Launching New York's Offshore Wind Industry: Phase 1 Report

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Launching New York's Offshore Wind Industry: Phase 1 Report

Final Report

Prepared by

New York State Energy Research and Development Authority

NYSERDA Report 19-41 October 2019

Abstract

The New York State Energy Research and Development Authority (NYSERDA) has published this Launching New York's Offshore Wind Industry: Phase 1 Report (Report) pursuant to Case 18-E-0071, and the New York State's Public Service Commission's July 12, 2018 Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement.

The Report describes all aspects of the Phase 1 procurement, including the results of the final 1,696MW award group, and considerations to inform future offshore wind procurements for New York State.

The Report is accompanied by the executed contracts for Offshore Wind Renewable Energy Certificates (ORECs) with Equinor Wind US LLC for its 816 MW Empire Wind Project and with Sunrise Wind LLC (joint venture of Ørsted A/S and Eversource Energy) for its 880 MW Sunrise Wind Project. Together, the Empire Wind and Sunrise Wind projects have an average all-in development cost of $83.36 per megawatt hour (2018 dollars) with an expected average OREC cost of $25.14 per megawatt hour. The average bill impact for residential customers is estimated to be approximately $0.73 per month. The contracts utilize an innovative index OREC contracting structure where payments rise and fall inversely to a composite average of New York's energy and capacity market prices, which do not reflect actual project revenues but do provide protection for ratepayers and projects against volatility in utility bills and project revenue, respectively over the contracts' 25-year lifetime.

NYSERDA considers the procurement results as a resounding success in all respects. The Phase 1 awards represent the largest single renewable energy procurement by a state in U.S. history and positions New York as a center of gravity for this important new industry. In terms of benefits, the projects are expected to deliver over 1,600 direct new jobs for New York workers, as well as more than $3.2 billion in new economic activity while delivering approximately $700 million of avoided health impact benefits in the form of avoided hospitalization and premature death associated with asthma and respiratory and cardiovascular diseases, demonstrating tremendous value for New York ratepayers and families. The contracts further demonstrate a strong commitment to mitigation plans that actively address the interests of ocean users such as commercial and recreational fishing and environmental stakeholders and ensure that coastal communities will be fully engaged and informed during the development and construction process.

The Phase 1 solicitation and its results are demonstrable evidence of the global significance of New York's offshore wind market. Drawing from the highly positive response and results for Phase 1 should strengthen New York's ability to leverage strong prices, additional economic and infrastructure benefits, and comprehensive proposals in subsequent procurement rounds, thereby supporting New York's Climate Leadership and Community Protection Act (CLCPA) mandates.

Keywords

Offshore Wind

Phase 1 Report

Offshore Wind Renewable Energy Certificates (ORECs)

Index OREC

Empire Wind

Sunrise Wind

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Acronyms and Abbreviations

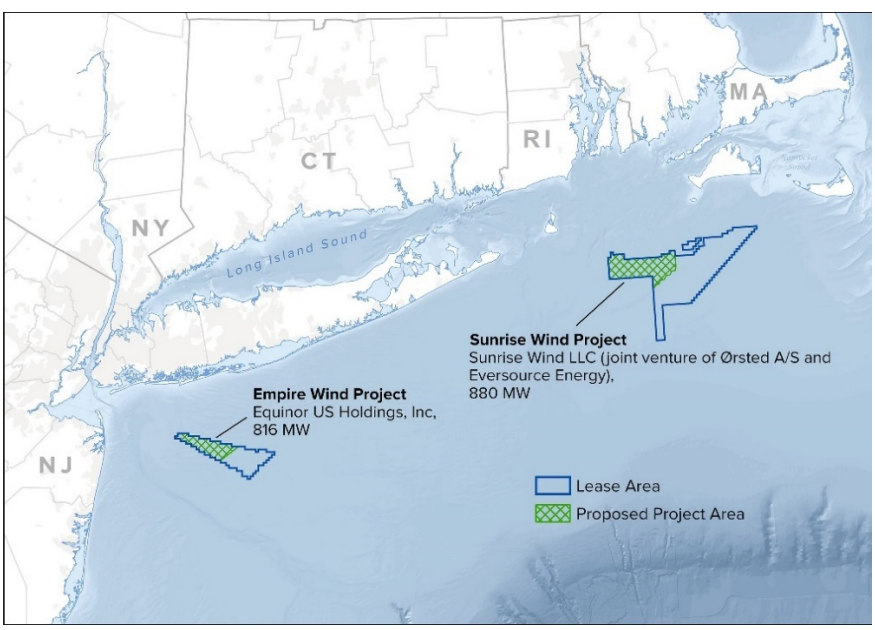
CAPEX	Capital Expenditure
CARIS	Capacity and Resource Integration Study
CES	Clean Energy Standard
CO2e	Carbon Dioxide Equivalent
COD	Commercial Operation Date
EDC	Electric Distribution Company
GHG	Greenhouse Gas
GW	Gigawatt
LBMP	Locational Based Marginal Price
LCOE	Levelized Cost of Energy
LIPA	Long Island Power Authority
LSE	Load-Serving Entity
LSR	Large-Scale Renewables
MWh	Megawatt Hour
NYGATS	New York Generation Attribute Tracking System
NYCA	New York Control Area
NYISO	New York Independent System Operator
NYPA	New York Power Authority
NYS	New York State
NYSERDA	New York State Energy Research and Development Authority
OREC	Offshore Wind REC
PBI	Performance-Based Incentive
PPA	Power Purchase Agreement
PPTPP	Public Policy Transmission Planning Process
PSC	Public Service Commission
REC	Renewable Energy Certificate
RES	Renewable Energy Standard
RFP	Request for Proposals
SCC	Social Cost of Carbon
SEP	State Energy Plan
T&I	Transmission and Interconnection
UCAP	Unforced Capacity
UOG	Utility-Owned Generation
U.S.	United States
WEA	Wind Energy Area

Summary

The New York State Public Service Commission (PSC) issued its order establishing Offshore Wind Standard and Framework for Phase 1 Procurement on July 12, 2018 (Offshore Wind Order)[1] after considering extensive stakeholder comments and analysis in response to the New York State Energy Research and Development Authority's (NYSERDA) January 2018 Policy Options Paper.[2] The Offshore Wind Order authorized NYSERDA to implement Phase 1 of New York State's offshore wind procurement program by procuring offshore wind renewable energy certificates (ORECs) associated with approximately 800 megawatts (MW) or more of offshore wind installed capacity. The PSC directed NYSERDA to issue a report, within 30 days of executing the resultant contract(s), describing all aspects of the Phase 1 procurement and recommendations for Phase 2. Accordingly, NYSERDA hereby submits its comprehensive report "Offshore Wind Phase 1: Foundations for a New Clean Energy Industry" for the PSC's consideration.

NYSERDA issued its Phase 1 solicitation, ORECRFP18-1, on November 8, 2018.[3] The solicitation resulted in the single largest renewable energy procurement by any state in U.S. history, awarding two contracts totaling 1,696 MW of nameplate capacity, enough to power more than one million New York homes. On October 23, 2019, NYSERDA executed contracts with Equinor Wind US LLC for its 816 MW Empire Wind Project and with Sunrise Wind LLC (a joint venture of Ørsted A/S and Eversource Energy) for its 880 MW Sunrise Wind Project, collectively the "Award Group" (Figure 1).

Figure S-1. ORECRFP18-1 Award Group



NYSERDA's conclusion is that the Phase 1 offshore wind procurement was a resounding success. In addition to offering a new source of renewable energy for New York State, this commitment will incentivize the offshore wind industry to provide significant benefits and value to New Yorkers and contribute toward the realization of the State's nation-leading clean energy commitments through the recently signed Climate Leadership and Community Protection Act (CLCPA), which includes a mandate for New York State to develop 9,000 MW of offshore wind by 2035.

S-1 Summary of Phase 1 Procurement Results

This Phase 1 report provides a description of the Phase 1 procurement, the resulting contracts with the Award Group, and key aspects related to competitive pricing, significant economic benefits, and important health benefits. A review of the results of the Phase 1 procurement yields the following findings, which are further described in Section 2.

S.1.1 Solicitation Response

- New York's first procurement, with four developers submitting a total of 18 proposals, garnered the most competitive market response to date among all U.S. state offshore wind solicitations.
- From a geographic perspective, the proposals demonstrated New York's unparalleled geographic reach to existing lease areas spanning New England to New Jersey, including areas leased through the federal Bureau of Ocean Energy Management's (BOEM) most recent December 2018 auction.[4]
- In addition, this response demonstrates that the New York State procurement mechanism for ORECs is widely seen as attractive to private developers in the U.S. offshore wind market.

S.1.2 Scoring Criteria

- NYSERDA's scoring criteria of 70% price, 20% economic benefits, and 10% viability, as required by the Offshore Wind Order, resulted in balanced and comprehensive proposals that delivered competitive pricing, significant short- and long-term economic benefits to both Upstate and Downstate New York, and projects well-positioned to contribute toward the achievement of New York's goals.
- This scoring approach also resulted in project rankings that identified an Award Group that brings the most value to New York at the lowest reasonable cost and risk.
- Collectively, the proposals included a wide range of project sizes, spanning 384 MW through 1,200 MW. The breadth and strength of the bidding group indicates that interest in subsequent solicitations is likely to be robust.

- NYSERDA's employment of a hybrid bidding structure, which required proposers to deliver pricing schedules for both the Fixed and Index OREC options, was successful in requiring each proposer to offer multiple pricing options according to their individual risk appetites and market outlook, giving NYSERDA the ability to select contract structures that minimize long-term ratepayer exposure and provide the best value.

S.1.3 Cost Effectiveness

- The Empire Wind and Sunrise Wind projects have an average all-in development cost of $83.36 per megawatt hour (2018 dollars) with an expected average OREC cost of $25.14 per megawatt hour. The average bill impact for residential customers is estimated to be approximately $0.73 per month.
- The contracts utilize an innovative index OREC contracting structure where payments rise and fall inversely to a composite average of New York's energy and capacity market prices, which do not reflect actual project revenues but do provide protection for ratepayers and projects against volatility in utility bills and project revenue, respectively over the contracts' 25-year lifetime.
- NYSERDA estimates the net impact of the Award Group will range between a net cost of $4.81 per megawatt hour and a net benefit of $22.00 per megawatt hour, depending upon future market energy and capacity prices.[5] This equates to a range in net impact over the life of the contracts between a net cost of $388 million to a net benefit of more than $1,896 million.
- The State's first large scale offshore wind solicitation resulted in Offshore Wind Renewable Energy Certificate (OREC) prices approximately 40% less than projected by NYSERDA's 2018 analysis, signaling that offshore wind is an increasingly competitively priced renewable energy resource.

S.1.4 New York Economic and Health Benefits

- The development of the two awarded projects is expected to deliver combined economic activity of $3.2 billion through both Upstate and Downstate private investments in labor, supplies, development, and more than $85 million in investments in long-term port facilities, related infrastructure, and cutting-edge technologies. The Award Group is expected to support more than 1,600 local jobs, comprised of nearly 1,300 construction jobs and more than 300 long-term operations and maintenance jobs.
- Proposers were required to provide a New York economic benefits plan that will be subject to independent audit for verification and realization of these claims. This approach yielded economic development plans that were specific, actionable, and offered very substantial benefits to New York. These economic benefits demonstrate that New York's approach to local economic benefits successfully incentivizes real, realizable economic benefits while remaining entirely non-prescriptive, leaving plenty of options for industry to develop creative solutions to support strategic, efficient, and sustainable supply chain approaches.
- Incremental to these economic benefits, the two projects are also expected to create health benefits associated with reducing pollution in the Downstate area. NYSERDA estimates

- the Award Group will provide approximately $700 million of avoided health impact costs in the form of avoided hospitalizations and premature deaths associated with asthma and respiratory and cardiovascular diseases.[5] This estimated amount exceeds even the most conservative projection of net costs, leading to an overall net benefit to New Yorkers even before accounting for economic development benefits.

S.1.5 Environmental, Fishing, and Ocean Use Considerations

- The comprehensive nature of the solicitation required proposers to submit mitigation plans actively addressing the interests of ocean users, such as commercial and recreational fishing and environmental stakeholders. It is ensured that coastal communities will be fully engaged and informed during the development and construction process, which resulted in well-conceived proposals and a strong commitment to responsible development on the part of the Award Group.

S.1.6 Transmission/Interconnection

- The two awarded projects are each pursuing radial interconnections into New York City or Long Island at locations expected to require relatively minor transmission improvements to assure deliverability, suggesting that the radial transmission structure was effective for the Phase 1 procurement.
- Information gleaned from the full suite of proposals suggested there were additional options to support continued radial connections into the New York market if needed in the near term while alternative transmission approaches are considered.

S.2 Award Determination

The decision to select two projects with a combined nameplate capacity of 1,696 MW was based on the significant positive attributes of the Award Group and the current market opportunity, including lower than expected bid prices, robust economic benefits, and the anticipated expiration of the federal Investment Tax Credit (ITC), which yields significant ratepayer benefits. The decision to "buy now" reflected the strong economics and development strategies of the Award Group, their close scoring under NYSERDA's evaluation process, and the significant and regionally diverse economic value presented by the combination of proposals and the diversification of risk offered by selecting more than one project.

In light of the robust competition among Atlantic coast states sponsoring offshore wind procurements, the sizeable regional pipeline expected over the next several years, and New York's commitment to establish itself as the epicenter of the U.S. offshore wind industry, the Award Group offers unique economic benefits and supply chain commitments that the State was keen to capitalize on as an active investment to support future growth of the industry.

S.3 Considerations for Phase 2

In reflecting on the success of the Phase 1 process, and in consideration of the recently enacted CLCPA mandate for at least 9,000 MW of offshore wind by 2035, NYSERDA offers observations and considerations to help inform decisions for future offshore wind procurements, further described in Section 3.

S.3.1 Evaluation Framework

- The Offshore Wind Order's prescribed ratios of 70% price, 20% economic benefits, and 10% viability were well-balanced and produced excellent proposals from rival proposers vying for all or a share of the awards.
- Emphasis on price, in conjunction with strong market conditions, yielded reasonably priced proposals, particularly for larger project nameplate options.
- The balance of flexibility in economic benefits and strength of viability criteria produced creative proposals with significant seed investments that will be instrumental in cultivating New York's workforce and clean job aspirations. Through this evaluation framework, projects that are mature, competitively priced, and bring significant economic benefits to New York rose to the top.
- Phase 1 success notwithstanding, this scoring approach should be reviewed and reassessed in light of the CLCPA mandate and the rapidly advancing U.S. offshore wind market, particularly with regard to approaches aimed to maximize New York's economic development opportunities.

S.3.2 Offer Price Evaluation

- The array of proposals and prices showed market understanding and acceptance of NYSERDA's approach to the price-based scoring, which included evaluation of both index and fixed OREC prices.
- Due to the incremental hedge quality of the index OREC, NYSERDA had expected this structure's bid prices would be meaningfully lower than the fixed OREC. This prediction, which led to the relative weighting of 90/10 between the two structures, was supported by the actual bid results.
- While NYSERDA selected index OREC pricing models in this solicitation for both awards, NYSERDA does not want to preempt the market's appetite for risk.
- In future solicitations, NYSERDA recommends the PSC continue to consider the optionality for the evaluation of both price structures. While the index OREC has the advantage of stabilizing project revenues and ratepayer costs, future market and regulatory conditions may alter the balance between the index and fixed OREC.

S.3.3 Economic Benefits and Infrastructure Development

- Working with State partners in economic and infrastructure development, it will be important to consider how the results of this first solicitation can be leveraged in subsequent rounds. Specifically, efforts to best capitalize on the more than $85 million in private investments in long-term port facilities and cutting-edge technologies that this Phase 1 solicitation seeded should be considered in tandem with Governor Andrew M. Cuomo's pledged $200 million of State funding to unlock private capital in supporting critical port infrastructure. With an eye toward establishing New York as the center of offshore wind development and lowering costs in future solicitations, these efforts are critical from both an economic development perspective and a major driver of ratepayer savings.

S.3.4 Lease Availability

- NYSERDA's Phase 1 procurement benefitted from robust market competition across a wide geography of existing lease areas. This circumstance may be challenged in future procurements due to accelerated utilization of existing lease areas in response to increased State policy demand, and a lack of clarity as to the federal government's timing in identifying and leasing new wind energy areas in the New York Bight.
- Generally speaking, it is anticipated that the availability of additional new leases for wind energy areas would increase the number of bidders for OREC contracts and improve pricing and other benefits through enhanced competition.
- These market dynamics should be considered fully when determining the timing and scale of subsequent procurement rounds. However, NYSERDA is confident that a timely next solicitation, consistent with ensuring the uninterrupted progress envisioned by the Offshore Wind Order, would yield competitive interest.

S.3.5 Transmission Design

- In this Phase 1 procurement, NYSERDA employed a radial (equivalently, generator lead-line) transmission design with overall positive outcomes.
- Interconnecting into the Consolidated Edison Company of New York, Inc. (Con Edison) and Long Island Power Authority (LIPA) service territories, the two awarded projects represent two strong interconnection points with, considering their capacity, minimal upgrades anticipated to the substations and the surrounding grid. Further, multiple additional and viable points of interconnection were identified in the proposals received by NYSERDA in this Phase 1 solicitation.
- While the prospect of ocean grid solutions to support subsequent offshore wind additions offers merit, this approach is challenged by uncertainty of timing within the BOEM leasing process.

S.3.6 Stakeholder Engagement

- Stakeholder engagement and a commitment to responsible development will only grow in importance as this industry moves from planning into reality. Mutually supportive coexistence of offshore and onshore activities will inevitably become more challenging as offshore wind deployment, onshore infrastructure, and workforce and the associated socioeconomic impacts develop to fulfill the State's 9,000 MW mandate.
- NYSERDA submits that stakeholder engagement, transparency, and accountability must be a critical consideration in future procurements, as was the case in Phase 1.

S.3.7 Competitive Forces Driving Solicitations

- Close observation of the conditions that will affect offshore wind pricing and competitive forces will continue to play a significant role in future procurements.
- To optimize for price, questions of efficient project size that yield economies of scale and optimized transmission and interconnection solutions, lease availability, and grid design will be important areas for continued focus. In addition, the creation of economic opportunities for New Yorkers will continue to rank high among the State's considerations.
- In the short term, absent confirmation of near-term future BOEM lease areas, it will be important for the PSC to consider taking advantage of short-term lease availability and associated high levels of competition and continuing a generator lead-line approach until new lease areas are confirmed and planned transmission solutions are fully studied.

1 Introduction

1.1 Objective

This Report responds to the PSC's request that NYSERDA assess all aspects of the Phase 1 procurement and provide an update on the offshore wind policy context since the release of the 2018 Policy Options Paper. This report also sets forth considerations for future offshore wind procurements with the goal of satisfying New York's 9,000 MW by 2035 CLCPA offshore wind mandate in a timely, cost effective, and responsible manner.

1.2 Organization of this Report

Section 1 provides an update on the U.S. offshore wind market and identifies opportunities and challenges for New York in achieving its offshore wind goals. Section 2 lays out a full account of NYSERDA's experience in implementing the Phase 1 procurement. Finally, Section 3 describes NYSERDA's reflections following its initial procurement experience and considerations to help inform future decisions for offshore wind procurement in New York, recognizing the evolution of State policies and markets for offshore wind along the Atlantic seaboard since the issuance of the Offshore Wind Order.

1.3 New York State Policy Status and Background

New York State's recently adopted clean energy mandate is the most ambitious in the nation. Governor Cuomo's Green New Deal sets New York State on a path to achieve a carbon-free electricity system by 2040. Contributing to this goal are interim goals including a doubling of the State's solar electric targets (6,000 MW by 2025) and 3,000 MW of energy storage by 2030, both contributing to 70% of electricity requirements from renewable energy sources by 2030, as well as a near quadrupling of the State's offshore wind targets to 9,000 MW by 2035.

These goals were incorporated into the CLCPA, which was signed into law by Governor Cuomo on July 18, 2019 and included an economy-wide greenhouse gas emissions reduction goal of 85% reduction in greenhouse gas emissions by 2050.[6] These goals eclipse the reach of the New York State Energy Planning Board's 2015 State Energy Plan (SEP), which established a 40% emissions reduction goal by 2030 and that 50% of New York's electricity be derived from renewable energy sources by 2030, and the PSC's Clean Energy Standard (CES),[7] which adopted and implemented that renewable energy goal.

On July 18, 2019, Governor Cuomo announced the single largest renewable energy procurement by any state in U.S. history—nearly 1,700 MW—with the selection of two offshore wind projects for contract awards resulting from NYSERDA's Phase 1 offshore wind procurement. This announcement takes the first implementation step for New York's offshore wind goals under the CES and in satisfaction of the SEP, which will also help achieve Governor Cuomo's nation-leading Green New Deal goal-of reaching 9,000 megawatts of offshore wind by 2035.

These expanded offshore wind goals for New York recognize the substantial renewable resource potential presented by offshore wind and its ability to be an economic development engine for the State. They are also an expression of confidence in the State's comprehensive efforts in planning and execution to date, most notably evidenced by the January 2018 New York State Offshore Wind Master Plan (Master Plan),[8] which was the culmination of more than two years of analysis and outreach, including more than 20 studies that gathered data on environmental, social, economic, regulatory, and infrastructure issues relevant to offshore wind energy development. The Master Plan also reflects the results of the State's extensive outreach efforts with interested agencies, entities, communities, and individuals in order to achieve a balanced evaluation of the potential for offshore wind development.

Since 2018, the State has continued its foundational work to advance offshore wind in a comprehensive and responsible manner. NYSERDA, in close collaboration with its sister State agencies, has stewarded important stakeholder dialogue through its four Technical Working Groups (TWGs) —Environmental; Commercial Fishing; Maritime; and Jobs and Supply Chain. Each of the TWGs is recognized within the industry and region for its leadership and commitment to cultivating an informed and actionable dialogue with critical stakeholders and acknowledging the ocean's many important users.

Similarly, the State has undertaken unprecedented levels of stakeholder outreach and engagement, including the following:

- Master Plan: During the development of the Master Plan, NYSERDA's Offshore Wind Team held more than 13 public meetings and fishing open houses, six public webinars, and two technical conferences.
- Solicitation and Evaluation Support: In support of the solicitation's release and evaluation, the Offshore Wind Team conducted more than 100 briefings with key stakeholders, the public, and elected officials that specifically focused on communities that might serve as hosts to various offshore wind project components (cable landfall, interconnection substations, port infrastructure), prior to and following NYSERDA's receipt of proposals, to ensure their familiarity with NYSERDA's offshore wind program, procurement process, the State's nation-leading Green New Deal ambitions and CLCPA legislation.

- Open Houses and Stakeholder Roundtables: To share the results of its first awarded projects, NYSERDA hosted seven open houses in September 2019 across Long Island, New York City, and the Capital Region as well as Stakeholder Roundtables for key stakeholder groups, such as commercial fishing. Co-hosted by the project developers Sunrise Wind and Empire Wind, these meetings served as an opportunity to introduce the projects directly to communities and stakeholders.
- Continuous Outreach: The Offshore Wind Team hosts quarterly public webinars, and together with State agency partners, hosts regular meetings of each of the four technical working groups. The team also receives and engages regularly with key stakeholders, ad-hoc questions, and outreach from the public and elected officials.

1.4 Offshore Wind Market

European development reached a total installed offshore wind capacity of 18,499 MW by the end of 2018.[9] The current European supply chains that supply local and international markets are beginning to strain under the weight of growing global targets. The International Energy Agency (IEA) forecasted global capacity of 200 GW by 2040 "with the potential to go substantially further if ambitious government policies [are] put in place."[10] As a result, the combined forces of market aggregation, potential regional economies of scale, logistical cost drivers, and global manufacturing capacity bottlenecks bring urgency to the U.S. domestic supply chain.

1.4.1 U.S. Offshore Wind Market

Unlike its land-based counterparts, offshore wind is a unique generation resource for the U.S. market in that large-scale sites will generally be developed in federal offshore waters, outside the jurisdiction of those who will be purchasing its various generation attributes. Federal lease areas are truly regional resources, as proven by the geographic diversity of the Phase 1 procurement's four proposers, meaning the actions taken by other markets may directly impact the success of New York's future offshore wind procurements. This will be especially true if procurements outpace the identification and development of new lease areas, which could potentially result in a shortage of proximal leases and a potential impediment to New York's competitive market. NYSERDA, therefore, finds it critical for this report to provide an update of regional offshore wind activity and current market conditions.

The past several years have been pivotal in New York, New Jersey, and New England with regard to offshore wind advancement (Figure 2). With burgeoning markets from New England through the Carolinas, the U.S. offshore wind power industry is projected to further expand. In addition, interest in offshore wind is growing in the Great Lakes, on the West Coast, and in Hawaii. Beyond setting targets for more than 20,000 MW collectively (Figure 3), states have completed procurements representing 4,836 MW in offtake agreements, including NYSERDA's 1,696 MW Award Group.

This unprecedented ramp-up of activity represents a $70 billion capital expenditure (CAPEX) revenue opportunity to businesses in the offshore wind power supply chain over the course of the next decade.[11] It puts the U.S. offshore wind market squarely on the global offshore wind map, representing a market size equivalent to the past 30 years of European development.

Figure 1. Offshore Wind Advancement on the Atlantic Coast

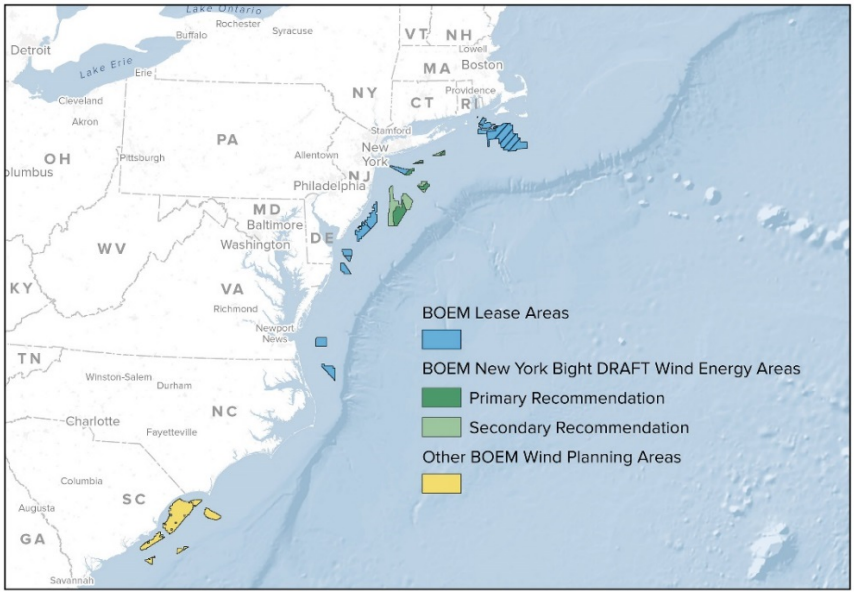
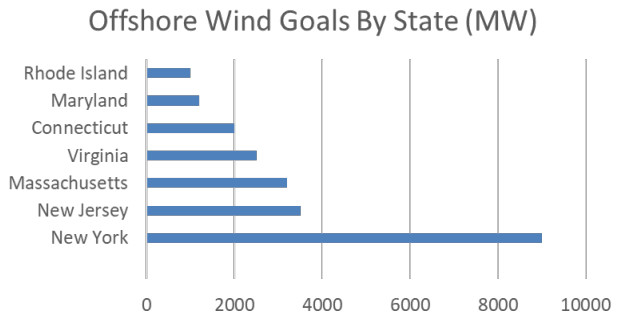


Figure 2. Regional Market Targets



1.4.1.1 Massachusetts

In May 2018, Massachusetts confirmed its award for 800 MW of offshore wind energy with Vineyard Wind (partnership between Avangrid Renewables and Copenhagen Infrastructure Partners), pursuant to its inaugural solicitation for offshore wind, 83C. Valued at $65 per megawatt hour (20-year real levelized 2017 dollars) over the life of the project ($84.23 per megawatt hour levelized nominal price),[12] this price, like that of all the New England states, represents a bundled product of energy and RECs, and therefore, does not expressly include capacity revenues likely to be generated by the projects.[13] Vineyard Wind's all-in price for the 800 MW project demonstrated an unprecedented result in the U.S. offshore wind industry, effectively demonstrating the extreme cost-competitiveness of current technology, the value of the ITC, project scale, and proximity to interconnection.

This result represents a partial fulfillment of Massachusetts's August 2016 legislation, "An Act to Promote Energy Diversity" (H.4568), particularly Section 83C of the Green Communities Act as added by Chapter 188, which requires State electricity providers to issue solicitations for 1,600 MW of offshore wind capacity by 2027 using 15- to 20-year power purchase agreements. On July 31, 2018, the Massachusetts legislature passed additional legislation, "An Act to Advance Clean Energy" (H.4857), requiring a favorable cost-benefit analysis to be completed to support an additional target of 1,600 MW of offshore wind by 2035, doubling the Massachusetts goal to 3.2 GW by 2035.

The Massachusetts Department of Energy Resources (DOER) launched the 83C II solicitation on May 23, 2019, which included notable changes from the initial procurement including abandonment of the original 83C price-to-beat framework that unsettled the market. Bay State Wind LLC, Vineyard Wind LLC, and Mayflower Wind LLC have been confirmed as bidders, bringing a total of eight variations ranging from 400 MW to 800 MW.[14] Selected projects will be announced for negotiation and execution between November and December 2019; MA DOER expects to submit the contracts for approval in January 2020.[15]

1.4.1.2 Rhode Island

Following the results of Massachusetts solicitation 83C, Rhode Island secured a contract for the 400 MW Revolution Wind Project with Deepwater Wind (later acquired by Ørsted U.S. Offshore Wind). Announcing the project selection on May 30, 2018, National Grid proceeded with negotiations, and on June 3, 2019, received approval for the power purchase agreement, with a flat rate over 20 years at $98.40, from the Rhode Island Public Utilities Commission.[16]

1.4.1.3 Connecticut

Alongside Rhode Island's procurement, Connecticut selected 200 MW from the Revolution Wind Project in June 2018. The wind project will be part of the same offshore project selected by Rhode Island but deliver directly to Connecticut via a separate export cable. Approvals for the 20-year power purchase agreement were confirmed by the Connecticut Public Utilities Regulatory Authority in December 2018. Revolution Wind is expected to be operational in 2023.[17]

On December 28, 2018, Governor Daniel Malloy and Connecticut Department of Energy and Environmental Protection (DEEP) Commissioner Robert Klee further announced the inclusion of 100 MW of offshore wind resources in response to June 2018's Public Act 17-3, "An Act Concerning Zero Carbon Solicitation and Procurement."[18] The award expands upon the previous 200 MW, bringing Connecticut's Revolution Wind project to 300 MW.

