



NYSERDA ORECRFP23-1



# Purchase of Offshore Wind Renewable Energy Credits

Submitted by Empire Offshore Wind LLC- January 25, 2024

Section 1 - Executive Summary



Powering New York. Together





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<b>[REDACTED]</b>	
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## 1. EXECUTIVE SUMMARY

*The Executive Summary shall not exceed ten (10) pages. The Submission must include both Confidential and Public versions of the Executive Summary. The Executive Summary should provide a high-level overview of the proposed Project in narrative and tabular form, as described below.*

*1. Provide a single page describing the Project(s) including the Offer Capacity, Injection Point(s), and the array of Proposals included in the Submission, including the proposed Contract Tenor(s), along with the variance represented by any included Alternate Proposals including Project configurations, interconnection, COD, or economic benefits.*

Empire Offshore Wind LLC (“Empire Wind”) hereby submits its offer to supply offshore wind renewable energy certificates (“ORECs”) to the New York State Energy Research & Development Authority (“NYSERDA”). Empire Wind’s proposals are the culmination of seven years of work and insights by a dedicated and experienced team, drawing on more than 45 years of experience with global offshore energy projects, focused on advancing offshore wind development and the associated supply chain in a manner that aligns with New York State’s economic and environmental objectives. Empire Wind’s offers in this solicitation reflect the commitment of Empire Wind and its affiliates to solidify New York State’s status as a hub of offshore wind development and achieve its goal of developing 9 gigawatts (“GW”) of offshore wind energy.

Empire Wind is offering NYSEDA the option to secure ORECs representing 810 MW of capacity for a 25-year contract tenor from the Empire Wind, Phase 1 Project (“EW1” or “Project”), a mature, shovel-ready project that no longer faces the uncertainties of earlier-stage projects and is expected to achieve first power in 2026. As depicted in Figure 1.2, EW1 is located in the western portion of Lease OCS-A 0512, issued by the U.S. Department of Interior, Bureau of Ocean Energy Management (“BOEM”) in 2017.



Empire Wind remains committed to the development of the Project and achieving NYSEDA’s vision of a thriving offshore wind industry that delivers broad economic and environmental



benefits for all New Yorkers. Empire Wind consistently has acted in good faith to fulfill its commitments, which is reflected in the high level of maturity of the Project, its proposed supply chain investments, and strong stakeholder support for the Project. The economic assumptions underpinning that agreement were undermined by unprecedented inflation, supply chain disruption, and soaring interest rates that impacted many US renewable projects. Nevertheless, Empire Wind and its affiliates continued to mature the project and are excited to get to work making investments that will make New York an offshore wind hub for decades to come.

Empire Wind’s efforts over the past 7 years have resulted in a mature, shovel-ready project that no longer faces the uncertainties of earlier-stage projects and will reach commercial operation in the near term. As detailed further herein, EW1 has:

- Executed contracts with tier one suppliers, ensuring that Project costs are based on firm offers from suppliers, with limited exposure to future cost increases;
- Secured nearly all necessary permits to commence construction, [REDACTED] thereby clearing the path for development of the Project;
- Reduced cost and schedule risk by signing a Large Generator Interconnection Agreement that secures access to a viable point of interconnection for the Project;
- Obtained site control necessary for key project development, including executing a lease securing the rights to use SBMT to support the Project.
- Implemented a statewide stakeholder engagement strategy to win support for the project, invest in local communities, and gather feedback on the project.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Selecting Empire Wind through this solicitation will ensure that New Yorkers benefit from the substantial investments that have been made to advance the Project. With construction expected to commence in the coming months, NYSERDA’s selection of the Project through this solicitation will result in the injection

