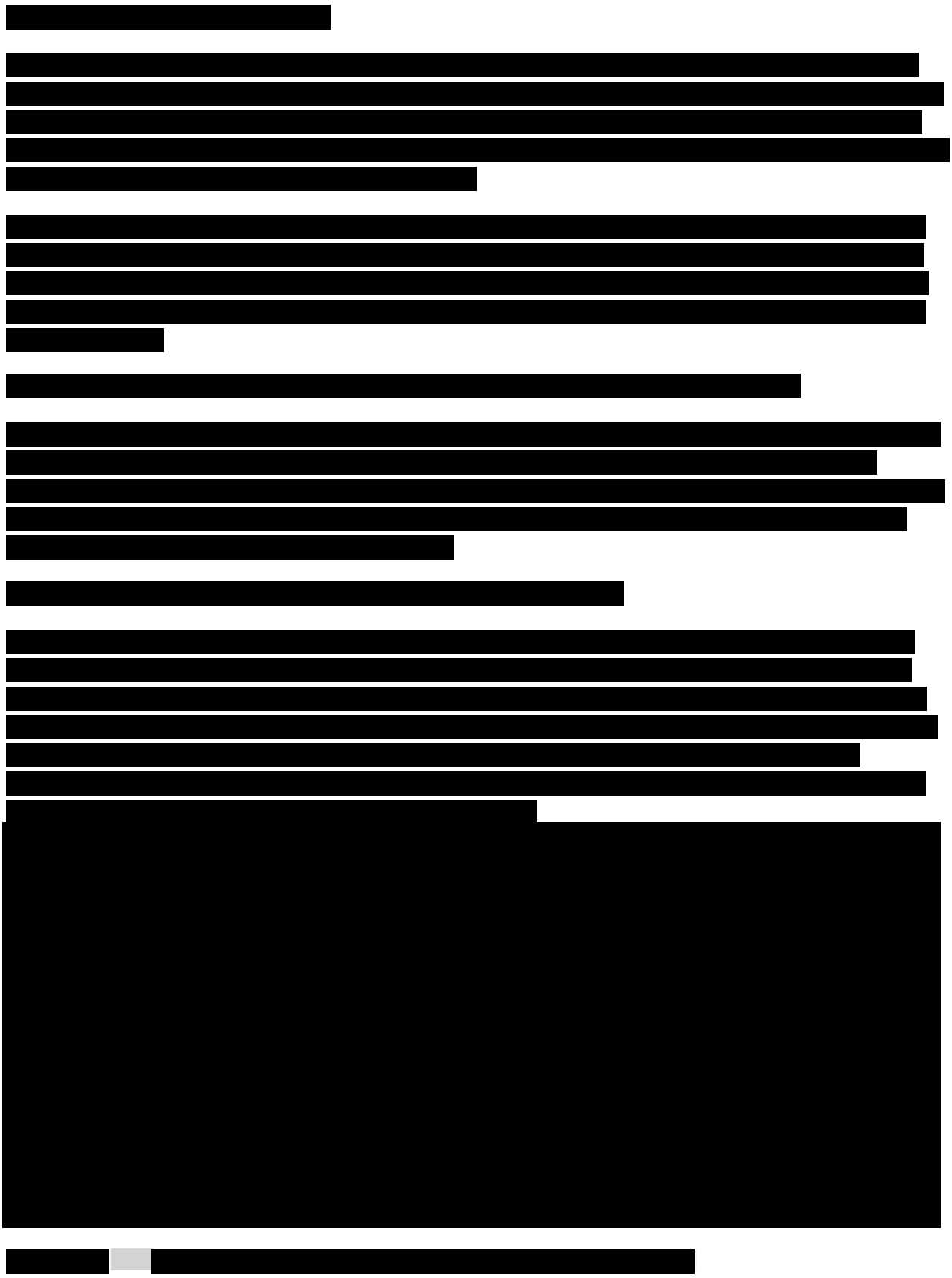

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[redacted]

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Ørsted commits to invest in offshore wind-related environmental research, monitoring, and mitigation in consultation with RIDEM and RI CRMC. Ørsted has reviewed RIDEM's Offshore Wind Research Priorities and is looking forward to continuing to work with RIDEM and RI CRMC to design studies addressing many critical environmental topics related to offshore wind projects. Our existing projects (Revolution Wind, South Fork Wind, and Sunrise Wind) have begun or will undergo monitoring studies that will advance the understanding of the important research topics set forth RIDEM and RI CRMC.

Ørsted has also committed similar funds on other projects in our portfolio. For example, the Commercial Fisheries Research Foundation in Rhode Island is conducting the South Fork Wind fisheries monitoring plan with support from the University of Rhode Island Graduate School of Oceanography. South Fork Wind also coordinated with BOEM on implementing sound monitoring research under the Realtime Opportunity for Development Environmental Operations. This work was led by researchers at the University of Rhode Island to verify effectiveness of noise mitigation for marine mammal protection during wind farm construction. Similar coordination with BOEM through the Realtime Opportunity for Development Environmental Operations program was conducted for Block Island Wind. In that program, researchers from the University of Rhode Island and other institutions assessed installation and operational noise, cable laying, and benthic impacts.

As an example of our collaboration with key stakeholders in this area on previous projects, members of the Revolution Wind team are collaborating with researchers at the RIDEM Division of Marine Fisheries to execute a ventless lobster trap study for lobsters, crabs, and fish along the Revolution Wind export cable route in state waters. This ventless design is a Before-After Gradient design used to evaluate the spatial and season patterns of relative abundance of lobster and crab in the cable corridor before and after construction. This year-round study is conducted by two Rhode Island-based commercial lobster vessels. Additionally, through the permitting processes for Revolution Wind, many of the research priorities highlighted by stakeholders are incorporated into the project execution plan. For example, following cable installation, we will monitor the route for benthic habitat colonization, with a special focus on areas where secondary cable protection has been installed, to observe how the seabed develops following cable installation activities.

14.3 Additional Direct Economic Benefits to Rhode Island

Please describe any other direct economic benefits to the State of Rhode Island (either positive or negative) that could result from the proposed project, such as creating property tax revenues or purchasing capital equipment, materials, or services for Rhode Island businesses. Please provide the location(s) where these economic development benefits are expected to occur.

[redacted]

[redacted]

[redacted]

14.4 Additional Benefits

To the extent not already specified elsewhere in your response, please describe any additional benefits or impacts associated with the proposed project.

[redacted]

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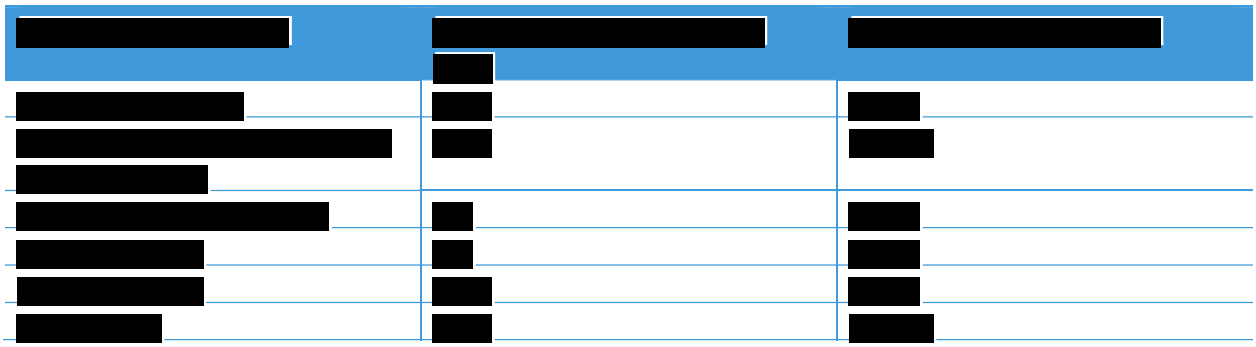

When fully evaluating all economic benefits to ratepayers balanced against the contract costs, Starboard Wind will bring significant net benefits to Rhode Island ratepayers. Despite the higher price of offshore wind in a mark-to-market analysis, the net benefits of an offshore wind project still clearly outweigh the costs. This result is aligned with the 2021 report commissioned by the Rhode Island Office of Energy Resources and carried out by The Brattle Group, which anticipated that offshore wind would result in significant benefits to Rhode Island.[9]

Please see Attachment 14-2 for the Net Benefit Model and to evaluate specific contract prices in a complete net benefit analysis.

14.5 Economic Development Summary Sheet

The Section 14 Addendum: Economic Development Summary Sheet is a Microsoft Excel workbook provided on ricleanenergyrfp.com. Please fill out and submit the Section 14 Addendum to accompany responses in this section.

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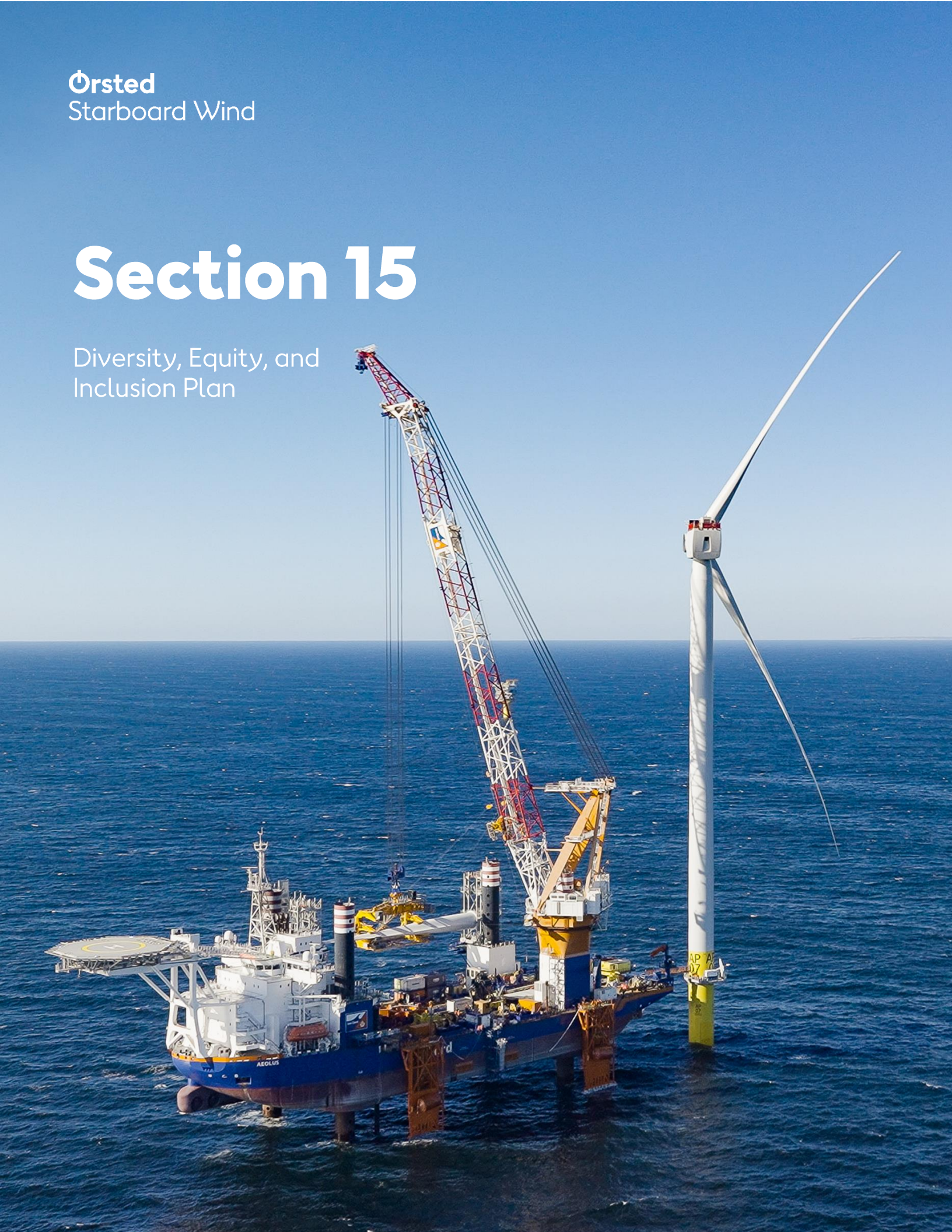
Section 15

Diversity, Equity, and Inclusion Plan



15 Diversity, Equity, and Inclusion Plan

The Diversity, Equity and Inclusion Plan should describe the proposed strategy to actively promote access to employment and contracting opportunities for, and to actively recruit, diverse workers, vendors, contractors, and investors, and include how the direct, specific and measurable employment and contracting benefits created by the proposed project provides employment and procurement/contracting opportunities for minorities, women, veterans, LBGT and persons with disabilities. A Diversity, Equity and Inclusion Plan must contain, at a minimum, a Workforce Diversity Plan, a Supplier Diversity Plan, and a DEI Stakeholder Engagement Plan.