On June 7, 2019, Connecticut Governor Ned Lamont signed into law "An Act Concerning the Procurement of Energy Derived from Offshore Wind"[19] that calls for 30% of the State's energy come from offshore wind. The law mandates that DEEP procure 2,000 MW of offshore wind by December 31, 2030 and that it commence solicitation efforts swiftly. Accordingly, DEEP issued a draft solicitation on July 1, 2019 and the final solicitation on August 15, 2019, receiving bids from three proposers on September 30, 2019. DEEP anticipates making announcements in November 2019.[20]

1.4.1.4 Other New England States

Maine continues to consider the prospects of offshore wind. The Ocean Energy Act was passed unanimously by the State Legislature in 2010, and the Maine Public Utilities Commission is evaluating the 12-MW University of Maine-led Maine Aqua Ventus floating wind demonstration project.[21] Aqua Ventus would install two 6-MW offshore wind turbines 2.5 miles offshore from Monhegan Island; late 2021 is now the targeted commissioning date for the project.[22] Beyond this project, state legislators have called for up to 5 GW of offshore wind by 2030.[23]

In January 2019, New Hampshire became the latest New England state to actively pursue offshore wind development as Governor Chris Sununu initiated a request to BOEM to establish an intergovernmental offshore renewable energy task force. The action followed upon a joint resolution of the New Hampshire State Senate and House of Representatives "supporting efforts to develop wind power off the New Hampshire coast."[24] Specific targets have yet to be announced.

1.4.1.5 Maryland

Maryland's Public Service Commission has not issued any further offshore wind awards since the May 2017 20-year contract awards to US Wind's 248 MW project and Ørsted's 120 MW Skipjack project.[25] On May 2019, Governor Larry Hogan confirmed the Clean Energy Jobs Act (CEJA), increasing the state's Renewable Energy Portfolio Standard (RPS) to 50% by 2030 (an increase from 25% within the same time frame).[26] The RPS now mandates a total of 1,200 MW of solicitations for offshore wind to begin in 2020. In signing the CEJA, Governor Hogan expressed support for even further expansion to a full 100% clean energy target statewide; next steps toward legislating this expanded goal and any additional offshore wind related targets have not been announced.[27]

1.4.1.6 New Jersey

After an eight-year hiatus following the 2010 Offshore Wind Economic Development Act (OWEDA), New Jersey's Board of Public Utilities (BPU) was directed by Governor Phil Murphy to fully implement OWEDA via Executive Order No. 8.[28] Accordingly, the BPU launched an initial solicitation for 1,100 MW in 2018 and prescribed timeframes to procure the balance with solicitation waves of 1,200 MW each in 2020 and 2022. On July 21, 2019, the BPU confirmed the results of its 2018 solicitation for 1,100 MW, awarding the entirety to Ørsted's Ocean Wind project, citing a first year OREC price of $98.10 per megawatt hour. The levelized net OREC Cost—which represents the actual OREC costs paid by ratepayers after energy and capacity revenues are refunded to ratepayers—is estimated at $46.46 per megawatt hour, with an estimated ratepayer monthly bill increase of $1.46 for residential, $13.05 for commercial, and $110.10 for industrial customers and net economic benefits of $1.17 billion to the state.[29]

1.4.1.7 Virginia

In late 2018, the Virginia State Corporation Commission approved the Coastal Virginia Offshore Wind demonstration project of Dominion Energy, which contracted with Ørsted for construction of two 6-MW turbines in the BOEM area 27 miles off Virginia Beach, the first utility-owned offshore wind project in the U.S. Construction began in July 2019 and is expected to be completed in 2020. On September 17, 2019, Governor Ralph Northam signed Executive Order 43, setting a target for the state to supply 30% of its total power from renewables by 2030 and including a goal for the development of up to 2.5 GW of offshore wind capacity by 2026.[30]

1.4.2 Developing U.S. Offshore Wind Markets

Meanwhile, interest is steadily building on the West Coast. On September 10, 2018, California Governor Jerry Brown enacted Senate Bill 100 (SB 100), an ambitious ramp-up strategy for renewable energy, targeting 50% renewable energy by 2025, 60% by 2030, and 100% by 2045. In October 2018, following the efforts of an intergovernmental task force to coordinate the planning of future offshore wind development opportunities in federal waters,[31] BOEM issued a call for information and nominations on the California Outer Continental Shelf (OCS), and received 14 expressions of interest from developers indicating significant appetite for development.[32]

1.4.3 Key Takeaways: A Rapidly Accelerating Market

The rapidly accelerating U.S. market as driven by a marked increase in offtake agreements and state-level policy commitments is bringing increased market interest in offshore wind development. The market demonstrated increased confidence through strong responses to state procurements, federal lease sales, and U.S. supply chain activities. The heightened demand for offshore wind in the northeastern United States creates the opportunity for New York to benefit from this strong interest and competition but also raises the potential for lease scarcity, which could impact future competitive market forces.

2 Phase 1 Procurement

Developers and stakeholders were engaged throughout the development of NYSERDA's Phase 1 request for proposals (RFP), ORECRFP18-1. A request for information informed the RFP design, and a draft RFP and standard agreement were issued for comment, a public webinar was held, and during the evaluation phase, interviews were conducted with all prospective proposers to verify and validate certain information pertaining to commercial provisions, economic benefits, and technical viability.

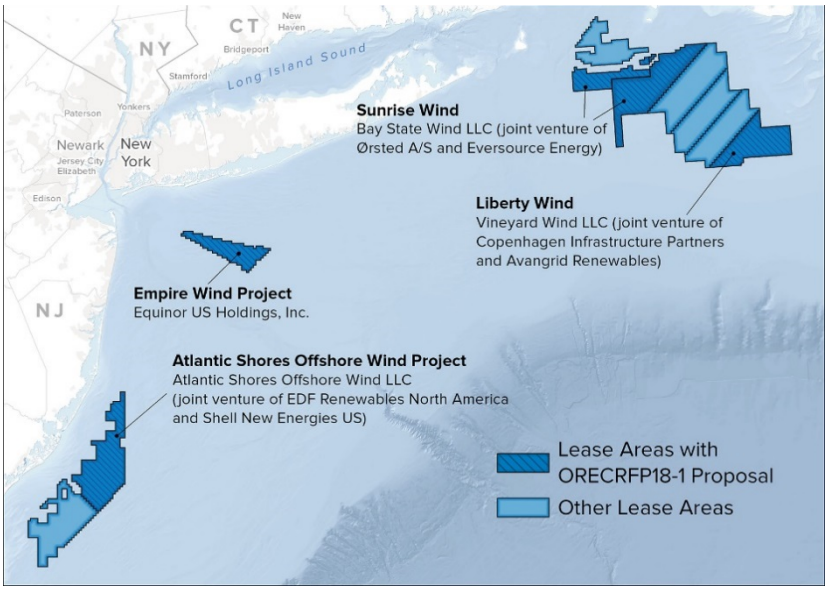
2.1 Procurement Process

ORECRFP18-1 was issued on November 8, 2018. Following the issuance of the RFP, proposers and other stakeholders were notified by email, and the solicitation was posted on NYSERDA's offshore wind website and published in the New York State Contract Reporter. A proposers' conference was held on November 29, 2018. Prospective proposers had the opportunity to submit questions by December 6, 2018, and written responses were posted to the RFP website on December 13, 2018. The deadline for the non-binding Notice of Intent to Propose was December 20, 2018. Five responses were received and made public.

Recognizing the impact of the January 2019 Federal Government shutdown on the BOEM leasing process, NYSERDA revised the RFP to broaden the definition of site control and made other minor revisions, reissuing the RFP on January 15, 2019.[33] Proposals were due by 3:00 p.m. on February 14, 2019. NYSERDA received 18 timely proposals from four proposers[34] (Figure 3) including the following:

- Atlantic Shores Offshore Wind Project – Atlantic Shores Offshore Wind LLC (joint venture of EDF Renewables North America and Shell New Energies US)
- Empire Wind Project – Equinor Wind US LLC
- Liberty Wind – Vineyard Wind LLC (joint venture of Copenhagen Infrastructure Partners and Avangrid Renewables)
- Sunrise Wind – Bay State Wind LLC (joint venture of Ørsted A/S and Eversource Energy)[35]

Figure 3. New York ORECRFP18-1 Solicitation Proposals Received



In parallel, NYSERDA's Offshore Wind Team conducted outreach to engage industry, the public, municipalities and elected officials, and advise them of the solicitation process, associated potential up-tick in development activity, possible impacts from potential projects, and opportunities for engagement.

2.2 Evaluation Process

The evaluation process for ORECRFP18-1 consisted principally of the activities of a scoring committee comprised of six evaluators: four external—comprised of three competitively selected independent evaluators and one evaluator from the New York Department of Public Service (DPS) —and two internal staff evaluators from NYSERDA.

Per the terms of the Offshore Wind Order, NYSERDA employed a scoring system that weights price and non-price factors, for a total of 100 points, as follows:

- Project Viability: 10 points
- New York Economic Benefits: 20 points
- Offer Prices: 70 points

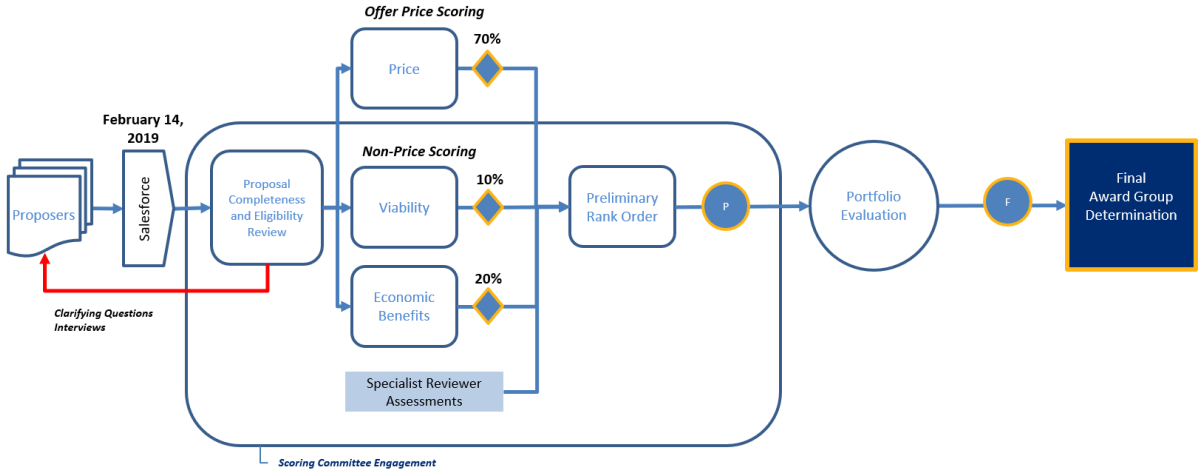
The scoring committee was tasked with awarding points for the non-price components of each proposal. Offer price scoring was conducted through the development of a confidential Levelized Net OREC Cost (LNOC) model. This model was developed by NYSERDA's Large-Scale Renewables Team, Energy and Environmental Analysis Team, and Technical Support Contractor Levitan & Associates (LAI). Further external support was provided by NYSERDA's outside counsel, Harris, Wiltshire & Grannis, LLP.

The evaluation process was comprised of five principal steps (Figure 4), notably:

1. Receipt and Distribution of Proposals
2. Proposal Completeness and Eligibility Review
   - Clarifying Questions to Proposers
   - Interviews with Proposers
3. Preliminary Rank Order[36]
4. Portfolio Evaluation[37]
5. Determination of the Final Award Group

These steps took place between the deadline for proposal submission and the confirmation of the evaluation results with the DPS. These steps are further described in more detail.

Figure 4. ORECRFP18-1 Evaluation Process



2.2.1 Specialist Reviewer Engagement

As set forth in the RFP, to ensure that each evaluator had a common understanding of each proposal prior to scoring, to further buttress subject-matter expertise, accuracy in assessments, and objectivity of results, the Scoring Committee engaged several New York State agencies and contractors as specialist reviewers who contributed targeted, subject-matter specific assessments on portions of the proposals.

Specialist reviewers were engaged to support the scoring committee's review of the proposals, under confidentiality agreements. The primary specialist reviewers and their non-scoring areas of assessments included the following:

- Fishing and Environmental Mitigation Plans: NYS Department of Environmental Conservation Marine Resources Division
- Interconnection and Delivery: DPS
- Ports and Contingent Economic Benefits: ARCADIS of New York, Inc.
- Cable Landfall and Cable Routes: DPS Permitting Division, NYS Department of Transportation

Following proposal submission, assignments were issued to the primary specialist reviewers in the form of the relevant proposal excerpts. The specialist reviewers were asked to provide qualitative assessments of the strengths and weaknesses of the proposal excerpts pertaining to their subject-matter expertise, and furthermore to help NYSERDA constructively identify mitigation efforts that could be implemented in contracting with a prospective developer to address any identified shortcomings. The assessments from the specialist reviewers were distributed to the scoring committee prior to the completion of the preliminary ranking to assist in providing deep subject-matter expertise to the non-price scoring outcomes.

2.2.2 Proposer Communications

2.2.2.1 Clarifying Questions

To ensure evaluators understood the information presented in each proposal, written clarifying questions were presented to the proposers and responses were received. Additionally, each proposer had an in-person interview. All information was made available to each evaluator to help them determine their individual and consensus non-price scores.

For each round of clarifying questions, a deadline was set for all parties to submit questions for consolidation, which then were prioritized for group discussion and facilitated via a conference call with the scoring committee to revise the clarifying questions list. The final clarifying questions list was then reviewed by the Offshore Wind Team and distributed to each proposer. Ultimately, two sets of clarifying questions were submitted to proposers.

2.2.2.2 Proposer Interviews

In tandem with the confirmation of receipt of their proposals, proposers were notified of the schedule for in-person interviews as part of the evaluation process.

Interview questions were developed using a process similar to the one previously described for clarifying questions. To facilitate scheduling and the availability of subject-matter experts, the general interview topics were distributed to the proposers in advance of the interviews. This allowed the proposers to plan their interview teams in accordance with the expected topics, given the international travel considerations for some team members, while also leaving the NYSERDA interview team with flexibility in the ultimate direction of the discussions.

Interviews were held at NYSERDA headquarters in Albany, NY. Each interview was scheduled for two and a half hours. The NYSERDA interview team consisted of several non-scoring members of the Offshore Wind Team and supported by outside counsel with technical support offered by LAI. The scoring committee observed the interviews through a one-way videoconference and provided feedback to the interview team throughout the process in cases where follow-up questions were desired.

2.2.3 Non-Price Scoring

Following the conclusion of an eligibility screening process, proposal materials, answers to clarifying questions, responses from specialist reviews, and non-price score sheets were provided to the scoring committee for each proposal. The information provided, plus information gained from the proposer interviews, were used to develop the individual evaluator scores, as recorded in the score sheets. These individual scores were then used as the basis for consensus building among the scoring committee.

The scoring committee met for approximately one week to conduct the non-price scoring that contributed to the project's preliminary ranking. During the scoring committee meeting, each proposal was discussed to leverage the subject-matter expertise of the individual scoring committee members and in the context of specialist reviewer input. The robust discussion served to promote a common understanding of how each proposal measured up against the established scoring criteria. In addition, the scoring committee captured strengths and weaknesses of each proposal.

The consensus-building process addressed anomalies in bid reviews or applications toward a common understanding of the evaluation criteria, promoted consistency, and fostered both objectivity and fairness. Ultimately, the scoring committee arrived at a common set of consensus non-price scores, which were then locked from further editing.

2.2.4 Offer Price Scoring

In parallel, the offer prices were scored by a separate team using predetermined calculations included in the LNOC model. Offer price scoring was based on computation of each proposal's LNOC as described in Section 4.3 of the RFP and Sections 4.02 and 4.03 of the Purchase and Sale Agreement.

2.2.4.1 Benchmark LNOC Process and Outcome

Consistent with the terms of the Offshore Wind Order, any project submission with a fixed or index OREC price equal to or greater than the respective Benchmark LNOC would not be further considered by NYSERDA.

Benchmark LNOCs were calculated by NYSERDA in consultation with LAI for both the index OREC and fixed OREC pricing structures. To calculate the Benchmark LNOCs, project economics were modeled for a standard 400 MW project, the scale of the required base proposal as defined in the RFP. Benchmark LNOCs for larger nameplates were not formulated in anticipation that all larger project nameplates would incorporate a downward price adjustment for scale economy effects.

These Benchmark LNOCs were calculated based on known market prices from Europe and other U.S. states, expected technology cost reductions, federal tax credits, and other characteristics of the New York market. Benchmark LNOCs were differentiated for the index and fixed OREC pricing options based on a deterministic simulation of expected wholesale energy and capacity prices and the impact of the individual procurement structures on a project's cost of capital.

2.2.4.2 Offer Price

To facilitate direct comparison across all proposals and contract structures, all offer prices were converted to levelized dollar per megawatt hour metrics in 2018 real dollars. In the case of the index OREC offers, the annual strike prices were first converted into expected annual net OREC values by subtracting a forecast of expected reference energy prices and reference capacity prices. In the case of the fixed OREC offers, no additional conversion was necessary.

Consistent with the method shared in Section 4.4 of the RFP, the index and fixed OREC LNOCs for each proposal were combined into a hybrid LNOC that weighted the Index OREC LNOC at 90% and the fixed OREC LNOC at 10%. This hybrid LNOC was used as the basis for scoring across proposals.

Multiple long-run electricity market scenarios were developed to forecast reference energy prices and reference capacity prices. The New York State Base Case provided one case, and four additional market scenarios developed by LAI provided three other cases. NYSERDA worked with LAI to define the input assumptions for a base scenario, including the study region definition, transfer limits, peak and annual demand, fuel prices, and scheduled resource additions and retirements. Through review and refinement of the base scenario, LAI and NYSERDA identified three key drivers of energy and capacity prices: delivered natural gas prices, electric demand, and carbon allowance prices. LAI modified these key inputs to create the Low, High, and (High) Social Cost of Carbon (SCC) scenarios, which combined to create a reasonable spectrum of possible wholesale market price futures.

The LAI scenarios, formulated to provide a range of probable electric energy and capacity prices included the following:

- Low scenario – with low electric demand, low natural gas prices, and Regional Greenhouse Gas Initiative (RGGI) carbon prices
- Base scenario – with base electric demand, base natural gas prices, and RGGI carbon prices
- High scenario – with high electric demand, high natural gas prices, and RGGI carbon prices
- SCC scenario – similar to High scenario, but a higher carbon price representing the SCC

The four scenarios above were combined with different weighting to create the following three cases:

- LAI Weighted – a weighted average of the low, base, and high scenarios
- LAI Weighted with SCC – a weighted average of the low, base, high, and SCC scenarios
- LAI SCC – equal to the SCC scenario

2.2.5 Score Adjustment and Aggregation

The price and non-price evaluations proceeded in separate, parallel processes with the scoring committee blind to prices throughout their non-price evaluation of economic benefits and project viability. After consensus on the non-price points was reached by the scoring committee and final non-price and price scores were available, the raw scores were normalized to maintain the intended component weights as defined in the Offshore Wind Order. In conducting this normalization, NYSERDA followed the three criteria specified in ORECRFP18-1:

- The maximum contributions by category to the final aggregate score (p. 20):38
  - Project Viability:10 points
  - New York Economic Benefits: 20 points
  - Offer Prices: 70 points

- The proposal with the lowest hybrid LNOC received the maximum 70-point score and higher LNOC offers received lower scores (p. 29). This approach was also used for project viability and economic benefit scores.
- A point allocation method that ensured the scores of higher LNOC proposals were sufficiently dispersed below the maximum of 70 points, such that the final score that aggregates price, viability, and economic benefits retained the intended scoring emphasis on price to the maximum reasonable extent (p. 29).

2.2.6 Portfolio Assessment and Evaluation

The final non-price and price points were added to determine the preliminary ranking. The preliminary ranking clearly showed the Empire Wind 816 MW proposal with gravity-based substructure as the top-ranked proposal and the Sunrise Wind 880 MW proposal as second. Alternate versions of these proposals were ranked lower, along with the proposals from Vineyard Wind and Atlantic Shores Offshore Wind.

The preliminary ranking was shared with the evaluation team, which was comprised of members of the Offshore Wind Team, along with representatives from NYSERDA's executive team,[39] contracts, and the Office of the General Counsel. Upon detailed review of the preliminary ranking results, the evaluation team concurred with the ranking. Given the effectiveness of the Scoring Committee process, Program Policy Factors were not applied in the Portfolio Evaluation. The Portfolio Evaluation instead consisted of the decision process of whether to select a fixed or index pricing option, and whether to select one or two projects, with the Award Group decision. Upon completion of this Portfolio Evaluation, the details of which follow, an Award Group for portfolio evaluation consisting of both the Empire Wind and Sunrise Wind proposals was recommended.

2.2.7 Award Group Portfolio

The decision to select both the Empire Wind and Sunrise Wind projects was the result of rigorous analysis of the two proposals and a thorough examination and assessment of the current offshore wind market.

2.2.7.1 Federal Investment Tax Credit

In the short term, a key driver of U.S. offshore wind pricing is the current phase-out of the Federal Investment Tax Credit (ITC). Under current federal law, it is unlikely that proposals responding to any future solicitations would be eligible for the ITC. Consideration of the loss of the valuable ITC in subsequent procurement rounds therefore strongly favored awarding a second OREC contract.

2.2.7.2 Capacity Limitations on Key Interconnection Points

The two top-ranked projects each pursued radial interconnections at locations that were presented as requiring relatively minor transmission improvements to assure deliverability, suggesting that this structure worked well for the current round of procurements. While the actual cost of transmission system upgrades under the New York Independent System Operator's (NYISO) Capacity Resource Interconnection Service will not be known for years, given the limited available points of interconnection for offshore wind into New York's Downstate market, seizing the opportunity to use these optimal points for large injections of renewable energy was deemed prudent.

2.2.7.3 Regional Competition

NYSERDA's Phase 1 procurement benefitted from robust market competition across a wide geography of existing lease areas.

New York's renewable energy policies are predicated on the existence of competition, which should help constrain offer prices while promoting creativity and choice among developer management, design styles, and points of interconnection.

Potential near-term leasing of new areas in the New York Bight will promote future robust competition for market share in Downstate New York. The timely leasing of the new BOEM areas would allow new entrants to participate in various states' offshore wind solicitations, including New York, New Jersey, and the New England market. However, provisional newly executed leases may not yield competitive bids until further along in the development process. As such, expediency in BOEM's future leasing process will be important for achieving the Atlantic Region's offshore wind programs' and climate goals.

On balance, the existence of a strong proposal in hand versus the uncertainty about future lease availability and competition further supported the advancement of a second award for the Sunrise Wind 880 MW proposal.

2.2.7.4 Portfolio Diversity

Awarding two offshore wind projects through NYSERDA's Phase 1 solicitation limits NYSERDA's offshore wind portfolio concentration risk. While both projects were deemed to be highly viable by the scoring committee, NYSERDA was cognizant of some inherent execution risk given the still nascent state of the U.S. offshore wind market and sought to diversify that risk with two project awards. In addition, the two projects included geographic diversity from a lease area and interconnection perspective, further expanding complementary project and grid benefits. Diversifying the NYSERDA portfolio also provides for a healthy competition between the two awarded project developers to bring forth the most effective projects possible for New York.

2.2.7.5 Award Group

In sum, taking advantage of two proposals that were attractively priced relative to expectations was deemed by NYSERDA and the DPS to be in the collective best interest of New York in order to provide assurances of substantial onshore economic development, and to fulfill a significant portion of New York's offshore wind policy goal. Moreover, buying more now accelerates the realization of greenhouse gas benefits from the projects, and clearly advances New York's realization of economic benefits; the resultant nation-leading commitment also solidifies the State's position as a regional offshore wind powerhouse.

The Empire Wind 816 MW project and the Sunrise Wind 880 MW project offer an important complementary package that emphasizes the importance of providing clean power to New York City and to Long Island and economic benefits both Upstate and Downstate. Ultimately, the decision to select two projects, to their combined total of 1,696 MW is consistent with the State's current CES and SEP policies and expanding mandate under the CLCPA for 9,0000MW of offshore wind by 2035, far exceeding the State's initial 2,400 MW goal per the Offshore Wind Order.

The two projects will power more than one million New York State homes and ensure that economic benefits will be geographically diversified, including investment and jobs in the Capital Region, New York City, and Long Island. Together the contracts bring a combined upfront private sector investment of $3.2 billion in the Upstate, Downstate, and Long Island economies. The projects will support more than 1,600 jobs in project development, component manufacturing, installation, and operations maintenance, and will directly offer well-paying careers with average salaries more than $100,000 per year.

Collectively, the projects have also committed to more than $85 million in investments for long-term port facilities and cutting-edge technologies such as gravity-based turbine foundations, which minimize environmental impacts to the ocean floor and marine wildlife. The projects also include related commitments for more than $45 million in regional collaborations, grants and investments in community benefits, workforce development, environmental and technology research, training programs, and workforce transition funding. Potential interaction effects with neighboring states' respective offshore wind procurement targets have not been counted, but on a qualitative basis, they could represent additional financial benefits for New York State.

2.2.8 Fixed versus Index OREC Recommendation

NYSERDA, with concurrence from the DPS, ultimately selected the index OREC bid option for both Empire Wind and Sunrise Wind, based on strong index OREC prices submitted by each proposer and the reasonable and efficient hedge against energy and capacity market uncertainty that the structure provides, leading to more viable projects from an execution standpoint in the long run. The index structure inherently limits both upside and downside financial return, creating a comparatively narrow distribution of financial profit from year to year and reducing a project's cost of capital relative to a fixed OREC structure.

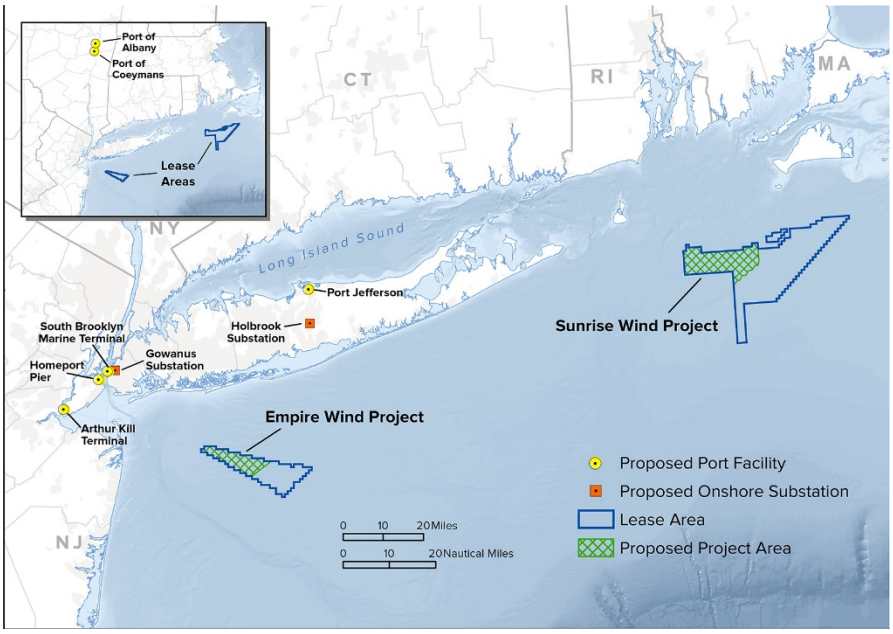
While a fixed OREC structure controls long-term OREC costs, it exposes both ratepayers and projects to fluctuations in energy and capacity markets, including potential future implementation of carbon pricing.

NYSERDA considered the spectrum of wholesale market scenarios, discussed in Section 2.2.5, and concluded that the index OREC structure offered lower ratepayer exposure for both the Empire Wind and Sunrise Wind proposals. While the fixed OREC proposals, particularly the proposal submitted for the Empire Wind project, were reasonable, the index OREC would safeguard ratepayer interests by limiting the range of a generator's return on investment and hedging costs to ratepayers.

2.2.9 The Award Group

The final ORECRFP18-1 Solicitation Award Group consists of two projects, Empire Wind (816 MW) and Sunrise Wind (880 MW) (Figure 5) and is further described in this section.

Figure 5. ORECRFP18-1 Awards—Lease and Project Areas and Proposed Points of Interest



2.2.9.1 Project #1: Equinor Wind US LLC; 816 MW, Gravity Based Substructure

Equinor Wind US LLC's proposal for Empire Wind is located proximate to the State's largest load center, New York City. The proposal reflects a highly considered approach to New York and a solid understanding of the State's stakeholder dynamics, key geographies, and infrastructure assets and interconnection considerations. The proposal received high scores across the board reflecting a high-quality proposal in terms of price, economic benefits, and technical viability. While Equinor has not demonstrated meaningful development experience in New York State, the developer has demonstrable offshore wind and fossil experience in Europe, including the use of gravity-based substructure (GBS) technology, an alternative to traditional monopiles or jacket design. The scoring committee determined the use of GBS technology will bring demonstrable economic benefits to New York. It also mitigates many of the environmental impacts associated with pile driving in conventional foundation designs.

In terms of economic benefits, Empire Wind's GBS-based proposals were also the strongest overall with the 816 MW project offering the highest total economic benefits package. Relative to traditional foundation design using monopiles or jackets, the cost for a project with GBS foundations is higher. However, by selecting this option, New York will become the base for regional GBS operations, developing a new technology industry that will create and sustain material economic benefits for New Yorkers as well as environmental benefits.

2.2.9.2 Project #2: Sunrise Wind LLC; 880 MW

Sunrise Wind LLC's (joint venture of Ørsted A/S and Eversource Energy) 880 MW Sunrise Wind project utilizes an advanced and well-characterized lease area approximately 30 miles from New York's easternmost shoreline at Montauk. This site is well advanced in its resource characterization and widely discussed with stakeholders. The project brought significant partnerships to help buttress its interconnection planning through the New York Power Authority and Consolidated Edison Transmission. In developing the Sunrise Wind proposal, the project carefully considered New York's strategic role as the market center for the region, proposing major commitments to seed and support workforce training and port infrastructure investments, as well as regional operations and maintenance assets in Port Jefferson, that will secure Long Island particularly as the home for the region's long-term offshore wind workforce.

In terms of scoring, Sunrise Wind scored well in pricing, economic benefits, and viability. The developer established a global record of performance excellence having installed more than one quarter of the total offshore wind capacity globally.[40] Ørsted's capability to permit the project, coupled with its willingness to use balance sheet financing, provides reasonable assurance that the project can be successfully developed. Ørsted's joint venture partner, Eversource, is experienced in transmission development.

The project's proposed operations hub at Port Jefferson presents long-term strategic value for New York. The Sunrise Wind 880 MW proposal has a well-thought-out economic benefits package, which is dispersed geographically and strategically located for long-term growth.

Incremental to these economic benefits, the two projects are also expected to create health benefits associated with reducing pollution Downstate. NYSERDA estimates that the Award Group will provide approximately $700 million of avoided health impact costs in the form of avoided hospitalizations and premature deaths associated with asthma and respiratory and cardiovascular diseases. This estimated amount exceeds even the most conservative projection of net costs, leading to an overall net benefit to New Yorkers even before accounting for economic development benefits.