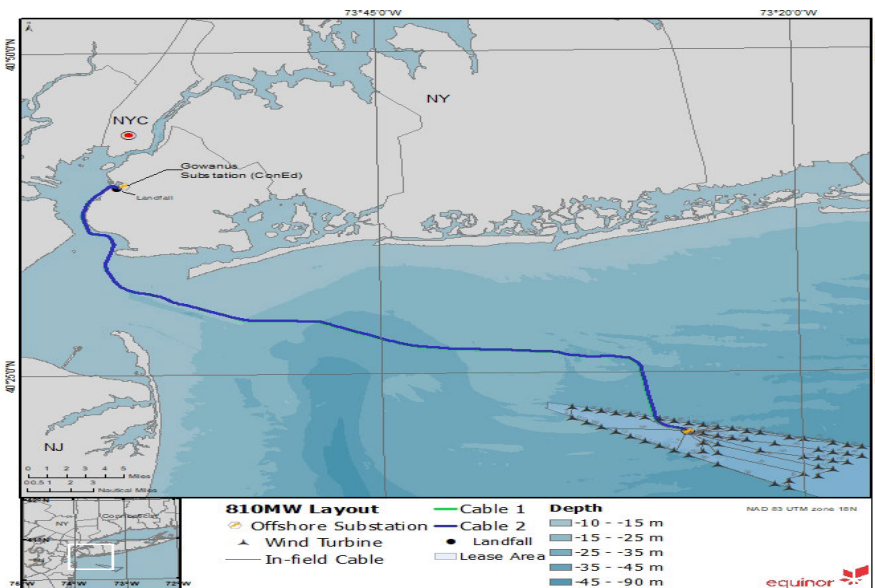
Empire Wind looks forward to continuing to work with NYSERDA and the State of New York to deliver safe, reliable, and efficient offshore wind power to New York State ratepayers while continuing to advance New York State's position as the offshore wind hub of the East Coast.

### 1.1. Project Overview

*2. Provide a map (or maps) showing the proposed Offshore Wind Generation Facility, the turbine array location relative to the total lease area, distance from shore, offshore substation and conceptual offshore and onshore cable route of the generator lead line to the Injection Point, and onshore converter station, including any flexibility or alternative considerations.*

The Empire Wind Project will use technologies and equipment that have been shown to operate reliably and safely under even the harshest ocean conditions and will be one of the first projects to install the Vestas V236 wind turbine generators. Higher capacity turbines mean fewer turbines and a reduced environmental footprint of the project. The Empire Wind Project would consist of fifty-four (54) 15 MW wind turbine generators connected to an offshore substation by a network of inter-array cables. From the offshore substation, two export cables would run to a landfall location at SBMT. At landfall, the submarine export cables will transition to onshore export cables that will extend from the landfall point to a new onshore substation, also sited at SBMT, which is then connected to the existing Gowanus Substation located in Brooklyn, New York. Figure 1.2 provides an overview of the major project elements.