Section 15 includes the Project Diversity, Equity, and Inclusion (DEI) Plan including, a Workforce Diversity Plan, a Supplier Diversity Plan, and a DEI Stakeholder Engagement Plan.

Diversity, equity, inclusion, and belonging are lived values and actions at Ørsted.[1] Ørsted's focus on these important challenges is part our culture, but also part of our strategy for project viability; if the teams that develop, build, and operate offshore wind are representative of the communities in which the project has a footprint, the project will be significantly more likely to succeed. Therefore, a strong DEI Plan is necessary to assure project completion.

[redacted]

[redacted]

[redacted]

[1] https://orstedcdn.azureedge.net/-/media/www/docs/corp/com/sustainability/global_diversity_uk_20191114.ashx?rev=67bc30eea0f444668532ec30f0f5533d&hash=794CE70EF9134F9D9D14FF60F0DA9A7B

[redacted]

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15.1 Workforce Diversity Plan

The Workforce Diversity Plan should include descriptions of each type, duration, and salary bands of the employment created, as well as identify the recruitment efforts aimed at hiring diverse candidates for these employment opportunities. This plan should include goals for Workforce Diversity, as well as a plan for monitoring success against these goals, how the metrics will be calculated, how often they will be calculated and reported, and a process for improving the process over time if goals are not met. If a significant portion of the labor force will be sub-contracted, the plan should be inclusive of sub-contractors.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Additionally, Ørsted will continuously review the best way to support training programs and include robust input from a range of employer partners and community stakeholders. Inputs will ensure optimization of the program design and will include considerations such as opportunities for direct hiring, timing of the potential placements, development of transferrable skills, specific skills to meet unique employer needs, and other broader factors that increase the success of the placements.

[redacted]

To succeed in building a world that runs entirely on renewable energy, we must ensure an energy build-out that benefits people and that the transition towards a clean energy economy creates quality jobs with secure employment and working conditions. Ørsted is uniquely qualified to deliver environmental justice through workforce development that unlocks high quality jobs. [redacted]

[redacted]

[redacted]

Ørsted recognizes that while the proposed offshore wind career pathways will prioritize high-quality job creation, the proposition of high-quality careers alone will not suffice in bringing about a just transition. [redacted]

[redacted]

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

[redacted]

15.2 Supplier Diversity Program

The Supplier Diversity Program should include descriptions of the subcontracting, vendor, investor, and ancillary (operational) business opportunities that will be provided by diverse businesses, as well as identify the efforts aimed at engaging diverse candidates for these opportunities. This plan should include a form of expenditure goals for Supplier Diversity, as well as a plan for monitoring success against these goals, how the metrics will be calculated, how often the metrics will be calculated and reported, and a process for improving the process over time if goals are not met.

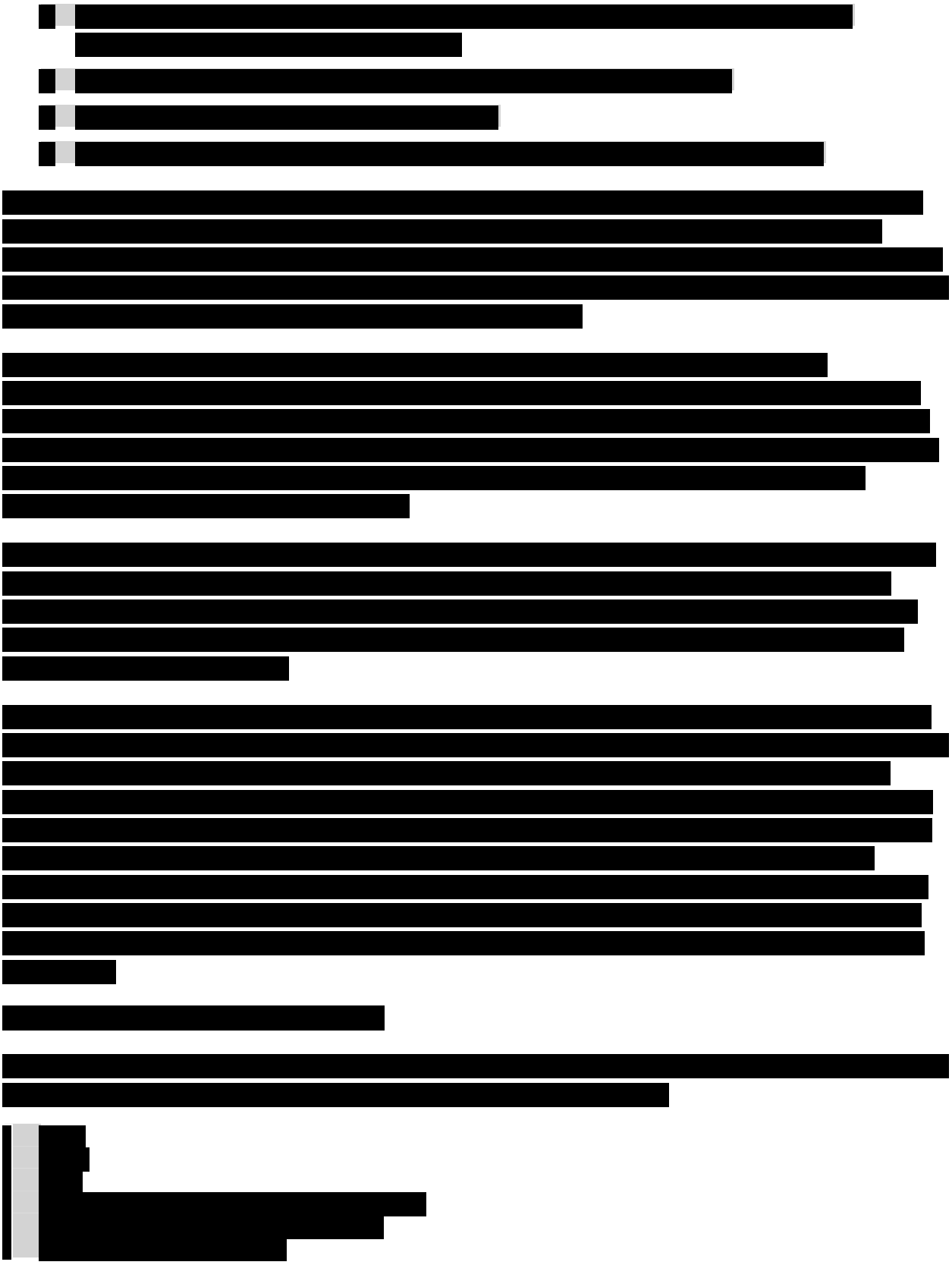
Ørsted has established a Supplier Diversity Program (SDP) to ensure a diverse supplier base in the procurement of goods and services for our business. Supplier diversity plays an important role in our strategy that allows us to better serve our customers, strengthen our diverse, inclusive, and innovative culture, and promote local economic growth.

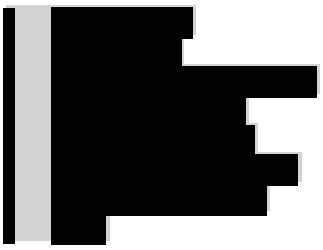
[redacted]

[redacted]

Diverse businesses provide a means of building a truly innovative and diverse offshore wind supply chain. Ørsted will seek opportunities to empower and assist in the long-term development and competitiveness of diverse suppliers through guidance, open communication, and other outreach activities, such as the following:

[redacted]





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15.3 Stakeholder Engagement Plan Summary

The DEI Stakeholder Engagement Plan considers how the bidder will engage with project stakeholders. It includes an identification of groups of stakeholders to be included (e.g., tribal communities, economically-disadvantaged communities, environmental justice advocates, and fishing communities), project impacts on each stakeholder and associated mitigation plans, and engagement goals and activities for each group. It also should include a description of community partnerships and evidence of past and current stakeholder engagement.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

As discussed in more detail in Attachment 7-1, Ørsted has experience successfully engaging stakeholders in New England for Revolution Wind, which is currently in construction. Some highlights include:

[redacted]

[redacted]

Below is a summary of Ørsted's broad-based stakeholder outreach methods which will include, but will not be limited to:

[redacted]

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Section 16

List of Rhode Island Vendors and Domestic Supply Chain Opportunities

16 List of Rhode Island Vendors and Domestic Supply Chain Opportunities

Bidders are required to identify Rhode Island vendors and other domestic offshore wind supply chain opportunities associated with the project.

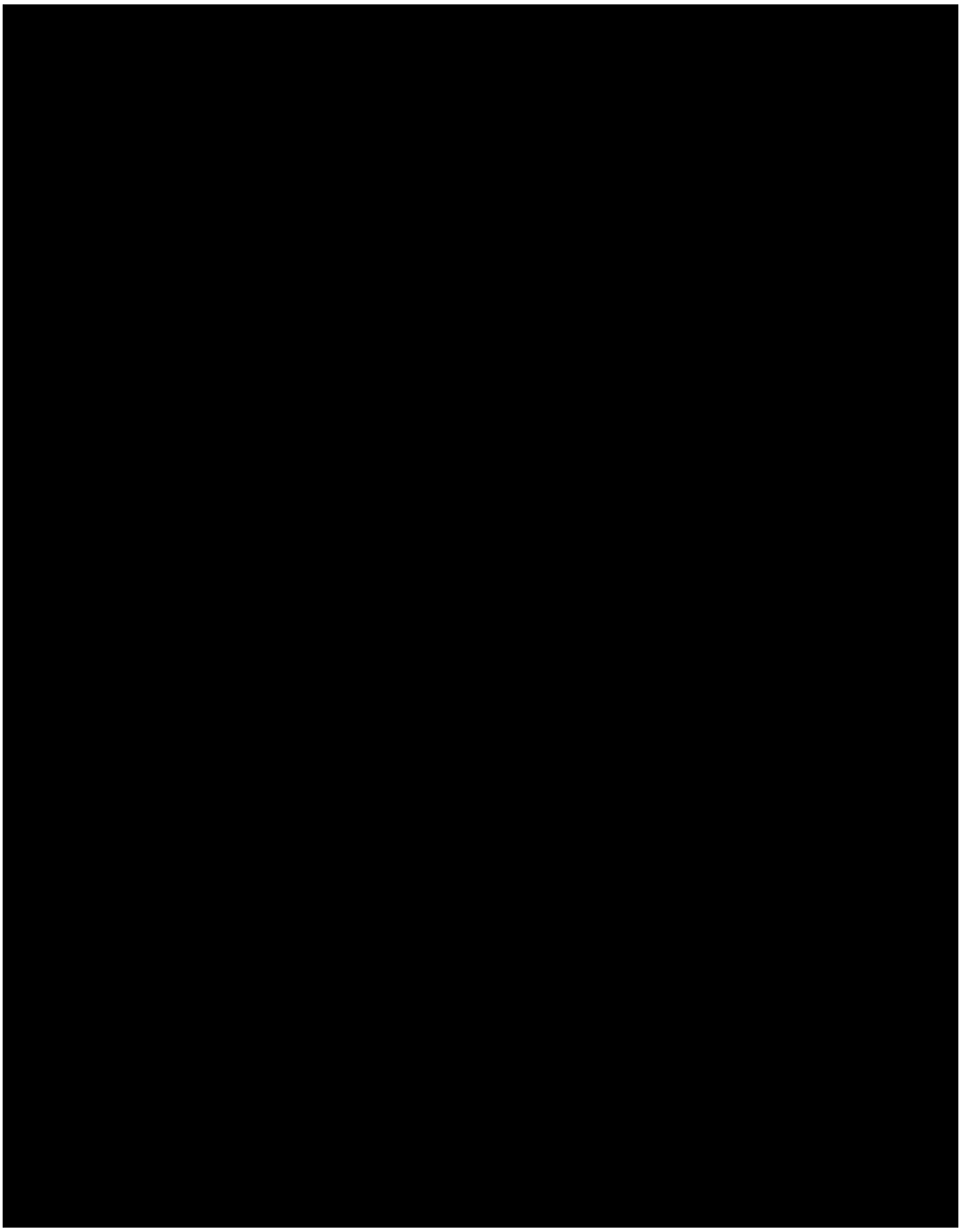
[redacted]

16.1 Rhode Island Vendors

Please list the Rhode Island vendors that have been identified to potentially supply the project, as well as any Rhode Island vendors that you have an existing commitment with for this project.