2.3 Contracting

The Final Award Group with whom NYSERDA has executed contracts includes the following:

Table 1. ORECRFP18-1 Contracting Summary

Developer	Equinor Wind US LLC	Sunrise Wind LLC (joint venture of Ørsted A/S and Eversource Energy)
Project Name	Empire Wind	Sunrise Wind
Size	816 MW	880 MW
Proposal Option	Alternative with Gravity-Based Structure (GBS) Foundations, 2% annual escalation, Index OREC	Level Nominal Price Option, Index OREC
Contract Tenor	25 years	
Index OREC Strike Price, 2018 $ per megawatt hour[41]	$83.36	
Index OREC Levelized Net OREC Cost, 2018 $ per megawatt hour	$25.14	
Index OREC Levelized Net Cost, 2018 $ per megawatt hour[42]	$4.51	
Average Portfolio Ratepayer Impacts $ per megawatt hour	0.49% to 0.90% for residential customers; 0.60% to 1.84% for non-residential customers	
Economic Benefit Claims	$792.2 million	$408.5 million
Total Unique Jobs, Direct and Indirect	1,621	
Total Job-Years, Direct and Indirect	16,746	
Estimated OREC Contract Value, 2018 NPV[43]	$1.2 billion	$1.0 billion

2.3.1 Phase 1 Procurement Results: Offshore Wind Delivers Significant Value to New Yorkers

The Offshore Wind Order was based on extensive stakeholder comments and analysis related to NYSERDA's January 2018 Policy Options Paper,[44] which estimated that NYSERDA's initial procurements would garner prices of approximately $123 per megawatt hour (2018 real dollars) and result in levelized OREC costs of approximately $40 per megawatt hour (2018 dollars). The equivalent cost for the Award Group is estimated to be $25.14 per megawatt hour, representing nearly a 40% cost decline from the Policy Options Paper. This $25.14 figure represents the net cost of the contract, accounting for the avoided costs of energy and capacity, and is calculated by subtracting the forecasted value of energy and capacity from the index OREC Strike Price.

Accounting for the avoided costs of energy, capacity, and RECs, the net impact of the offshore wind contracts is expected to range between a net cost of $4.51 per megawatt hour and a net benefit of $22.00 per megawatt hour (2018 dollars), depending on future market energy and capacity prices. This equates to a range of net impact over the life of the contracts between a net cost of $388 million to a net benefit of $1,896 million (2018 dollars using a 6.55% discount rate). The average bill impact for New York residential customers is expected to be $0.73 per month, ranging in percentage impact from 0.49 to 0.90%. The average bill impact for nonresidential customers is expected to range from 0.60 to 1.84%.

2.3.2 Contracting and Administration

The two executed contracts are included with this Phase 1 Report and can be found in Appendix A—Empire Wind, and Appendix B—Sunrise Wind. Note that these contracts have been minimally redacted to withhold only the most sensitive of commercial and technical details including compliance with the Federal Energy Regulatory Commission's (FERC) Critical Energy/Electric Infrastructure Information (CEII) regulations. NYSERDA believes that providing as much transparency as possible regarding executed contracts will foster public confidence in New York's offshore wind procurement processes.

2.3.3 OREC Load Serving Entity Obligations

The Offshore Wind Order confirmed the role of load serving entities (LSEs) in helping to achieve the State's offshore wind objectives. NYSERDA will purchase ORECs from contracted Phase 1 offshore wind developers and resell them to the LSEs to meet their obligations under the Offshore Wind Standard. The portion of ORECS purchased by each LSE will be proportional to the amount of electricity provided by the LSE in a year—in regulatory terms, ORECs obligations will be proportional to load served in a given compliance year.

NYSERDA and all LSEs will complete OREC agreements for the first phase of offshore wind energy development before the offshore wind projects begin to generate ORECs. While these agreements with the LSEs were originally called for in the Offshore Wind Order by March 31, 2019, NYSERDA has requested and been granted extensions to the due date given they will come into play after commissioning of the awarded projects (approximately 2024).

3 Phase 1 Observations and Phase 2 Considerations

NYSERDA considers the procurement results as a resounding success in all respects. The Phase 1 awards represent the largest single renewable energy procurement by a state in U.S. history and positions New York as a center of gravity for this important new industry. The Phase 1 solicitation and its results are demonstrable evidence of the global significance of New York's offshore wind market. Drawing from the highly positive response and results for Phase 1 should strengthen New York's ability to leverage strong prices, additional economic and infrastructure benefits, and comprehensive proposals in subsequent procurement rounds, thereby supporting New York's CLCPA mandates.

NYSERDA characterizes this procurement experience and result as a successful step in the fulfillment of the Offshore Wind Order, with many experiences that are worth repeating in the next phase to maintain market momentum as well as incremental opportunities to strengthen results in subsequent rounds. Responding to the Offshore Wind Order, this section specifically details the various parameters involved in NYSERDA's approach to the Phase 1 procurement and observations regarding their efficacy. While the Offshore Wind Order called for recommendations for future procurements, NYSERDA's delineation of Phase 2 considerations is not intended to preempt ongoing technical work on cost, environmental, and transmission considerations.

3.1 Scoring Criteria

The Offshore Wind Order's prescribed ratios of 70% price, 20% economic benefits, and 10% viability were well-balanced and produced excellent proposals from rival applicants vying for all or a share of the awards. Emphasis on price, in conjunction with strong market conditions, yielded reasonably priced proposals, particularly with the larger nameplate options. The balance of flexibility in economic benefits and strength of viability criteria produced creative proposals with significant seed investments that will be instrumental in cultivating New York's workforce and clean job aspirations. Through this evaluation framework, projects that are mature, competitively priced, and bring significant economic benefits to New York naturally rise to the top.

3.1.1 Price

New York's first solicitation yielded strong prices that, by comparison to the January 2018 NYSERDA Policy Options Paper, significantly exceeded expectations for pricing. Major price dynamics in the offshore wind market include, notably, the impacts of competition, importance of project size in driving economies of scale, wind resource and lease characterization, federal tax programs (Investment Tax Credit), and closeness of the program design to market hedge. Additionally, major improvements in technology progress and key investments to seed and enhance the infrastructure to support projects have strengthened developers' ability to succeed. These include supply chain and local economic benefit investments, environmental mitigation efforts and associated public policy provisions.

New York State's approach is similar in structure to programs such as the United Kingdom, where offshore wind projects are already competitive with existing fossil fuel plants and dropping steadily. By the next auction, the U.K. anticipates that costs for offshore wind will go well below that of existing fossil fuel plants, eliminating the need for subsidies.[45]

Under the Climate Leadership and Community Protection Act, many conventional power plants reliant on fossil fuels will eventually be replaced by emissions-free renewable energy. NYSERDA's long-term studies of a decarbonized electricity sector that includes 9,000 megawatts of offshore wind by 2035 suggests that technology costs will likewise decrease over time, helping to lower statewide energy costs.

The advancement of voluntary markets for offshore wind and ORECs may provide an opportunity in future procurements to support competitive pricing and ratepayer savings. Recent examples from European markets include the use of power purchase agreements to support decarbonization of important sectors such as transportation[46] and data centers[47] with offshore wind purchases. Likewise, there is significant appetite for New York communities to participate actively in the State's transformative change to a clean energy future, potential commercial and investment relationships such as the sale of green bonds, or the purchase of ORECs through community choice aggregation programs, or even equity participation may provide an important avenue for community engagement and investment in the offshore wind industry.

3.1.2 Benchmark LNOC Model

As described in Section 2.2.4, any project submission with a fixed or index OREC price equal to or greater than the respective Benchmark LNOC would not be further considered by NYSERDA. This method served important functions in probing deeper analysis and aligning the price-based expectations within NYSERDA's Evaluation Team and DPS Staff as to the major cost-drivers that could impact this solicitation; and providing strong competitive pressure signals to the industry in protection of ratepayer interests. On both fronts, the use of the Benchmark LNOC as confidential maximum price levels for the fixed and index OREC offers was effective in this first solicitation and would be a valuable consideration to maintain in future solicitation efforts.

3.1.3 Hybrid Procurement Structure

Importantly, the array of proposals and prices showed significant strength in NYSERDA's approach to the price-based scoring, which included evaluation of both index and fixed OREC prices. As discussed in Section 2.2.4, the index and fixed OREC strike prices were averaged using a weighting of 90% for the index OREC and 10% for the fixed OREC. The fixed and index OREC price submissions demonstrated developers' commodity risk appetite, particularly in view of uncertainty in the long-term wholesale energy and capacity markets. This is because the fixed OREC fixes the value of the ORECs throughout the contract life but leaves energy and capacity prices unhedged, while the index OREC uses a floating OREC value that acts as a hedge against energy and capacity prices. The Offshore Wind Team weighed the incremental long-term benefits and risks ascribable to the fixed OREC relative to the index OREC in forming a balanced view on risk allocation between the developer and ratepayers over the 25-year term.

Due to the incremental hedge quality of the index OREC, NYSERDA expected this structure's bid prices would be meaningfully lower than the fixed OREC. This prediction, which led to the relative weighting of 90/10 between the two structures, was supported by the actual bid results.

Finally, while NYSERDA selected index OREC pricing models in this solicitation for both awards, NYSERDA does not want to preempt the market's appetite for risk. In future solicitations, NYSERDA recommends the PSC continue to consider the use of both price structures. While the index OREC has the advantage of stabilizing project revenues and ratepayer costs, the fixed OREC may still become advantageous depending on future market and regulatory conditions.

3.1.4 Economic Benefits

While all proposals featured infrastructure investments to support future supply chain localization, the two projects in the Award Group demonstrated exceptionally strong workforce and clean energy job potential. The Phase 1 experience has been successful in incentivizing expected combined economic activity of $3.2 billion in labor, supplies, development, and manufacturing in New York, and offering more than 1,600 jobs in development, manufacturing, installation, and operations and maintenance. Most of these jobs are high-quality and well-paying, with average salaries of approximately $100,000 per year. Operation and maintenance jobs will provide long-term career opportunities over the more than 25-year-lives of the projects.

NYSERDA's approach to local economic benefits deliberately incentivized real, realizable economic benefits leaving plenty of options with industry to evolve creative solutions to develop strategic, efficient, and sustainable supply chain approaches locally and in collaboration with the regional partners. In considering the past year's procurements holistically, the winning bids in Massachusetts, Connecticut, Rhode Island, and New York showcase the dual interests of minimizing LCOE while also delivering local economic benefits and long-term jobs. While New York's approach in embracing this duality may arguably raise LCOEs for initial projects that bear the upfront costs of such investments, it reflects an investment mindset that expects to drive down costs for this resource long term while strengthening New York's economy. The Phase 1 RFP framework allowed NYSERDA to consider proposals across this spectrum where these factors were directly observed. NYSERDA believes that the 20% weighting criterion on local economic benefits was successful in delivering strong opportunities without undue ratepayer burdens and may be further considered for potential changes in Phase 2, given New York's increased offshore wind goals and objectives to expand the State's reach from an infrastructure and economic development perspective.

Working with State partners in economic and infrastructure development, it will be important to consider how the results of this first solicitation can be leveraged in subsequent rounds. Specifically, efforts to best capitalize on the more than $85 million in private investments in long-term port facilities and cutting-edge technologies that the Phase 1 solicitation has seeded should be considered in tandem with Governor Cuomo's $200 million of State funding to unlock private capital in supporting critical port infrastructure. With an eye toward establishing New York as the center of offshore wind development and lowering LCOE in future solicitations, these efforts are critical from both an economic development perspective and as a major driver of ratepayer savings.

Tier 1 offshore wind suppliers estimated that annual procurement volumes in excess of 1,000 megawatts would be required to warrant more advanced component manufacturing investments in the U.S. At this juncture, New York may consider additional creative approaches to incentivize manufacturing investments in subsequent solicitations that would value market delivery beyond New York's domestic market. The extraordinary growth of the U.S. offshore wind industry over the past three years has ignited a market expected to reach more than 20 gigawatts by 2030 where these combined regional commitments encourage supply chain investment and local partnerships that will feature prominently in future procurement efforts by New York State, particularly those related to manufacturing.

Likewise, pursuant to the terms of the CLCPA, NYSERDA will be working in consultation with the Climate Action Council to seek alignment of economic benefit programs and future investments with the State's commitment to a Just Transition, as will be defined pursuant to the legislation.

3.1.5 Viability

Viability scoring represents a critical test of a developer's ability to deliver significant and complicated infrastructure projects with complex supply chains, multi-layered technical and logistical drivers, and diverse stakeholders. Upon reflection of the first solicitation's approach, NYSERDA is confident this approach was well understood, particularly by the Award Group who were able to demonstrate complete and thoughtful approaches that won the confidence of the scoring committee. That said, for projects going forward, NYSERDA is looking to its parallel experience with land-based renewable procurements to evolve the viability requirements over time as the industry and policy matures.

3.2 Other Eligibility/Contractual Requirements

NYSERDA's Phase 1 procurement was viewed as the first State solicitation that sought comprehensive proposals and included requirements for awarded projects, which were State-specific and in many cases, outside of typical permitting or energy contract stipulations. This approach has since served as a model for other states, with the recently issued offshore wind solicitation in Connecticut following many of these same requirements.[48] These conditions are reviewed and assessed as follows.

3.2.1 New York Supplier Opportunity

To cultivate opportunities for New York businesses to integrate themselves into the evolving supply chain, NYSERDA instituted the New York State Supplier Opportunity provision into the Phase 1 procurement, which requires any contract greater than $5 million emanating from an agreement with NYSERDA be communicated to New York businesses for an opportunity to bid. Supporting this provision, NYSERDA cultivated the New York Offshore Wind Supplier Database, which now has almost 450 entities based in the State. In support of the provision and the database, NYSERDA also held critical business-to-business matchmaking events such as the New York State Offshore Wind Supplier Forums, with more than 300 attendees in November 2018 and June 2019 to support education about this new industry and access for New York businesses to its major global players. Overall, the offshore wind industry received this provision and the supportive efforts of NYSERDA in facilitating these connections favorably and regularly references the use of the database in its stakeholder engagement and public remarks.

3.2.2 Fishing and Environmental Mitigation Plans

The detailed requirements of the Fisheries and Environmental Mitigation Plans were developed with support and input from the commercial fishing industry and the environmental communities, respectively. This input was invaluable in refining solicitation requirements and clearly articulating to proposers the specific concerns that stakeholders and the State have regarding responsible project development. The comprehensive nature of the Mitigation Plan requirements signaled to proposers that the State is truly invested in ensuring projects are developed responsibly. The additional requirement that selected developers work directly with the State's Fishing and Environmental Technical Working Groups to evolve the submitted mitigation plans assures that direct input from key stakeholders is considered by the developers. The combination of requiring developers to provide detailed Mitigation Plans describing how they will address topics of concern, combined with the understanding that Mitigation Plans need to be nimble and evolve over time, afforded the proposers an opportunity to describe their understanding of these concerns, identify specific actions where appropriate, and also outline how they plan to approach concerns as the project develops. This process seemed to strike the right balance of guaranteed actions while maintaining necessary flexibility.

Following contracting and release of the Mitigation Plans, NYSERDA will schedule meetings for the selected developers to present their Mitigation Plans to the Fishing and Environmental Technical Working Groups for discussion. It is reasonable to expect that through these interactions, NYSERDA will gain insights into modifications to this process that could bring additional value to future procurements. Similarly, as the offshore wind industry continues to mature, and stakeholders refine their interests and concerns, Mitigation Plan requirements should be revisited and potentially updated. Finally, both the Fishing and Environmental Technical Working Groups are working to develop best management practices that could be considered in future procurements. These could take the form of specific requirements, general guidance, or topics to be addressed in the Mitigation Plans.

3.2.3 Consultations with New York State Agencies

The solicitation required that selected developers consult with State agencies during the planning and development of the projects. The inclusion of this provision helps to ensure States agencies' interests and knowledge are considered in what is primarily a federal process. As experience is gained from State and federal interactions, this provision may prove to be valuable or potentially redundant with the federal process. However, it does not appear to be problematic in its current form.

3.2.4 Lighting Controls

Control of nighttime lighting on turbine nacelles was shown to be important by stakeholders from the perspective of viewshed impacts, but also in helping to protect aerial vertebrates (birds and bats) migrating at night. Given the nascent stage of permitting projects, it is unclear the degree to which the federal permitting process will seek to protect non-historic viewsheds. As such, requiring developers to include nighttime lighting controls to protect viewsheds is reasonable.

3.2.5 Site and Environmental Data Transparency

In Phase 1, developers committed to making public all non-proprietary environmental data collected during project development. The timely release of this data reinforces the transparency of these projects and is invaluable in evaluating projects in near real-time, allowing for adaptive management and improved understanding of ecosystem dynamics.

Ensuring the transparency of site and environmental data is expected to build support for projects and allow data collected to be used for multiple purposes. This provision continues to get strong support from stakeholders and developers and has been included in other offshore wind energy procurements. The timely provision of data collected during the construction phase of the projects are expected to prove critical in maintaining stakeholder support and demonstrating transparency.

3.2.6 Stakeholder Engagement

NYSERDA recognizes future procurement efforts will benefit from strengthened approaches from community outreach to engagement. Where NYSERDA will continue to be the primary ambassador of the State's approach to offshore wind with the public and stakeholders. Likewise, New York must expect a gold standard for engagement with the development community that follows the practice of "early and often" to maintain and grow public trust. NYSERDA is confident in its current partners' approach and commitments resulting from this solicitation and will seek to build off this strong first example to promote deeper engagement with stakeholders as this new industry progresses.

3.2.7 Technology Pairing Considerations

NYSERDA's Phase 1 procurement did not explicitly incentivize the pairing of offshore wind proposals with energy storage or other technologies, such as power-to-gas (including hydrogen production through electrolysis), as has recently been integrated into European offshore wind proposals.[49] Energy storage incorporated into renewable energy projects may have multiple benefits for transmission systems and the projects themselves. Such solutions have been proposed alongside grid-scale land-based wind, solar, and offshore wind projects, whose intermittent generation and off-peak power production do not necessarily align with load demands. Energy storage solutions can buffer intermittency and eliminate renewable energy curtailment while providing dispatchable power. Power-to-gas may also be a particularly relevant consideration when considering high penetrations of offshore wind in the Downstate grid. In light of the CLCPA's transformational mandate of 70% of renewable energy by 2030 and associated energy storage goals, NYSERDA observes that this may be an area for expansion in future solicitations.

3.2.8 Project Labor Agreements

NYSERDA's Phase 1 procurement indicated a requirement that the selected project would be required to negotiate project labor agreements for construction work. Each project labor agreement, if finalized by the project developer and the relevant trade unions, would be subject to NYSERDA's approval based on considerations of project viability, cost-effectiveness, and the need for timely completion of the selected project. Project Labor Agreements are pre-hire agreements that have become increasingly common in the emerging U.S. offshore wind sector because of their propensity to reduce costs and schedule risks. NYSERDA elected to include these provisions because, among other reasons, timely completion of the Phase 1 projects is essential to reducing NYSERDA's long-term costs over the course of the phased procurement.

3.3 Feasible Lease Areas

Geographically, Phase 1 proposals demonstrate New York's geographic reach to include lease areas spanning the entire breadth of the New England lease areas through the New Jersey lease areas, including those areas most recently confirmed through BOEM's Massachusetts auction in December 2018.[50] Despite the limited number of eligible bidders in the Phase 1 procurement, the results signal the potential for strong competition in subsequent procurement rounds.

Notwithstanding this reach, increasing regional offshore wind targets portend the risk of a shortfall between regional lease availability and regional demand, making the timely addition of new leases in the New York Bight critical. Where localized supply and demand generally align to New England and New Jersey's current targets, the likelihood that New York alone incurs the regional risk of lease scarcity grows significantly as neighboring states enact statutory authorization to increase their respective offshore wind procurement targets.

In eyeing future BOEM leasing activities as well as future procurement designs, it will be important to maintain the price advantage associated with larger nameplate projects. NYSERDA is conscious of the need to move appropriately to reconcile this advantage against the strains of competition for development of lease areas by adjacent states in pursuit of their respective offshore wind targets.

Likewise, NYSERDA recognizes that predictability in its procurement schedules will be helpful in the State's advocacy efforts with the Federal Government and in coordinating with neighboring states for competitive market conditions. In considering the timing and scale for Phase 2 procurements, such regional and federal dynamics should be evaluated across these issues.

3.4 Project Capacity

The results of New York's first solicitation further underscored the importance of project size, and accordingly, lease size in providing the most advantageous proposals.

Although each proposer submitted the required 400 MW proposal, those received in NYSERDA's Phase 1 procurement represented a wide array of project sizes, spanning 384 MW through 1,200 MW. The impact of economies of scale on price and economic development commitments was readily apparent, with the larger projects priced lower than the smaller nameplate projects regarding the index or fixed OREC price.

As expected, proposals received under New York's Phase 1 solicitation for less than 800 MW were significantly more expensive on a unitized basis in relation to larger counterparts. Tolerance of larger project sizes confers economy of scale advantages and broadens NYSERDA's reach to more distant BOEM lease areas, thereby heightening competition as well. Considering the impacts of design-drivers such as distance and technical limitations of cable capacities and points of interconnection, larger projects, beyond 800 MW, would more effectively spread these costs in subsequent procurement rounds.

In New York's Phase 1 procurement, such efficiencies were demonstrated in Sunrise Wind's delivery of 880 MW as the maximum effective delivery possible. Likewise, efficiencies were noted in Empire Wind's 816 MW project to deliver 800 MW. Projects that are much further away may choose to take advantage of the technical efficiencies of high-voltage direct current (HVDC) design; current cable designs for HVDC equal 1,200 MW. As such, defining projects by size in solicitations, in lieu of interconnection limitations or delivery-driven metrics, may limit potentially cost-effective designs for ratepayers.

3.5 Market Conditions

New York's solicitation provided applicants the opportunity to be flexible through creative proposals and collaborations within industry to support strategic partnerships or development affiliations. The procurement process promoted active competition among rival developers, reflecting the broadest use of active lease areas. Notably, recognizing the relative distance of some sites, the solicitation permitted both direct interconnections to the New York Control Area as well as interconnection via adjacent system operators through a wheeling approach.

While the solicitation was prescriptive per the PSC's Phase 1 Offshore Wind Order to focus on generator lead-line designs, the solicitation was otherwise neutral to technology solutions, planning approaches, and the integration of potential project additions, such as storage. The solicitation was intentionally non-prescriptive in its approach to economic benefits, making a considered choice to incentivize economic development consistent with the Offshore Wind Order, but without additional encumbrances or prescriptive rules that could stymie a developer's approach to economic development or lead to regional inefficiencies.

Bidders pursued strategic designs, partnerships, and allegiances in this solicitation, and NYSERDA would expect to see this increase as the industry and projects mature, as market signals within New York continue to evolve, and as supply chain localization gains in momentum.

In considering the market conditions related to this solicitation, it should be noted that the New Jersey solicitation ran on a concurrent track. NYSERDA does not believe the response to its initial solicitation has been compromised as a result of the overlapping proceedings; however, it recognizes the practical challenges faced by developers in responding simultaneously to multiple solicitations. While exclusive focus is preferred, NYSERDA is satisfied that the simultaneous solicitation in New Jersey did not cause inefficiencies. As state offshore wind programs along the Atlantic region intensify, the market's calls for transparency and coordination will take on increasing importance in maintaining competitive conditions that support New York ratepayers.

NYSERDA also notes the ongoing criticality of market certainty. With line of sight into procurement schedules and project locations, industry can focus their efforts toward cultivating strong proposals, manufacturers can construct potential business plans, ports can prioritize upgrades to ensure readiness of appropriate scale, academic and training institutions can tailor their workforce development programs effectively, and agencies can plan and coordinate. Additionally, aging fossil fuel retirements and system upgrades and investments can be coordinated, and stakeholders and developers can work together to build trust and transparency in active development.

3.6 Transmission and Interconnection

In this Phase 1 procurement, NYSERDA employed a radial (equivalently generator lead-line) transmission design with overall positive outcomes. Interconnecting into the Con Edison and LIPA service territories, the two awarded projects represent strong interconnection points, and considering their capacity, with minimal upgrades anticipated to the substations and the surrounding grid. Additionally, there were multiple additional points of interconnection in the proposals NYSERDA received that presented strong options for these and the additional projects beyond the Award Group.

These results were consistent with the findings from NYSERDA's Master Plan in 2018, in which NYISO, on behalf of NYSERDA and the DPS, released a technical feasibility study to determine whether 2,400 MW of offshore wind can be injected into New York City and Long Island without thermal overloads.[51]

As such, NYSERDA believes there is no strict technical or cost impediment to New York's continued progress in pursuit of its offshore wind goal on an incremental basis through continued support of radial designs. Where retirements are on the horizon in the near to intermediate term due to stricter NO_x emissions regulations, offshore wind can provide important locational benefits. This combined feedback, between NYSERDA's prior study and the empirical findings from industry, provide optimistic signals for continued success, as necessary, under a radial transmission design framework.

Nevertheless, the prospect of ocean grid solutions to support subsequent offshore wind additions remains important for the State to fully evaluate and study as well as the advantages and disadvantages of coordinated versus distributed systems. Any imminent conclusion on the debate between radial or ocean grid—or an optimized combination—is challenged by continued uncertainties with respect to

timing in the BOEM leasing process. As such, with confirmation of future BOEM lease areas, it will be important for the PSC to consider taking advantage of short-term lease availability and associated high levels of competition and continuing a generator lead-line approach as new lease areas are confirmed and planned transmission solutions are fully studied and implemented. Ultimately, NYSERDA is confident that the PSC will duly weigh system designs that promote efficiency and reliability of the grid while ensuring the "uninterrupted progress" envisioned by the Order and now exigent under the CLCPA.

3.7 Stakeholder Engagement

The announcement that launched NYSERDA's Phase 1 solicitation was seen by more than an estimated 1.1 million people. Offshore wind has transformative potential to the New York Control Area's grid. NYSERDA is deeply cognizant of its role as stewards in supporting public trust through transparent stakeholder engagement to build confidence in offshore wind as a vital resource for New York's clean energy future.

Through its Phase 1 solicitation, NYSERDA has been very encouraged by the development community's understanding of its stewardship role and obligations in supporting stakeholder engagement. The Award Group proposals demonstrate highly considered approaches that closely align their projects' technical demands and merits, New York's geographic and regional assets, and a close understanding of New York and the priorities of the State in issuing this solicitation and support sustainable solutions and partnerships.

The responses to the Phase 1 solicitation showed the development community paid close attention to New York's priorities through the efforts of the 2018 Master Plan and the dense and deep network of stakeholders included in its more than 20 reports. Moreover, the ongoing, critical dialogue through New York State's four TWGs—Environmental; Commercial Fishing; Maritime; and Jobs and Supply Chain—were central to the proposals received. Where the TWGs are broadly recognized within the industry and the Atlantic Region for their leadership and commitment to cultivating informed and actionable dialogue with key stakeholders and their representatives who are actively working on their behalf, the Award Group's substantial participation on the TWGs and engagement with stakeholders beyond was evident in their approach to the solicitation's Environmental and Fishing Mitigation Plans, their ports and infrastructure plans, workforce development and training proposals, and the suite of economic benefits proposals that ultimately supported each submission.

Consistent with terms of the CLCPA, NYSERDA will also be working to align Stakeholder Engagement objectives in consultation with the Climate Action Council and Climate Justice Working Group to seek alignment of economic benefit programs and future investments with the State's commitment to a Just Transition and to supporting disadvantaged communities.

Mutually supportive coexistence offshore and continued support onshore will inevitably become more challenging as offshore wind deployment, on-shore infrastructure, and workforce and the associated socioeconomic impacts develop to fulfill the State's 9,000 MW mandate. Therefore, NYSERDA submits stakeholder engagement, transparency, and accountability as a critical consideration in future procurements. Moreover, the role of the developer as a steward of public trust and support will likewise only grow in importance as this industry evolves. While New York has confidence that its Phase 1 project partners take this responsibility seriously and with full commitment to its importance, continued measures encouraging industry engagement, actively involving stakeholders as partners in decisions that will support strong projects should be strongly considered by the PSC in future procurements.

Appendix A. Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement by and Between the New York State Energy Research and Development Authority and Equinor Wind US LLC Dated: October 23, 2019

REDACTED VERSION
Agreement No. 145651

OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE PURCHASE AND SALE AGREEMENT

BY AND BETWEEN

THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

AND

EQUINOR WIND US LLC

Dated: October 23, 2019

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This Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement ("Agreement") is entered into as of October 23, 2019 (the "Effective Date") by and between the New York State Energy Research and Development Authority ("NYSERDA"), a public benefit corporation, having a principal business address of 17 Columbia Circle, Albany, New York 12203, and Equinor Wind US LLC ("Seller"), a limited liability company, having a principal business address of 120 Long Ridge Road, Stamford, CT 06902. NYSERDA and Seller are each referred to herein as a "Party" and are collectively referred to herein as the "Parties."

WHEREAS, the New York State Public Service Commission ("PSC") through its "Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement"[1] ("Phase 1 Order") established, as part of its Clean Energy Standard,[2] an Offshore Wind Standard with a goal of having 2,400 megawatts ("MW") of offshore wind facilities operational and delivering energy to New York State by 2030; and

WHEREAS, in the Phase 1 Order the PSC directed and authorized NYSERDA, as the central procurement administrator, to issue solicitations, during 2018 and 2019, for the procurement of the renewable energy certificates representing the attributes associated with the generating capacity of offshore wind generating capacity (hereinafter defined in Article I as "ORECs"); and

WHEREAS, NYSERDA has conducted a competitive solicitation in the form of ORECRFP18-1 to procure ORECs; and

WHEREAS, Seller has participated in ORECRFP18-1 and has been selected by NYSERDA for an award with respect to the Empire Wind Project (hereinafter defined in Article I as the "Selected Project"); and

WHEREAS, Seller agrees to sell to NYSERDA, and NYSERDA agrees to purchase from Seller, the ORECs associated with the energy production of the Selected Project during the Contract Delivery Term, on the terms and subject to the conditions set forth herein;

NOW, THEREFORE, for and in consideration of the premises and agreements set forth herein and other good and valuable consideration, the receipt, sufficiency, and adequacy of which are hereby acknowledged, this Agreement has been entered into by the Parties to define, among other things, their rights and obligations concerning the ORECs associated with the generation of electric energy by the Selected Project, the delivery by Seller of ORECs to NYSERDA, and payments by NYSERDA to Seller during the term of this Agreement.

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[1] *See* Case 18-E-0071, In the Matter of Offshore Wind Energy, issued and effective July 12, 2018 (the "Offshore Wind Standard").

[2] *See* Case 15-E-0302, et al., Large-Scale Renewable Program and Clean Energy Standard, Order Adopting a Clean Energy Standard issued and effective August 1, 2016.

ARTICLE I

Definitions

The terms defined in the recitals, the preamble, this Article I or any other Articles of this Agreement, whenever used in this Agreement (including in any Exhibit hereto), shall have the respective meanings indicated in such provision for all purposes of this Agreement (each such meaning to be equally applicable to the singular and the plural forms of the respective terms so defined). All references herein to a Section, Article or Exhibit are to a Section, Article or Exhibit of or to this Agreement, unless otherwise indicated. The words "hereby", "herein", "hereof", "hereunder" and words of similar import refer to this Agreement as a whole (including any Exhibit) and not merely to the specific section, paragraph or clause in which such word appears unless so specified. The words "include", "includes", and "including" shall be deemed, in every instance, to be followed by the phrase "without limitation." Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. Except as otherwise expressly provided herein, all references to "dollars" and "$" shall be deemed references to the lawful money of the United States of America.

Acceptable Guaranty: An unconditional, irrevocable, direct-pay guaranty (a) in the form of Exhibit G duly executed by an Acceptable Guarantor; and (b) as to which NYSERDA has received (i) such financial statements in respect of such Acceptable Guarantor as it has reasonably requested, (ii) customary legal opinions with respect to capacity, authority and enforceability of such guaranty and as to such other matters as reasonably requested by NYSERDA, and (iii) corporate documents, resolutions, copies of any necessary consents and approvals and customary certificates by and in respect of such Acceptable Guarantor as may be reasonably requested by NYSERDA.