Figure 1.2: EW1 Major Component Layout



### 1.2. Supply Chain and Economic Benefits

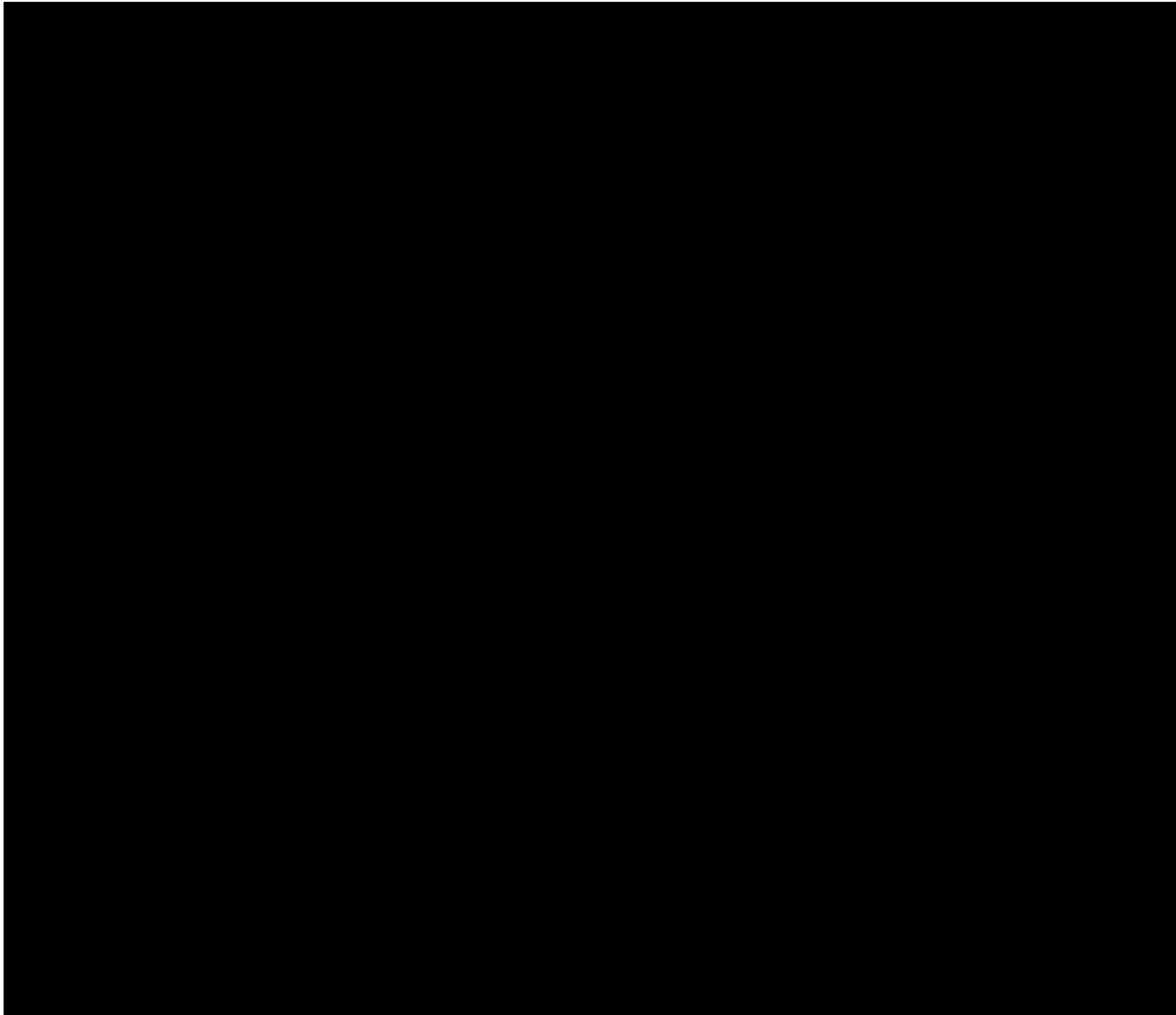
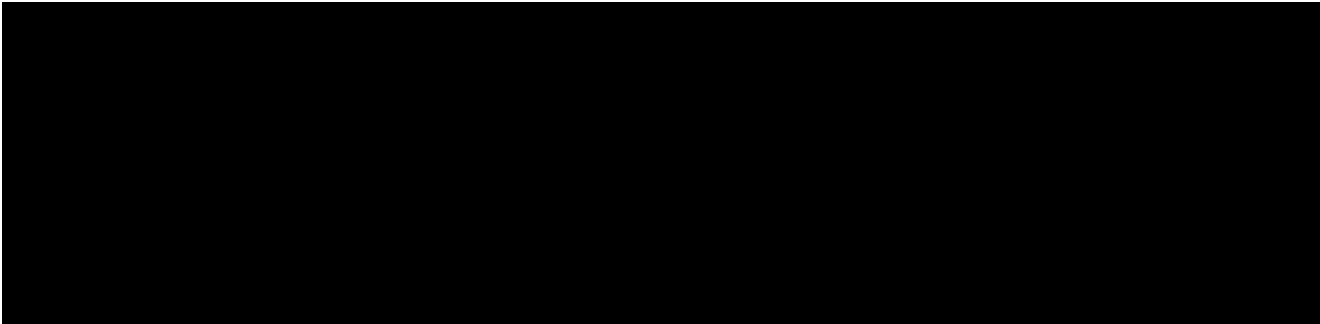
3. Provide a map (or maps) showing the planned port and supply chain facilities, including vessel providers, for each Project configuration included in the Submission.
4. Provide up to two pages summarizing the Economic Benefits Plan and the New York Jobs and Workforce Plan. For each Proposal, state the total Incremental Economic Benefits, as calculated in the corresponding Offer Data Form.

Empire Wind’s economic benefits plans represent the culmination of a multi-year development strategy that has made New York a central focus and priority.

[Redacted text block]

[Redacted text block]

[Redacted text block]



Importantly, the economic benefits described above are supported by a mature procurement strategy that provides a high degree of certainty that these benefits will be realized. Not only does this ensure that these estimates are well-founded and based on actual contractual





commitments, but it also mitigates the risk of cost increases. Figures 1.3 and 1.4 below provide an overview of the economic benefits that would be generated under Empire Wind's proposals.