[redacted]

[redacted]



[redacted]

[redacted]

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16.2 Domestic Vendors

Please list the domestic vendors that have been identified to potentially supply the project, as well as any domestic vendors that you have an existing commitment with for this project.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Ørsted is fully committed to the maturation of the domestic offshore wind supply chain and this commitment will continue with Starboard Wind. Some of the trailblazing job-creating investments we have already made include:

- AFC fabrication for the Revolution Wind and South Fork Wind projects at ProvPort, Rhode Island, including $40 million in port upgrades.
- Transforming New London State Pier into a state-of-the-art heavy lift staging port for offshore wind components through more than $75 million in direct investment.
- First U.S.-made offshore wind substation topside fabricated by Kiewit in Ingleside, Texas for South Fork Wind, employing more than 350 workers.
- Support for upgrades to the first U.S. submarine cable production facility by Nexans in Goose Creek, South Carolina, enabling 210 additional jobs at the facility.
- The ECO Edison, the first U.S.-fabricated SOV by Edison Chouest Offshore at shipyards in Florida, Louisiana, and Mississippi, enabling 300 jobs during construction for the $80 million vessel.

[redacted]

16.3 Supply Chain Infrastructure Investments

Please identify the project's plans to invest in supply chain and infrastructure improvements to support the offshore wind industry, if any.

[redacted]

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Section 17

Plans for Construction Labor Agreement

17 Plans for Construction Labor Agreement

Bidders are required to submit a plan outlining their intentions with respect to the negotiation of project labor agreements to cover construction activities.

Starboard Wind appreciates the need for a diverse, skilled workforce and recognizes the value of early, meaningful engagement with organized labor to support the Project's construction and operations. In October of 2020, Ørsted was the first and only developer to enter into a national Memorandum of Understanding (MOU) with NABTU for the buildout of its offshore windfarms, from Maine to Florida. Consistent with the voluntary commitment made in 2020, [redacted]

[redacted]

[redacted]

[redacted]

In preparation for offshore construction of Revolution Wind, Ørsted developed and funded a training program to help provide the credentials necessary for RIBCTC members to work offshore.[redacted]

At the time of submission, the first several RIBCTC workers have already worked offshore as they build Revolution Wind. Hundreds more workers from Rhode Island will follow them as construction progresses, and offshore wind construction expertise will spread among Rhode Island construction union members. Ørsted is grateful for the opportunity to continue to build trust and our relationship with the RIBCTC leadership, its affiliates, and rank and file members.

[redacted]

[redacted]

17.1 Labor Peace Agreement

As part of the contract negotiation process, the bidder must commit to enter into a labor peace agreement with at least one bona fide labor organization either where such bona fide labor organization is actively representing employees providing necessary construction, operations and maintenance services for the project at the time of such agreement or upon notice from a bona fide labor organization that is attempting to represent employees who will provide necessary operations and maintenance services for the renewable energy system employed in the state or the region. The maintenance of such labor peace agreement will be an ongoing material condition of any continuation of payments under the PPA.

Describe the Bidder's plan to enter into a labor peace agreement and/or plan for project employee representation by a labor organization.

[redacted]

[redacted]

[redacted]

[redacted]

17.2 Employee Compensation

Bidders must commit to pay each construction, operations and maintenance employee wages and benefits that are not less than the prevailing wage and fringe benefit rates at the journeyman level that are prescribed by the Rhode Island Department of Labor and Training, or other applicable laws, rules or regulations in the state or region, and not less than the prevailing wage rates for employees for which there is no classification prescribed by the Rhode Island Department of Labor and Training, or other applicable laws, rules or regulations in the state or region. Bidders must also commit to pay benefits and wages not less than the rate applicable to apprentices for the pertinent classification prescribed by the Rhode Island Department of Labor and Training, or other applicable laws, rules or regulations in the state or region if the worker is a participant in an approved apprenticeship program and the approved apprenticeship program maintains a direct entry agreement with a certified pre-apprenticeship training program.

Describe the Bidder's plan to compensate project employees and apprentices not less than the prevailing wage.

[redacted]

[redacted]

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Section 18

Exceptions to Form PPAs

18 Exceptions to Form PPAs

Please attach an explanation of any exceptions to the Form PPA set forth in Appendix C. Comments to the proposed Form PPA must include any specific alternative provisions in a redline format to the Form PPA. ***Bidders are discouraged from proposing material changes to the Form PPA.***

An explanation of exceptions to the Form PPA is provided in Attachment 18-1, and the marked-up Form PPA is included in Attachment 18-2.

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Section 19

Exceptions to Commitment Agreement

19 Exceptions to Commitment Agreement

Please attach an explanation of any exceptions to the Commitment Agreement set forth in Appendix E to this Notice, including any specific alternative provisions in a redline format to the Commitment Agreement.

Bidders must include a marked version showing any proposed changes to the Commitment Agreement with their bid, and it is assumed that bidders would be willing to execute the marked-up agreement included in their bids. ***Bidders are discouraged from proposing material changes to the Commitment Agreement.***

An explanation of exceptions to the Commitment Agreement is provided in Attachment 19-1, and the marked-up Commitment Agreement is included in Attachment 19-2.

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Attachment 1-1

Demonstration of Federal Lease Ownership

Long-Term Contract for Offshore Wind Energy

March 27, 2024

Portions of this proposal contain confidential, proprietary, and/or commercially sensitive information which has been redacted from the "Public Version" of this proposal. Bay State Wind LLC (d/b/a Starboard Wind) has submitted a Confidential Version of this proposal which includes the redacted information, and which should be treated as a non-public record that is exempt from disclosure to the extent permitted under applicable laws and/or as expressly set forth in the Request for Proposals.

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Attachment 1-2

Proposal Certification and Authorization

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 1-3

Multi-State Bidder Form

(Appendix H of the RFP)

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Attachment 2-1

Ørsted Letter of Intent

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 2-2

Letters of Support

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 2-3

Letters of Intent

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 4-1

Wind Climate Assessment Report

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 4-2

Third Party Wind Resource Assessment

Long-Term Contract for Offshore Wind Energy

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Attachment 4-3

Wind Climate Data

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Attachment 6-1

ProvPort Lease Agreement

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 6-2

Quonset Port Terminal Lease Agreement

Long-Term Contract for Offshore Wind Energy

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Attachment 6-3

Onshore Converter Station Site - Purchase Option Agreement

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 6-4

Onshore Converter Station Site - Wetland Delineation Memo

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Attachment 6-5

Confirmation of Queue Position

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 6-6

ISO-NE I.3.9 Letter for QP944

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Attachment 6-7

CNR Interconnection Request Record

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 6-8

Informative Deliverability Constraint and Overlapping Studies for QP944

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 6-9

ISO-NE FCA Wind Qualification Template

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Attachment 6-10

Electrical Models

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 6-11

Electrical One-Line Diagram

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March 27, 2024

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Attachment 7-1

Stakeholder Engagement Plan

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 7-2

Environmental Data Sources

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 7-3

Environmental and Fisheries Mitigation Plan

Long-Term Contract for Offshore Wind Energy

March 27, 2024

Table of Contents

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List of Figures

1 Environmental and Fisheries Mitigation Plan

Provide an EFMP per Section 2.2.3.7, including a confirmation of agreeance to the Site and Environmental Data Transparency, Fisheries Compensation, Noise Mitigation, Monitoring Acoustic Attenuation, and Regional Collaboration paragraphs.

1.1 Avian and Bat Species

[redacted]

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1.2 Fish, Invertebrates, and Benthic Habitats

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1.7.2 Navigation

Collaboration with the USCG, mariners, and fishermen begins long before a project is designed and sited. Please see Section 7 and Attachment 7-1 for the Project's engagement strategy.

Specific to navigation hazards of the planned project configuration, Ørsted maintains a strong working relationship with local, regional, and national level USCG leaders. Importantly, Ørsted also has an extensive navigation simulator program, which allows an infinite number of sea state and weather combinations to be examined during simulated wind farm navigation.

[redacted]

Simulator training is provided to mariners free of charge and is available at two facilities in

[redacted]

coastal New England. A thorough description of Ørsted's unique simulator program is provided as Attachment 7-5.

[redacted]

To facilitate navigation safety and the continued ability for commercial fishers to fish, Starboard Wind will be constructed in an east-west/north-south orientation with 1 nm x 1 nm spacing between structures. [redacted]

[redacted]

[redacted]

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Attachment 7-4

New England Offshore Wind Uniform Layout Agreement

Long-Term Contract for Offshore Wind Energy

March 27, 2024

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Attachment 7-5

Mission Navigator Simulator Experience

Long-Term Contract for Offshore Wind Energy

March 27, 2024

January 2024

Orsted Offshore North America
Full-Mission Navigation Simulator Experience:
Navigating Within An Offshore Wind Farm

Introduction: Ørsted appreciates the opportunity to participate in the National Ocean Industries Association (NOIA) Safety In Seas (SIS) awards competition. Orsted's unique and pioneering application of full-mission navigation simulators to introduce mariners to navigating within a utility-scale offshore wind farm—where none yet exist in the United States—demonstrates Orsted's extraordinary commitment to safety and exemplifies the type of innovation we are committed to.

Ørsted is the global leader in offshore renewable energy and is committed to bringing the benefits of offshore wind to the U.S through the several offshore leases we have secured and the half dozen or so projects we have under development along the U.S. east coast. Ørsted's vision is a world that runs entirely on green (renewable) energy. Safety is equally as important as our commitment to delivering renewable energy, and it is a fundamental principle of Ørsted's culture. Orsted created this simulator initiative to further the interest of safety at sea for the entire offshore energy industry, including mariners and other stakeholders with whom we strive to coexist on U.S. waters.

Based on extensive outreach to maritime stakeholders and listening to their feedback and concerns, Orsted innovatively re-created several of its planned U.S. offshore wind farms in full-mission navigation simulators[1]. In a completely simulated, risk-free environment, participants experience navigating vessels similar to their own, in a realistic offshore wind farm that replicates exactly what they will experience when the project is built, and in various weather and operating conditions. Participants can practice and experiment at will to fully familiarize themselves with navigating in an offshore wind farm—an opportunity available to mariners nowhere else in the U.S. in either a simulated or real-world environment[2]. Stakeholders who experience Orsted's full-mission navigation simulators have improved spatial cognizance of an offshore wind farm environment, an increase in understanding of how safe navigation can be conducted, and reduced fear of taking their vessels into an actual offshore wind farm.

Orsted's three purpose-built full-mission navigation simulators are the only such facilities anywhere that provide mariners with the life-like but risk-free experience of navigating within an offshore wind farm.[3]

[1] At minimum, a maritime simulator consists of a software that realistically simulates the dynamic behavior of a vessel and its systems in a simulated maritime environment and an interface that allows the person using the simulator to control the vessel and interact with its simulated surroundings. In a full mission navigation simulator, such as Orsted uses for this application, this interface consists of a realistic mock-up of the vessel's bridge and control consoles, and screens or projectors providing up to 360-degree virtual view of the ship's surroundings similar to flight simulators in the aviation industry. Credit: Wikipedia

[2] We understand the U.S. Coast Guard has commissioned a simulated offshore wind farm for agency use, to facilitate its evaluation of aids-to-navigation, but it is not available to provide a navigation experience to mariners.

[3] Although simulators are a common training tool in the commercial shipping and aviation industries, Orsted is unaware of the existence of any other full-mission navigation simulator purpose-built specifically for offshore wind farm application.

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Photo: A Coast Guard rescue helicopter within the Ocean Wind offshore wind farm, in Orsted's full-mission simulator.

Figure 1 below describes the extensive mariner stakeholder outreach Orsted has conducted since 2017 to ensure we understand the comments and concerns received from nearly 2000 individual mariners and over 200 organization spanning the U.S. east coast from 2017 to present. Our stakeholder engagement continues daily, and the navigation simulator program described here is proving to be one the most popular, and most effective, method of engaging stakeholders in Orsted's outreach toolbox.