Acceptable Guarantor: A corporation, business trust, partnership, limited liability company or other legal entity that has outstanding senior unguaranteed and unsecured long-term debt that is rated at least "BBB" by S&P or "Baa2" by Moody's.

Actual Production: The amount of electric energy production in MWh generated by the Selected Project during any Contract Year, measured at the Delivery Point.

Annual OREC Cap: An amount of ORECs equal to the product of 1.1 and the P10 Annual OREC Exceedance. The Annual OREC Cap under this Agreement shall be 5,005,000 ORECs unless and until the P10 Annual OREC Exceedance is adjusted by Seller in accordance with Section 2.01(e). Seller will retain ownership and all rights to ORECs that exceed the Annual OREC Cap.

Applicable Law: All applicable provisions of all constitutions, treaties, statutes, laws (including the common law), rules, regulations, ordinances, and codes and any order, writ, injunction, decree, judgment, award, decision or determination of any court of jurisdiction or any federal, state, municipal or other governmental department, commission, board, bureau, agency, authority or instrumentality, including the NYISO tariffs.

Applicable OREC Price: The methodology for determining the Monthly OREC Price as set out in Section 4.01 of this Agreement.

BOEM: The Bureau of Ocean Energy Management within the U.S. Department of the Interior.

Business Day: Means any day except a Saturday, Sunday or a New York State or NERC recognized holiday.

Commercial Operation: A state of operational readiness under which (i) generating capacity is available and physically producing electric energy, and (ii) all rights, abilities, permits and approvals to schedule and deliver energy to the Delivery Point have been obtained.

Consulting State Agency: The New York State Department of State, the New York State Department of Environmental Conservation, the New York State Office of Parks, Recreation and Historic Preservation, the New York State Office of General Services, and NYSERDA, and any other state agency that NYSERDA directs Seller to include.

Contingent Award Notification Date: The date on which NYSERDA notified Seller that it had been selected for an award contingent on the negotiation of this Agreement. For purposes of this Agreement, the Contingent Award Notification Date was May 15, 2019.

Contingent Economic Benefits: A subset of Economic Benefits that result from Seller's activities in connection with port facilities in New York State that would not otherwise be used by Seller but for the Contingency Event. The Contingent Economic Benefits presented in the Proposal and accepted by NYSERDA are $85,083,000.

Contingency Event: A commitment by New York State or its instrumentalities (including county or municipal governments) in form and substance mutually acceptable to NYSERDA and Seller, made no later than September 30, 2020, or on a later date mutually acceptable to the Parties, to fund work at one or more port facilities in New York State (including but not limited to the South Brooklyn Marine Terminal) that results in such terminal(s) being suitable and available to Seller to support the staging and deployment of offshore wind turbines. Such port facilities shall only be considered suitable and available to Seller for such purpose if they (i) are made available on market-competitive terms for use on or before April 1, 2023, (ii) possess sufficient quayside weight-bearing capacity to support staging of offshore wind turbine components, (iii) have been dredged to a depth of at least 32 feet on the front quay; and (iv) meet other reasonable criteria established by Seller.

Contract Delivery Term: A period that shall commence on the first day of the month after any portion of the Selected Project commences Commercial Operation and end at the earlier of (i) the date upon which the Contract Tenor has elapsed, or (ii) the Outer Limit Date. If less than twenty-five percent (25%) of the Selected Project has commenced Commercial Operation (as determined on an installed capacity basis as compared to the Offer Capacity), Seller may elect to delay the commencement of the Contract Delivery Term for a period not to exceed one year after any portion of the Select Project has achieved Commercial Operation. Seller must make such election in writing in conformance with the requirements of Article XIX of this Agreement.

Contract Security: All amounts provided to NYSERDA, in the form of cash, Letters of Credit, or an Acceptable Guaranty, as determined in Article XV of this Agreement.

Contract Tenor: The maximum duration of the Contract Delivery Term. The Contract Tenor under this Agreement shall be 25 years; provided that, once the Contract Delivery Term has begun, if a Force Majeure causes the cessation of production or delivery of at least fifty percent (50%) of the Operational Installed Capacity, the Contract Tenor for such portion of the Selected Project affected by such Force Majeure shall be extended on a day-for-day basis for the duration of such cessation of production or delivery.

Contract Year: A 12-month period commencing with the beginning of the Contract Delivery Term and each anniversary thereof within the Contract Delivery Term. As used in this Agreement, the phrase "Contract Year" followed by a number shall refer to a discrete Contract Year within the Contract Delivery Term such that "Contract Year 1" refers to the first 12-month period commencing with the beginning of the Contract Delivery Term, "Contract Year 2" refers to the second such 12-month period, and so on.

Delivery Point: The generator bus or location where (a) the administrator of the wholesale power market, or (b) the operator of the transmission/distribution utility, public authority or municipal electric company, measures, or otherwise determines, energy production from the Selected Project.

Economic Benefits: Financial expenditures benefitting New York State within Categories 1 and 2 specified in Exhibit I and that Seller can demonstrate: (1) will accrue subsequent to the Contingent Award Notification Date, and (2) would not have accrued but for the award under ORECRFP18-1.

Economic Benefits Report: A confidential report by Seller to NYSERDA prepared in accordance with Exhibit I of this Agreement.

Economic Benefits Shortfall: The amount by which the Verified Total Dollars of Economic Benefits is less than the product of 0.85 and the Expected Total Dollars.

Environmental Attributes: All environmental characteristics, claims, credits, benefits, emissions reductions, offsets, allowances, and allocations, however characterized, denominated, measured or entitled, attributable to the generation of Actual Production by the Selected Project, including but not limited to: (i) any direct emissions or any avoided emissions of pollutants to the air, soil or water including but not limited to sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), particulate matter and other pollutants; (ii) any direct or avoided emissions of carbon dioxide (CO_2), methane (CH_4) and other greenhouse gases that have been or may be determined by the United Nations Intergovernmental Panel on Climate Change to contribute to altering the Earth's climate by trapping heat in the atmosphere; (iii) all set-aside allowances and/or allocations from emissions trading programs made unnecessary for compliance in such program as a result of performance under this Agreement, including but not limited to allocations available under 6 NYCRR §§ 204, 237 and 238; and (iv) all credits, certificates, registrations, recordations, or other memorializations of whatever type or sort, representing any of the above; provided, however, that Environmental Attributes shall not include: (a) any federal production tax credits; (b) any state or federal investment tax credits or other tax credits associated with the construction or ownership of the Selected Project; (c) any depreciation deductions under Applicable Laws (including any bonus or accelerated depreciation); or (d) any state, federal or

private grants, financing, guarantees or other credit support relating to the construction or ownership, operation or maintenance of the Selected Project or the output thereof, in each case whether arising before or after the Effective Date.

Expected Total Dollars: The total amount, in nominal dollars, of Economic Benefits in Categories 1 and 2 (as described in Exhibit I) expected to accrue to New York State as a result of the development, construction, modification, interconnection, and operation of the Selected Project from the Contingent Award Notification Date through the end of the first three (3) Contract Years. Because Seller's Proposal included Contingent Economic Benefits, the amount of Expected Total Dollars shall depend on whether the Contingency Event occurs. If the Contingency Event occurs, the Expected Total Dollars under this Agreement shall equal $877,319,000. If the Contingency Event does not occur, the Expected Total Dollars shall equal $792,236,000.

Fixed OREC Price: A fixed, as-offered price in dollars per OREC as described in Section 4.02 of this Agreement.

Forward Certificate Transfer: An automated monthly transfer of ORECs to NYSERDA as described in Section 10.3 of the NYGATS Operating Rules.

General Terms of Use: The terms of use for the NYGATS, operated and administered by APX, Inc. (or its successor) for NYSERDA.

Independent Engineer: A licensed professional engineer with expertise in the development of offshore wind energy projects, reasonably selected by and retained by Seller in order to determine the Operational Installed Capacity of the Selected Project as provided in Section 2.01(c) of this Agreement.

Independent System Operator/Transmission Owner Agreement ("ISO/TO Agreement"): The agreement, which includes Appendices A-1 and A-2, that establishes the terms and conditions under which the transmission owners transferred to the ISO Operational Control (as defined in the ISO/TO Agreement) over designated transmission facilities.

Index OREC Price: An adjustable price in dollars per OREC that nets a fixed, as-offered strike price monthly against a reference price expressed in a market index as determined pursuant to Section 4.03 of this Agreement.

Maximum Project Capacity: The product of the Offer Capacity and 1.05. The Maximum Project Capacity for the Selected Project is 857 MW.

Monthly OREC Price: A price in dollars per OREC for each month of the Contract Delivery Term. If the Applicable OREC Price is the Fixed OREC Price, the Monthly OREC Price shall be calculated pursuant to Section 4.02 of this Agreement. If the Applicable OREC Price is the Index OREC Price, the Monthly OREC Price shall be calculated pursuant to Section 4.03 of this Agreement.

New York Control Area (NYCA): The geographic bounds of the electricity system that is under the control of the NYISO, which includes transmission facilities listed in the ISO/TO Agreement Appendices A-1 and A-2, as may be amended from time to time.

New York Generation Attribute Tracking System (NYGATS): The tracking system, administered under the auspices of NYSERDA, that records electricity generation attribute information within New York State, and processes generation attribute information from energy imported and consumed within New York State, as a basis for creating generation attribute certificates, including ORECs. NYGATS will create exactly one OREC per MWh of generation attributable to the Selected Project and delivered to the Delivery Point in accordance with the applicable electricity delivery requirement set forth in Article III of this Agreement.

New York State Environmental Disclosure Rules: The program rules adopted by the PSC in Case 94-E-0952, Opinion No. 98-19, Opinion and Order Adopting Environmental Disclosure Requirements and Establishing a Tracking Mechanism, (issued December 15, 1998) Appendix pp. 2-3, as amended from time to time.

NYGATS Operating Rules: The operating rules, the General Terms of Use, and other guidelines published by NYGATS and as amended from time to time.

NYISO: The New York Independent System Operator, Inc. is the administrator of the wholesale power markets in New York and manages the physical electrical operations of the New York Control Area.

NYISO Capacity Market: Collectively, the wholesale markets for capacity administered by NYISO.

NYISO Energy Market: Collectively, the wholesale markets for electric energy administered by NYISO.

NYSERDA NYGATS Account: The NYGATS account established by NYSERDA into which Seller shall transfer ORECs as performance under this Agreement.

Offer Capacity: The electric generating capacity of the Selected Project. The Offer Capacity under this Agreement shall be 816 MW, unless and until reduced by Seller pursuant to Section 15.07(b) of this Agreement.

Offshore Wind Renewable Energy Certificate (OREC): The electronic record of generation data created by NYGATS and representing all of the attributes including the Environmental Attributes of one MWh of electricity generation from the Selected Project.

Operational Installed Capacity: The gross generating capacity, in MW, of the Selected Project that has achieved Commercial Operation and for which an Independent Engineer's report has been submitted to NYSERDA pursuant to Section 2.01(c) of this Agreement.

Outer Limit Date: A backstop date upon which the Contract Delivery Term ends, regardless of whether the Contract Tenor has elapsed. The Outer Limit Date is January 1, 2052.

Prevailing Wage: Shall have the meaning set forth in Section 18.10 of this Agreement.

Project Labor Agreement or PLA: As described in Section 18.11 of this Agreement, a collective bargaining agreement (including a pre-hire agreement) covering Seller, contractors in the construction industry working on the Selected Project, and a bona fide building and construction trade labor organization representing craft workers on the Selected Project.

Proposal: Documents submitted by Seller in response to ORECRFP18-1 with respect to the Selected Project, described as Empire Wind, "Alternate Proposal 2" (Offer Data Form ID Name "EmpireWindAlternate2", 816 megawatt, Index OREC option, Non-Decreasing Pricing, 25-year Tenor, with Gravity-Based Structure (GBS) foundations).

P10 Annual OREC Exceedance: An amount of electrical energy (in MWh), such that the estimated probability in any given year that generation from the Selected Project delivered to the Delivery Point would exceed that amount is 10 percent. As of the Effective Date, the P10 Annual OREC Exceedance for the Selected Project is 4,550,000, and may be updated as provided in Section 2.01(e) of this Agreement.

Reference Capacity Price: A broad index of NYISO Capacity Market prices for the coastal and near-coastal zones of New York State calculated as set forth in Section 4.03 of this Agreement.

Reference Energy Price: A broad index of NYISO Energy Market prices for the coastal and near-coastal zones of New York State calculated as set forth in Section 4.03 of this Agreement.

Selected Project: The offshore wind generation facility selected for award by NYSERDA in ORECRFP18-1 and as described in Exhibit H to this Agreement.

Summer Capability Period: The period commencing May 1 through October 31 of each year.

Uncompleted Offer Capacity: The amount by which the product of 0.95 and the Offer Capacity exceeds the Operational Installed Capacity.

Verified Total Dollars: The total dollar amount of Economic Benefits in Categories 1 and 2 (including any Contingent Economic Benefits falling within those categories if the Contingency Event occurs) as calculated pursuant to Exhibit I and verified to have accrued to New York as a result of the development, construction, modification, interconnection, and operation of the Selected Project from the Contingent Award Notification Date through the end of the first three (3) Contract Years.

Winter Capability Period: The period commencing November 1 of each year through April 30 of the following year.

Zones G (Hudson Valley), H (Millwood), I (Dunwoodie), J (New York City) and K (Long Island): The NYISO electric regional load zones defined in the NYISO services tariff as of the Effective Date.

ARTICLE II

Purchase and Sale of ORECs

Section 2.01. Purchase and Sale Obligations.

(a) On the terms and subject to the conditions of this Agreement, Seller agrees to sell, assign, convey, deliver and transfer to NYSERDA, and NYSERDA agrees to purchase from Seller, all right, title and interest in the ORECs produced by the Selected Project during each month of the Contract Delivery Term.

(b) For the avoidance of doubt, the only products Seller is selling and NYSERDA is buying under this Agreement are ORECs and all rights, title, and interest associated with those ORECs. Seller is not selling to NYSERDA and NYSERDA is not purchasing any electric energy, capacity, or ancillary services associated with the Selected Project.

(c) As a condition precedent to NYSERDA's purchase obligation in Section 2.01(a), Seller shall deliver to NYSERDA the report of an Independent Engineer demonstrating that the Operational Installed Capacity of the Selected Project is no greater than the Maximum Project Capacity.

    (1) If Seller elects to build the Selected Project in phases, Seller may deliver an Independent Engineer's report for each phase; provided that NYSERDA shall purchase ORECs only from those portions of the Selected Project for which the Operational Installed Capacity has been confirmed by an Independent Engineer's report.

    (2) If Seller elects to install additional offshore wind facilities within the same leased area as the Selected Project, Seller shall deliver to NYSERDA, in writing, a plan for verifying that the generation and associated ORECs from the Selected Project will be accounted for separately from any generation and ORECs produced by such additional facilities.

(d) Notwithstanding Subsection 2.01(a), in no Contract Year shall NYSERDA be obligated under this Agreement to purchase from Seller, nor Seller obligated under this Agreement to sell to NYSERDA, more ORECs than the Annual OREC Cap. Seller shall be free to sell, assign, transfer or otherwise subject to any encumbrance any ORECs produced by the Selected Project in excess of the Annual OREC Cap.

(e) With NYSERDA's written consent, which shall not be unreasonably withheld, conditioned, or delayed, Seller may, at any time prior to Commercial Operation of the Selected Project, adjust the P10 Annual OREC Exceedance (and, therefore, the Annual OREC Cap) to reflect changes in the technical or meteorological assumptions upon which the prior estimate was based or changes in the capacity of the Selected Project up to the Maximum Project Capacity.

Section 2.02. NYSERDA's Rights, Title and Interest in ORECs. The right, title, and interest to the ORECs NYSERDA is acquiring under this Agreement shall include perpetual and exclusive rights to such ORECs and the underlying Environmental Attributes, including but not limited to the exclusive rights to claim or represent, consistent with New York State Environmental Disclosure Rules: (i) that the energy associated with ORECs was generated by the Selected Project; and (ii) that New York State and/or the Offshore Wind Standard is responsible for the environmental benefits, including reductions in emissions and/or other pollution or any other environmental benefit resulting from the generation of the energy associated with the ORECs.

Section 2.03. Transfer. Seller shall transfer ORECs up to the Annual OREC Cap to the NYSERDA NYGATS Account on a monthly basis via a Forward Certificate Transfer. At the time of transfer by Seller to NYSERDA, the ORECs shall be free and clear of all liens, judgments, encumbrances and restrictions.

Section 2.04. Other Attributes. In the event that, because of the Environmental Attributes of the Actual Production, Seller becomes eligible, at no incremental cost to Seller other than de minimis administrative cost, for credits, allowances or other benefits under any emission-trading, emission-recordation, renewable energy, or other greenhouse gas emissions reduction regime other than the Clean Energy Standard and the Offshore Wind Standard ("Credits"), NYSERDA may request that Seller take all commercially reasonable actions necessary to apply for and secure such title to such Credits, to the maximum extent to which the Selected Project is entitled. Seller shall provide NYSERDA with evidence of taking such actions. NYSERDA and Seller shall reasonably cooperate to cause title to such Credits to be conveyed to NYSERDA after such title is secured by Seller.

Section 2.05. Assignment of ORECs. NYSERDA shall be free to sell, assign, transfer or otherwise subject to any encumbrance, any of the ORECs NYSERDA acquires under this Agreement, at any time and from time to time to any entity and on such terms and conditions as NYSERDA may desire. Any financial or other consideration received by NYSERDA from any such action shall inure solely to NYSERDA's benefit, to be applied as determined by NYSERDA as the central procurement administrator of the Offshore Wind Standard program or a successor and shall not affect Seller's rights or obligations under the terms of this Agreement.

ARTICLE III

Electricity Delivery Requirements

Section 3.01. Selected Project Interconnecting in the New York Control Area. The Actual Production associated with the ORECs for the Selected Project must either be (a) delivered into a market administered by the NYISO for end-use in New York State, (b) delivered through a wholesale meter under the control of a utility, public authority or municipal electric company such that it can be measured, and such that consumption within New York State can be tracked and verified by such entity or by the NYISO, or (c) delivered through a dedicated generation meter at the Delivery Point that shall be compliant with the requirements and standards stated in Section 5.3 of the NYGATS Operating Rules, as such rules may be amended or changed from time to time.

Section 3.02. Bilateral Sales. Nothing in this Agreement shall be read to prohibit bilateral sales by Seller for electric energy, capacity, or ancillary services produced by the Selected Project. Electric energy from the Selected Project sold on a bilateral basis will produce ORECs and NYSERDA will purchase such ORECs in accordance with Article II of this Agreement, provided that the energy is delivered into the NYCA in accordance with this Article.

ARTICLE IV

Pricing and Payment

Section 4.01. Determination of Applicable OREC Price.

(a) The Applicable OREC Price shall be the Index OREC Price, as determined pursuant to Section 4.03 of this Agreement, for the entire Contract Delivery Term, unless and until the Index OREC Price described in this Agreement is invalidated by a final, unstayed judgment of a court of competent jurisdiction.

(b) In the event that the Index OREC Price is invalidated as described in Section 4.01(a), NYSERDA shall notify Seller that the Applicable OREC Price shall be the Fixed OREC Price as described in Section 4.02 of this Agreement. From the date that NYSERDA so notifies Seller until the end of the Contract Delivery Term, the Applicable OREC Price shall remain the Fixed OREC Price unless and until a change in Applicable Law occurs that once again renders the Index OREC Price lawful notwithstanding previously being held invalid. In such case, NYSERDA will so notify Seller and the Applicable OREC Price shall revert to the Index OREC Price, effective as of the date of such notification by NYSERDA. Any and all changes to the Applicable OREC Price under this Subsection 4.01(b) shall be prospective from the effective date of such change.

(c) If, pursuant to Subsection 4.01(b), the Applicable OREC Price changes in the middle of the month, NYSERDA will pay Seller for that month: (1) the Index OREC Price for each OREC created during the portion of the month in which the Index OREC price was the Applicable OREC Price, and (2) the Fixed OREC Price for each OREC created during the portion of the month in which the Fixed OREC Price was the Applicable OREC Price.

(d) In the event that (i) an agreement for port upgrades mutually acceptable to Seller and NYSERDA is reached by September 30, 2020 as described in the definition of "Contingency Event" in Article I of this Agreement (or other such date mutually agreed to by the parties), and (ii) through no fault of Seller, such required port upgrades are not completed by April 1, 2023 as provided in the definition of "Contingency Event," and (iii) in reasonable reliance on the completion of such upgrades, Seller must delay the staging of offshore wind turbine components, then (iv) NYSERDA shall multiply the Applicable OREC Price for each year in the Contract Delivery Term by a factor of one (1) plus the "Port Upgrade Delay Escalator." The Port Upgrade Delay Escalator shall be two percent (2%) multiplied by the number of years of delay caused by the failure to meet the port upgrade schedule. The number of years of delay shall be calculated as the number of days of delay divided by three hundred sixty-five (365). The number of days of delay shall be the lesser of (x) the sum of the number of days after April 1, 2023 that

the port upgrades identified in the definition of Contingency Event are completed and 180 days, or (y) the number of days after January 1, 2025 that the Selected Project achieves Commercial Operation.

Section 4.02. Fixed OREC Price. In the event that the Fixed OREC Price becomes the Applicable OREC Price pursuant to Section 4.01(a) of this Agreement, the Fixed OREC Price for each month in the respective Contract Years shall be:

Contract Year 1:	$36.35
Contract Year 2:	$37.07
Contract Year 3:	$37.82
Contract Year 4:	$38.57
Contract Year 5:	$39.34
Contract Year 6:	$40.13
Contract Year 7:	$40.93
Contract Year 8:	$41.75
Contract Year 9:	$42.59
Contract Year 10:	$43.44
Contract Year 11:	$44.31
Contract Year 12:	$45.19
Contract Year 13:	$46.10
Contract Year 14:	$47.02
Contract Year 15:	$47.96
Contract Year 16:	$48.92
Contract Year 17:	$49.90
Contract Year 18:	$50.90
Contract Year 19:	$51.91
Contract Year 20:	$52.95
Contract Year 21:	$54.01
Contract Year 22:	$55.09
Contract Year 23:	$56.19
Contract Year 24:	$57.32
Contract Year 25:	$58.46

Section 4.03. Index OREC Price.

(a) For each month, the Index OREC Price shall equal the Index OREC Strike Price minus the Reference Energy Price minus the Reference Capacity Price.

(1) The Index OREC Strike Price, for each month in the respective Contract Years shall be:

Contract Year 1:	$99.08
Contract Year 2:	$101.06
Contract Year 3:	$103.08
Contract Year 4:	$105.14

Contract Year 5:	$107.24
Contract Year 6:	$109.39
Contract Year 7:	$111.58
Contract Year 8:	$113.81
Contract Year 9:	$116.09
Contract Year 10:	$118.41
Contract Year 11:	$120.77
Contract Year 12:	$123.19
Contract Year 13:	$125.65
Contract Year 14:	$128.17
Contract Year 15:	$130.73
Contract Year 16:	$133.35
Contract Year 17:	$136.01
Contract Year 18:	$138.73
Contract Year 19:	$141.51
Contract Year 20:	$144.34
Contract Year 21:	$147.22
Contract Year 22:	$150.17
Contract Year 23:	$153.17
Contract Year 24:	$156.24
Contract Year 25:	$159.36

(2) Using data published by NYISO for its day-ahead energy market, NYSERDA shall calculate the Reference Energy Price for each month by:

(i) identifying the location-based marginal price ("LBMP") for each hour of the month in both Zone J and Zone K, and the amount of electric energy in MWh consumed in each zone in each hour ("Hourly Zonal Load");

(ii) for each such hour, calculating a "Load-Weighted Average Price" by dividing the sum of (A) the product of the LBMP for Zone J and the Hourly Zonal Load for Zone J, and (B) the product of the LBMP for Zone K and the Hourly Zonal Load for Zone K, by the sum of the Hourly Zonal Load for Zone J and the Hourly Zonal Load for Zone K;

(iii) taking the simple (not load-weighted) average of the Load-Weighted Average Prices across the two zones for each hour of the month to determine the Reference Energy Price.

(3) Using data published by NYISO for its monthly spot market unforced capacity ("UCAP") prices, NYSERDA shall calculate the Reference Capacity Price for each month by:

(i) identifying the UCAP prices in dollars per kW-month for NYISO Zones G, H, I, J, and K (the "Applicable Zones"), and the energy consumed in MWh for each zone ("Monthly Zonal Load");

(ii) calculating the "Reference UCAP Price" (the load-weighted average of the monthly UCAP prices in each Applicable Zone) by dividing the sum of the products of the UCAP price for each zone and the Monthly Zonal Load for each Applicable Zone by sum of the Monthly Zonal Loads for all Applicable Zones;

(iii) taking the product of (A) the Reference UCAP Price ($/kW-month), (B) the UCAP Production Factor submitted by Seller in its Proposal for the Winter Capability Period (50%) or Summer Capability Period (30%), as applicable, (C) the Operational Installed Capacity (MW), and (D) a conversion factor of 1,000 kW/MW;

(iv) dividing the total amount of dollars calculated in (iii) by the total amount of ORECs produced from the Selected Project for that month (including any ORECs produced in excess of the Annual OREC Cap) to determine the Reference Capacity Price.

(b) The following formulae depict the calculation of the Monthly OREC Price based on the Index OREC Price in accordance with Section 4.03(a).

$$\text{Monthly OREC Price} = OSP^{Index} - \text{REP} - \text{RCP}$$

where:

OSP^{Index} = Index OREC Strike Price ($/MWh)
REP = Reference Energy Price ($/MWh)
RCP = Reference Capacity Price ($/MWh)

The calculation of each month's Reference Capacity Price will be based on a Reference UCAP Price. The Reference UCAP Price is converted to its $/MWh equivalent, the Reference Capacity Price, through the following equation.

$$\text{RCP} = \frac{\text{RUP x UPF x IC x 1,000}}{\text{OQ}}$$

where:

RUP = Reference UCAP Price ($/kW-month)
UPF = UCAP Production Factor (decimal fraction), 30% for the Summer Capability Period and 50% for the Winter Capability Period.
IC = Installed capacity (ICAP) of the generator (MW)
OQ = Metered delivered energy (MWh)
1,000 = kW to MW conversion factor

Section 4.04. Invoices.

(a) Within fifteen (15) days after the conclusion of each month, NYSERDA shall inform Seller of the Monthly OREC Price for that month.

(b) Seller shall submit monthly invoices for the ORECs transferred by Seller into the NYSERDA NYGATS Account and associated with the Actual Production in the prior month during the Contract Delivery Term. Invoices for the prior month shall not be submitted before the fifteenth (15) day of the following month; invoices submitted before the fifteenth (15) day of the following month shall not be considered proper invoices for purposes of NYSERDA's Prompt Payment Policy. Invoices shall be submitted electronically to NYSERDA's online invoice system at: https://services.nyserda.ny.gov/Invoices/ or, if this Selected Project is managed through NYSERDA's Salesforce application, via NYSERDA's Salesforce Portal with Seller's log-in credentials. Invoices must reflect the quantity of ORECs transferred to the NYSERDA NYGATS Account for the prior month, and must be accompanied by such information and data requested by NYSERDA and sufficient for NYSERDA to verify compliance with the electricity delivery requirements in Article III and other requirements in this Agreement. NYSERDA shall have no obligation to pay any invoice submitted more than six (6) months after NYSERDA notifies Seller of the Monthly OREC Price for the ORECs transferred in the month for which payment is requested. Invoices submitted by Seller shall be deemed to have been submitted on its initial date of receipt by NYSERDA even if Seller subsequently adjusts such initial invoice (including pursuant to Section 5.01, or to comply with this Section 4.04(b)).

Section 4.05. Payment. The amount payable to Seller with respect to each monthly invoice shall be the product of: (a) the number of ORECs associated with the Actual Production during the prior month and transferred to the NYSERDA NYGATS Account, and (b) the Monthly OREC Price for the prior month, subject to the Annual OREC Cap during each Contract Year. If, for any month, the amount payable to Seller is a negative amount because the Monthly OREC Price for that month was negative, NYSERDA shall make no payment to Seller for that month and instead shall record a debit in such amount ("Monthly Debit"). Any Monthly Debit shall be deducted from each subsequent month's payment by NYSERDA until the Monthly Debit is fully recovered. Any Monthly Debit that goes unrecovered for twelve months shall be settled by Seller in cash within thirty (30) days after the conclusion of such twelve-month period, except that all Monthly Debits outstanding at the conclusion of the Contract Delivery Term shall be settled by Seller in cash within thirty (30) days after the conclusion of the Contract Delivery Term.

Section 4.06. Prompt Payment Policy. Subject to Section 4.04, NYSERDA shall make payments to Seller in accordance with and subject to its Prompt Payment Policy Statement, attached hereto as Exhibit C. Such payments shall be made by wire transfer to an account designated by Seller. NYSERDA shall have no obligation to pay any invoice not accompanied by all information requested by NYSERDA in accordance with Section 6.01.

Section 4.07. Changes in Law.

(a) In the event that a change in Applicable Law after the Effective Date (i) reduces materially, or when such change in Applicable law takes effect (the "Change in Law Date") will reduce materially, the NYISO Capacity Market revenues available either to offshore wind facilities that participate in the Offshore Wind Standard program, or to intermittent resources as a class, and (ii) does not apply generally to all generation facilities in NYISO but does apply selectively based on generator fuel or technology type, the intermittent or variable nature of the generation resource, or receipt of compensation for Environmental Attributes, the Parties shall negotiate in good faith to agree mutually to amend the definition of Reference Capacity Price in this Agreement, prospective from the Change in Law Date, to reflect a more accurate index capacity price for offshore wind facilities delivering to the NYCA, which shall be a Reference Capacity Price of zero in the event such change in Applicable Law has the effect of excluding offshore wind facilities that participate in the Offshore Wind Standard program from the NYISO Capacity Market entirely. For avoidance of doubt, changes in Applicable Law that may qualify under the first sentence of this Section 4.07(a) may include, but are not limited to: (x) changes to the scope, exemptions, or methodology for calculating the offer floors imposed by NYISO as market power mitigation measures in Section 23 of its Market Services Tariff, or any newly implemented minimum offer price rules, including, but not limited to, the imposition of a two-stage auction to coordinate the entry of resources receiving compensation for Environmental Attributes; and (y) imposition of a capacity performance structure that would reduce the capacity value of offshore wind as a generation resource.

(b) In the event that a change in Applicable Law after the Effective Date eliminates the NYISO Capacity Market entirely and without replacement, the Parties agree the Reference Capacity Price shall be zero.

(c) In the event that a change in Applicable Law after the Effective Date changes, or on the Change in Law Date will change, the price structure or methodology, settlement, zonal structure, or terminology used in either the NYISO Energy Market or NYISO Capacity Market such that the calculation of Reference Energy Price or Reference Capacity Price as described in Section 4.03 of this Agreement becomes impossible or no longer reasonably reflects the objective of providing a market based index of energy and/or capacity prices in the zones described in Section 4.03, in each case as they existed on the Effective Date, the Parties shall negotiate in good faith to amend this Agreement, prospective from the Change in Law Date, to make such conforming changes as are necessary to achieve that objective.