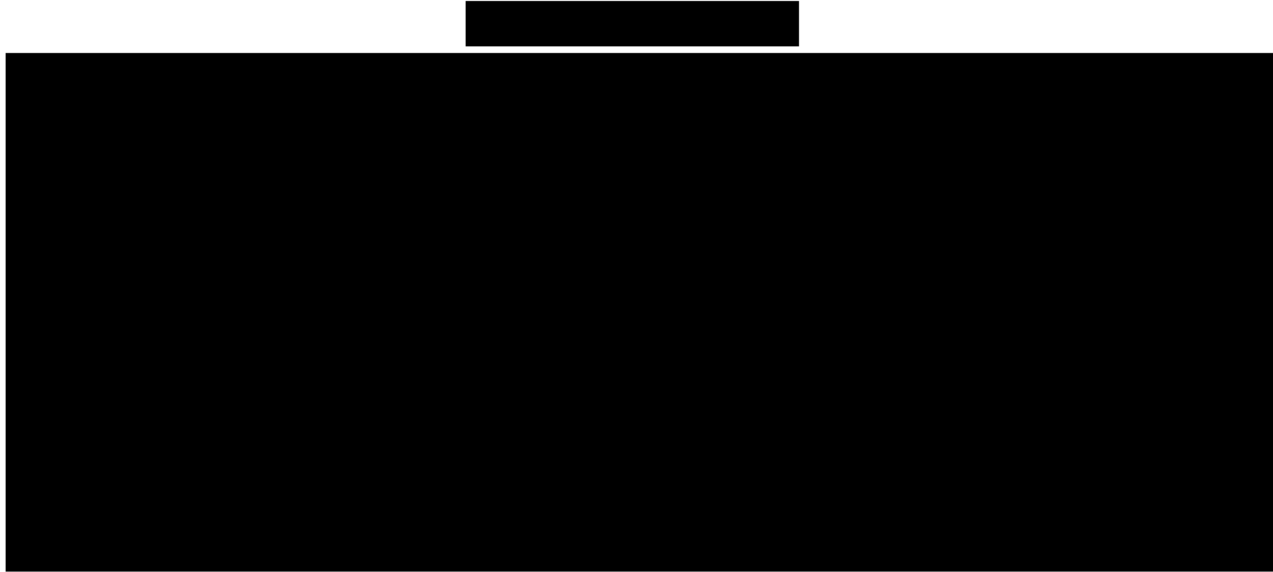
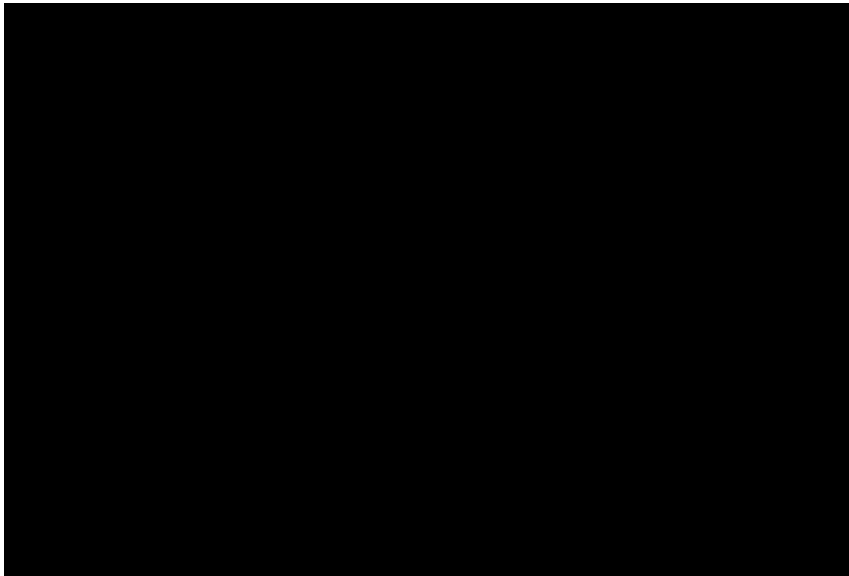


Figure 1.5 provides an overview of the major project facilities detailed within this proposal.



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### 1.3. Commitment to Transparency and Inclusion

- Please further include:*
- *A list of contacts for the Proposal, including preferred key contacts for executive level, Project Team, and public communications.*
  - *Information or statements about how the selected Project Team embodies diversity, equity, and inclusion principles.*

The leadership of Empire Wind consists of individuals with significant experience with the development of complex energy resources. Consistent with its respective mission to provide opportunities and nurture underrepresented communities to find career success in their respective organizations, Empire Wind employs a Diversity, Equity, and Inclusion strategy at all levels of employment and governance positions within Empire Wind and its affiliates. The Diversity Equity and Inclusion plan for each of the Sponsors can be found in their respective annual reports, provided as Attachments 6.H and 6.I. A list of contacts for the Proposal can be found below:

Name	Role
Molly Smith Morris	President, Equinor Renewables Americas
Teddy Muhlfelder	Vice President, Renewables US
Svein Erik Falkeid	Project Director
Lauren Shane	Director of Communications

The Project has also established a website (<https://www.empirewind.com/>) and a phone number 883-699-1965 to share information with and collect feedback from the community. EW1 Project Team embraces Equinor’s diversity, equity, and inclusion principles.