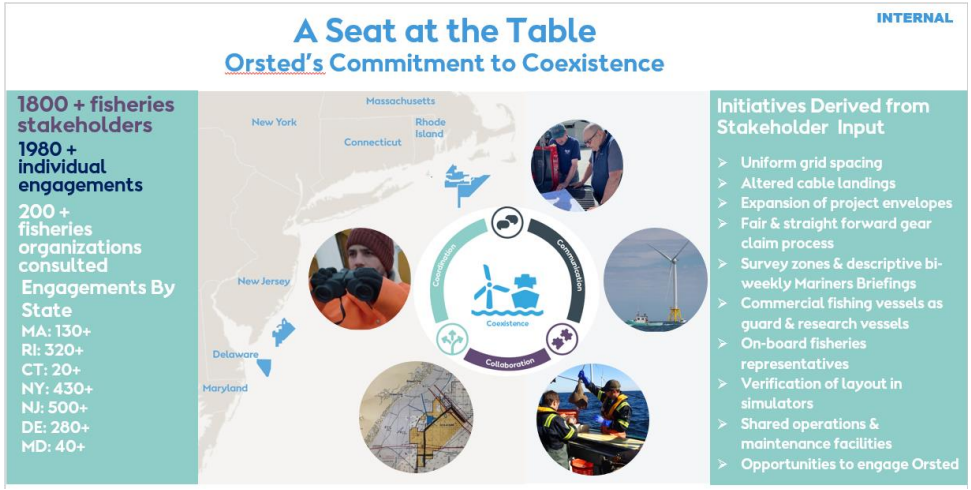

Figure1, Orsted Stakeholder Engagements Since 2017

A common theme repeatedly expressed by stakeholders was the difficulty in understanding spatial awareness in the absence of any utility-scale offshore wind farms in the United States[4]. Stakeholders expressed a need for both minimum spacing between wind turbine generators (WTGs), and WTG layouts designed in a uniform grid pattern. Figure 2 below shows a minimum one-nautical-mile (1NM)

[4] There are only two operational offshore wind facilities in the U.S., the 30 mega-watt (MW) 5-tower Block Island Wind Farm off the coast of Rhode Island, and the 12MW 2-tower Coastal Virginia Offshore Wind Farm off the coast of Virginia. Both are classified as demonstration projects and are not utility-scale.

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by 1NM layout in uniform gride pattern at all Orsted lease areas in the Massachusetts/Rhode Island Wind Energy Area (MA/RI WEA). Although these minimum distances and uniform layouts were welcomed by mariner stakeholders, they still could not gain a full appreciation for spatial awareness from simply looking at a one-dimensional graphic representation, i.e., essentially looking at "dots on a chart".

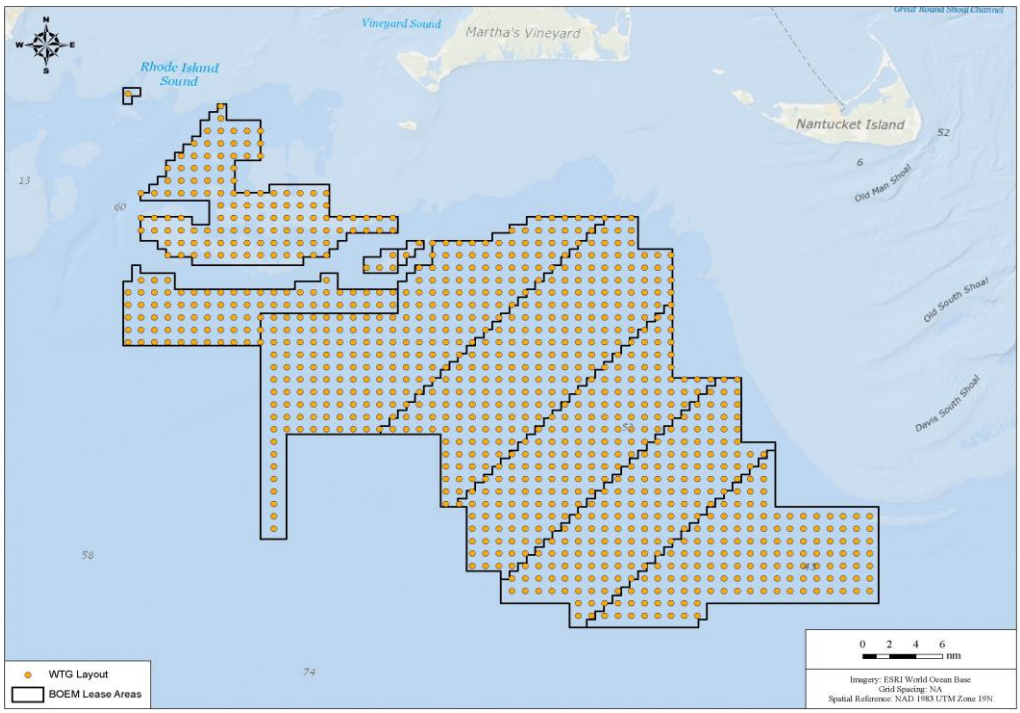

Figure 2, 1NM x 1NM Spacing in a Uniform North/South/East/West Grid Pattern

Feedback to Orsted suggested a strong need to provide stakeholders with an opportunity to actually experience navigation within and in the vicinity of an offshore wind farm.

Providing an actual, real-life experience was impractical for two key reasons:

- As stated above, there are no industrial-scale offshore wind farms yet operating in the U.S.
- Hosting a critical mass of U.S. stakeholders and providing them with an actual navigation experience at one of Orsted's European wind farms is cost-prohibitive from Orsted's perspective and time-prohibitive from a stakeholder (primarily fishers') perspective.

Consequently, Orsted needed to identify an innovative, elegant solution to the challenge of providing a realistic, life-like navigation experience which would provide a better understanding of spatial awareness within an offshore wind. And this experience needed to be cost-effective and provided at a location or locations relatively convenient to our stakeholders.

We found that solution through the re-creation of three of our planned U.S. offshore wind farms in full mission navigation simulators: Revolution Wind at the U.S. Maritime Resource Center in Middletown, RI; Sunrise Wind at the State University of New York (SUNY) Maritime College, New York; and Ocean Wind at the Maritime Institute of Technology And Graduate Studies (MITAGS) in Linthicum Heights, MD.

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In creating these simulated offshore wind farms, Orsted's objectives were (and are) to:

1. Provide a realistic, first-hand understanding of the scale and navigability of operational turbine arrays

2. Provide an opportunity for key stakeholders to collaborate and discuss issues of concern (especially navigation safety and, for the U.S. Coast Guard, its search and rescue operations capabilities).

3. Provide a better understanding of construction, operations, maintenance, and emergency procedures as well as an in-person overview of commercial scale wind turbine arrays.

Working with our simulator developers MITAGS and Wartsila, Orsted re-created life-like video representations of the two wind farms noted above. Figure 3 is a photo of the simulator used by Orsted at MITAGS.

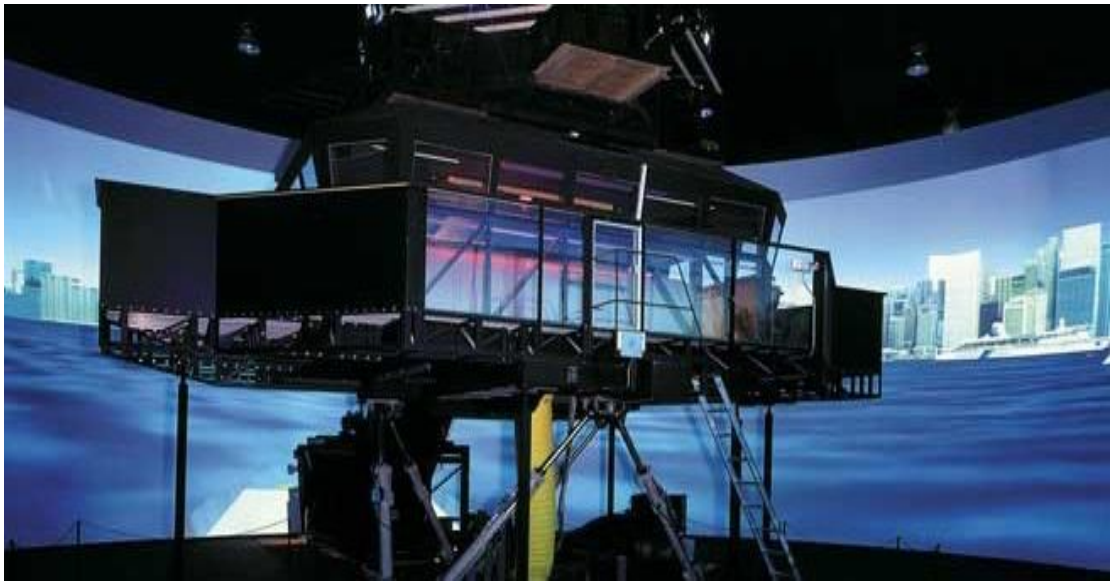

Figure 3, Exterior Photo of the MITAGS Full-Mission Simulator

We invited groups and delegations from various stakeholders to participate in our simulated navigation experience. Despite scheduling challenges associated with the COVID-19 pandemic, since mid-2020 many stakeholders representing the following entities have attended at least one of Orsted's simulators:

1. Commercial fishing industry
2. Charter-boat fishing industry
3. Recreational fishers
4. Recreational boaters
5. Directors and senior executives from BOEM, NOAA, BSEE, and the U.S. Coast Guard
6. Various elected, appointed, and career government officials, including Governors, U.S. senators, and the U.S. Maritime Administration
7. American Clean Power Association

A typical experience at one of Orsted's simulators follows a flexible agenda as depicted in Figure 4:

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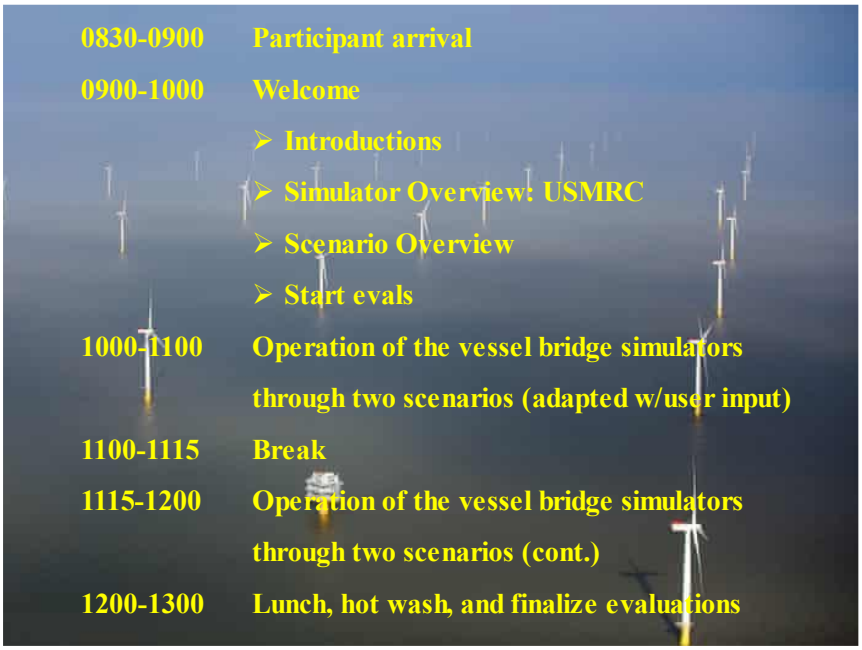

Figure 4: Agenda for Typical Simulator Experience

During the Simulator Overview portion of the agenda, we emphasize to stakeholders in attendance that scenarios can be whatever they would like, e.g., a bright and sunny day with calm seas, or a dark and stormy night, or fog and snow, with no other vessel traffic or lots of other vessel traffic, etc. We emphasize that the simulator is a controlled environment, in which the environmental is controlled by the operator (stakeholder), not Orsted. We encourage attendees to dictate their desired weather environments and operate the vessel controls such as engine speed, rudder, radio[5], and radar, to replicate as closely as possible their anticipated real-world experience once the offshore wind farm is built.

Figure 5 depicts mariners at the controls experiencing navigation within a wind farm in a variety of weather conditions. Note that the simulator not only replicates the offshore wind farm, but also replicates the type of vessel in which the mariner normally operates. So, if a commercial fisher is operating the simulator, a commercial fishing vessel is simulated. If a charter-boat fisher is present, a simulated center-console charter-boat is provided, and so. Stakeholders can operate the controls in the simulator's bridge—radar, engine speed, rudder, etc.—just as if they were on their own vessel.

[5] For added realism stakeholders operating controls in the simulator can communicate with other simulated vessels through the facility control center.