ARTICLE V

Adjustments

Section 5.01. True-Up Adjustments. NYSERDA may (and, at the request of Seller, shall) review past invoices, including, but not limited to, the calculation of the Reference Energy Price and Reference Capacity Price, to determine if a true-up adjustment is necessary. If necessary, NYSERDA shall adjust, including by means of set-off, payments to subsequent invoices

consistent with adjustments by NYGATS based on NYISO or other local control area billing settlement true-up procedures, based on actual metered production data measured at the Delivery Point, actual and verified data reflecting compliance with the electricity delivery requirements set forth in Article III, and/or based on the number of ORECs transferred.

Section 5.02. Time Period for Disputes and Adjustment of Invoices. A Party may seek a correction of any invoice, or any adjustment to an invoice, rendered under this Agreement within twelve (12) months of the date the invoice or adjustment to an invoice was rendered. Unless a party has submitted a written request for review of an invoice or an adjustment to an invoice within twelve (12) months of the date of the invoice or adjustment to the invoice, the invoice or adjustment shall be considered final and not subject to further adjustment.

ARTICLE VI

Records and Reports

Section 6.01. Monthly Reports. Seller shall, at NYSERDA's request, provide NYSERDA access to generation and delivery data, including detailed monthly market accounting settlement or other pertinent data from the administrator(s) of the energy market into which energy from the Selected Project was delivered, from the entity or party in control of any meter through which the energy from the Selected Project was delivered, and from the administrator of any attribute accounting system operating in such control area.

Section 6.02. Progress Reports. Beginning on the first such date following the Effective Date, and continuing through the commencement of the Contract Delivery Term, Seller shall provide quarterly written progress reports to NYSERDA, on March 1, June 1, September 1, and December 1. Progress reports shall be made based on facts known to Seller on the date of submittal to NYSERDA, and NYSERDA acknowledges that the facts underlying the subject matter of such reports are constantly changing. Such reports shall be in letter form and shall describe at a minimum (a) Seller's progress in obtaining all required environmental or other permits and/or local approvals; (b) the status of development and/or construction planning or activities with regard to the Selected Project; (c) the status of the interconnection process between the Selected Project and the administrator of the control area; (d) purchases, delivery, and/or installation of any major equipment associated with the Selected Project; (e) activities undertaken pursuant to Seller's community outreach plan, including timely notice of upcoming meetings and known outreach events and activities for the next quarter that representatives of NYSERDA may attend; (f) the status of Seller's activities associated with the New York State Supplier Opportunity (See ORECRFP18-1 at Section 2.2.9); (g) updates to Seller's Fisheries Mitigation Plan and/or Environmental Mitigation Plan; and (h) an estimated date for Commercial Operation. Such reports shall also include copies of any permits or approvals granted and/or copies of any correspondence of any type denying or refusing any permit or approval. Seller shall notify NYSERDA within twenty (20) days of discovering any event that could reasonably cause a material delay in any of the activities listed above. Commencing with the first progress report that indicates that construction activities falling within the scope of Section 18.10 have commenced and with each subsequent progress report submitted on June 1 and December 1 thereafter, Seller shall include a written attestation prepared by a New York State independent certified public accountant or other qualified party, in a form to be agreed upon, confirming that the Prevailing Wage requirement of Section 18.10 is being met.

Section 6.03. Additional Documents. Within thirty (30) days of the Effective Date, Seller shall provide to NYSERDA:

(a) a certificate, dated as of the most recent practicable date prior to the Effective Date, issued by the Delaware Secretary of State confirming the corporate good standing of Seller;

(b) a certificate of an appropriate officer or authorized representative of Seller, dated as of the most recent practicable date prior to the Effective Date, in form and substance reasonably satisfactory to NYSERDA and certifying: (i) the names and signatures of the officers or authorized representatives of Seller authorized to sign any documents to be delivered hereunder, and (ii) the accuracy and completeness of resolutions of Seller, authorizing and approving all matters in connection with the transactions contemplated thereby; and

(c) a rendering of the site layout plan required by Section 6.4.3 of ORECRFP18-1 in shapefile format for geographic information system software.

Seller shall promptly provide NYSERDA with updated and corrected versions of the above-referenced materials upon any change in the information provided therein.

Section 6.04. Maintenance of Records. Except as excused by NYSERDA in writing, Seller shall keep, maintain, and preserve throughout the term of this Agreement and for a period of seven (7) years following the expiration of this Agreement, full and detailed books, accounts, and records pertaining to Seller's performance under the Agreement, including without limitation, all bills, invoices, payrolls, subcontracting efforts and other data evidencing, or in any material way related to, the direct and indirect costs and expenses incurred by Seller in the course of such performance. The foregoing records may be kept, maintained, or preserved on any information storage device, or one or more electronic networks or databases, provided that such records can be converted into clearly legible form within a reasonable time. Seller may destroy or otherwise dispose of a record falling within the scope of this Section seven (7) years following the creation thereof with the written consent of NYSERDA, such consent not to be unreasonably withheld. For the avoidance of doubt, except as may be required to perform under Sections 18.10 or Exhibit I of this Agreement, Seller shall have no obligation to keep, maintain, or preserve books, accounts, and records created by a contractor, subcontractor, or other party unless such books, accounts, or records are transmitted to Seller.

ARTICLE VII

Audits

Section 7.01. Audits. NYSERDA shall have the right from time to time and at all reasonable times during the term of the Agreement and a period of seven (7) years thereafter to inspect and audit any and all books, accounts and records pertaining to Seller's performance under this Agreement, at the office or offices of Seller where they are then being kept, maintained and preserved in accordance with Section 6.04. If such books, accounts and records are not kept at an office within the State of New York, within a reasonable time of a request by

NYSERDA, Seller shall make such books, accounts and records available to NYSERDA at NYSERDA's offices or at an agreed upon location within the State of New York. Except to the extent any invoice or adjustment to an invoice is final under Section 5.02, any invoice rendered under this Agreement shall be subject to retroactive adjustment (reduction or increase) regarding amounts included therein that are found by NYSERDA on the basis of any audit of Seller by an agency of the United States, the State of New York or NYSERDA not to constitute a properly invoiced amount.

ARTICLE VIII

Assignment and Change of Control

Section 8.01. General Restrictions. Except as specifically permitted by this Article VIII, the assignment, transfer, conveyance, or other disposal of this Agreement or any of Seller's rights, obligations, interests or responsibilities hereunder, in whole or in part, without the prior express written consent of NYSERDA is prohibited and shall be void and of no effect as to NYSERDA. Such consent shall not be unreasonably withheld, conditioned, or delayed. Seller agrees to reimburse NYSERDA for NYSERDA's reasonable costs and expenses incurred by its use of outside attorneys, consultants, accountants and advisors in connection with this Agreement in response to Seller's requests made pursuant to this Section 8.01, without regard to whether such consent is provided. NYSERDA shall provide an invoice to Seller for such charges, with appropriate documentation, and Seller shall pay such invoice within thirty (30) days. When assignable, this Agreement shall be binding upon, shall inure to the benefit of, and may be performed by, the successors and assignees of the Parties; provided, however, that no assignment, pledge or other transfer of this Agreement by Seller shall operate to release Seller from any of its obligations under this Agreement (and shall not impair any Contract Security provided by Seller hereunder) unless such assignee, pledgee or transferee (a) agrees in writing to assume all of Seller's obligations under this Agreement, and (b) provides Contract Security to replace that previously provided by Seller, in which case, at Seller's request, NYSERDA (or its successors or assigns) will execute a release of Seller from its obligations thereunder. For the avoidance of doubt, this Section shall not be deemed to require Seller to obtain the consent of NYSERDA to hire, retain, or otherwise engage contractors or other third parties to provide goods, equipment, or services in connection with the development, construction, or operation of the Selected Project.

Section 8.02. Permitted Assignments by Seller. NYSERDA's consent shall not be required for Seller to either (a) pledge or assign the Selected Project, this Agreement, or the accounts, revenues, or proceeds from this Agreement in connection with financing arrangements, or (b) assign the Selected Project and this Agreement to an affiliate if the then-current Contract Security remains in place. Upon Seller's reasonable request, NYSERDA shall execute a consent to assignment associated with a financing in a commercially reasonable form acceptable to NYSERDA and Seller. For purposes of this Section 8.02, the term "affiliate" shall include any company, corporation, or other entity that controls, is controlled by, or is under common control with Seller, but only for so long as such control, directly or indirectly, meets the following definition. For purposes of this definition, "control" shall mean ownership or control, directly or indirectly, of at least fifty percent (50%) of the shares having voting rights, or other equivalent rights of the subject entity entitled to vote.

Section 8.03. Assignment with Change of Control. Seller may, upon written notice, assign its rights and obligations hereunder, or transfer such rights and obligations by operation of law, to any entity (a) with which or into which such Seller merges or consolidates; (b) which acquires greater than fifty percent (50%) of Seller's equity interests or actual control of Seller; or (c) to which Seller transfers all or substantially all of its assets; in each case provided that such other entity agrees to be bound by the terms hereof.

ARTICLE IX

Seller's Warranties and Guarantees

Section 9.01. Seller Warranties and Guarantees. As a material inducement to NYSERDA to enter into this Agreement, Seller makes the following warranties and guarantees, as of the Effective Date, all of which shall survive the execution and delivery of this Agreement:

(a) that Seller (i) is a limited liability company duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization; (ii) has or will have all requisite corporate power, and has or will have all material governmental permits necessary to own its assets or lease and operate its properties and carry on its business as now being or as proposed to be conducted, to construct, finance, own, maintain and operate the Selected Project, to execute and deliver this Agreement, and to consummate the transactions contemplated herein; and (iii) is qualified to do business and is in good standing in all jurisdictions in which the nature of the business conducted by it makes such qualification necessary;

(b) that the execution, delivery and performance by Seller, the entry into this Agreement by Seller, and the consummation of the transactions contemplated by this Agreement will not: (i) violate any Applicable Law or any provision of the limited liability company agreement or other governing documents of Seller; (ii) violate, conflict with, result in a breach of or constitute (alone or with notice or lapse of time or both) a default or an event of default under any indenture, agreement (including the limited liability company agreement of Seller), mortgage, deed of trust, note, lease, contract or other instrument to which Seller is a party or by which it or any of its property is bound; or (iii) result in the creation or imposition of any lien upon any property or assets of Seller;

(c) that Seller has, or reasonably expects to have prior to the time needed, all real property rights to construct, interconnect, and operate the Selected Project;

(d) that the ORECs transferred to NYSERDA under this Agreement, will be free and clear of any liens, encumbrances and/or defects of title as of the date of transfer;

(e) that the attributes included in the ORECs transferred to NYSERDA under this Agreement shall not have otherwise been, nor will be sold, retired, claimed or represented as part of electricity output or sales, or used to satisfy obligations in any other jurisdiction;

(f) that this Agreement will be duly executed and delivered by Seller and will constitute the legal, valid and binding obligation of Seller enforceable against Seller in accordance with the terms thereof;

(g) as of the Effective Date, to the best of Seller's knowledge after due inquiry, that there are no existing undisclosed or threatened material legal actions, claims, or encumbrances, or liabilities that may adversely affect Seller's performance of this Agreement or NYSERDA's rights hereunder;

(h) as of the Effective Date, that Seller has no knowledge that any information or document or statement furnished by Seller in connection with this Agreement or the documents submitted to NYSERDA under ORECRFP18-1 contain any untrue statement of a material fact or omits to state a material fact necessary to make the statement not misleading; and

(i) Seller certifies that all information provided to NYSERDA with respect to State Finance Law Sections 139-j and 139-k is complete, true and accurate.

Section 9.02. Continuing Nature of Representations, Warranties and Guarantees. The representations and warranties set forth in this Article are made as of the Effective Date and deemed made continually throughout the Contract Delivery Term, except to the extent that such representation and warranty states that it is permitted or required to be made only as of a specific date. If at any time during the Contract Delivery Term, Seller has knowledge of any event or information that causes any of the representations and warranties of an ongoing nature in this Article IX to be untrue or misleading, Seller shall provide NYSERDA with prompt written notice of the event or information, the representations and warranties affected, and the corrective action Seller shall take. The notice required pursuant to this Section shall be given as soon as practicable after the occurrence of each such event.

Section 9.03. Limitation on Representations, Warranties and Guarantees. Except as expressly set forth herein, there is no warranty of merchantability or fitness for a particular purpose with respect to the ORECs transferred hereunder, and any and all implied warranties are disclaimed.

ARTICLE X

NYSERDA's Representations, Warranties and Guarantees

Section 10.01. NYSERDA Representations, Warranties and Guaranties. As a material inducement to Seller to enter into this Agreement, NYSERDA makes the following warranties and guarantees, as of the Effective Date, all of which shall survive the execution and delivery of this Agreement:

(a) that NYSERDA is an instrumentality of the State of New York and a public authority and public benefit corporation, created under the New York State Public Authorities Law, validly existing and in good standing under the laws of the State of New York;

(b) that NYSERDA has all necessary power and authority to execute and deliver this Agreement and all other agreements contemplated herein and hereby and to consummate the transactions contemplated hereby and thereby. The execution and delivery by NYSERDA of this Agreement and all other agreements contemplated herein and hereby

and the consummation of the transactions contemplated hereby and thereby have been or, if not yet executed and delivered, will be when executed and delivered, duly authorized by all necessary actions on the part of NYSERDA, and no other actions or proceedings on the part of NYSERDA are necessary to authorize this Agreement or any other agreement contemplated herein and hereby or the consummation of the transactions contemplated hereby and thereby;

(c) that the execution, delivery and performance by NYSERDA of this Agreement does not (i) violate any Applicable Law; (ii) violate, conflict with, result in a material breach of or constitute (alone or with notice or lapse of time or both) a material default or event of default under any indenture, agreement, mortgage, deed of trust, note, lease, contract or other instrument to which NYSERDA is a party or by which NYSERDA or any of its property is bound; or (iii) result in the creation or imposition of any lien upon any property or assets of NYSERDA. This Agreement will not conflict with any other agreement or contract to which NYSERDA is a party;

(d) that this Agreement has been duly executed and delivered by NYSERDA and constitutes the legal, valid and binding obligation of NYSERDA enforceable against NYSERDA in accordance with the terms thereof;

(e) that NYSERDA is familiar with and in compliance with all Applicable Law, except where the failure to so comply would not result in a material adverse effect on NYSERDA's ability to perform its obligations; and

(f) that there is no action, suit or claim at law or in equity, or before or by a governmental authority pending or, to the best knowledge of NYSERDA after due inquiry, threatened against NYSERDA or affecting any of its properties or assets that could reasonably be expected to result in a material adverse effect on NYSERDA's ability to perform its obligations.

Section 10.02. Continuing Nature of Representations, Warranties and Guarantees. The representations and warranties set forth in this Article are made as of the Effective Date and deemed made continually throughout the Contract Delivery Term, except to the extent that such representation and warranty states that it is permitted or required to be made only as of a specific date. If at any time during the Contract Delivery Term, NYSERDA has knowledge of any event or information that causes any of the representations and warranties in this Article X to be untrue or misleading, NYSERDA shall provide Seller with prompt written notice of the event or information, the representations and warranties affected, and the corrective action NYSERDA shall take. The notice required pursuant to this Section shall be given as soon as practicable after the occurrence of each such event.

ARTICLE XI

Indemnification and Insurance

Section 11.01. Indemnification. Seller shall protect, indemnify, and hold harmless NYSERDA and the State of New York from and against all third party liabilities, losses, claims, damages, judgments, penalties, causes of action, costs and expenses (including, without

limitation, reasonable attorneys' and/or experts' fees and expenses) ("Loss") imposed upon or incurred by or asserted against NYSERDA or the State of New York (i) resulting from, or arising out of or relating to Seller's breach of this Agreement or (ii) to the extent caused by the alleged negligence, unlawful act or omission, or intentional misconduct of Seller in the course of (a) the development of the Selected Project or (b) the production or delivery of ORECs under this Agreement. Seller shall have no obligation to protect, indemnify, or hold harmless NYSERDA or the State of New York with respect to any claims asserted against NYSERDA or the State of New York challenging (1) the legal validity of (x) this Agreement, (y) the purchase or sale of ORECs, or (z) the competitive solicitation process held by NYSERDA to procure ORECs; or (2) the administration of NYGATS and/or the OREC program under the Phase 1 Order and related regulatory proceedings (including any dispute arising out of the resale of ORECs by NYSERDA). The obligations of Seller under this Article shall survive any expiration or termination of this Agreement and shall not be limited by the amount of Seller's insurance coverage.

Section 11.02. Indemnification Procedures. NYSERDA shall give reasonable notice to Seller of any claim or notice of the commencement of any action, administrative or legal proceeding or investigation as to which indemnification under this Article may apply or promptly after NYSERDA has actual knowledge of any other Loss that would result in a claim for indemnification. NYSERDA shall reasonably cooperate with Seller in the defense of any such claim. Seller shall use counsel reasonably satisfactory to NYSERDA to defend any such claim (with consent to counsel not to be unreasonably withheld, conditioned, or delayed) and shall control the defense of any such claim. NYSERDA may participate in the defense of any such claim at its own expense. Seller may not agree to any settlement or compromise of any claim without NYSERDA's prior written consent (which consent may not be unreasonably withheld, conditioned, or delayed) that is not an unconditional release of NYSERDA from any and all liabilities upon the payment of money that will be paid by Seller.

Section 11.03. Failure to Defend. If Seller fails to assume the defense of a claim meriting indemnification, NYSERDA may at the expense of Seller contest, settle or pay such claim, and Seller shall promptly reimburse NYSERDA for all costs reasonably incurred and documented by NYSERDA associated therewith.

Section 11.04. Insurance. Seller, at no cost to NYSERDA, shall maintain or cause to be maintained, on or before the date upon which construction begins and continuing throughout the duration of the Contract Delivery Term, commercial general liability insurance in an amount customary for projects of this type and size. All such insurance shall be evidenced by certificates of insurance, each of which shall: (a) name or be endorsed to cover NYSERDA and the State of New York as additional insureds; and (b) provide that such insurance may not be cancelled or modified until at least 30 days after receipt by NYSERDA of written notice thereof.

ARTICLE XII

Economic Benefits, Fisheries, and Environmental Obligations

Section 12.01. Economic Benefits Report and Verification.

(a) Within one hundred twenty (120) days after the third anniversary of the commencement

of the Contract Delivery Term, Seller shall submit an Economic Benefits Report funded at its expense and prepared in accordance with Exhibit I. The Economic Benefits Report shall calculate and verify the actual Economic Benefits, in dollars, that have resulted from Seller's activities.

(b) Within sixty (60) Business Days of receipt, NYSERDA shall either: (1) accept the Economic Benefits Report in its entirety, in writing, indicating that the total Verified Total Dollars meets or exceeds the product of 0.85 and the Expected Total Dollars, or (2) return the Economic Benefits Report to Seller with a written response to Seller explaining NYSERDA's preliminary conclusion that there is an Economic Benefits Shortfall. Such response will include a description of any Economic Benefits claimed by Seller that have been preliminarily determined to be invalid or improperly documented, if any. If NYSERDA's preliminary determination is inconsistent with the Agreed-Upon Procedures Report, such response also will explain NYSERDA's basis for such variance. Seller will be given a reasonable opportunity to dispute NYSERDA's preliminary conclusion and/or to revise and resubmit the Economic Benefits Report.

(c) Seller agrees to make reasonable efforts to undertake and complete all activities and perform all obligations described in Exhibit D (Category 3 Economic Benefits) to this Agreement.

Section 12.02. Economic Benefits Shortfall. If there is an Economic Benefits Shortfall, Seller shall: (1) provide to NYSERDA for NYSERDA's approval a plan to make additional economic investments in New York State in an amount reasonably comparable to the amount of the Economic Benefits Shortfall; or (2) upon the mutual agreement of the Parties, pay the amount of the Economic Benefits Shortfall or cause such amount to be paid into an account for the receipt of such funds created by NYSERDA, within six (6) months of NYSERDA's final notification of the amount owed under Subsection 12.01(b) of this Agreement; such amounts may, at Seller's direction, be deducted by NYSERDA from payments owed to Seller under Article IV of this Agreement.

Section 12.03. Consultation with New York State Agencies. Seller shall consult with the Consulting State Agencies at the request of such agencies regarding the planning and development of the Selected Project, and will make best efforts to respond to feedback timely provided by the Consulting State Agencies. Concurrent with submitting the Construction and Operations Plan ("COP") for the Selected Project to BOEM, Seller shall share the public version of the COP with NYSERDA for distribution to any Consulting State Agency that may request a copy of same. NYSERDA acknowledges that, after submission of the COP, the review process organized under the National Environmental Policy Act ("NEPA") will present a forum for some New York State Agencies to participate in the analysis of the Selected Project's environmental impacts, including as cooperating agencies in the scoping, data collection, and alternatives-evaluation aspects of the NEPA process. Accordingly, NYSERDA will rely on the NEPA review process to create opportunities for the Consulting State Agencies to engage with and analyze the COP for the Selected Project to the greatest extent practicable. Nevertheless, without compromising the centrality of the NEPA review process with respect to the COP, Seller agrees to meet with Consulting State Agencies, at their reasonable request, during the development, construction, and operational phases of the Selected Project.

Section 12.04. Technical Working Group Participation. Upon NYSERDA's request, Seller shall participate in any technical working groups convened by NYSERDA and related to offshore wind development, and through such technical working groups engage with the relevant stakeholder groups regarding the Selected Project.

Section 12.05. Fisheries Mitigation Plan. Seller has provided as Exhibit E to this Agreement a Fisheries Mitigation Plan. The Parties contemplate that the Fisheries Mitigation Plan will evolve due to various factors, including, but not limited to, the State Agency Consultation and Technical Working Group Participation described above, and through interactions with BOEM and other federal agencies during the federal review of the Site Assessment Plan ("SAP") and COP. Seller shall amend the Fisheries Mitigation Plan from time to time to reflect such continuing consultation and processes and shall provide updated Fisheries Mitigation Plans to NYSERDA. Seller may also amend the Fisheries Mitigation Plan in ways that do not derive from consultation with state or federal agencies if (i) such amendment does not materially reduce Seller's mitigation commitments in the Fisheries Mitigation Plan, or (ii) NYSERDA consents in writing (such consent not to be unreasonably withheld, conditioned, or delayed). Updates to the Fisheries Mitigation Plan shall be noted in the quarterly progress reports required by Section 6.02. Seller shall undertake all activities and perform all obligations described in the Fisheries Mitigation Plan, as provided in Exhibit E and updated from time to time, unless excused by NYSERDA on the grounds that such activities or obligations are impractical in light of project objectives or unnecessary to protect fishery resources. In the case of any inconsistency between Exhibit E and the body of this Agreement, the body of this Agreement shall control.

Section 12.06. Environmental Mitigation Plan. Seller has provided as Exhibit F to this Agreement an Environmental Mitigation Plan. The Parties contemplate that the Environmental Mitigation Plan will evolve due to various factors, including, but not limited to, the State Agency Consultation and Technical Working Group Participation described above, and through interactions with BOEM and other federal agencies during the federal review of the SAP and COP. Seller shall amend the Environmental Mitigation Plan from time to time to reflect such continuing consultation and processes and shall provide updated Environmental Mitigation Plans to NYSERDA. Seller may also amend the Environmental Mitigation Plan in ways that do not derive from consultation with state or federal agencies if (i) such amendment does not materially reduce Seller's mitigation commitments in the Environmental Mitigation Plan, or (ii) NYSERDA consents in writing (such consent not to be unreasonably withheld, conditioned, or delayed). Updates to the Environmental Mitigation Plan shall be noted in the quarterly progress reports required by Section 6.02. Seller shall undertake all activities and perform all obligations described in the Environmental Mitigation Plan, as provided in Exhibit F and updated from time to time, unless excused by NYSERDA on the grounds that such activities or obligations are impractical in light of project objectives or unnecessary to protect environmental resources. In the case of any inconsistency between Exhibit F and the body of this Agreement, the body of this Agreement shall control.

Section 12.07. Site and Environmental Data. Seller agrees to provide to NYSERDA, upon NYSERDA's request, any information or data and supporting metadata that is developed in furtherance of the Selected Project and relates to environmental characteristics, or use by

wildlife, of any offshore, nearshore or onshore areas, as well as any data sponsored or developed by Seller relating to the potential impacts of the construction, operation, or decommissioning of the Selected Project on the environment and wildlife of such areas (collectively, "Site and Environmental Data"). Seller further agrees, upon NYSERDA's request, to make Site and Environmental Data publicly available on an ongoing basis as soon after collection as is practicable. Data that Seller, a third party that Seller has consulted as part of the environmental review process or in the course of developing its fisheries mitigation plan, or a regulatory authority deems proprietary or confidential business information, or otherwise is inappropriate for disclosure (such as cultural resource survey results, wind resource data, Metocean data and geophysical/geotechnical data), or that Seller has received subject to a non-disclosure agreement, will not be considered Site and Environmental Data for purposes of this Section.

Section 12.08. Lighting Controls. Seller shall install lighting controls on the Selected Project to minimize nighttime visibility from shore and risk to wildlife.

Section 12.09. Site Perimeter. Seller's Proposal included a site layout plan that delineated the perimeter of the area in which offshore wind turbines may be placed for the Selected Project ("Site Perimeter"). Pursuant to Section 6.03 of this Agreement, Seller has agreed to render the site layout plan, including the Site Perimeter, in a shapefile format for geographic information system software. Seller agrees that no more than five percent (5%) of the offshore wind electric generation facilities that comprise the Selected Project, measured on an installed capacity basis, shall be located outside Site Perimeter, as determined according to the geographic information system file submitted by Seller, without NYSERDA's prior written consent (not to be unreasonably withheld, conditioned, or delayed).

ARTICLE XIII

Events of Default

Section 13.01. Event of Default. For the purposes of this Agreement, "Event of Default" shall mean any of the following:

(a) Representations, Warranties and Guarantees. Any representation, warranty, or guarantee made in this Agreement, or any attestation made pursuant to Section 15.06 of this Agreement, that shall prove to have been false or misleading in any material respect as of the time made or deemed to be made, and such false or misleading representation, warranty, or guarantee is not fully cured within ten (10) days after the responsible Party discovers its error, provided, however, that such period shall be extended for an additional period of up to sixty (60) days if the responsible Party is unable to cure within the initial ten (10) day period so long as such cure is diligently pursued by the responsible Party until such breach has been corrected; or

(b) Other Obligations. A Party shall default in the performance of any of its obligations under Sections 2.01, 2.03, 4.05, 6.04, 7.01 and 12.02 of this Agreement and such default shall continue un-remedied for a period of thirty (30) days after the defaulting Party receives notice thereof from the non-defaulting Party; provided, however, that such period shall be extended for an additional period of up to thirty (30) days if, despite using commercially reasonable efforts, the defaulting Party is unable to cure within the initial

thirty (30) day period so long as such cure is diligently pursued by the defaulting Party until such breach has been corrected; or

(c) Voluntary Proceedings. A Party shall (i) apply for or consent to the appointment of, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or of all or a substantial part of its property; (ii) make a general assignment for the benefit of its creditors; (iii) commence a voluntary case under the Bankruptcy Code; (iv) file a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or readjustment of debts; (v) fail to convert in a timely and appropriate manner, or acquiesce in writing to, any petition filed against it in an involuntary case under the Bankruptcy Code; or (vi) take any corporate action for the purpose of effecting any of the foregoing; or

(d) Involuntary Proceedings. A proceeding or case shall be commenced against a Party, without its application or consent, in any court of competent jurisdiction, seeking (i) its liquidation, reorganization, dissolution or winding-up, or the composition or readjustment of its debts; (ii) the appointment of a trustee, receiver, custodian, liquidator or the like of all or any substantial part of its assets; or (iii) similar relief under any law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or adjustment of debts, and such proceeding or case shall continue un-dismissed, or an order, judgment or decree approving or ordering any of the foregoing shall be entered and continue un-stayed and in effect, for a period of sixty (60) or more days; or an order for relief against a Party, shall be entered in an involuntary case under the Bankruptcy Code; or

(e) Interconnection. Unless otherwise agreed in writing by NYSERDA (not to be unreasonably withheld, conditioned, or delayed), failure of the NYISO Transmission Planning Advisory Subcommittee to accept the system reliability impact study on or before [redacted]; or

(f) COP Submission. Unless otherwise agreed in writing by NYSERDA (not to be unreasonably withheld, conditioned, or delayed), failure of Seller to submit its COP to BOEM on or before [redacted]; or

(g) Abandonment. On or after the Selected Project (or any phase thereof) enters Commercial Operation, the permanent relinquishment by Seller of all of its possession and control of the Selected Project, other than a transfer permitted under this Agreement or to the extent caused by Force Majeure or an Event of Default by NYSERDA; or

(h) Failure to Provide Additional Contract Security. Failure by Seller to provide to NYSERDA, on or before January 1, 2023, and periodically thereafter, additional Contract Security, by the dates and in the amounts set out in Section 15.02, and such failure is not remedied within ten (10) Business Days of the respective due dates of such additional Contract Security; or

(i) Prevailing Wage Default. Failure by Seller to ensure that any failure to pay the Prevailing Wage in accordance with Section 18.10 is cured within 12 months from the date of written notification by NYSERDA.

Section 13.02. Effect of an Event of Default. In addition to any other remedy available to it under this Agreement or under Applicable Law, upon any occurrence of an Event of Default, the non-defaulting Party shall be entitled to suspend performance of its obligations under this Agreement until the earlier of such time as (a) such Event of Default has been cured, or (b) the non-defaulting Party has elected to terminate this Agreement pursuant to Article XIV below. Notwithstanding the foregoing, (i) for any Event of Default by Seller prior to commencement of Commercial Operation by the Selected Project (or any portion thereof), NYSERDA shall be entitled only to stipulated damages pursuant to Article XV; and (ii) for any Event of Default after commencement of Commercial Operation by the Selected Project (or any portion thereof), if NYSERDA elects not to suspend performance of its obligations and Seller transfers ORECs to NYSERDA, NYSERDA shall be obligated to accept such ORECs and pay for such ORECs in accordance with this Agreement.

ARTICLE XIV

Termination

Section 14.01. Termination. This Agreement may be terminated:

(a) at any time by either NYSERDA or Seller if: (i) an Event of Default occurs (and following the expiration of any applicable cure period), (ii) the Party seeking to terminate this Agreement hereunder is the non-defaulting Party, and (iii) the non-defaulting Party has not waived such Event of Default in writing;

(b) at any time by the mutual written consent of Seller and NYSERDA;

(c) at any time prior to Commercial Operation by Seller upon an attestation from appropriate representative of Seller that (i) the Selected Project is less than twenty-five percent (25%) constructed on an installed capacity basis, and (ii) Seller has relinquished any and all effort to further develop or construct the Selected Project;

(d) by NYSERDA in the event it is found that the certification filed by Seller in accordance with New York State Finance Law Sections 139-j and 139-k was intentionally false or intentionally incomplete;

(e) by NYSERDA in the event it is found that Seller made material misrepresentations in the certification filed by Seller in accordance with New York State Tax Law Section 5-a that were intentionally false when made.