#### 1.4. Stakeholder Engagement

- Overview of stakeholder support including references or contacts of key supply chain, port facilities, environmental, educational, or labor stakeholders that endorse or otherwise supply goods or services to the project.
- Overview of local community (elected officials and the public) support of the project, point-of-interconnection and, if applicable, cable fall and route.

Empire Wind and its affiliates have engaged with stakeholders since 2017 to ensure that the Project is developed in a manner that accounts for local interest, priorities and challenges, identifies opportunities for partnership on initiatives to further New York’s clean energy and workforce development, and foster a collaborative and constructive relationship with stakeholders in the areas that will be affected by the Project. As a result of this engagement, Empire Wind believes that the Project currently enjoys broad support, including in the communities in proximity to the landfall location at SBMT. This is reflected in the dozens of letters of support that are being submitted as an attachment to the stakeholder engagement



plan from an array of interests and communities, including lawmakers, educational institutions, non-governmental organizations, economic development organizations, ports, suppliers, and other stakeholders. If selected through this solicitation, Empire Wind will continue to implement its stakeholder engagement plan in a manner that ensures that stakeholders' voices are heard and that the construction of the Project delivers real benefits to the communities affected by the Project. Further details are provided in Sections 8.3, 8.4, 10, and 11.

## 1.5. Environmental Stewardship

• *A high-level summary of environmental and fisheries avoidance, minimization, and mitigation strategies that will reduce Project impacts and risks to wildlife and economically important fish and invertebrates.*

As noted above, EW1's permitting process is nearly complete. As part of this process, Empire Wind has worked with federal, state, local, environmental, and fishing industry stakeholders to gather feedback and implement meaningful adjustments to its project development strategy. As a result of this process, EW1 has already taken numerous steps to avoid and minimize potential impacts, including:

- Establishing a fisheries communications and outreach strategy to effectively engage with and solicit input from a wide range of fishers and stakeholders in multiple regions;
- Modifying survey schedules and locations to avoid areas with active/seasonal fishing;
- Incorporating data and feedback in early spatial planning of export cable routes to avoid high-use, high-value, and high-sensitivity fisheries areas;
- Collaboration with Responsible Offshore Development Alliance in January 2020 in Philadelphia and incorporated fishermen feedback to the EW1 layout, creating the "Squid Gap" in the northern portion of the EW lease;
- Preconstruction geoarchaeology and post construction seafloor inspections for impacts to ancient submerged landforms; and
- Funding for climate resiliency, education, interpretation, maintenance, public access, restoration, rehabilitation, or visitor experience projects to mitigate for visual impacts to state and federal parks.

## 1.6. Mature Project Schedule

• *A high-level timeline noting key project stages and anticipated milestones.*



Figure 1.6 provides a high-level project timeline.

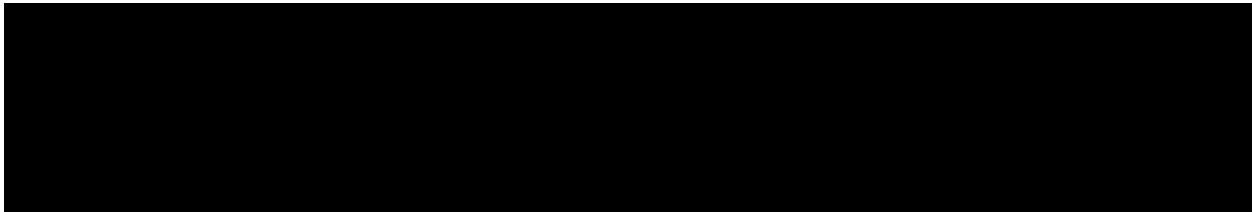
Figure 1.6: Project Timeline



### 1.7. Unrivaled Experience

- *Relevant company background, highlighting similar projects, notable experience, and global portfolio.*

As further detailed in Section 6.1,



Further detail about this transaction is included in the financing plan providing in Section 6.3 of this proposal.

Equinor—who has been managing the Project from its conception—has extensive experience developing, constructing, and operating offshore wind resources and large scale energy projects. As further detailed in Section 6.1, Equinor has development rights, designed, procured, developed, or is currently managing roughly 18.5 GW portfolio of offshore wind projects in Europe. Most recently, Equinor’s Dogger Bank Wind Farm achieved first power in October 2023. The project is comprised of three 1.2 GW phases and will be the largest offshore wind farm in the world when completed in 2026. Equinor’s projects in the United Kingdom and Germany currently power more than 1 million European homes.



- *For Proposers submitting a Conditional Termination Agreement as described in Section 2.1.1.1, please describe the justification for seeking to re-contract or terminate existing contacts.*

Please see Section 1 above for a description of the reason that Empire Wind is participating in this solicitation.