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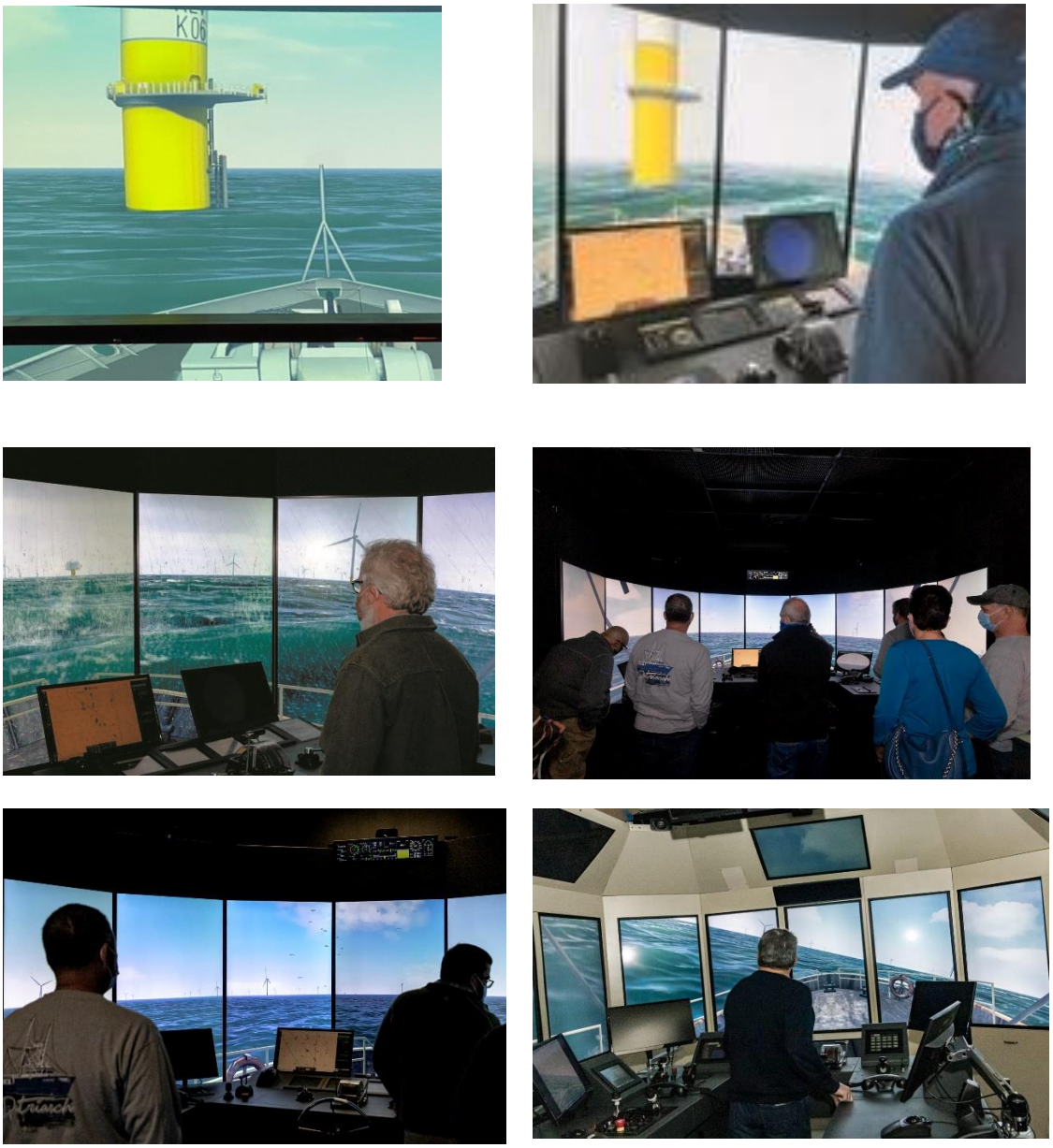

Figure 5, Snapshots of Mariners Experiencing an Orsted Offshore Wind Navigation Simulator

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Figure 6 provides links to three short videos that portray the simulator experience in action:

	Video Link & Length (mins:secs)	**Originator & Description**
1.	Wind Farm Simulation Demo - MITAGS - YouTube, 4:37	A video produced by MITAGS displaying Orsted's offshore wind simulator. (Note that the video is silent for about the first minute.)
2.	Navigating An Offshore Wind Farm, 8:34	An unsolicited video posted by a blogger and mariner who experienced the simulator and was so impressed he produced his own video and included this note on YouTube: "Yes, Navigating an Offshore Wind Farm is Safe - and this simulation video of Navigating an Offshore Wind Farm will prove it."
3.	Revolution Wind, 3:28	Another unsolicited video posted by a blogger and mariner who experienced the simulator and was so impressed he produced his own video and included this note on YouTube: "A virtual look at navigating a center console and fishing boat through a new windfarm east of Block Island. More "energy zones" have been leased on offshore fishing grounds so this a way to learn more about what's involved with steaming around 100 proposed turbines."

Figure 6, Links to Orsted Simulator Videos

Figure 7 provides links to two independent, unsolicited news articles describing the Orsted simulator experience:

	Link	**Article**
1.	What is it Like to Boat Through a Wind Farm? - On The Water	"What is it Like to Boat Through a Wind Farm? Test-driving Ørsted's Block Island Wind Revolution video simulator."
2.	"Make it rain with gale force winds" | Johnston Sun Rise	"Make it rain with gale force winds"

Figure 7, News Articles

At the conclusion of the simulator experience participants gather in a conference room and are asked to discuss their experience and provide their initial thoughts and concerns in what is referred to as a "hot wash". We ask participants to complete a written evaluation of their experience (see Appendix A for a Orsted's evaluation form). Note that participants are asked to complete question #1 before entering the simulator:

> "1. What are your concerns about operating and navigating in and around an offshore wind farm?"

The evaluation questions then ask if the participant's concerns, expressed in question #1, have been addressed in any way through the simulator experience. Without exception simulator participants have

indicated that the experience helped increase their understanding of spatial awareness within an offshore wind farm and decrease their concerns relative to navigating within a wind farm. Comments received from commercial fishers who experienced an Orsted simulator include:

a. "All positive. Invaluable chance to "test out" multiple scenarios."
b. "Multiple users in restricted visibility were well represented."
c. "This was a great experience and highlighted some of my concerns."
d. "I thought it was very helpful to understand the challenges."
e. "Very positive."
f. "Very helpful event."
g. "Very real."
h. "Invaluable chance to test out multiple scenarios."
i. "I think I learned a bunch. It was positive."
j. "With new/upgraded radar this will be manageable."

Additionally, senior U.S. Coast Guard officers—professional mariners—who have experienced the simulator also commented:

Captain, U.S. Coast Guard: "Positive experience. Please offer the same opportunity to other interested and affected organizations, agencies, and mariners."

Captain, U.S. Coast Guard: "Positive. Spending time in the simulator provides an excellent opportunity to see, firsthand, how different (or not) operating in a wind farm will be. I highly recommend continued outreach to those most concerned."

Captain, U.S. Coast Guard: "Navigation safety items visualized in a positive way; a good tool to familiarize everyone with offshore wind.

Commander, U.S. Coast Guard: "Seeing the wind farm in low visibility with the use of the radar, etc., provided great context for what will be experienced."

Commander, U.S. Coast Guard: "Positive—again the experience in the simulator provides great context for the plans I've seen on paper."

Perhaps the most cogent comment, from a state official unfamiliar with navigation or offshore wind farms, is that the simulator "is an important tool to disarm fear."

Participants are also asked to assign a score of 1 to 10 (with 10 being most realistic or most positive response and 1 being the least realistic or least positive response) on eight questions related to the quality of the simulator. Figure 8 below shows the results of a sample group of participants at one of our simulators, which we will call Simulator 1. Figure 9 shows the results of a different group of participants at a different simulator, which we will call Simulator 2. In both sets of results scores are consistent with each other, most scores were relatively high, and lower scores (nighttime operations, realism of weather) provide Orsted clear opportunities for improvement.

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	Question	**Score**
1.	Realism of weather/environmental factors?	36
2.	Realism of vessel interactions?	40
3.	Realism of vessel dynamics?	38
4.	Realistic portrayal of navigation in a wind farm?	42
5.	WTGs easily identifiable during the day?	44
6.	WTGs easily identifiable during at night?	28
7.	Other vessels easily identifiable?	34
8.	The simulation facility's capacity to create and adjust scenarios?	47

Figure 8: Participant Scores at Simulator 1: Maximum score of 50 on each question (i.e., each of the five participants scoring a maximum 10 on any particular question):

	Question	**Score**
1.	Realism of weather/environmental factors?	51
2.	Realism of vessel interactions?	52
3.	Realism of vessel dynamics?	47
4.	Realistic portrayal of navigation in a wind farm?	55
5.	WTGs easily identifiable during the day?	54
6.	WTGs easily identifiable during at night?	44
7.	Other vessels easily identifiable?	54
8.	The simulation facility's capacity to create and adjust scenarios?	55

Figure 9: Participant Scores at Simulator 2: Maximum score of 60 on each question (i.e., each of the six participants scoring a maximum 10 on any particular question):

Orsted's full-mission navigation simulator for offshore wind farms is directly translatable to all other U.S. offshore wind farm developers, as we all engage a similar breadth and depth of stakeholders. Indeed other developers have expressed a keen interest in learning more about Orsted's simulator program and discussing the results we achieve in terms of enhancing mariners' appreciation of spatial cognizance and reducing concerns relative to their ability to safely navigate.

In addition to improving mariner proficiency in terms of navigating within an offshore wind farm, Orsted has introduced several significant initiatives that can be directly linked to stakeholder experiences in our full-mission navigation simulators:

Navigation Safety Fund: Several simulator participants commented that they would be more comfortable navigating within an offshore wind farm if only they had better radar, or better communications equipment, or an better electronic chart display and information systsem (ECDIS), or better training for their crew. Orsted heard this feedback and took action, creating a Navigation Safety Fund to subsidize equipment upgrades and increased navigation safety training for fishing vessel and their crews that historically have plied their trade in areas where Orsted will build its U.S. offshore wind farms.

Aids to navigation: Again, based on feedback from the stakeholder simulator experience, Orsted has worked with the U.S. Coast Guard to improve the size and visibility of alpha/numeric labels on WTGs,

adjust the intensity of navigation lights, and ensure baffling of aircraft warning light atop WTGs so as not to interfere with marine navigation. Stakeholder feedback will also help to improve nautical chart symbology and notes, and placement of automatic information signals (AIS) on key WTGs to further aid mariners.

Experiential Training: Orsted's full-mission navigation simulators provide an opportunity for vessel operators to experiment in a risk-free environment. For example, charter boat and recreational vessel operators can practice approaching a WTG close aboard in a variety of environmental conditions, just as they would in a real-world scenario. Commercial fishing vessel operators can do the same, practice making turns within our offshore wind farm while still having their nets extended and trawling for fish, just as they would in actuality.

Conclusion: Orsted's innovate full-mission navigation simulator provides a heretofore unavailable avenue for stakeholders to experience operating in an offshore wind farm, in a completely risk-free environment, an environment they control to best replicate their anticipated real-world conditions. Not only does the simulator experience foster improved spatial cognizance, reduce fear, and increase understanding of navigating within a wind farm, it has provided an opportunity to Orsted to learn about and address other related issues, such as concerns about navigation equipment, aids to navigation, and crew proficiency.

As this program continues to expand and grow in popularity—and perhaps be adopted by other developers—it will also continue to clearly demonstrate that offshore wind can and will coexist quite constructively with other waterways users, especially the commercial fishing industry, in a manner that is safe for navigation.

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Appendix A, Orsted Offshore Wind Farm Simulation Experience Evaluation Form

Offshore Wind Farm Simulation Experience
Evaluation

Date: _____

Name: _____

Facility: _____

Company/Affiliation: _____

Wind Farm: _____

1) What are your concerns about operating and navigating in and around an offshore wind farm?
_____
_____
_____
_____
_____
_____

For questions 2-10, a scale from 1-10 will be used – with 10 being most realistic or most positive response and 1 being the least realistic or least positive response.

2) On a scale of 1-10, how would you rate the realism of the environmental factors (weather, sea state, etc.)? _____
How could the scenarios be improved?
_____
_____
_____
_____
_____

3) On a scale of 1-10, how would you rate the realism of vessel interactions? _____
How could the scenarios be improved?
_____
_____
_____
_____
_____

4) On a scale of 1-10, how would you rate the realism of vessel dynamics? _____
How could the scenarios be improved?
_____
_____
_____
_____
_____

5) On a scale of 1-10, did the scenarios provide a realistic portrayal of navigation and ship-handling through a wind farm in various conditions? _____

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How could the scenarios be improved?

_____
_____
_____
_____
_____

6) On a scale of 1-10, did the scenarios provide a realistic portrayal of approaching and towing a fishing vessel in and through a wind farm? _____
How could the scenario be improved?