Section 14.02. Effect of Termination. Except as otherwise set forth in Section 18.03 below, in the event of a termination of this Agreement as provided in Section 14.01 above, neither Party shall have any further right or obligation hereunder. In addition, the Parties agree that, in the case of a termination based on the default of Seller after the Selected Project commences Commercial Operation, irreparable damage would occur in the event that NYSERDA could not obtain ORECs pursuant to this Agreement from the date of Event of Default in which Seller was the defaulting Party, and accordingly, each Party hereby agrees that

NYSERDA shall be entitled to elect to compel specific performance of this Agreement to compel the transfer to NYSERDA of all ORECs associated with Actual Production following the date of any termination for such an Event of Default in accordance with the terms hereof, subject to payment in accordance with this Agreement, together with any other remedy at law or equity available to NYSERDA in connection therewith, without the necessity of demonstrating the inadequacy of money damages. If NYSERDA elects to compel specific performance pursuant to the preceding sentence, NYSERDA shall notify Seller of its intention to elect such remedy within thirty (30) Business Days of terminating this Agreement in the manner provided by Section 19.01 and initiate such action promptly thereafter. Notwithstanding the foregoing, for any termination by Seller or NYSERDA prior to Commercial Operation of any portion of the Project NYSERDA shall be entitled only to stipulated damages pursuant to Article XV.

Section 14.03. Good Faith Negotiation. Both Parties agree that, should any dispute arise during the term of this Agreement, the Parties will make a good faith, though non-binding effort to reconcile any difference or dispute before the filing of an action in any court.

Section 14.04. Damages. Neither Party shall be liable to the other for consequential, incidental, punitive, exemplary, or indirect damages, lost profits or other business interruption damages arising from the breach of this Agreement; provided, however, that nothing in this Section 14.04 shall limit (i) Seller's obligations under Section 11.01 of this Agreement, or (ii) either Party's liability for fraud.

Section 14.05. No Recourse. The Parties agree that their obligations arising under (or relating to) this Agreement shall be without recourse to any member, unitholder, director, officer, shareholder, authorized representative or partner of either Party, any controlling person thereof, or any successor of any such member, unitholder, director, officer, shareholder, authorized representative partner or controlling Person (each a member of the "Extended Group"); and no member of the Extended Group shall have any liability in such capacity for the obligations of either Party; provided, however, that notwithstanding the foregoing, nothing in this Section 14.05 shall negate, excuse, limit, reduce, or otherwise affect (a) the obligations and liability of any member of the Extended Group under any guaranty executed by such member of the Extended Group pursuant to Section 15.05 below; or (b) NYSERDA's right and ability to pursue, enforce, and obtain any and all remedies and relief against any member of the Extended Group under any guaranty executed by such member of the Extended Group pursuant to Section 15.05 below. The Parties reserve the right to modify or terminate this Agreement without the consent of any member of the Extended Group.

ARTICLE XV

Contract Security

Section 15.01. Initial Contract Security. No more than five (5) Business Days after the Effective Date, unless otherwise agreed to by NYSERDA, Seller must provide Contract Security, in the form of cash, certified funds, a Letter of Credit conforming to the requirements of Section 15.03, or an Acceptable Guaranty conforming to the requirements of Section 15.05, in an amount equal to the product of the Offer Capacity (in MW) and five thousand dollars ($5,000). Seller may provide the Contract Security through any combination of the forms set forth in the preceding

sentence.

Section 15.02. Additional Contract Security. Seller shall provide additional Contract Security in an amount equal to the product of the Uncompleted Offer Capacity (in MW) (less any Offer Capacity Reduction as defined in Section 15.07(b)) and twenty-thousand dollars ($20,000) on or before January 1, 2023. Every twelve (12) months thereafter, Seller shall provide incremental additional Contract Security in an amount equal to the product of the Uncompleted Offer Capacity (in MW) (less any Offer Capacity Reduction as defined in Section 15.07(b)) and ten-thousand dollars ($10,000), until such time as the Operational Installed Capacity equals or exceeds the product of 0.95 and the Offer Capacity (less any Offer Capacity Reduction as defined in Section 15.07(b)).

Section 15.03. Letter of Credit. Any Letter of Credit shall be a clean, unconditional and irrevocable standby letter of credit in favor of NYSERDA as beneficiary, issued for direct payment by a bank that is a member of the New York Clearinghouse Association, substantially in the form of the letter of credit attached hereto as Exhibit B ("Letter of Credit"), in a face amount that, either individually or in combination with another form of Contract Security under Section 15.01, is equal to the Contract Security amount, and which Letter of Credit shall provide that the issuing bank will pay to NYSERDA amounts in aggregate up to that same face amount upon presentation of only the Sight Draft in the amount to be drawn and the Payment Certificate, in the form of Annex A and Annex B, respectively, to such Letter of Credit, and have an expiration date not shorter than one (1) year together with an automatic renewal provision. Should the Operational Installed Capacity be less than the product of 0.95 multiplied by the Offer Capacity by a date thirty (30) days prior to the expiration date of the Letter of Credit, and Seller not having provided NYSERDA or arranged with NYSERDA to provide a substitute Letter of Credit prior to such expiration, NYSERDA shall be thereupon entitled to draw on the Letter of Credit for the full amount then outstanding and the funds received shall be held by NYSERDA until a substitute Letter of Credit has been provided, or for application against subsequent obligations of Seller.

Section 15.04. Replacement Letter of Credit. Any assignee within Article VIII of this Agreement shall, simultaneously with its assignment becoming effective, deliver to NYSERDA a replacement Letter of Credit meeting the requirements of this Article, and NYSERDA shall, within twenty (20) Business Days after receipt of a compliant replacement Letter of Credit, return the original Letter of Credit to Seller. Upon the failure of an assignee to deliver a compliant replacement Letter of Credit to NYSERDA simultaneously with its assignment becoming effective, NYSERDA shall be thereupon entitled to draw on the Letter of Credit for the full amount then outstanding and the funds received shall be held by NYSERDA for application against subsequent obligations of Seller and/or the assignee under this Agreement.

Section 15.05. Acceptable Guaranty. Seller may fulfill the requirements of Sections 15.01 and Section 15.02 through an Acceptable Guaranty. If at any time a guaranty provided under this Section 15.05 ceases to be an Acceptable Guaranty, Seller shall provide to NYSERDA replacement Contract Security in the form of cash, certified funds, a substitute Acceptable Guaranty, or Letters of Credit conforming to the requirements of Section 15.01 and Section 15.03 within five (5) Business Days.

Section 15.06. Refund of Security. Amounts required by Seller as Contract Security will

be reduced and refunded by NYSERDA to Seller as follows:

(a) Within thirty (30) Business Days of NYSERDA's receipt of an Independent Engineer's report (which may be the same report submitted for purposes of Section 2.01(c) of this Agreement) demonstrating that the Operational Installed Capacity equals or exceeds the product of 0.95 and the Offer Capacity.

(b) On a prorated basis, expressed as a fraction of the Contract Security equal to the Operational Installed Capacity divided by the product of 0.95 and the Offer Capacity, within thirty (30) Business Days of NYSERDA's receipt of an attestation from the appropriate representative of Seller that the Operational Installed Capacity is greater than zero and less than the product of 0.95 and the Offer Capacity. For clarity, the cumulative total amount of Contract Security returned to Seller under this Subsection 15.06(b) at any point in time shall not exceed the amount equal to the Contract Security multiplied by the Operational Installed Capacity at that point in time divided by the product of 0.95 and the Offer Capacity.

Section 15.07. Retention of Security. Amounts provided by Seller as Contract Security and not refunded pursuant to Section 15.06 above will be retained by NYSERDA as follows:

(a) In their entirety, (i) upon termination of this Agreement under Section 14.01(a) of this Agreement due to the occurrence of a Seller Event of Default if such Event of Default remains uncured after the expiration of the applicable cure period, or (ii) upon termination under Section 14.01(c);

(b) On a prorated basis if Seller notifies NYSERDA in writing that Seller intends to build the Selected Project such that, once complete, the Operational Installed Capacity will be less than the product of 0.95 and the Offer Capacity (such amount by which the Operational Installed Capacity is less than 95% of the Offer Capacity being the "Offer Capacity Reduction"). The amount that will be retained, expressed as a fraction of the total Contract Security held by NYSERDA as of the date of such notification, shall equal the Offer Capacity Reduction divided by the Offer Capacity. In the event that Seller has provided the Contract Security in the form of a Letter of Credit or an Acceptable Guaranty, NYSERDA shall be entitled to draw on the Letter of Credit or obtain payment under the Acceptable Guaranty, respectively, for the prorated amount of the Contract Security calculated in accordance with this Section 15.07(b) as of the date of Seller's written notification to NYSERDA of Seller's intent in respect of the Offer Capacity Reduction.

Section 15.08. Stipulated Damages. NYSERDA and Seller hereby agree, acknowledge and stipulate that NYSERDA's retention of amounts provided by Seller as Contract Security pursuant to this Article XV, in the proportions stated within this Article, is fair and reasonable under the circumstances and in light of the uncertainty and inability to quantify adequately the harm that would result to NYSERDA as a result of the events that permit NYSERDA to retain such amounts of the Contract Security.

Section 15.09. Failure to Extend BOEM Lease. In the event that the Contract Delivery Term exceeds the duration of Seller's offshore wind lease issued by BOEM, Seller shall use commercially reasonable efforts to seek an extension of the lease as necessary to allow the Seller

to fulfill its obligations under this Agreement. If Seller is unable, wholly or in part, to perform its obligations under this Agreement due to expiration of the operations term of such lease or denial of its extension request, such non-performance shall be excused. Seller shall not be liable for any losses or damages arising out of a failure to perform that occurs due to expiration of the operations term of its offshore wind lease.

ARTICLE XVI

Force Majeure

Section 16.01. Force Majeure Defined. "Force Majeure" means an event or circumstance that was not reasonably anticipated as of the Effective Date: (a) that was not within the control of the Party claiming its occurrence; (b) that could not have been prevented or avoided by such Party through the exercise of reasonable diligence; and (c) that directly prohibits or prevents such Party from performing its obligations under this Agreement. For avoidance of doubt, to the extent meeting the foregoing requirements, examples of events that may constitute Force Majeure include:

> acts of God, an act or threatened act of the public enemy, war (imminent, declared or otherwise), blockade, accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals or other assistances to, or adjuncts of, shipping or navigation, perils of the sea, air crash, shipwreck, train wrecks or other failures or delays of transportation, nuclear emergency, radioactive contamination, cyber-attack, ionizing radiation, release of hazardous waste or materials, sabotage, terrorist acts, invasion, insurrection, riot, non-site specific industrial disturbance by a union or organized labor (including any non-site specific strike or boycott), fire, flood, lightning, earthquake, hurricane, tornado, waves or winds of extreme force, access to the Selected Project being limited due to weather or sea state conditions, extreme accumulation of snow or ice, naturally occurring epidemic, explosion or any similar cataclysmic occurrence, acts, inaction or restraints of a governmental authority (which do not constitute a change in Applicable Law falling within the scope of Section 4.07 of this Agreement) which temporarily or permanently prevent required performance under this Agreement, including limitations on the scheduling of Selected Project installation and maintenance directly arising out of or resulting from such Force Majeure or unavailability of NYGATS.

Under no circumstances shall Force Majeure include (w) any full or partial curtailment in the electric output of the Selected Project that is caused by or arises from a mechanical or equipment breakdown or other mishap or events or conditions attributable to normal wear and tear or flaws, unless such curtailment or mishap would otherwise qualify as a Force Majeure, (x) any occurrence or event that merely increases the costs or causes an economic hardship to a Party, (y) any occurrence or event that was caused by or contributed to by the Party claiming the Force Majeure (except to the extent that Party exercised commercial best practices to prevent or avoid its occurrence). In addition, a delay or inability to perform attributable to a Party's lack of preparation, a Party's failure to timely obtain and maintain all necessary permits or qualifications, a failure to satisfy contractual conditions or commitments, or lack of or deficiency

in funding or other resources shall each not constitute a Force Majeure or be the basis for a claim of Force Majeure.

Section 16.02. Effect of Force Majeure. If either Party is unable, wholly or in part, by Force Majeure to perform obligations under this Agreement, such performance shall be excused and suspended so long as the circumstances that give rise to such inability exist or would exist if the Party claiming the Force Majeure used commercially reasonable efforts to cure such circumstances, but for no longer period. The Party whose performance is affected shall give prompt notice thereof; such notice may be given orally or in writing but, if given orally, it shall be promptly confirmed in writing, providing details regarding the nature, extent and expected duration of the Force Majeure, its anticipated effect on the ability of such party to perform obligations under this Agreement, and the estimated duration of any interruption in service or other adverse effects resulting from such Force Majeure, and shall be updated or supplemented to keep the other Party advised of the effect and remedial measures being undertaken to overcome the Force Majeure. Such inability shall be promptly corrected to the extent it may be corrected through the exercise of commercially reasonable due diligence. Neither Party shall be liable for any losses or damages arising out of a suspension of performance that occurs because of Force Majeure.

ARTICLE XVII

Compliance with Certain Laws

Section 17.01. Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts executed and to be performed in New York State without regard to its conflicts of laws principles. The parties irrevocably acknowledge and accept that all actions arising under or relating to this Agreement, and the transactions contemplated hereby and thereby shall be brought exclusively in a United States District Court or New York State Court located in Albany, New York having subject matter jurisdiction over such matters, and each of the Parties hereby consents to and accepts such personal jurisdiction of, and waives any objection as to the laying of venue in, such courts for purposes of such action.

Section 17.02. Laws of the State of New York. Seller shall comply with all of the requirements set forth in Exhibit A hereto.

Section 17.03. All Legal Provisions Deemed Included. It is the intent and understanding of Seller and NYSERDA that each and every provision of law required by the laws of the State of New York to be contained in this Agreement shall be contained herein, and if, through mistake, oversight or otherwise, any such provision is not contained herein, or is not contained herein in correct form, this Agreement shall, upon the application of either NYSERDA or Seller, promptly be amended so as to comply strictly with the laws of the State of New York with respect to the inclusion in this Agreement of all such provisions. In such event, the Parties shall negotiate such amendment in good faith with the intent that such amendment reflects, as closely as possible, the terms and conditions of this Agreement in effect prior to such amendment; provided that such amendment shall not in any event alter (a) the purchase and sale obligations of the Parties pursuant to this Agreement, or (b) the pricing and payment provisions of this Agreement.

Section 17.04. Permits and Approvals. Seller shall be responsible to obtain all applicable permits and regulatory approvals that may be required in order to develop and/or operate the Selected Project over the duration of the Contract Delivery Term, and NYSERDA's obligations to purchase ORECs is conditional on Seller's acquisition of such permits and approvals. Nothing in this Agreement in any way replaces or modifies the necessity or applicability of any permit or approval process. Seller shall provide prompt notice to NYSERDA of the initiation of any criminal or regulatory investigation, hearing, proceeding, or review process ("Process") by any Federal or State entity regarding any actual or alleged violation of any permit or approval obtained or applied for with respect to the Selected Project, as well as of any modification, penalty and/or fine that may be imposed or occur as a result of such a Process or violation.

Section 17.05. Other Legal Requirements. The references to particular laws of the State of New York in this Article and elsewhere in this Agreement are not intended to be exclusive and nothing contained in such Article, Exhibit and Agreement shall be deemed to modify the obligations of each Party to comply with all legal requirements.

ARTICLE XVIII

Additional Provisions

Section 18.01. Forward Contract. Each Party represents and warrants to the other that it is a "forward contract merchant" within the meaning of the United States Bankruptcy Code, that this Agreement is a "forward contract" within the meaning of the United States Bankruptcy Code, and that the remedies identified in this Agreement shall be "contractual rights" as provided for in 11 U.S.C. § 556 as that provision may be amended from time to time.

Section 18.02. Taxes/Costs. Seller shall be responsible for and obligated to pay all present and future taxes, fees, levies and costs that may be assessed by any entity including but not limited to NYGATS with respect to Seller's provision of ORECs to NYSERDA, or with respect to the measurement, tracking, and verification and participation in NYGATS necessary for the creation and transfer of the ORECs and/or the energy with which they are associated, into the NYSERDA NYGATS account.

Section 18.03. Term. Unless terminated earlier under this Article, this Agreement shall expire upon the expiration of the Contract Delivery Term. Upon such date or upon earlier termination of this Agreement under Article XIV, neither Party shall have any further obligation to the other, except that Article I, Sections 2.02, 2.03, 5.01, 7.01, 11.01, 11.02, 14.02, 15.06, 17.01, 18.03, 18.04, 19.01, 19.02, 20.01, 21.02, 21.03, 21.04, and all payment obligations under Article IV shall survive.

Section 18.04. Waiver. Either Party to this Agreement may (a) extend the time for the performance of any of the obligations or other acts of the other Party, (b) waive any inaccuracies in the representations and warranties of the other Party contained herein or in any document delivered by the other Party pursuant hereto, or (c) waive compliance with any of the agreements or conditions of the other Party contained herein. Any such extension or waiver shall be valid only if set forth in an instrument in writing signed by the Party to be bound thereby. Any waiver of any term or condition shall not be construed as a waiver of any subsequent breach or a

subsequent waiver of the same term or condition, or a waiver of any other term or condition, of this Agreement. No provision of this Agreement will be deemed to have been waived unless the waiver is in writing; no delay by either Party in exercising its rights hereunder, including the right to terminate this Agreement, shall be deemed to constitute or evidence any waiver by such Party of any right hereunder. The rights granted in this Agreement are cumulative of every other right or remedy that the enforcing Party may otherwise have at law or in equity or by statute.

Section 18.05. Independent Contractor. The status of Seller under this Agreement shall be that of an independent contractor and not that of an agent, and in accordance with such status, Seller and its respective officers, agents, employees, representatives and servants shall at all times during the term of this Agreement conduct themselves in a manner consistent with such status and by reason of this Agreement shall neither hold themselves out as, nor claim to be acting in the capacity of, officers, employees, agents, representatives or servants of NYSERDA nor make any claim, demand or application for any right or privilege applicable to NYSERDA, including, without limitation, rights or privileges derived from workers' compensation coverage, unemployment insurance benefits, social security coverage and retirement membership or credit. Nothing in this Agreement shall be construed as creating a partnership, joint venture or other relationship between NYSERDA and Seller for any reason.

Section 18.06. Severability. Without limiting the terms of Section 4.01, if any provision of this Agreement shall be declared by any court of competent jurisdiction to be illegal, void or unenforceable, all other provisions of this Agreement shall not be affected and shall remain in full force and effect. If any provision of this Agreement is so broad as to be unenforceable, that provision shall be interpreted to be only so broad as will enable it to be enforced.

Section 18.07. Seller Expense. Seller shall, at its own expense, make all arrangements necessary to: (a) register the Selected Project and transfer ORECs to the NYSERDA NYGATS Account, and (b) interconnect the Selected Project and comply with the electricity delivery requirements set out in Article III. This requirement encompasses Seller's purchasing or arranging for all services including, without limitation, transmission, ancillary services, any control area services, line losses and transaction fees necessary to deliver energy to the New York Control Area, in accordance with all rules and protocols of the NYISO, throughout the Contract Delivery Term. NYSERDA shall, at its own expense, make all arrangements necessary to accept the transfer of ORECs pursuant to this Agreement, and shall be responsible for any applicable fees or charges incident to the purchase or subsequent sale of ORECs to third parties

Section 18.08. Environmental Disclosure. The Parties agree that, at the time of the execution of this Agreement, New York employs NYGATS for the tracking, registration, and trading of generation attributes, including renewable or environmental attributes or credits, and that NYGATS will be used by the New York State Department of Public Service to accomplish verification of the transactions consummated hereunder as part of the Environmental Disclosure Rules.

Section 18.09. No Third Party Beneficiaries. Nothing herein is intended to or should be construed to create any rights of any kind whatsoever in any persons not party to this Agreement.

Section 18.10. Prevailing Wage. Although this is not a public work covered by NYS Article 8, and unless otherwise provided in a PLA covering the construction of the Project, all laborers, workmen and mechanics (within the meaning of those terms under NYS Labor Law Article 8) performing construction activities within the United States (including federal waters) with respect to the Selected Project, including, but not limited to, the assembly, staging, installation, erection, and placement of the Selected Project and its electrical interconnection as well as those construction activities related to start-up and commissioning of the Selected Project, whether through long-term or short-term employment, must be paid wages and benefits in an amount not less than the Prevailing Rates that would be applicable in the area where the Selected Project construction activities occur. For construction activities occurring in New York, the Prevailing Rates shall be determined under NYS Labor Law Section 220. For construction activities that occur outside of New York, the Prevailing Rates shall be determined under the prevailing wage law of the state in which the Selected Project construction activities occur that would be applicable to a public work. For construction activities in federal waters, the rates shall be those applicable at the location of the port or ports from which the laborers, workmen, or mechanics are based for purposes of that offshore work. For the avoidance of doubt, a laborer, workman, or mechanic will not be deemed to be based at a port due solely to his or her short-lived or incidental presence at, or transit through, the port (or state in which the port is located). Unless provided otherwise in any negotiated PLA, it is generally expected that covered construction, for the purpose of this Section, will include United States-based offsite fabrication traditionally performed on-site by construction craft when that fabrication produces items specifically designed for construction of the Selected Project, fabrication occurs off-site for the convenience of the contractor, and the fabrication is part of a single integrated construction process; for the avoidance of doubt, the fabrication of gravity-based structure foundations shall be covered by this Section 18.10. This requirement applies: (1) to all laborers, workmen and mechanics performing construction activities, whether direct employees of the Seller or of Seller's subcontractor(s), and (2) regardless of whether or not such employment was claimed as an Economic Benefit in its Proposal.

Section 18.11. Project Labor Agreement.

(a) Unless extended by NYSERDA, Seller shall, no later than 30 days after the date of BOEM's approval of the COP for the Selected Project, present to NYSERDA for its review a plan outlining its intentions with respect to the negotiation of a PLA to cover construction activities within the United States (including in federal waters) on the Selected Project. NYSERDA should be kept reasonably apprised of negotiations as they proceed, and NYSERDA shall have the right to have one or more representatives attend negotiation sessions as it determines is in its best interests. A final form of PLA, agreed to by Seller and the trades, consistent with the description in Exhibit J to this Agreement shall be presented to NYSERDA for review and approval no later than 180 days after BOEM's approval of the COP for the Selected Project (unless extended by NYSERDA, which request for extension shall not be unreasonably withheld, conditioned, or delayed).

(b) NYSERDA may appoint a mediator of its own choosing who shall endeavor to assist the parties in their negotiations: (i) at any time upon mutual agreement of Seller and the trades; (ii) at the request of either Seller or the trades at any point after active negotiations on the PLA have been ongoing for no less than ninety (90) days; or (iii) at the request of

either Seller or the trades at any point more than 180 days after BOEM's approval of the COP for the Selected Project. In the event that mediation does not result in a final form of PLA agreed to by the Seller and the trades within three (3) months of the date that the mediator is appointed, NYSERDA shall determine whether the time for negotiations should be extended. In the event that NYSERDA decides not to extend the time for negotiation, NYSERDA may determine that, notwithstanding good faith efforts by Seller, satisfactory completion of PLA negotiations is no longer practicable. In the event that, after good faith negotiations and mediation, NYSERDA determines that satisfactory completion of PLA negotiations is no longer practicable, then NYSERDA may require the Seller to provide, in addition to the data and information otherwise to be maintained and that may be requested by NYSERDA pursuant to Sections 6.02, 6.04, 12.01 and 18.10, (1) a workforce development plan, and (2) a plan to implement, or information showing the completion of, appropriate worker safety training programs.

(c) NYSERDA's review of any agreed-upon final form of PLA will be based on the specific terms of the negotiated PLA and will take into account the best interests of NYSERDA with respect to the Selected Project, and the public it serves, and will include consideration of project viability, the cost-effectiveness of the PLA, and the need for timely completion of the Selected Project. NYSERDA will complete and provide the results of such review to Seller within thirty (30) days or the final form of PLA as presented shall be deemed approved. If NYSERDA disapproves the final form of PLA, NYSERDA will identify changes to the final form of PLA that would render it approvable, and Seller will promptly resume negotiations with the trades. No more than sixty (60) days after such disapproval, so long as Seller and the trades have negotiated in good faith during that period, NYSERDA will render a determination under Section 18.11(b) of this Agreement regarding whether satisfactory completion of PLA negotiations is no longer practicable.

ARTICLE XIX

Notices, Entire Agreement, Amendment, Counterparts

Section 19.01. Notices.

(a) All notices, requests, consents, approvals and other communications that may or are required to be given by either Party to the other under this Agreement shall be in writing and shall be transmitted either:

(1) via certified or registered United States mail, return receipt requested;
(2) by personal delivery;
(3) by expedited delivery service; or
(4) by e-mail, return receipt requested.

Such notices shall be addressed as follows, or to such different addresses as the Parties may from time-to-time designate as set forth in paragraph (c) below:

To Seller: Company

Attn:
Name
Address Line 1
Address Line 2
City, State Zip code
email Address:

To NYSERDA: NYSERDA
Attn: Office of the General Counsel
17 Columbia Circle
Albany, New York 12203-6399
email address: pete.keane@nyserda.ny.gov

With a copy to: NYSERDA
Attn: Large-Scale Renewables Director
17 Columbia Circle
Albany, New York 12203-6399
email address: offshorewind@nyserda.ny.gov

(b) Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt of an email acknowledgement of receipt.

(c) The Parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other Party sent in accordance herewith. The Parties agree to designate individuals mutually as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the Parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

Section 19.02. Entire Agreement; Amendment. This Agreement, including the Exhibits and Schedules hereto, embodies the entire agreement and understanding between NYSERDA and Seller and supersedes all prior agreements and understandings relating to the subject matter hereof. Except as otherwise expressly provided for herein, this Agreement may be amended, modified, changed, waived, discharged or terminated only by an instrument in writing, signed by the Party against which enforcement of such amendment, modification, change, waiver, discharge or termination is sought.

Section 19.03. Counterparts. This Agreement may be executed in counterparts each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. Facsimile and electronic signatures shall have the same force and effect as original signatures for all purposes of this Agreement.

ARTICLE XX

Publicity

Section 20.01. Publicity. Seller and/or the Selected Project owner will collaborate with NYSERDA with regard to the preparation of any press release, public announcement, publication or media interview with respect to the Parties' entry into this Agreement or the subject matter thereof or which concerns NYSERDA or the Offshore Wind Standard program. To the extent applicable, in any such press release, public announcement publication, or media interview Seller and/or its employees shall credit NYSERDA and the funding participation of the Offshore Wind Standard program in the activities of the Selected Project. Seller may not represent that positions taken or advanced by Seller represent the opinion or position of NYSERDA, the PSC, or the State of New York.

Section 20.02. Publication of Agreement. Seller acknowledges that NYSERDA may file this Agreement publicly with the PSC or otherwise publish the Agreement. Prior to such publication, NYSERDA will redact any critical electric infrastructure information contained in the Agreement, including in the exhibits hereto, and will consider Seller's requests for the redaction of confidential business information; provided, however that NYSERDA shall not accept any such request to redact price information contained in this Agreement.

ARTICLE XXI

Confidentiality

Section 21.01. Seller Authorization. Seller may be required to authorize the direct transfer to NYSERDA by an energy market administrator or the operator of the transmission and/or distribution system into which the energy from the Selected Project is delivered of transactional and/or delivery information and data pertinent to the verification of attribute creation and electricity delivery, and thereby to waive confidentiality with respect to the disclosure of such information to NYSERDA. To the maximum extent allowed by law, NYSERDA shall treat any such information so received in accordance with the applicable confidentiality requirements of the energy market administrator or transmission operator.

Section 21.02. Freedom of Information Law. Seller acknowledges that NYSERDA is subject to and must comply with the requirements of New York's Freedom of Information Law ("FOIL"). See Public Officers' Law Article 6.

Section 21.03. Trade Secrets/Commercial Information. The FOIL (Public Officers Law § 87(d)(2)) provides an exception to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." If NYSERDA receives a request from a third party for information or a document received from Seller and that has been marked "Confidential" or "Proprietary," NYSERDA will process such request under the procedures provided by NYSERDA's FOIL regulations.

Section 21.04. Claim of Confidentiality. Information of any tangible form including any document that Seller wishes to be protected from disclosure to third parties, including any information provided as a part of a Proposal submitted in response to ORECRFP18-1, must be marked "Confidential" or "Proprietary" at the time such information is provided to NYSERDA. NYSERDA reserves the right to make public, after the fifth anniversary of the Contingent Award Notification Date, this Agreement, in its entirety or in part.

The Parties hereto have caused this Agreement to be executed and delivered by their duly authorized representatives.

Seller	NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
By: Christer af Geijerstam	By:
Name: Christer af Geijerstam	Name: Alicia Barton
Title: President	Title: President and CEO
Date: October 21, 2019	Date: October 23, 2019

The Parties hereto have caused this Agreement to be executed and delivered by their duly authorized representatives.

Seller	NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
By:	By:
Name: Christer af Geijerstam	Name: Alicia Barton
Title: President	Title: President and CEO
Date: October 21, 2019	Date: October 23, 2019

EXHIBITS TO OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE STANDARD FORM PURCHASE AND SALE AGREEMENT

Exhibit A	Standard Terms and Conditions for all NYSERDA Agreements
Exhibit B	Form of Irrevocable Standby Letter of Credit
Exhibit C	NYSERDA Prompt Payment Policy
Exhibit D	Seller's Category 3 Commitments
Exhibit E	Fisheries Mitigation Plan
Exhibit F	Environmental Mitigation Plan
Exhibit G	Form of Guaranty
Exhibit H	Description of Selected Project
Exhibit I	Economic Benefits Claims and Verification
Exhibit J	Project Labor Agreement Requirements

EXHIBIT A

REVISED 5/12

STANDARD TERMS AND CONDITIONS
FOR ALL NYSERDA AGREEMENTS

(Based on Standard Clauses for New York State Contracts and Tax Law Section 5-a)

The parties to the Agreement agree to be bound by the following clauses which are hereby made a part of the Agreement:

1. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is an Agreement for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this Agreement shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. If this is a building service Agreement as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. Contractor is subject to fines of $50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this Agreement and forfeiture of all moneys due hereunder for a second subsequent violation.

2. WAGE AND HOURS PROVISIONS. If this is a public work Agreement covered by Article 8 of the Labor Law or a building service Agreement covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by NYSERDA of any NYSERDA-approved sums due and owing for work done upon the project.

3. NON-COLLUSIVE BIDDING REQUIREMENT. In accordance with Section 2878 of the Public Authorities Law, if this Agreement was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to NYSERDA a non-collusive bidding certification on Contractor's behalf.

4. INTERNATIONAL BOYCOTT PROHIBITION. If this Agreement exceeds $5,000, the Contractor agrees, as a material condition of the Agreement, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the Agreement's execution, such Agreement, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify NYSERDA within five (5) business days of such conviction, determination or disposition of appeal. (See and compare Section 220-f of the Labor Law, Section 139-h of the State Finance Law, and 2 NYCRR 105.4).

5. SET-OFF RIGHTS. NYSERDA shall have all of its common law and statutory rights of set-off. These rights shall include, but not be limited to, NYSERDA's option to withhold for the purposes of set-off any moneys due to the Contractor under this Agreement up to any amounts due and owing to NYSERDA with regard to this Agreement, any other Agreement, including any Agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to NYSERDA for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto.

6. PROPRIETARY INFORMATION. Notwithstanding any provisions to the contrary in the Agreement, Contractor and NYSERDA acknowledge and agree that all information, in any format, submitted to NYSERDA shall be subject to and treated in accordance with the NYS Freedom of Information Law ("FOIL," Public Officers Law, Article 6). Pursuant to FOIL, NYSERDA is required to make available to the public, upon request, records or portions thereof which it possesses, unless that information is statutorily exempt from disclosure. Therefore, unless the Agreement specifically requires otherwise, Contractor should submit information to NYSERDA in a non-confidential, non-proprietary format. FOIL does provide that NYSERDA may deny access to records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." [See Public Officers Law, § 87(2)(d)]. Accordingly, if the Agreement specifically requires submission of information in a format Contractor considers a proprietary and/or confidential trade secret, Contractor shall fully identify and plainly label the information "confidential" or "proprietary" at the time of disclosure. By so marking such information, Contractor represents that the information has actual or potential specific commercial or competitive value to the competitors of Contractor. Without limitation, information will not be

considered confidential or proprietary if it is or has been (i) generally known or available from other sources without obligation concerning its confidentiality; (ii) made available by the owner to others without obligation concerning its confidentiality; or (iii) already available to NYSERDA without obligation concerning its confidentiality. In the event of a FOIL request, it is NYSERDA's policy to consider records as marked above pursuant to the trade secret exemption procedure set forth in 21 New York Codes Rules & Regulations § 501.6 and any other applicable law or regulation. However, NYSERDA cannot guarantee the confidentiality of any information submitted. More information on FOIL, and the relevant statutory law and regulations, can be found at the website for the Committee on Open Government (https://openfoil.ny.gov/newfoilrequest?agencyCode=DOS) and NYSERDA's Regulations, Part 501 (https://www.nyserda.ny.gov/About/New-York-State-Regulations).

7. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION.

(a) FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER. As a condition to NYSERDA's obligation to pay any invoices submitted by Contractor pursuant to this Agreement, Contractor shall provide to NYSERDA its Federal employer identification number or Federal social security number, or both such numbers when the Contractor has both such numbers. Where the Contractor does not have such number or numbers, the Contractor must give the reason or reasons why the payee does not have such number or numbers.

(b) PRIVACY NOTIFICATION**.** The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by Contractor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law.

8. CONFLICTING TERMS. In the event of a conflict between the terms of the Agreement (including any and all attachments thereto and amendments thereof) and the terms of this Exhibit A, the terms of this Exhibit A shall control.

9. GOVERNING LAW. This Agreement shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

10. NO ARBITRATION. Disputes involving this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily required) without the NYSERDA's written consent, but must, instead, be heard in a court of competent jurisdiction of the State of New York.

11. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law and Rules ("CPLR"), Contractor hereby consents to service of process upon it by

registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon NYSERDA's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify NYSERDA, in writing, of each and every change of address to which service of process can be made. Service by NYSERDA to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

12. CRIMINAL ACTIVITY. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of any allegation previously unknown to it that the Contractor or any of its principals is under indictment for a felony, or has been, within five (5) years prior to submission of the Contractor's proposal to NYSERDA, convicted of a felony, under the laws of the United States or Territory of the United States, then NYSERDA may exercise its stop work right under this Agreement. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of the fact, previously unknown to it, that Contractor or any of its principals is under such indictment or has been so convicted, then NYSERDA may exercise its right to terminate this Agreement. If the Contractor knowingly withheld information about such an indictment or conviction, NYSERDA may declare the Agreement null and void and may seek legal remedies against the Contractor and its principals. The Contractor or its principals may also be subject to penalties for any violation of law which may apply in the particular circumstances. For a Contractor which is an association, partnership, corporation, or other organization, the provisions of this paragraph apply to any such indictment or conviction of the organization itself or any of its officers, partners, or directors or members of any similar governing body, as applicable.

13. PERMITS. It is the responsibility of the Contractor to acquire and maintain, at its own cost, any and all permits, licenses, easements, waivers and permissions of every nature necessary to perform the work.

14. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this Agreement will be in accordance with, but not limited to, the specifications and provisions of State Finance Law Section 165 (Use of Tropical Hardwoods), which prohibits purchase and use of tropical hardwoods, unless specifically exempted by NYSERDA.

15. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
625 Broadway
Albany, New York 12207
Telephone: 518-292-5200
Fax: 518-292-5884

http://www.esd.ny.gov

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
625 Broadway
Albany, New York 12207
Telephone: 518-292-5200
Fax: 518-292-5803
http://www.esd.ny.gov

The Omnibus Procurement Act of 1992 requires that by signing this Agreement, Contractors certify that whenever the total amount is greater than $1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this Agreement and agrees to cooperate with the State in these efforts.

16. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

17. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State

Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

18. PROCUREMENT LOBBYING. To the extent this Agreement is a "procurement contract" as defined by State Finance Law Sections 139-j and 139-k, by signing this Agreement the Contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, NYSERDA may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

19. COMPLIANCE WITH TAX LAW SECTION 5-a. The following provisions apply to Contractors that have entered into agreements in an amount exceeding $100,000 for the purchase of goods and services:

(a) Before such agreement can take effect, the Contractor must have on file with the New York State Department of Taxation and Finance a Contractor Certification form (ST-220-TD).

(b) Prior to entering into such an agreement, the Contractor is required to provide NYSERDA with a completed Contractor Certification to Covered Agency form (Form ST-220-CA).

(c) Prior to any renewal period (if applicable) under the agreement, the Contractor is required to provide NYSERDA with a completed Form ST-220-CA.

Certifications referenced in paragraphs (b) and (c) above will be maintained by NYSERDA and made a part hereof and incorporated herein by reference.

NYSERDA reserves the right to terminate this agreement in the event it is found that the certification filed by the Contractor in accordance with Tax Law Section 5-a was false when made.

20. IRANIAN ENERGY SECTOR DIVESTMENT. In accordance with Section 2879-c of the Public Authorities Law, by signing this Agreement, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the State Finance Law (See www.ogs.ny.gov/about/regs/ida.asp

EXHIBIT B

LETTER OF CREDIT

FORM OF IRREVOCABLE STANDBY LETTER OF CREDIT

IRREVOCABLE STANDBY LETTER OF CREDIT NO. _____

DATE: _____, 20__

BENEFICIARY:
THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
17 COLUMBIA CIRCLE, ALBANY, NEW YORK 12203-6399

LADIES AND GENTLEMEN:

BY THE ORDER OF:
[SELLER]
[SELLER'S ADDRESS]

WE HEREBY ISSUE OUR IRREVOCABLE CREDIT NO: _____ IN YOUR FAVOR FOR THE ACCOUNT OF _____ (THE "SELLER") FOR AN AMOUNT OR AMOUNTS NOT TO EXCEED IN THE AGGREGATE [STATE IN WORDS] U.S. DOLLARS AVAILABLE BY YOUR DRAFTS AT SIGHT ON [INSERT NAME AND ADDRESS OF ISSUING BANK], NEW YORK, NEW YORK, USA, WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

1. YOUR SIGHT DRAFT DRAWN ON US IN THE FORM OF ANNEX A HERETO (THE "SIGHT DRAFT"); AND

2. A DATED PAYMENT CERTIFICATE PURPORTEDLY SIGNED BY A DULY AUTHORIZED OFFICER OF NYSERDA IN THE FORM OF ANNEX B HERETO (THE "PAYMENT CERTIFICATE").

MULTIPLE DRAWINGS ARE PERMITTED IN AMOUNTS NOT TO EXCEED, IN COMBINATION, THE AGGREGATE AMOUNT.

DRAWINGS PRESENTED BY FACSIMILE TO FACSIMILE NUMBER _____ ARE ACCEPTABLE; PROVIDED THAT SUCH FAX PRESENTATION IS RECEIVED ON OR BEFORE THE EXPIRY DATE ON THIS INSTRUMENT IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT, IT BEING UNDERSTOOD THAT ANY SUCH FAX PRESENTATION SHALL BE CONSIDERED THE SOLE OPERATIVE INSTRUMENT OF DRAWING. IN THE EVENT OF PRESENTATION BY FAX, THE ORIGINAL DOCUMENTS SHOULD NOT BE PRESENTED.

FUNDS UNDER THIS LETTER OF CREDIT ARE AVAILABLE TO YOU AGAINST YOUR PAYMENT CERTIFICATE AND SIGHT DRAFT PRESENTED IN FULL COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT ON OR BEFORE 5:00 P.M., NEW YORK TIME, ON THE EXPIRATION DATE HEREOF. THIS LETTER OF CREDIT WILL EXPIRE ON [INSERT DATE] SUBJECT TO THE FOLLOWING SENTENCE. IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT SHALL BE DEEMED AUTOMATICALLY EXTENDED FOR SUCCESSIVE ADDITIONAL PERIODS OF 1 YEAR FROM ANY FUTURE EXPIRATION DATE HEREOF, WITHOUT AMENDMENT, UNLESS AT LEAST 90 DAYS PRIOR TO ANY SUCH EXPIRATION DATE WE NOTIFY YOU BY COURIER OR REGISTERED MAIL THAT WE ELECT NOT TO EXTEND THIS LETTER OF CREDIT FOR ANY SUCH ADDITIONAL PERIOD.

PAYMENT AGAINST CONFORMING DOCUMENTS PRESENTED UNDER THIS LETTER OF CREDIT SHALL BE MADE BY US AT OR BEFORE 2:00 P.M., NEW YORK TIME, ON THE NEXT (OR, IN THE CASE OF A PRESENTATION AFTER 10:30 A.M., NEW YORK TIME, THE SECOND NEXT) BANKING DAY AFTER PRESENTATION.

ALL PAYMENTS MADE BY US UNDER THIS LETTER OF CREDIT WILL BE MADE IN IMMEDIATELY AVAILABLE FUNDS AND WILL BE DISBURSED FROM OUR OWN FUNDS. IF REQUESTED BY YOU, PAYMENT UNDER THIS LETTER OF CREDIT MAY BE MADE BY WIRE TRANSFER OF FEDERAL RESERVE BANK OF NEW YORK FUNDS TO YOUR ACCOUNT IN A BANK ON THE FEDERAL RESERVE WIRE SYSTEM. BENEFICIARY'S BANK [INSERT NAME AND ACCOUNT NUMBER].

THIS LETTER OF CREDIT IS NOT TRANSFERABLE. ONLY YOU MAY MAKE ANY PAYMENT CERTIFICATE AND SIGHT DRAFT UNDER THIS LETTER OF CREDIT.

ANY SIGHT DRAFT DRAWN HEREUNDER MUST BE MARKED "DRAWN UNDER [INSERT NAME AND ADDRESS OF ISSUING BANK], STANDBY LETTER OF CREDIT NUMBER [INSERT] DATE [INSERT]."

ALL BANK CHARGES INCLUDING BUT NOT LIMITED TO, FEES OR COMMISSIONS, SHALL BE FOR APPLICANT'S ACCOUNT.

MISCELLANEOUS

THIS LETTER OF CREDIT SETS FORTH IN FULL THE TERMS OF OUR UNDERTAKING. SUCH UNDERTAKING SHALL NOT IN ANY WAY BE MODIFIED, AMENDED OR AMPLIFIED BY REFERENCE TO ANY DOCUMENT OR INSTRUMENT REFERRED TO HEREIN OR IN WHICH THIS LETTER OF CREDIT IS REFERRED OR TO WHICH IT RELATES (INCLUDING, WITHOUT LIMITATION, THE AGREEMENT) AND ANY SUCH REFERENCE SHALL NOT BE DEEMED TO INCORPORATE HEREIN BY REFERENCE ANY DOCUMENT OR INSTRUMENT.

WE HEREBY AGREE WITH YOU THAT EACH DULY COMPLETED PAYMENT CERTIFICATE AND SIGHT DRAFT DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS LETTER OF CREDIT WILL BE DULY HONORED UPON PRESENTATION TO US ON OR BEFORE THE EXPIRY DATE. THE OBLIGATION OF [ISSUING BANK] UNDER THIS LETTER OF CREDIT IS THE INDIVIDUAL OBLIGATION OF [ISSUING BANK] AND IS IN NO WAY CONTINGENT UPON REIMBURSEMENT WITH RESPECT THERETO.

EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (2007 REVISION), INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION 600 (PROVIDED, HOWEVER, THAT DRAWINGS PERMITTED HEREUNDER SHALL NOT BE DEEMED TO BE DRAWINGS BY INSTALLMENTS WITHIN ARTICLE 32 OF THE UCP) AND AS TO MATTERS NOT GOVERNED BY THE UCP, SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK AND APPLICABLE U.S. FEDERAL LAW.

PLEASE ADDRESS ALL CORRESPONDENCE REGARDING THIS LETTER OF CREDIT TO THE ATTENTION OF OUR STANDBY LETTER OF CREDIT UNIT, INCLUDING THE LETTER OF CREDIT REFERENCE NUMBER AS IT APPEARS ABOVE.

[NAME AND ADDRESS OF ISSUING BANK]

_____
AUTHORIZED SIGNATURE
OF OFFICER OF ISSUING BANK

Annex A to Exhibit B - Irrevocable Standby Letter of Credit

SIGHT DRAFT

Letter of Credit No. _____

Date of Letter of Credit: _____

Date of Draft: _____

FOR VALUE RECEIVED

Pay on Demand to: THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, U.S. _____ Dollars (U.S. $_____). The amount of this draft does not exceed the amount available to be drawn by the Beneficiary under the Letter of Credit.

Charge to account of [Name of Seller].

Drawn under [Name of Bank] Letter of Credit No. _____.

Payment by the bank pursuant to this drawing shall be made to _____, ABA Number _____, Account Number _____, Attention: _____, Re: _____.

To: [Issuing Bank]
[Address]
Attention: _____

_____
As Beneficiary

By: _____
[Name and Title]

Annex B to Exhibit B - Irrevocable Standby Letter of Credit

PAYMENT CERTIFICATE

To:
[Issuing Bank]
[Address]

Re: Irrevocable Standby Letter of Credit No: _____ [Insert]

The undersigned, a duly authorized officer of the undersigned Beneficiary, hereby certifies to [Issuing Bank], with reference to the Irrevocable Standby Letter of Credit No: [Insert] ("Letter of Credit"), that Seller, having provided the Letter of Credit to the New York State Energy Research and Development Authority ("NYSERDA") as Security for performance under NYSERDA Agreement No. _____ ("Agreement) in the aggregate amount of $_____, ("Letter of Credit Amount") either [check the appropriate space]:

_____ Seller failed to provide to NYSERDA, on or before the first Effective Date of the Agreement, Contract Security in the amount required under Section 15.01 of the Agreement, under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

_____ Seller failed to timely provide to NYSERDA Contract Security in the amount(s) required under Section 15.02 of the Agreement, under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

_____ The Agreement has been Terminated prior to Commercial Operation; under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

_____ Seller failed to provide to NYSERDA proof that the system reliability impact study was accepted by the NYISO Transmission Planning Advisory Subcommittee within the timeline prescribed by Section 13.01(e) of the Agreement.

_____ Seller failed to submit its Construction and Operations Plan to The Bureau of Ocean Energy Management within the U.S. Department of the Interior within the timeline prescribed by Section 13.01(f) of the Agreement.

_____The Operational Installed Capacity is less than 95% of the Offer Capacity or Seller has notified NYSERDA in writing that Seller intends to build the Selected Project such that, once complete, the Operational Installed Capacity will be less than 95% of the Offer Capacity; under either which circumstance, NYSERDA is authorized to draw a percentage of the Letter of Credit Amount, such percentage will be equal to 95% of the Offer Capacity minus the actual or intended Operational Installed Capacity, divided by the Offer Capacity.

_____ Seller has assigned its rights under the Agreement and the assignee has not delivered to the undersigned Beneficiary a replacement letter of credit satisfying the requirements of the Agreement; under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount;

_____the Letter of Credit is currently set to expire within thirty (30) days and the Seller has not made arrangements acceptable to the undersigned Beneficiary to provide a substitute letter of credit prior to such expiration; under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

The terms used herein which are not specifically defined herein are defined in the Letter of Credit or the Agreement, referenced above.

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this payment Certificate as of the ____ day of _____.

_____
As Beneficiary

By: _____
[Name and Title]

EXHIBIT C

NYSERDA PROMPT PAYMENT POLICY STATEMENT

504.1. Purpose and Applicability.

(a) The purpose of this Exhibit is to provide a description of Part 504 of NYSERDA's regulations, which consists of NYSERDA's policy for making payment promptly on amounts properly due and owing by NYSERDA under this Agreement. The section numbers used in this document correspond to the section numbers appearing in Part 504 of the regulations.[3]

(b) This Exhibit applies generally to payments due and owing by the NYSERDA to the Contractor pursuant to this Agreement. However, this Exhibit does not apply to Payments due and owing when NYSERDA is exercising a Set-Off against all or part of the Payment, or if a State or Federal law, rule or regulation specifically requires otherwise.

504.2. Definitions. Capitalized terms not otherwise defined in this Exhibit shall have the same meaning as set forth earlier in this Agreement. In addition to said terms, the following terms shall have the following meanings, unless the context shall indicate another or different meaning or intent:

(a) "Date of Payment" means the date on which NYSERDA requisitions a check from its statutory fiscal agent, the Department of Taxation and Finance, to make a Payment.

(b) "Designated Payment Office" means the Office of NYSERDA's Controller, located at 17 Columbia Circle, Albany, New York 12203.

(c) "Payment" means payment properly due and owing to Contractor pursuant to Article IV of this Agreement.

(d) "Prompt Payment" means a Payment within the time periods applicable pursuant to Sections 504.3 through 504.5 of this Exhibit in order for NYSERDA not to be liable for interest pursuant to Section 504.6.

(e) "Payment Due Date" means the date by which the Date of Payment must occur, in accordance with the provisions of Sections 504.3 through 504.5 of this Exhibit, in order for NYSERDA not to be liable for interest pursuant to Section 504.6.

(f) "Proper Invoice" means a written request for Payment that is submitted by a Contractor setting forth the description, price or cost, and quantity of goods, property or services delivered or rendered, in such form, and supported by such other substantiating documentation, as NYSERDA may reasonably require, including but not limited to any requirements set forth in this Agreement; and addressed to NYSERDA's Controller, marked

[3] This is only a summary; the full text of Part 504 can be accessed at: https://www.nyserda ny.gov/About/New-York-State-Regulations

"Attention: Accounts Payable," at the Designated Payment Office.

(g)(1) "Receipt of an Invoice" means:

(i) if the Payment is one for which an invoice is required, the later of:

(a) the date on which a Proper Invoice is actually received in the Designated Payment Office during normal business hours; or

(b) the date by which, during normal business hours, NYSERDA has actually received all the purchased goods, property or services covered by a Proper Invoice previously received in the Designated Payment Office.

(ii) if the Agreement provides that a Payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice the 30th calendar day, excluding legal holidays, before the date so specified or predetermined.

(2) For purposes of this subdivision, if the Agreement requires a multifaceted, completed or working system, or delivery of no less than a specified quantity of goods, property or services and only a portion of such systems or less than the required goods, property or services are working, completed or delivered, even though the Contractor has invoiced NYSERDA for the portion working, completed or delivered, NYSERDA will not be in Receipt of an Invoice until the specified minimum amount of the systems, goods, property or services are working, completed or delivered.

(h) "Set-off" means the reduction by NYSERDA of a payment due a Contractor by an amount equal to the amount of an unpaid legally enforceable debt owed by the Contractor to NYSERDA.

504.3. Prompt Payment Schedule. Except as otherwise provided by law or regulation or in Sections 504.4 and 504.5 of this Exhibit, the Date of Payment by NYSERDA of an amount properly due and owing under this Agreement shall be no later than thirty (30) calendar days, excluding legal holidays, after Receipt of a Proper Invoice.

504.4. Payment Procedures.

(a) Unless otherwise specified in this Agreement, a Proper Invoice submitted by the Contractor to the Designated Payment Office shall be required to initiate payment for goods, property or services. As soon as any invoice is received in the Designated Payment Office during normal business hours, such invoice shall be date-stamped. The invoice shall then promptly be reviewed by NYSERDA.

(b) NYSERDA shall notify the Contractor within fifteen (15) calendar days after Receipt of an Invoice of:

(1) any defects in the delivered goods, property or services;

(2) any defects in the invoice; or

(3) suspected improprieties of any kind.

(c) The existence of any defects or suspected improprieties shall prevent the commencement of the time period specified in Section 504.3 until any such defects or improprieties are corrected or otherwise resolved.

(d) If NYSERDA fails to notify a Contractor of a defect or impropriety within the fifteen (15) calendar day period specified in subdivision (b) of this section, the sole effect shall be that the number of days allowed for Payment shall be reduced by the number of days between the 15th day and the day that notification was transmitted to the Contractor. If NYSERDA fails to provide reasonable grounds for its contention that a defect or impropriety exists, the sole effect shall be that the Payment Due Date shall be calculated using the original date of Receipt of an Invoice.

(e) In the absence of any defect or suspected impropriety, or upon satisfactory correction or resolution of a defect or suspected impropriety, NYSERDA shall make Payment, consistent with any such correction or resolution and the provisions of this Exhibit.

504.5. Exceptions and Extension of Payment Due Date. NYSERDA has determined that, notwithstanding the provisions of Sections 504.3 and 504.4 of this Exhibit, any of the following facts or circumstances, which may occur concurrently or consecutively, reasonably justify extension of the Payment Due Date:

(a) If this Agreement provides Payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice, if any documentation, supporting data, performance verification, or notice specifically required by this Agreement or other State or Federal mandate has not been submitted to NYSERDA on a timely basis, then the Payment Due Date shall be extended by the number of calendar days from the date by which all such matter was to be submitted to NYSERDA and the date when NYSERDA has actually received such matter.

(b) If an inspection or testing period, performance verification, audit or other review or documentation independent of the Contractor is specifically required by this Agreement or by other State or Federal mandate, whether to be performed by or on behalf of NYSERDA or another entity, or is specifically permitted by this Agreement or by other State or Federal provision and NYSERDA or other entity with the right to do so elects to have such activity or documentation undertaken, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when any such activity or documentation has been completed, NYSERDA has actually received the results of such activity or documentation conducted by another entity, and any deficiencies identified or issues raised as a result of such activity or documentation have been corrected or otherwise resolved.

(c) If an invoice must be examined by a State or Federal agency, or by another party

contributing to the funding of the Contract, prior to Payment, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when the State or Federal agency, or other contributing party to the Contract, has completed the inspection, advised NYSERDA of the results of the inspection, and any deficiencies identified or issues raised as a result of such inspection have been corrected or otherwise resolved.

(d) If appropriated funds from which Payment is to be made have not yet been appropriated or, if appropriated, not yet been made available to NYSERDA, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when such funds are made available to NYSERDA.

504.6. Interest Eligibility and Computation. If NYSERDA fails to make Prompt Payment, NYSERDA shall pay interest to the Contractor on the Payment when such interest computed as provided herein is equal to or more than ten dollars ($10.00). Interest shall be computed and accrue at the daily rate in effect on the Date of Payment, as set by the New York State Tax Commission for corporate taxes pursuant to Section 1096(e)(1) of the Tax Law. Interest on such a Payment shall be computed for the period beginning on the day after the Payment Due Date and ending on the Date of Payment.

504.7. Sources of Funds to Pay Interest. Any interest payable by NYSERDA pursuant to Exhibit shall be paid only from the same accounts, funds, or appropriations that are lawfully available to make the related Payment.

504.8. Incorporation of Prompt Payment Policy Statement into Contracts. The provisions of this Exhibit shall apply to all Payments as they become due and owing pursuant to the terms and conditions of this Agreement, notwithstanding that NYSERDA may subsequently amend its Prompt Payment Policy by further rulemaking.

504.9. Notice of Objection. Contractor may object to any action taken by NYSERDA pursuant to this Exhibit that prevents the commencement of the time in which interest will be paid by submitting a written notice of objection to NYSERDA. Such notice shall be signed and dated and concisely and clearly set forth the basis for the objection and be addressed to the Vice President, New York State Energy Research and Development Authority, at the notice address set forth in Article XIX of this Agreement. The Vice President of NYSERDA, or his or her designee, shall review the objection for purposes of affirming or modifying NYSERDA's action. Within fifteen (15) working days of the receipt of the objection, the Vice President, or his or her designee, shall notify the Contractor either that NYSERDA's action is affirmed or that it is modified or that, due to the complexity of the issue, additional time is needed to conduct the review; provided, however, in no event shall the extended review period exceed thirty (30) working days.

504.10. Judicial Review. Any determination made by NYSERDA pursuant to this Exhibit that prevents the commencement of the time in which interest will be paid is subject to judicial review in a proceeding pursuant to Article 78 of the Civil Practice Law and Rules. Such proceedings shall only be commenced upon completion of the review procedure specified in Section 504.9 of this Exhibit or any other review procedure that may be specified in this

Agreement or by other law, rule, or regulation.

504.11. Court Action or Other Legal Processes.

(a) Notwithstanding any other law to the contrary, the liability of NYSERDA to make an interest payment to a Contractor pursuant to this Exhibit shall not extend beyond the date of a notice of intention to file a claim, the date of a notice of a claim, or the date commencing a legal action for the payment of such interest, whichever occurs first.

(b) With respect to the court action or other legal processes referred to in subdivision (a) of this section, any interest obligation incurred by NYSERDA after the date specified therein pursuant to any provision of law other than Public Authorities Law Section 2880 shall be determined as prescribed by such separate provision of law, shall be paid as directed by the court, and shall be paid from any source of funds available for that purpose.

EXHIBIT D

SELLER'S CATEGORY 3 COMMITMENTS

Category 3: Input Activities

Equinor Wind has developed a plan to increase the economic benefits associated with the Empire Wind Project through additional investments in, and engagements with, New York workers and businesses. These engagements and investments are an extension of Equinor's company-wide commitment to ensuring that its activities create lasting value for local communities, including direct and indirect local employment, local procurement, and social investments.

Business Engagement Plan

Equinor Wind believes that a well-developed local supply chain is critical to the successful development of an offshore wind industry in New York and to reducing the costs associated with the development of such projects. For that reason, Equinor Wind is committed to ensuring that New York businesses are fully apprised of potential opportunities to support the development of the Empire Wind Project.

Equinor Wind already has engaged in substantial efforts to identify opportunities for New York businesses to support the development of the Empire Wind Project. Notably, in February 2018, Equinor Wind retained the Renewables Consulting Group, a company based in Brooklyn, New York, to create a New York and regional supplier database of companies capable of supporting the development of the Empire Wind Project. These efforts resulted in a supplier directory containing local and regional businesses capable of supporting the project ("Equinor Wind Supply Directory"). Equinor Wind has utilized the Equinor Wind Supply Directory as the foundation for its efforts to tailor the development of the Empire Wind Project in a manner that maximizes the economic opportunities and benefits created for New York.

The following subsections describe additional efforts that Equinor Wind plans to make to create opportunities for New York businesses and workers in the event that the Empire Wind Project is selected through this RFP process.

[redacted]

[redacted]

Communication of Opportunities to New York Businesses

Equinor Wind will use a dedicated online web portal to communicate opportunities to supply goods or services to the Empire Wind Project and provide updates on procurement activities in order to ensure that New York businesses are informed of opportunities to support the development of the project. In accordance with Section 2.2.9 of the RFP, Equinor Wind will communicate all opportunities to support the Empire Wind Project with an anticipated contract value of $5 million or greater not already committed to the New York State vendor list maintained by NYSERDA at the time of execution of a contract awarded as a result of this RFP process. Equinor Wind is committed to making certain that these suppliers receive timely notification of opportunities to support the project and would welcome the opportunity to work with NYSERDA to establish a mechanism that ensures that suppliers that register and appear on the New York State vendor list are timely informed of opportunities as they arise. New York businesses that pursue opportunities to supply goods or services to the Empire Wind Project would then be evaluated in light of Equinor's existing procurement and supplier standards and requirements. [redacted]

Before sending out any request for information, request for proposals, or invitations to tender to potential suppliers, Equinor Wind will review the NYSERDA vendor list and the Equinor Wind Supply Directory to identify, and reach out to, potential New York suppliers qualified and capable of providing the goods or services at issue. These efforts would be in addition to establishing a mechanism to ensure timely communication to New York businesses of opportunities to support the project consistent with Section 2.2.9 of the RFP.

In addition to the outreach efforts described above, Equinor Wind will hold supply chain events following the selection of the Empire Wind Project through this RFP to help create additional opportunities for New York businesses. These supplier events will be timed to give New York businesses the opportunity to interact with Tier 1 Suppliers selected to support the development of the project and to identify potential subcontract and supplier opportunities.

Equinor Wind will also consider carefully how to target these events. A strategy successfully employed on previous projects includes working together with local business support organizations that will allow the project to engage with potential lower-tier suppliers. Our experience also suggests that focused supply chain engagement results in significant opportunities to local companies. The purpose of these events will be to encourage new entrants to the offshore wind sector, remove barriers to entry, and improve awareness and access to project opportunities.

Efforts to Shortlist Pre-Qualified New York State Companies

Equinor Wind is committed to ensuring that New York companies are given a fair opportunity to support the development of the Empire Wind Project, either directly to Equinor Wind or its Tier 1 Suppliers. For that reason, Equinor Wind will include New York businesses on Equinor Wind's bidders list so long as they have been pre-qualified as a potential supplier to Equinor Wind.

To be pre-qualified as a direct supplier to Equinor Wind and be admitted on the bidders' list, suppliers must have the capability and experience to deliver the proposed scope of work, meet pre-defined technical qualification requirements and satisfy minimum safety, quality, and integrity due diligence requirements. Qualification of new products/technology can take time, depending on the maturity of the product/technology. The prequalification process is specifically designed for each procurement and may include simple follow-up questions or thorough investigations (*e.g.*, site visits and audits).

If the Empire Wind Project is selected through this RFP process, Equinor Wind will support efforts by New York businesses to become pre-qualified to supply goods and services to the Empire Wind Project. As an initial matter, as part of the supplier events and other activities described above, Equinor Wind will provide New York businesses with information regarding the criteria that they must meet in order to be engaged to support the Empire Wind Project.

These efforts will compliment Equinor Wind's efforts to support pre-qualification efforts through its existing online portal, "How to become an Equinor Supplier," which provides guidance to potential bidders regarding how to qualify to do business with Equinor, gives potential bidders the opportunity to register their interest in supporting the project, and ask questions regarding qualification requirements. [redacted]

Subdividing Work Packages To Increase New York Firms' Prospects for Success

Equinor Wind currently is employing a multi-contract procurement strategy for the Empire Wind project based [redacted] Each of the parties that executes a contract (*i.e.,* Tier 1 Suppliers) will deliver different elements of the design, supply, fabrication, installation, commissioning, and operation of the project.

In addition to allowing Equinor Wind to identify the most cost-effective allocation of risk and responsibilities, Equinor Wind believes that a multi-contracting strategy will maximize the opportunities for New York businesses by increasing the opportunities to compete to obtain a contract supporting the project.

Requirements for Tier 1 Suppliers

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted] what steps the Tier 1 Supplier is taking to engage new subcontractors or suppliers.