_____
_____
_____
_____
_____

7) On a scale of 1-10, were the WTGs easily identified, visually and electronically, in daytime conditions? _____
What could be improved to enhance identification?

_____
_____
_____
_____
_____

8) On a scale of 1-10, were the WTGs easily identified, visually and electronically, in nighttime conditions? _____
What could be improved to enhance identification?

_____
_____
_____
_____
_____

9) On a scale of 1-10, were other vessels easily identified and distinguishable from WTGs to assist in decision making while transiting the wind farm? _____
What could be improved to enhance identification?

_____
_____
_____
_____
_____

10) On a scale of 1-10, how do rate the simulator facility's capacity of creating numerous scenarios to ensure various conditions? _____
What could be improved?

_____
_____
_____
_____
_____

Orsted Offshore North America
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11) Has your experience in the wind farm simulator helped address the concerns you expressed in question 1, please elaborate?

_____
_____
_____
_____
_____

12.) Overall, how was your experience, positive or negative, please elaborate?

_____
_____
_____
_____
_____

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Starboard Wind

Attachment 7-6

Navigation Enhancement and Training Program

Long-Term Contract for Offshore Wind Energy

March 27, 2024

Navigation Enhancement and Training Program

For RI and MA Commercial and For-Hire Fishermen Eligible for Fisheries Direct Compensation

Navigation Enhancement and Training Program for RI and MA Commercial and For-Hire Fishermen

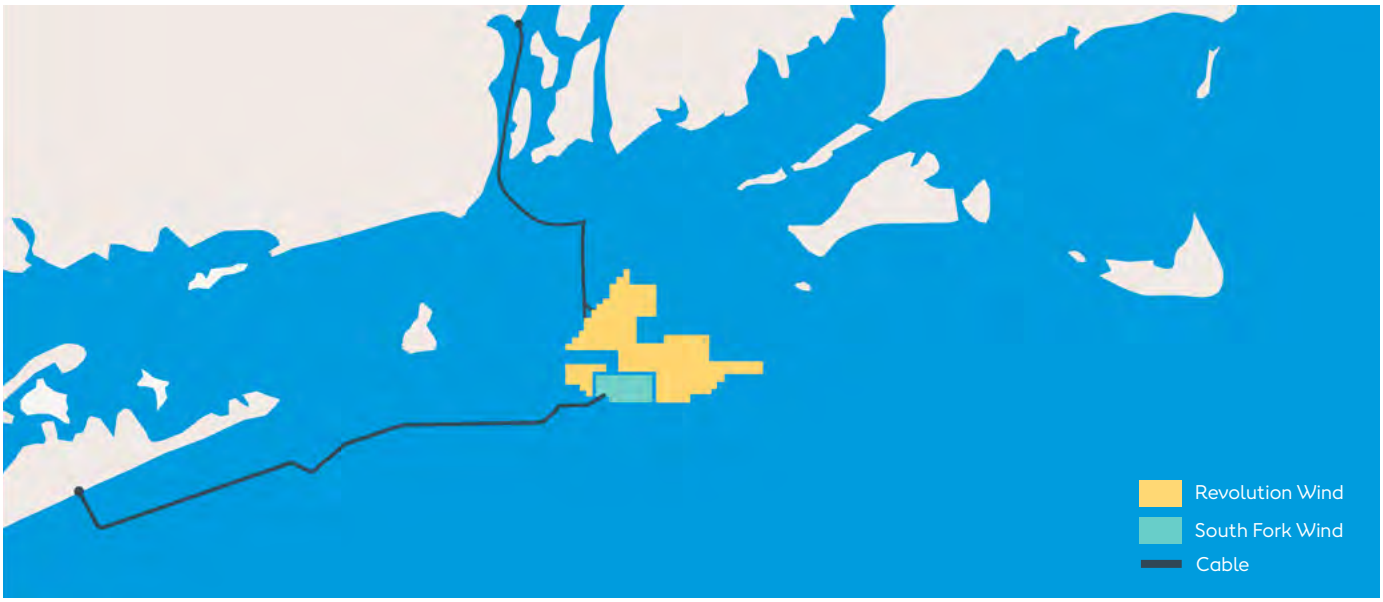
The Navigation Enhancement and Training Program (NETP) offers vouchers for professional training, new pulse compression radar systems, and new or upgraded Automatic Identification System (AIS) tranceivers for eligible RI and MA commercial and for-hire fishermen.

Eligibility

Eligibility for the NETP is contingent upon eligibility for fisheries direct compensation. While Ørsted funds this program, claim eligibility is administered through third party Technical Assistance Providers (TAPs) set up by the states of RI and MA. Vessel owners must demonstrate they have fished within the South Fork Wind area for a minimum of three years prior to construction, they have experienced business interruptions due to construction, operations and/or decommissioning, and they have a home port or registered business in RI and MA.

How to apply

1. Apply for RI or MA Fisheries Direct Compensation **here**.
2. IF DEEMED ELIGIBLE for RI or MA Fisheries Direct Compensation, Apply for NETP vouchers **here**.
3. Applications will be sent to Orsted Marine Affairs and The Paratus Group. The Paratus Group will actively reach out to qualified applicants.
4. A voucher will be issued.
5. Vessel owner can purchase approved equipment from a pre-approved vendor. Nominated crew members can purchase training.



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Navigation Equipment

Eligible vessels will receive a voucher toward the purchase and installation of pre-approved equipment from a pre-approved vendor.

- Commercial fishing vessels and Coast Guard inspected passenger vessels will receive a voucher worth $10,000 toward approved equipment.
- Uninspected passenger vessels (six pack charter vessels) will receive a voucher worth $5000 toward approved equipment.

Training

Owners of eligible vessels may nominate two crew members for professional mariner training at a preapproved training facility.

- Each will receive a voucher worth $1,000 toward approved training.
- Suggested courses include Operator of an Uninspected Passenger Vessel, radar observer, rules of the road refresher, or customized courses for safe navigation within wind farms.

Voucher recipients will be responsible for any expenses that exceed the value of the voucher.

Experiential Learning

All mariners with a saltwater fishing license are eligible to attend experiential learning days hosted by Ørsted Marine Affairs at the US Maritime Resource Center's state of the art vessel simulators.

Dates will be published at:
us.orsted.com/mariners →

Please contact the Ørsted Marine Affairs Team for more information. **MANEP@orsted.com**

This program is administered on behalf of Ørsted's Marine Affairs team by The Paratus Group. The Paratus Group will be your primary point of contact.

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Claire Hodson
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CLAHO@orsted.com

Approved Equipment Vendors

Chris Electronics Corporation
5 Little Bay Road
Fairhaven, MA 02719
(508) 994-8257
chriselectronics.net

Point Judith Electronic Service Corporation
330 Great Island Road
Narragansett, RI 02882
(401) 792-8120
pjelec@cox.net

RC Marine Electric
1 Washington St
Newport, RI 02840
(401) 447-6827
rcmarineelectric.com

Seaport Communicaitons
304 Point Judith Road
Narragansett, RI 02882
(774) 263-0070
seaportcom12@aol.com

Approved Training Facilities

Narragansett Bay Maritime Training
822 Anthony Road
Portsmouth, RI 02871
(401) 406-9555
nbmtri.com

Northeast Maritime Institute
32 Washington St
Fairhaven MA 02719
(508) 992-4025
northeastmaritime.com

US Maritime Resource Center
344 Aquidneck Avenue
Middletown, RI 02842
(401) 849-0222
usmrc.org

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Attachment 7-7

Rhode Island Media Coverage

Long-Term Contract for Offshore Wind Energy

March 27, 2024

The Providence Journal

By: Alex Kuffner
April 7, 2023

Rhode Island is playing a key role in a pivotal year for offshore wind in America

PROVIDENCE — This is shaping up to be a transformative year for America's offshore wind industry.

If all goes as planned, dozens of towering new wind turbines will be standing above the Atlantic Ocean waters off Rhode Island and Massachusetts by the end of the summer. And before the close of the year, their spinning blades should be generating lots of new power to be delivered through cables buried in the seabed to the New England electric grid.

The turbines will be installed as part of the nation's first two major offshore wind farms, a pair of projects spurred on by construction of a five-turbine test array off Block Island in 2016.

It's been nearly seven years since the Block Island Wind Farm broke new ground in America for the global offshore wind industry.

But at 30 megawatts, the wind farm built in Rhode Island state waters is tiny compared with the utility-scale energy projects currently under development in federal waters that will be able to power hundreds of thousands of homes.

Even before the completion of the Block Island project, developers had been eyeing much larger wind farms that could make a real difference in helping Rhode Island, Massachusetts and other states ramp up the use of renewable energy and reach their climate goals.

Activity around the industry picked up with the election of Joe Biden as president and his administration's push to make offshore wind a cornerstone of efforts to wean the nation off fossil fuels and slash planet-warming greenhouse gas emissions.

The two sets of developers of the South Fork Wind Farm and Vineyard Wind never planned to build their projects at the same time, but the construction schedules have come together to make the next few months pivotal for both.

Building pieces of the South Fork Wind Farm in Providence

Inside a cavernous warehouse-like structure that looms over the Providence waterfront sit pieces of the South Fork Wind Farm in varying stages of completion.

Danish developer Ørsted and New England utility Eversource began offshore construction of their 132-megawatt wind farm only a few weeks ago, but here in the Port of Providence, 130

workers have spent the last year doing some of the most complex work on components for the monopile foundations that will be hammered into the ocean bed to secure the project's 12 turbines in place.

"We're trying to do as much work onshore as possible, because when we go offshore we want to be surgical and spend as little time as possible in that harsh marine environment," said Paul Murphy, a director with Ørsted.

Working for contractor Riggs Distler, the crews, all members of local Rhode Island labor unions, are assembling 40-foot-tall platforms that will sit inside the cylindrical monopiles and hold mechanical, communications and electrical equipment crucial to the operation of the turbines.

Each platform will be lowered inside one of the hollow, 300-foot-long monopiles like an arm being slipped into a sleeve.

The construction workers are also building 130-ton concrete platforms that will be bolted onto the outside of the monopiles and will serve as the only access point to the turbines. Each one has a crane for carrying equipment and a hoist to lift technicians up from crew transfer vessels.

The last things they're making are ring-shaped anode cages that will be dropped around the bottom of the monopiles to prevent them from rusting.

When the parts are finished, as soon as next month, they'll be shipped out to the project site in the waters between Block Island and Martha's Vineyard for installation.

The stage was set last month when the developers reached a project milestone by making a connection between the two parts of the 56-mile transmission cable that will send power from the wind farm to a substation on Long Island.

The moment when workers connected the first section of the 138-kilovolt electric line that will be buried under the ocean floor to the portion already installed on land marked the beginning of offshore construction for the wind farm.

And on April 3, the project hit another important mark when the U.S. Department of the Interior announced that it had signed off on the construction plan for South Fork's turbines. The decision clears the way for the project to become the first offshore wind farm in federal waters to begin installing turbines, the department said.

Vineyard Wind also set to begin offshore construction

The two companies partnering on Vineyard Wind have also been busy laying the groundwork to start getting their turbines in the water this summer.

Avangrid Renewables, part of the Spanish renewable energy giant Iberdrola, and Copenhagen Infrastructure Partners, a Danish investment firm, broke ground on the onshore portion of their 64-turbine project two years ago.

With the project chugging along today, it's easy to forget that not so long ago there were doubts about how it would overcome opposition from commercial fishermen and navigate through what was, under the Trump administration, an uncertain federal permitting process.

But with a change in administration, the developers refiled their application and in May 2021 the project became the first offshore wind farm to win approval from the Bureau of Ocean Energy Management. South Fork had its own problems trying to appease the fishing industry, but it became the second offshore wind farm to secure federal approval that November.

So far, the Vineyard Wind developers have built an onshore substation on Cape Cod and another one offshore at the site of the wind farm in federal waters south of Martha's Vineyard. In recent weeks, they've been busy laying sections of the two transmission cables that will run between the substations.

The developers reached the sea-to-shore milestone for the cables a couple of months before the South Fork project, joining the two sections together in January at Covell's Beach in Barnstable. They're currently working on the near-shore, middle portions of the 34-mile-long cables.

Meanwhile, the 13-megawatt turbines being made by General Electric are set to arrive in New Bedford from France in a matter of weeks, along with blades from Canada, monopiles from Germany and other components. Installation of the foundations is set to begin in May or June.

About half of the turbines are expected to be completed this summer and are projected to start generating power before the end of the year. The remaining turbines would be installed when the marine construction window opens again in the spring of 2024.

More offshore wind farms expected off Rhode Island and Massachusetts

There are still more offshore wind projects set to come to the waters off Southern New England.

Next in line is Revolution Wind, a 704-megawatt project that Ørsted and Eversource are also developing in the same general area as their South Fork project. The companies have a contract to sell 400 megawatts of capacity to Rhode Island through cables that would make landfall at Quonset Point and would deliver the remaining 304 megawatts to Connecticut.

The developers are expecting a record of decision from the Bureau of Ocean Energy Management in July. Onshore cable work could start immediately afterward, offshore construction would follow in 2024, and the project could begin delivering power by 2025.

The same joint venture has proposed a second, larger phase of construction called Revolution Wind 2 that would sell 884 megawatts of power solely to Rhode Island. Rhode Island Energy, which would buy the power, is currently reviewing the proposal and expects to make a decision in June.

A trio of other proposals are also still on the table, despite recent difficulties. Last fall, Avangrid, which is developing two of the projects on its own, raised questions about the viability of contracts it secured to sell power, saying that inflation, the war in Ukraine and supply chain difficulties had made those contracts uneconomical.

The company is asking Connecticut to adjust the price in the contract for 804-megawatt Park City Wind. As for the contract with Massachusetts utilities for the 1,200-megawatt Commonwealth Wind, Avangrid has signaled its intent to scrap the agreement and a seek a new one.

The newly renamed Southcoast Wind secured a contract last year in Massachusetts at the same time as Commonwealth Wind. While Shell and its partners on the 1,200-megawatt project formerly known as Mayflower Wind have raised similar concerns about rising construction costs, they say they'll stick to the agreement.

Port of Providence is becoming an offshore wind hub

The South Fork Wind Farm will send all of its power to Long Island, but it made sense to stage the assembly work at the Port of Providence for a couple of reasons. For one, the project site about 19 miles southeast of Block Island is closer to Rhode Island than it is to New York.

Second, the port already had experience with the type of work the developers needed. Eight years ago, Deepwater Wind, the company that developed the Block Island Wind Farm and was later bought by Ørsted, did similar finishing work on turbine components at a temporary facility in the port.

When Ørsted and Eversource were looking for a place to set up a permanent fabrication hub, it made sense to keep it in Providence, where workers had learned some of the mechanical and electrical expertise that the developers needed.

The companies also had relationships in place with Waterson Terminal Services, the port operator, as well as the Rhode Island Building and Construction Trades Council, the umbrella group that represents construction unions in the state.

The developers plan to use the facility not just for the South Fork project, but also for Revolution Wind and, if talks progress favorably with Rhode Island Energy, Revolution Wind 2, as well. They will also stage work there for Sunrise Wind, the 924-megawatt project that would supply power to New York and be built off that state's coast.

"We're looking to build a domestic supply chain for offshore wind at the same time that we have an imperative to meet the president's 30-gigawatt by 2030 goal for the industry," said David Ortiz, head of government affairs and market strategy at Ørsted. "The idea is that when we make investments like we have here, it carries through years and multiple projects."

The new manufacturing facility in Providence was completed about a year ago, and it's been humming with activity since.

Building "the brains of the foundations"

Over the next few weeks, a special installation ship will continue laying the submarine cable for South Fork. Once that work is complete, an offshore substation being built in Texas will be shipped north and installed. The monopile foundations will follow and then the turbines themselves.

Like those for Vineyard Wind, the project's monopiles are being manufactured in Germany. Murphy says no company in the United States currently has the capability to make the 1,700-ton cylinders.

For the same reason, the 11-megawatt turbines are also being built overseas, by Siemens Gamesa in Germany and Denmark.

But the port's facility is able to do the specialized work on components that include those internal platforms that Murphy describes as "the brains of the foundations." It's within the structures that the export cables will connect to the internal wiring from the turbines.

During a visit last month, a half dozen of the platforms stood inside the plant in various stages of completion. The other six were finished and stood upright overlooking the Providence River. A handful of the external concrete platforms sat nearby, as did the anode cages.

Work was nearing an end on the port's piece of the project. But with final approval of Revolution Wind on the horizon and the possibility of another 65 turbines going in the water, any lull in activity is expected to be only temporary.

"Come back in a year, and we'll have this whole place filled with components," Murphy promised.

The Providence Journal
By: Antonia Noori Farzan
June 3, 2023

Beneath towering turbines, US energy secretary says Block Island Wind Farm is nation's model

THREE MILES OFF THE SOUTHEAST COAST OF BLOCK ISLAND – The Block Island Wind Farm should serve as a model for the rest of the country, U.S. Energy Secretary Jennifer Granholm told reporters during a tour of the first-in-the-nation offshore wind facility on Friday.

"We want to replicate this, even bigger, all up and down the Atlantic seaboard, but also in the Pacific and in the Gulf of Mexico and in the Great Lakes," Granholm said, standing aboard a ferry that rolled gently in the ocean swells. "We want to be able to generate clean energy all across America."

Granholm was joined Friday by elected officials including Gov. Dan McKee, Senators Jack Reed and Sheldon Whitehouse, and Rep. Seth Magaziner, as well as representatives from Ørsted, which owns the wind farm. Only three of the five turbines were spinning: Routine maintenance will be taking place throughout the summer, while there are lighter winds and calmer conditions, Ørsted representatives said.

Ørsted is also behind the South Fork Wind Farm, which is under construction. Spokeswoman Meaghan Wims said the project is approaching "steel in the water" – the wind-farm equivalent of "cranes in the sky" or "shovels in the ground." In fact, as the Rhode Island Fast Ferry sped toward Block Island, theLiving Stone, a cable-laying ship deployed on the South Fork project, could be seen on the horizon.

The challenges ahead: Getting fishermen and Gulf states on board with offshore wind

Asked about fishermen's fears that wind farms could have a negative impact on marine life, Granholm said Rhode Island offered a road map for addressing those concerns. "I think what was done in the Block Island example was to bring the fishing community in at the outset so that everyone benefits," she said.

The tour served as an opportunity to tout the positive spillover effects of wind farms – for instance, the boost to the boatbuilding industry.

As Granholm took in the view, a 12-passenger crew transfer vessel pulled up to one of the turbines. The small, ferry-like catamaran was built by Blount in Warren and is specially designed to make it safer and easier for maintenance workers to step off the boat and onto the turbines, Ørsted officials said. The company has commissioned five more of the vessels, which are being built at Blount and at Senesco in North Kingstown.

Back on land at a roundtable discussion in Quonset, members of the congressional delegation acknowledged that wind farms might be a harder sell in the Gulf of Mexico, where fossil fuels have historically been a boon the economy.

"The notion that we're going to go to Gulf state legislatures and governors and say, 'We want you to transition from oil and gas to offshore wind, and you get 37 cents on the dollar from offshore oil and gas, and you get nothing from offshore wind,' is a terrible incentive," Whitehouse said, noting that he has introduced a bill to address that imbalance.

On the plus side, Magaziner said, "I tell my colleagues from the Gulf states that there has never been an offshore wind spill."

Before leaving to meet with local students, Granholm said it was an exciting time for the industry.

"I hope you all feel the moment that we are in," she said. "If you ever wanted to work this space, this is the time."

Want to tour the Block Island Wind Farm?

Curiosity about the Block Island Wind Farm has generated something of a "cottage industry," Wims said. While Ørsted doesn't typically offer tours to the general public, there are now charter companies in Block Island and Galilee that will take small groups out to see the turbines.

If you have your own boat, there are no restrictions preventing you from cruising through the wind farm. (In fact, fishermen can often be found near the turbines.) And if you'd prefer to view the turbines from land, the best spot is Southeast Light on Block Island.

Eco RI News
By: Mary Lhowe
August 10, 2023

R.I. Workforce Plans for Offshore Wind, Anticipating Solid Union-Supported Jobs

The offshore wind industry has a solid foothold on land in Rhode Island, in workplaces thick with concrete, steel, wrenches, and hard hats. The industry's land bases in the Ocean State also include busy places where people are training to work in the nascent industry.

Wind industry workforce planning and training has a dead-eye aim on four major targets. The first, supported by Biden administration policies and billions of federal dollars, is to simply build lots of offshore wind as a renewable energy source nationwide.

The second target is to use the expertise and resources of construction labor unions to support the industry, which, in turn, helps to bolster the strength and profile of unions.

The third target is effective training, extending from high school students imagining future careers, to existing workers who need specific training to work far out at sea, to people heading into apprenticeship programs and union-supported careers. Unions and their apprenticeships play a big role in the preparations.

A final target, which suffuses all others, is to bring into this workforce workers — Black people, Latinos, Indigenous, women, and low-wealth individuals — who have historically faced job discrimination and the ill effects of living in communities fouled over the decades by pollution from highways, dumps, and dirty industry.

Offshore wind workforce planning and training is happening all over the state: at high schools and colleges; at the Port of Providence and Port of Davisville; at two major boat builders; at the offices of Rhode Island Commerce and the state Department of Labor and Training; and at the Cambridge Innovation Center, where a cluster of top-tier wind industry professionals map out the future.

Unions helping, benefiting

Sixteen percent of Rhode Island's workforce is composed of union members, compared to 10% nationally, according to the U.S. Department of Labor Statistics. (The 16% is met or exceeded by only five other states: Alaska, California, Hawaii, New York, and Washington.)

Rhode Island construction crafts unions, under the umbrella of the Rhode Island Building and Construction Trades Council, are leading and helping with training. Pre-apprenticeship programs are active through operations such as Building Futures and WindWinRI.

"When we have the labor movement onboard, we get things done," said Mike Roles, policy director for
the nonprofit Climate Jobs Rhode Island.

When unions lead a mission like workforce development, it puts a "working-class lens" on the task, Roles said. "The only way you will see a just transition is where the path is led by working-class people. The way to create family sustaining jobs is to put people at the front."

Roles said employers, such as the contractors who are doing and will do the hands-on work building the wind facilities, know that using union labor is one way to hold projects to a high standard, with projects done "on budget, on time, done right, done once."

He noted Ørsted, the developer of the almost-approved Revolution Wind project, signed a National Offshore Wind Agreement, a commitment to employ union labor. "Ørsted has been a good ally with labor," Roles said.

David Langlais is vice president of the Rhode Island Building and Construction Trades Council and business manager of the Local 37 ironworkers. "Any time there is any new market that will employ construction workers we will embrace that," he said. "Power plants have provided work opportunities. Now, we need to transition to renewables."

He said the Block Island, South Fork, Vineyard and Revolution wind projects — the first one in operation, the second and third in the works, and the last one awaiting final approval — have used union workers.

"One of the nice things about the building trades is that our apprenticeships programs can adapt and bring in new programs and training," Langlais said. "As the market [for labor] changes we can train for that."

Wednesday is for welding

Andrew Cortes, founder and executive director at Building Futures, delights in showing a visitor around the 15,000-square-foot building where, for the past 15 years, the organization has prepared people to be ready to step into construction union apprenticeship programs. The building is a busy industrial area of Providence, a little bit west of the Providence Place mall and near the site of the old American Locomotive Works, where men and machines once hammered and welded pure steel into locomotives.

A few rooms in the high-ceilinged place have tables and blackboards, but the heart is a large room where men and women are sawing pipe, maneuvering valves, and watching a welding demonstration. Through the room runs a long structure that looks like a steel bridge, but with

short legs. Each class builds a “bridge” as part of its ironworking segment. At the far end, small rooms of fiberboard, neatly taped, are the product of a carpentry segment.

Joaquin Albuquerque, left, and Bento Fortes at work at Building Futures. (Mary Lhowe/ecoRI News)

Cortes said students attend a five-week pre-apprenticeship course that introduces them to the basic skills of several trades, including carpentry, electrical work, ironwork, and pipefitting.

Building Futures also teaches “soft” skills of the working world, helps students choose a trade, and conducts all the work of securing certifications at the end of the five weeks.

Graduates of the program leave by choosing a line of work and stepping directly into a paying apprenticeship position at a construction union. A person is a member of the union the day he or she steps into its apprenticeship program. Apprenticeships can take three to five years to complete.

Building Futures, in concert with unions and developers, such as Ørsted, specifically hires and trains people who had been disadvantaged because of discrimination or poverty. Cortes said 80% of participants are non-white; 10% are women; 42% have done time in prison.

“If we see something coming in the industry we prepare ahead of time to certify people,” Cortes said. “We have a collective bargaining structure; we train to competency; the training is robust; it can be deployed to meet the needs of a new industry.”

Corte said Ørsted, co-developer of Revolution Wind, has been a first-rate partner, entering community workforce agreements that require that “at least 15% of the work hours must be done by apprentices.”

Climbing ropes, falling off boats

Building Futures trains for entry into the construction industry, and those skills go to many types of construction projects. Two other groups in Rhode Island are training people for skills specific to working on wind turbines or moving from boats to turbines in the open ocean.

Starting this fall, with support from a $500,000 grant from Ørsted, the Lincoln campus of the Community College of Rhode Island will begin safety training specific to working on wind turbines, leading to certification that is required for this work by the Global Wind Organisation (GWO).

The Ørsted money went, in part, to building a 28-foot gantry that stands in for a turbine for training on climbing and use of ropes. A campus swimming pool will be used for classes on water safety and water rescue. Fire awareness and safety is part of the course.

The aim is to keep workers safe, say, in the middle of February in high winds on the Outer Continental Shelf when they, in heavy clothes and carrying equipment, may be climbing on wind turbines.

People will learn different fall arrest systems, said Jennie Johnson, vice president of the division of workforce partnerships at CCRI. “What happens if someone falls into the water wearing equipment? How will they climb into a life raft? What first aid can be done miles offshore on a boat? What is done until rescue helicopters arrive?”

The first cohort of the class at CCRI will include 125 people, including 75 from building trades unions. Classes will extend into the winter. The GWO certification must be renewed every one or two years.

“Right now, people are leaving the state to get this training elsewhere,” Johnson said. Offshore wind “is going to create thousands of jobs in Rhode Island. We see our job as providing training.”

Another wind industry-specific training is happening through WindWinRI, established six years ago and operated by the North Kingstown Chamber of Commerce.

WindWinRI is an offshore wind energy career training system for youth and adults, said its director, Kristin Urbach. It includes a high school certification and separate trainings and certifications for adults older than 18 on working at heights with ropes and working on vessels in the maritime industry, such as crew transfer vessels.

WindWinRI is funded by RealJobsRI, part of the state Department of Labor and Training. Last year, the program received $375,000 in congressional direct spending.

The program includes training and certification for high school students, the only such program in the country, according to Urbach. It is offered in five Rhode Island high schools or technical schools.

The third annual high school wind turbine competition was held in April, with students eagerly and busily adjusting and demonstration their turbine models and explaining their work to onlookers.

Measuring the impact

It is difficult to find solid data on the number of bodies and the number of dollars that are being invested in offshore wind in Rhode Island. The planning, permitting, and construction happens in phases over long periods of time. The construction phase is heavy with workers, the operations and maintenance phase less so.

Similarly, workers and dollars are invested in preparations that also serve many more clients and enterprises in addition to offshore wind. Examples are construction at the Port of Providence and the 20-year-long upgrades to Quonset Business Park and the adjacent Port of Davisville, which is expected to serve as a staging place for wind project work.

In addition to port facilities, Ørsted and its partner, Eversource, have partnered with Blount Boats in Warren and Senesco Marine in Quonset Point to build five new crew-transfer vessels.

Predictions of future employment are tricky. The next big wind projects coming closest to Rhode Island and serving its grid, Revolution Wind, has not yet achieved its final federal approval. And the SouthCoast wind facility, which would touch on Rhode Island, is on sort of hiatus as it renegotiates its power-purchase agreement with Massachusetts, where the power will be used.

With all that said, some numbers are:

Asked to estimate the number of Rhode Island jobs working in the wind industry, John Willumsen, an analyst with the state Department of Labor and Training, referred to the North American Industry Classification System, which provides codes to classify businesses based on their primary economic activity. In the business category of Wind Electric Power Generation, Willumsen said that "In Rhode Island, there were four employers classified in this industry employing an average of 56 workers in 2022 and paid an average wage of $161,000. One of the employers accounted for over 80% of this employment."

In the category of Power and Communication Line and Related Structures Construction, Willumsen said in Rhode Island "there is one registered company that provides turbine overhaul services for gas, steam, and combustion turbines. The company registered in 2022 and employed an average of 22 workers during the second quarter of 2022 at an average quarterly wage of $22,500. There has been no reported employment since June 2022." The job category Wind Turbine Service Technicians includes 40 workers in Rhode Island in 2022. The median wage was $22 per hour.

Revolution Wind says it expects to generate 1,200 jobs in Rhode Island and Connecticut during construction. Once the wind project is operational, the facility will sustain dozens of permanent, full-time operations and maintenance positions.

An Ørsted spokesperson said the company's co-headquarters in Providence is home to about 75 employees.

Ørsted invested $100 million, said a spokesperson, in work at the Port of Providence, partly to build a huge work shed where components have been or will be built for the South Fork and Revolution wind projects. About 130 workers were employed at that facility as of June, according to Erica Hammond of Climate Jobs RI, building and assembling components.

An interstate comparison is Vineyard Wind, now beginning construction of 62 turbines — about the same as proposed for Revolution Wind — off the Massachusetts coast, working out of New Bedford. Its first annual report, entitled Vineyard 1 Impact on Jobs and Economic Output, states that Vineyard Wind has generated more than 4,000 jobs and $678 million in economic output, surpassing initial projections.

The 2022 Rhode Island Clean Energy Industry Report stated that from 2020-2021, overall cleaner energy jobs increased by 3.2% over the previous year. Most of those jobs were in renewables and efficient heating and cooling. But the report stated that "nearly all clean energy technology segments lost jobs during the period of 2019 to 2020, with the exception of the wind industry."

The 2023 U.S. Energy and Employment Report stated that renewable energy jobs increased in every state and grew 3.9% nationally from 2021 to 2022. Also, technologies with double-digit growth include offshore wind (20%).

As with employment numbers, it is hard to quantify the number of dollars that have or will go into wind energy development in Rhode Island, because grants may go to operations that touch upon offshore wind only partially.

However, Rhode Island, through funds from Ørsted and Eversource, has pledged $4.5 million to OSW workforce development. The Revolution Wind agreement includes a $1.5 million investment into RealJobsRI and a $3 million investment to the University of Rhode Island.

Attention is focused on money sources from the federal Bipartisan Infrastructure Law of 2021 and the Inflation Reduction Act of 2022. Roles, policy director of Climate Jobs RI, said he has a spreadsheet of all open applications for grants for decarbonization projects and a recent figure for available money was $19 billion.

"The work is here; it is almost on top of us," said Cortes of Building Futures. The ability to place skilled workers into offshore wind jobs "will be because of the training structure that is in place."

The Providence Journal
By: Alex Kuffner
November 17, 2023

'Wind is the future of our state': As Revolution Wind offshore project begins, McKee remains committed

NORTH KINGSTOWN – As Gov. Dan McKee looked on, construction workers lugged chunks of asphalt away from a big hole they've dug in the ground in the Quonset Business Park.

It may not have seemed like much, but the scene on Thursday was evidence of the progress that developers are already making on Rhode Island's first utility-scale offshore wind farm.

So McKee took the opportunity to get an up-close look at some of the onshore excavation work to make way for the transmission cable that will run from an electrical substation in the state-owned business park to the 65-turbine project known as Revolution Wind, which will be built about 15 miles south of Little Compton.

"Wind is the future of our state. It's our energy source," said McKee, who was flanked by union leaders and executives from Ørsted and Eversource, the energy companies partnering on the wind farm.

Revolution Wind is making progress, but offshore wind's future is complicated

The event couldn't have come at a more complicated time for the offshore wind industry. On the one hand, the first two large offshore wind projects in the nation are in construction in the waters off Rhode Island and Massachusetts.

On the other, a series of projects that were set to follow in their footsteps have run into dire straits, victims of inflation and supply chain problems. Just two weeks ago, Ørsted, the Danish company that is the world's leading offshore wind developer, dropped plans for a pair of proposals off the New Jersey coast, writing off $4 billion in costs.

But on the same day, the company recommitted to its joint venture with Eversource, a New England utility, to develop Revolution Wind, which with a capacity of 704 megawatts would supply enough power for 350,000 homes. The majority of its production would go to Rhode Island electric customers, while Connecticut users would get the rest.

Ørsted owns the Block Island Wind Farm, the five-turbine test project in Rhode Island state waters that in 2016 became America's inaugural offshore wind farm. The Revolution project builds on the company's existing investments in the state, said Troy Patton, head of program execution, Americas, for Ørsted.

“We’re doubling down on that commitment with Revolution Wind,” he said.

Transmission system is getting an upgrade

After a key approval came through from the federal government this past summer, the joint venture started work on the land portion of the cable route. The cable is set to run from the wind farm in Rhode Island Sound, up Narragansett Bay to the south end of Quonset.

Crews there used a horizontal directional drill to clear a path deep underground for the cable to make landfall. And now they’re building the conduit under roads in the business park along the mile-long path connecting the landfall point to the site of an existing substation that Eversource will rebuild for the project.

Meanwhile, Rhode Island Energy, which owns the power grid in the state, is spending $125 million to upgrade the transmission system around the substation to help facilitate the delivery of power from the wind farm, which is expected to be completed in 2025. It’s part of a $2-billion investment the company is planning to bring more renewables into the grid and modernize the electric system, said its president Dave Bonenberger.

Rhode Island Energy is also soliciting proposals for up to another 1,200 megawatts of offshore wind as part of a process that’s being coordinated with Connecticut and Massachusetts. After a previous solicitation resulted in the company rejecting a second phase of the Revolution project because of its high costs, policymakers are hoping that economies of scale resulting from the regional approach will lead to more affordable prices.

Asked if he’s worried about the escalating prices for offshore wind, McKee said he wants to see what comes out of the process. He pointed to the state’s bet on the Block Island Wind Farm. The project is costing ratepayers hundreds of millions of dollars, but it helped lead to Revolution Wind, which is projected to lead to net savings. He said the state shouldn’t stop exploring offshore wind options.

“If we took that position a few years back, we wouldn’t be here today talking about electrifying over a couple hundred thousand homes in the state of Rhode Island at price points that are going to help improve energy costs,” McKee said.

The Providence Journal

By: Alex Kuffner
November 22, 2023

This week was big for developers building offshore wind farms near Rhode Island

PROVIDENCE – Monday was a big day for offshore wind developers Ørsted and Eversource.

The companies announced the installation of the first turbine at their inaugural offshore wind farm near the coast of Rhode Island, and then came word that final approval had been given for construction of an even larger project that they're planning nearby.

The positive news for the developers comes amid uncertainty for the offshore wind industry as a whole, which has made huge strides this year but has also run into enormous difficulties as escalating costs have torpedoed some projects and delayed others.

South Fork Wind Farm hits milestone

Completion of the first of a dozen turbines at the South Fork Wind Farm, southeast of Block Island, comes several weeks after the same milestone was achieved at Vineyard Wind, a 62-turbine project being built not far away in the waters south of Martha's Vineyard.

They are the first two utility-scale offshore wind farms under construction in America – projects big enough to supply power to many tens of thousands of homes – and they come after the nation's very first offshore wind farm, a five-turbine test project, was completed in Rhode Island state waters near Block Island seven years ago.

Onshore construction for Revolution Wind begins

Even though the South Fork project is located off the Rhode Island coast, it will deliver all of its power to Long Island. Rhode Island must wait to get more offshore wind power until the construction of Revolution Wind, the proposal that got final clearance on Monday with the federal Bureau of Ocean Energy Management's approval of its construction and operations plan.

Ørsted and Eversource have been working onshore in the Quonset Business Park along the route of the wind farm's transmission cable since the summer after a key permit for the 65-turbine project was issued. Offshore construction is scheduled to begin next year, and the project would go into operation in 2025.

"This is a significant win for Rhode Island, marking an important milestone in our efforts to advance the state's clean energy future and grow our already thriving blue economy," Gov. Dan McKee said in a statement.

Article:	Outlet:	Date:	Year:
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National Grid agrees…	AP	February 8	2019
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Construction begins on…	WPRI	November 16	2023
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Attachment 7-8

Stakeholder Communication and Outreach Presentation

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Attachment 7-9

Summary of Meetings with Stakeholders and Community Organizations

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Attachment 9-1

Project Schedule

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Attachment 12-1

Resumés of Key Personnel

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Attachment 14-1

Third Party Economic Development Report

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Attachment 14-2

Net Benefit Model

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Attachment 18-1

Explanation of Exceptions to the Form PPA

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Attachment 18-2

Form PPA as Marked up by Proposer

(Appendix C from RFP)

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Attachment 19-1

Explanation of Exceptions to the Commitment Agreement

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Attachment 19-2

Commitment Agreement as Marked up by Proposer

(Appendix E from RFP)

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Appendix A.2

Economic Development Summary Sheet

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