Workforce Development Plan

Equinor Wind appreciates the importance of ensuring that the Empire Wind Project contributes to the development of a workforce with the skills necessary to attract offshore wind manufacturers and developers to the State. While Equinor Wind believes that New York's world-class workforce already makes New York uniquely situated to benefit from the development of a robust offshore wind industry on the east coast, in the event that the Empire Wind Project is selected through this RFP, Equinor Wind plans to take a number of steps to foster the further growth and development of the workforce capabilities that will make New York a national leader in the offshore wind industry.

Creation of Community Benefits Fund

Equinor Wind will commit to establishing a $4.5 million community benefits fund upon reaching a positive financial investment decision respecting the investment of the Empire Wind Project.

Support for the SUNY Offshore Wind Energy Center

In recent months, Equinor Wind has been providing support and guidance to the SUNY Maritime College as it moves forward to establish the NY Offshore Wind Energy Center in cooperation with SUNY Farmingdale. Equinor Wind plans to continue its support of the Offshore Wind Energy Center by offering in-kind support to help develop offshore wind programs and training at the center. Equinor Wind also appreciates the importance of ensuring that graduates of the center are able to find employment upon graduation. For that reason, Equinor Wind has committed to interview successful graduates of the certificate program that submit an application for open positions with Equinor Wind.

Support for Local Apprenticeship and Internship Programs

Equinor has a long history of supporting job training in the communities in which it operates and manages a range of apprenticeship and internship programs that are designed to provide "on the job" training and support for members of the communities in which it operates. For instance, Equinor currently operates an apprenticeship and internship program in the UK that provides new entrants to the offshore wind labor force with hands-on training on Equinor's existing offshore wind assets. In order to identify local candidates for these programs, Equinor holds a "skills day" with local universities to raise awareness about the program and encourage local members of the community to apply.

Equinor Wind will work to establish a local apprenticeship program similar to those operated in connection with its UK assets in order to provide opportunities to members of the local communities and ensure a pool of technicians within New York State with the skills necessary to support the growing offshore wind project. As part of these efforts, Equinor Wind will explore collaborating with local labor organizations and universities to identify suitable candidates and increase public awareness of these programs.

Supporting Workforce Transition

Equinor Wind strongly supports New York's effort to ensure that an increasing portion of the state's electricity needs are met using renewable energy. Equinor Wind recognizes, however, that the transition to new technologies and resources has the potential to create new challenges for New York workers as older generation resources retire or otherwise seek to exit the market.

Equinor Wind is committed to minimizing workforce disruption associated with the changing generation mix by creating new opportunities for workers seeking to transition from other parts of the electric sector to supporting the development and operation of renewable resources.

Consistent with this objective, Equinor Wind plans to establish a bespoke, internal training program designed to draw upon workers that have experience operating thermal generation resources and provide them with the training necessary to support offshore wind resources. Equinor Wind currently expects that these efforts will include:

- Early recruitment of operations and maintenance staff to allow sufficient time for training with the goal of ensuring that the core operations and maintenance team would be in place one year prior to the start of operations.
- Involving operations and maintenance staff in construction and commissioning activities to ensure that these employees receive the training necessary to effectively assume responsibility for the project.
- Placing operations and maintenance personnel in training secondments to carry out "on the job" training at Equinor's existing offshore wind assets in Europe.
- Ensuring that there is an experienced team assembled in New York with a history in existing offshore wind farm operations at the time of the commencement of operations in order to ensure that newly hired employees receive the benefits of the experience gained from Equinor's more than 10-years of operation of offshore wind resources.
- Giving operations and maintenance employees access to Equinor's Internal Global Development Program, which highlights new talent within the company and places them on an accelerated intensive program to aid their development and to understand Equinor's strategy and culture.
- Fostering the development of skills by allowing operations and maintenance employees to attend Equinor University, which provides Equinor employees with training through courses that cover a wide range of subjects relevant to renewable resources. Access to this program will accelerate the competence of the Equinor New York workers and bolster the competence of the renewables workforce in New York State.

Engagement With Labor Organizations

Equinor Wind has already undertaken substantial efforts to create opportunities for New York workers through dialogue with New York labor unions and organizations. The New York Trades Council and Green Jobs NY have been especially helpful. For Instance, Equinor Wind has supplied the unions with detailed assessments of the types of jobs and skills needed at each stage of the project, from permitting and construction through to operations. In the event that the Empire Wind Project is selected through the RFP process, Equinor Wind will reach out to these labor organizations to solicit their input on how to enhance the employment opportunities for New York workers, including pursuing negotiation of a Project Labor Agreement with appropriate labor organizations.

Investments in Research & Development

Throughout its history, Equinor has supported research and development activities in connection with its offshore projects. The Empire Wind Project is no exception and Equinor Wind already is engaged in a number of efforts to promote the development of offshore wind research and development activities in New York State:

- Christer af Geijerstam, President of Equinor Wind, serves on the Board of Directors of the National Offshore Wind Research and Development Consortium ("R&D Consortium") administered by NYSERDA and Equinor Wind has committed to provide
  $50,000 to support the consortium's work.

- Equinor Wind is collaborating with the WCS through a Grant Agreement to jointly deploy two new real-time whale-detection buoys in our lease area for a period of two years to study the temporal and spatial behavior and movements of different whale species, with the goal of using the data to better inform mitigation and the real-time capability as mitigation during construction. Near real-time data and reports will be made publicly available. [redacted]

- Equinor Wind is currently discussing a potential research and development partnership with the Long Island-based ULC Robotics, a developer and manufacturer of unmanned aerial vehicles, to explore the creation of advanced, purpose-built vertical take-off and landing aircraft to support offshore wind project operations.

- Equinor Wind is actively collaborating on environmental research and monitoring with SUNY Stony Brook's SoMAS on Long Island, in an effort to enhance understanding of marine life in the lease area. SoMAS is in the process of completing a BOEM-funded study to increase understanding of the Atlantic sturgeon in the New York Bight. Contributing to this effort, Equinor Wind installed three of SoMAS' Atlantic sturgeon sensors on the metocean moorings installed within the lease area in December 2018 as part of Equinor Wind's site assessment activities.

- Equinor is working together with SUNY Stony Brook to apply for a grant from the R&D Consortium to develop high fidelity wind resource modeling, which has the potential to increase performance of offshore wind projects that are constructed to supply energy, capacity, and ORECs to New York. The models will be validated by operational data from Equinor wind farms, and local NY metocean conditions will be used as basis for the simulations of improved wind park control.

EXHIBIT E

FISHERIES MITIGATION PLAN

Fisheries Mitigation Plan
for
the Empire Wind Project

Version 1.0

Prepared Pursuant to

Section 12.05 of the Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement by and Between the New York State Energy Research and Development Authority and Equinor Wind US LLC

Albany, NY

Prepared by

Equinor Wind US LLC

120 Long Ridge Road Ste 3EO1
Stamford, CT 06902

October 23, 2019

Record of Revision		
Version No. and Revision Date	**Description of changes**	**Revision on pages**
[Version No; date]	[Original issue]	[page(s)]

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Links to project information:

Project website: www.empirewind.com

Fisheries website: www.empirewind.com/fisheries

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1. Fisheries Mitigation Plan Summary

1.1. Overall philosophy and principles

This section should describe the overall philosophy and principles the Proposer will follow to avoid, minimize, restore, and off-set potential fisheries impacts.

- Equinor Wind's approach and philosophy to project development is premised on the belief that the fishing industry and offshore wind energy developments can be compatible and can co-exist. Equinor Wind believes that co-existence can be achieved by carefully evaluating existing uses of the lease area, avoiding impacts where feasible, or reducing impacts through mitigation.
- Equinor Wind's approach to fisheries mitigation is founded upon the fisheries mitigation hierarchy. More specifically, this approach means that we anticipate and avoid impacts on fisheries resource and fishers; minimize impacts where avoidance is not possible; and take steps to offset any significant residual adverse impacts that are predicted to remain.
- Equinor Wind believes that the Empire Wind Project can be developed in a manner that minimizes disruption to the natural environment, natural resources, and existing uses of the Lease Area. Equinor Wind believes that a successful coexistence strategy requires open and regular communication between the Empire Wind project team and the fishing industry, starting with the development and survey phase, and continuing through permitting, construction, operation, and decommissioning of the wind farm.
- Equinor Wind does not intend to restrict or apply for broad-based restrictions on fishing activities within the operational wind farm. To the extent that any restrictions are necessary, these may be limited to standard safety zones during the construction phase, and operational safety zones around manned or sensitive offshore platforms or access points.

1.2. Overall approach to incorporating data and stakeholder feedback

This section should describe how the Developer will use research, data, and stakeholder feedback to update the FMP and support decision-making throughout the life cycle of the project (pre-construction, surveys, site design, construction, operations, and decommissioning).

- Mitigation measures will be identified and developed with relevant fisheries stakeholders through an iterative process of project design, including site selection, cable routing, timing of works, and consideration of construction and operations methods.
- Equinor Wind has already taken the following steps to minimize potential impacts:
    - Modifying survey schedules and locations in survey planning, and in real-time by adaptive management of survey locations to avoid areas with active and/or seasonal fishing;
    - Early spatial planning incorporating data and feedback, and real-time adaptive management during survey data acquisition, to avoid high use, high value, and high sensitivity fisheries areas in planning the export cable routes;

- 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; and

- Applying data and fisheries feedback in early spatial planning for the project area, including setting "Layout Rules" for the wind farm layouts that aim to minimize impacts on fishing and facilitate continued safe access to traditional fishing grounds.

1.3. Existing guidance and best practices that will be followed

This section should present a list of existing guidance documents, publications, tools, and/or plans that will be followed to support the FMP. Include links, if available, for all references.

- Equinor Wind US Fisheries Liaison & Outline Coexistence Plan (FLP), which provides an overview of Equinor Wind's overall approach to offshore wind development and consideration of fisheries resources; the principles of which have been adopted for the Empire Wind Project. The FLP can be found at www.empirewind.com/fisheries
- To achieve the objective of co-existence, the Empire Wind Project has been and will continue to follow industry best practices, including, but not limited to:
    - Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf, Bureau of Ocean Energy Management (BOEM) 2014-654;
    - Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Liaison - Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW), UK;
    - Fishing and Submarine Cables Working Together – published by the International Cable Protection Committee;
    - Bureau of Ocean Energy Management (BOEM) 2015 – Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 Code of Federal Regulations (CFR) Part 585;
    - BOEM 2013 – Guidelines for Providing Information on Fisheries for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585;
    - BOEM n.d.(a) – Previously Identified Offshore Wind Development Concerns;
    - BOEM n.d.(b) – Possible Best Management Practices and Mitigation Measures to Reduce Conflicts between Fishing and Wind Industries;
    - Hooker 2014 – Bureau of Ocean Energy Management Fishing and Offshore Energy - Best Management Practices;
    - McCann 2012 – Developing Environmental Protocols and Modelling Tools to Support Ocean Renewable Energy and Stewardship;
    - Ecology and Environment 2014 – Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and

Commercial Fishermen on the Atlantic Outer Continental Shelf: Report on Best Management Practices and Mitigation Measures;

- Virginia Coastal Zone Management Program (VCZMP) 2015 – Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area;
- Lipsky et al. 2016 – Addressing Interactions between Fisheries and Offshore Wind Development: The Block Island Wind Farm;
- Moura et al. 2015 – Options for Cooperation between Commercial Fishing and Offshore Wind Energy Industries: A Review of Relevant Tools and Best Practices;
- Gray et al. 2016 – Changes to fishing practices around the UK as a result of the development of offshore windfarms – Phase 1;
- Petruny-Parker et al. 2015 – Identifying Information Needs and Approaches for Assessing Potential Impacts of Offshore Wind Farm Development on Fisheries Resources in the Northeast Region;
- Mid-Atlantic Fishery Management Council (MAFMC) 2014 – Offshore Wind Best Management Practices Workshop;
- New York States Offshore Wind Master Plan: Fish & Fisheries Study, Section 6 and Appendix D (2017); and
- Anticipated best practice guidance tools that may be developed through initiatives such as F-TWG, E-TWG, Responsible Offshore development Alliance (RODA) Task Force, and other groups.
- Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf (Benthic Guidelines; BOEM 2013a
- Experience gained from collaborating with the fishing industry in Equinor's offshore wind energy developments in Europe.
- The application of lessons learned from the US as the offshore wind industry develops.

2. Communications and Collaboration Approach

2.1. Overview and communication plan objectives

This section should provide an overview of the communication plan and objectives and its importance in fisheries mitigation.

- Openness is a core value and cornerstone of the Empire Wind Project's approach to fisheries liaison and communications. Regular, open consultation will be key to ensuring that all parties are well informed of offshore activities and project updates, and in order to provide meaningful input in design and mitigation options.
- Equinor Wind understands that effective, clear and inclusive communication is required to ensure as many affected stakeholders as possible can be reached.
- Equinor Wind intends that its fisheries outreach will be as inclusive as possible; including engagement with fisheries stakeholders through Fishing Industry Representatives ("FIR") and/or groups such as F-TWG and RODA, as well as engaging with organizations or individual fishers not represented in these groups.

2.2. Communication officers/positions, responsibilities, and contact information

This section will provide a list of communication officers, their role, and name and contact information. The list should provide stakeholders with an understanding of who should be called for a particular issue or question.

Name/Title	Role/Responsibilities	Contact Information
Stephen Drew; Fisheries Liaison Officer (FLO; Empire Wind Project)	• Representative on F-TWG, RODA Task Force, Mass FWG and other working groups; • Primary point of contact between Project and fishing fleets; • Maintain database and track all interactions between project team and fishers; • Arrange meetings and disseminate information; • Consult with FIRs (see below); • Support development of procedures to address lost/damaged fishing gear claims as appropriate; • Monitor fishing activity during surveys and for assessments; • Attendance at Fisheries Council meetings; • Fisheries data collection and supporting on impact assessments and identification of appropriate mitigation; •	+1 908 339 7439 sdrew@searisksolutions.com

Name/Title	Role/Responsibilities	Contact Information
Elizabeth Marchetti; Fisheries Manager, Equinor Wind US	• Primary contact with Empire Wind Management Team on fisheries matters; • Representative on F-TWG, Responsible Offshore Science Alliance (ROSA), Mass FWG and other working groups; • Point of contact between Project and fishing fleets; • Maintain database of fisheries interactions; • Arrange meetings and disseminate project information; • Consult with FIRs (see below); • Monitor fishing activity during surveys and for assessments; • Attendance at Fisheries Council meetings; • Fisheries data collection and supporting on impact assessments and identification of appropriate mitigation; • Provision of Offshore Fishery Liaison Officer's (OFLRs) and scout vessels during surveys and construction activities.	+1 401 954 2902 emarc@equinor.com
Wofgang Rain, Supporting FLO, Equinor Wind US	• Ensure coverage for FLO	+1 206 427 6553 wrain@equinor.com
Fishing Industry Representatives (FIRs)	• Essential contacts within fishing community to represent/relay views of majority of fishers; • Main point of contact for FLO; • Identify individuals/groups to provide feedback on specific topics; • Assist in distribution of information.	Multiple contacts.
Offshore Fisheries Liaison Officer (OFLR), representing Equinor Wind US	• Present onboard vessels working on behalf of Equinor Wind, for example survey and construction vessels; • Maintain daily contact with and keep records of fishing vessels; • Keep masters and watch officers informed of fishing vessels or fishing gear in the area; • Outreach to fishing vessels; • Ad-hoc assistance to wind farm-related vessel officers to support co-existence,	Contact details for contacting OFLRs vessel to vessel at sea will be distributed with Survey Flyers. Equinor Wind FLOs will be the primary point of contact for enquiries related to survey activity (see above)

Name/Title	Role/Responsibilities	Contact Information
	including ensuring the principles of the Fisheries Mitigation Plan (FMP) are adhered to offshore	

2.3. Identification of fishing industry stakeholders

This section should describe the process by which stakeholders relevant to fisheries and the fishing industry will be identified and classified by stakeholder group.

Effective consultation is essential for sharing information and soliciting feedback. Effective consultation is facilitated with the establishment of a comprehensive contact database for local and regional fisheries associations, societies, groups, individual fishers and the various industry organizations. This database is maintained and regularly updated by the FLO in conjunction with Equinor Wind's key project team members.

Members of the commercial and recreational fishing communities are identified through various channels and include, but are not limited to:

- Contacting fishing industry leaders known through the combined FLOs' and Fisheries Manager's liaison and industry experience;
- Contacting fishing industry association leaders;
- Attending Fishery Management Council meetings;
- Attending meetings related to offshore wind and fisheries interactions;
- Manning stands at commercial and recreational fishing forums;
- Recommendations from state and federal fisheries staff;
- Fisheries Management Council Advisory Panel lists online;
- Public comments and documents online;
- Word of mouth from the fishing community;
- Automatic Identification System (AIS) monitoring including ship identification;
- Fishing vessels identified offshore during surveys by the OFLR;
- NMFS permit holder lists online;
- Dock visits; and
- Fisheries contacts information referenced in NYSERDA's New York State Offshore Wind Master Plan Fish and Fisheries Study (NYSERDA, 2017; Appendix J).

2.4. Participation in stakeholder and technical working groups

2.4.1. Communication with F-TWG

This should describe the communication and collaboration approach with members of the F-TWG and consultations.

- Equinor Wind will continue to participate in the F-TWG, represented by Martin Goff, and the Equinor Wind US and the Empire Wind dedicated FLO (Stephen Drew or Fisheries Manager Elizabeth Marchetti).

- Equinor Wind will present all aspects of the Empire Wind FMP to the F-TWG during dedicated workshops at appropriate timing intervals to ensure the goals of the FMP are met and the FMP is evolved to reflect feedback.
- As well as the F-TWG, Equinor Wind will proactively engage with the fishing industry not represented on F-TWG, or in addition to those on F-TWG. This may be via industry groups such as RODA, other FIRs, or with individual fishing organizations or fishers.

2.4.2. Communication with other New York State agencies

This should describe communication with New York State agencies during each phase of the project.

Equinor Wind is committed to continuing consultation with New York state agencies throughout the Empire Wind project development process. This includes:

- Consultation on matters including the Empire Wind project development updates and schedules, benthic and fisheries resources, fisheries outreach and coexistence, avian and bat studies, onshore ecology, visual assessments and historic properties.
- Site Assessment Plan (SAP), approved on November 21, 2018, included consultation with the New York State Department of Environmental Conservation (NYSDEC).
- Consultation on the Construction and Operation Plan (COP), including provision of the COP for review and feedback at the time of submission to BOEM. The state agencies include:
    - New York Department of State;
    - New York State Department of Environmental Conservation;
    - New York State Office of Parks, Recreation and Historic Preservation;
    - New York State Department of Public Service;
    - New York Office of General Services; and
    - New York State Energy Research and Development Authority

2.4.3. Communication with other stakeholder and working groups

This should describe any relevant participation with other stakeholder groups, such as international fisheries groups that would help inform the FMP.

- Equinor is participating on international fisheries groups, including the UK's Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW).
- Equinor Wind is participating in the Environmental Technical Working Group (E-TWG).
- Equinor Wind participates in other state Fisheries Working Groups, for example the Massachusetts Fisheries Working Group.

2.5. Communication methods and tools

2.5.1. Methods by phase

This section should describe the communication and outreach methods and tools that will be employed for each stakeholder group during each phase of the project.

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Contact with FIRs	X	X	X	X
Contact with fisheries associations	X	X	X	X
Directly from the FLO to individual fishermen not represented by an FIR, but identified on the FLO's database	X	X	X	X
USCG Notice to Mariners	X	X	X	X
Electronic email distribution to commercial fishing permit holders (National Oceanic and Atmospheric Administration (NOAA) or state agencies)	X	X	X	X
Empire Wind's website- "Fisheries" page	X	X	X	X
Offshore Wind-Fisheries-specific websites for disseminating information, for example F-TWG	X	X	X	X
Local harbor masters	X	X	X	X
State Fisheries mailing lists	X	X	X	X
3D Simulation Tool demonstrations (provides perspective on turbine layouts, spacing, which facilitates discussions on ability to fish and transit between turbines)	X	X		
Survey flyers / Notification Flyers (includes information related to surveys, construction or maintenance schedules and activities, contact information and requests for feedback)	X	X	X	X
Statements of Common Ground (SoCG) (Established between developers and stakeholders to set out areas of agreement, disagreements, and unresolved issues. May include description of development and affected parties, summary of consultation to date, issues discussed, resolved, unresolved, etc.)	X	X	X	X
Fisheries specific newsletters (includes project overview, schedules, meetings; requests for information; contact information and other information)	X	X	X	X
Presentations or networking at fishing conferences and exhibitions	X	X	X	X
Notices in fishing news publications	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*				

2.5.2. Communication with vessels

This section should describe communication methods/tools with vessels actively fishing in areas in or adjacent to the Project area during site assessment and construction activities and facilitate proper notification to vessels and resource managers.

- Notification of upcoming site assessment and/or construction activities via various sources, including Survey Flyers, LNTMs, email shots, details on project specific webpages and relevant fisheries web pages.
- The OFLR will be responsible for monitoring the presence of fishing vessels and/or fishing gear in or around locations of site assessments and/or construction activity, and communications with vessels at sea and for relaying information back to the FLO.
- The FLO and Fisheries Manager will be responsible for engaging with fisheries managers, fleet managers, FIRs and individual fishermen prior to and during site assessment and/or construction activity.

- The FLO will monitor AIS in real-time to identify fishing activity (for those fishing vessels carrying AIS) in or around locations of sites assessment and/or construction activity.
- Where appropriate, Scout Vessels acting on behalf of Equinor Wind will monitor for the presence of static fishing gear, identify owners and contact details, and relay the information to site assessment/construction vessels/OFLRs and the FLO.

2.5.3. Protection of confidential information

This section should describe how confidential information shared by stakeholders will be protected.

- Equinor Wind appreciates that some fisheries information, such as discrete fishing sites, can be commercially sensitive to those fishermen. In these circumstances, Equinor Wind will work with the individual fishing organization/fisherman to establish confidentiality agreements for the purpose of sharing information for the objective of using such information to work towards avoiding or minimizing impacts.

3. Monitoring and Research Pre-, During, and Post-Construction

3.1. Identification of scope of monitoring activities/studies

This section should provide an overview of the anticipated monitoring activities, including how the specific scope of monitoring activities will be identified and what types of scientific questions will be addressed.

- Baseline data characterization and monitoring will be conducted in accordance with best practices, including BOEM guidance as well as consideration of recommendations for further research from groups such as F-TWG and E-TWG and potentially ROSA;
- Equinor Wind will explore appropriate monitoring protocols, including, for example, monitoring of potential behavioral responses or changes in spatial and temporal distribution of biological resources or fishing practices as a direct result of the offshore wind energy development.
- Monitoring plans for the Empire Wind Project are not yet defined. It is felt this is best dealt with in consultation and in collaboration with other wind developers, the fishing industry and the regulators.

3.2. Baseline data and characterization approach

This section should describe how baseline data will be established on the spatial and temporal presence of fish and invertebrates in the proposed area of the Project at multiple life history stages included egg, larval, juvenile, adult, and spawning stages, as well as associated fish and invertebrate habitats.

3.2.1. Existing literature and data of benthic and fisheries resources

Describe existing literature and datasets that are available for baseline characterization.

- Public data sources suitable for characterizing benthic habitat and fisheries resources in the relevant area, including evaluation of NYSERDA's Master Plan Fish and Fisheries Study (2017; Appendix J).
- NOAA National Centers for Coastal Ocean Science and BOEM Comprehensive Seafloor Substrate Mapping and Model Validation in the Atlantic (2019).
- Estuarine Living Marine Resource database (NOAA 2000) provide descriptions of spatial and temporal distributions of species (by life stage) in Hudson River/Raritan Bay and the Great South Bay, however, the database is not updated regularly.
- Use of fisheries effort data as a proxy for fish species (see 3.2.3).
- Full description of baseline data will be presented in the COP for Lease OCS-A 0512, which includes the Empire Wind project.

3.2.2. Data collected of benthic and fisheries resources

This section should describe survey activities undertaken or that will be undertaken by the developer that will inform the baseline characterization of benthic and fisheries resources.

- Equinor Wind commissioned benthic sampling in 2018 by Gardline Environmental covering the entire Lease Area and building on previous comprehensive benthic surveys carried out by NOAA National Center for Coastal Ocean Science (NOS). These

Equinor Wind surveys were conducted at a total of 67 sample stations, and included grab samples, drop down digital video and stills imagery. Grab samples were analyzed for sediment grain size distribution and macro faunal analysis. As described in Section 3.7, this report will be made publicly available for download from the Empire Wind website.

- Equinor Wind commissioned, benthic sampling was conducted in 2019 by Inspire Environmental, covering all of the proposed potential export cable routes for the Lease Area, including the proposed Gowanus export cable route for the Empire Wind project. Sampling included Sediment Profile Imaging (SPI) and Plan View (PV) imaging at 157 sample stations, with 15 reference stations and sediment grab samples for sediment grain size analysis and macrofaunal analysis for verification. As described in Section 3.7, this report will be made publicly available for download from the Empire Wind website.
- NOAA National Centers for Coastal Ocean Science and BOEM Comprehensive Seafloor Substrate Mapping and Model Validation in the Atlantic research/survey collected sediment grab samples at 400 locations in the lease area, as well as bathymetric data and opportunistic fisheries data.
- Geophysical, benthic habitat (through geophysical interpretation), and geotechnical surveys from March 2018 to November 2018 across the entire Lease Area and export cable corridors, with additional geophysical and geotechnical surveys carried out in 2019 to fill in data gaps and cover areas from landfall to the 65 ft (20 m) depth contour.
- With the site specific and existing benthic data, and the existing fisheries data, there is sufficient data for the purpose of the COP impact assessments, spatial planning and/or mitigation. However, Equinor Wind will consult with E-WTG, F-TWG, RODA, ROSA and the fishing industry, including fisheries scientists and managers, on requirements for further surveys for targeted fisheries monitoring and research.

3.2.3. Existing literature and data of the fishing industry

This section should describe the existing literature and data that are available for baseline characterization of the commercial and recreational fishing industry.

The key data sources referenced for the purpose of understanding the fisheries use baseline are summarized below and include, but are not limited, to the following:

- BOEM's 2017 Study entitled, Socio-Economic Impact of Outer Continental Shelf Wind Energy Development on Fisheries in the U.S. Atlantic;
- New York State's Master Plan Fish and Fisheries Study (2017);
- State by State analyses of public, commercial fisheries statistics as published by the NOAA Office of Science and Technology;
- NOAA Fisheries Marine Recreational Information Program (MRIP) data on recreational fishing;

- Rhode Island Department of Environmental Management - Division of Marine Fisheries' paper entitled, Spatiotemporal and economic analysis of vessel monitoring system data within wind energy areas in the greater North Atlantic;
- The Mid-Atlantic Regional Ocean Council (MARCO) Data Portal;
- The BOEM & NOAA Marine Cadaster National Viewer for geospatial data; and
- The Northeast Regional Ocean Council's (NROC) spatial data portal.
- A full description of the data sources to inform the baseline will be presented in the Lease OCS-A 0512 COP, which includes the Empire Wind project.

3.2.4. Data collected by the Developer or the fishing industry

This section should describe data collected, or will be collected, to support baseline characterization.

- Using long term purchased AIS datasets, real-time AIS data and collecting AIS in the field with AIS receivers on Equinor survey vessels (noting not all fishing vessels carry AIS).
- Taking nautical charts to recreational and commercial fishers and asking them to mark fished areas and hang ups. Charts included Long Range Navigation ("LORAN") to help aid positioning.
- Requesting navigation plotter/logger data of tows, which have been provided by a number of trawlers and used for planning purposes.
- General discussions with fishers.
- Using fisheries resource baseline and in particular commercial species, as a proxy to areas that are or may be fished.
- Using Vessel Monitoring System data (VMS).
- Visual and radar observations in the field, conducted by the OFLR from March 2018 to November 2018 and April 2019 to August 2019, including those fishing vessels not carrying AIS.
- Observations from the Equinor Wind digital aerial avian surveys, where vessel images were an opportunistic data point.

3.3. Monitor for potential impacts during each phase

This section should describe how potential impacts will be monitored on these types of life history stages during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

- Equinor Wind acknowledges that ongoing research and monitoring at the project site and wider regional scale is important to refine the understanding of impacts, potential mitigation options, and for future planning purposes, including facilitating the responsible leasing and development of future offshore wind energy areas within the New York Bight.
- Equinor Wind is committed to exploring appropriate monitoring protocols, for example monitoring of potential behavioral responses or changes in spatial and temporal distribution

of biological resources or fishing practices as a direct result of the offshore wind energy development.

- Monitoring and research should ideally be targeted towards interactions between offshore wind energy developments and the receptors it is being judged against.
- Equinor Wind proposes to conduct studies in collaboration with other developers, fishers, F-TWG and other fisheries groups or initiatives, such as ROSA and the RODA Task Force.
- Potential studies should be tested for statistical power prior to initiating.
- Equinor Wind is in favor of developing and supporting research initiatives that focus on addressing coexistence; that is, research aimed at improving opportunities for continued and enhanced access for recreational and commercial fishing in the operational offshore wind energy developments. For example, Equinor Wind is supportive of research aimed at innovative technical approaches to issues such as turbine spacing, impacts on navigation equipment, trawling equipment, safety equipment, training and/or information dissemination options.

3.4. Assess and quantify changes to fishery resources

This section should describe how changes to fisheries resources will be quantified using statistically sound methods

- Detecting change in biological resources such as fisheries resources as a direct result of an offshore wind development can be challenging, as the fisheries resource may be subject to natural fluctuations in abundance and spatial and temporal distribution due to outside factors, for example oceanographic conditions. As such, any proposals for monitoring should be statistically robust and Equinor Wind advocates for technical experts to conduct statistical power analyses up front in the planning process before implementing future studies.
- Equinor Wind will collaborate with F-TWG and E-TWG and seek input from stakeholders on monitoring requirements and methods.
- Equinor Wind supports collaborative research and monitoring opportunities.
- Equinor Wind is committed to exploring appropriate monitoring protocols, for example monitoring of potential behavioral responses or changes in spatial and temporal distribution of biological resources as a direct result of the offshore wind energy development.
- Equinor Wind is willing to explore collaborative fisheries research and monitoring initiatives, such as ROSA.

3.5. Assess potential changes to commercial and recreational fishing activities

3.5.1. Current and historical usage

This section should describe how the proposed Project area is used by commercial and recreational fisheries in the region, including current and historic usage as well as how associated transit routes will be determined.

- Current and historical use of the Empire Wind project area by commercial and recreational fisheries has and will continue to be determined by the means described

in sections 3.2.3 and 3.2.4. A full description will be presented in the COP for Lease Area OCS-A 0512, which includes the Empire Wind project.

3.5.2. Changes in usage

This section should describe how changes in commercial and recreational fishing patterns will be calculated postconstruction using statistically sound methods.

- Monitoring changes in pre and post construction fishing effort due to the presence of an offshore wind energy development can be challenging. Many factors dictate fishing effort within a given area on a seasonal and year by year basis which make statistically detecting "change" difficult. For example, fishing effort may be influenced by factors independent of an offshore wind farm such as quota, presence of a mobile species, market prices, fuel prices and fisheries closures. As such, due to the complexities and the need to design a methodology that has both industry and fisheries support, Equinor Wind proposes that if required, such studies be discussed as part of the F-TWG.
- In addition, Equinor Wind will consult on potential monitoring and research with the fishing industry.
- Committed to explore alternate monitoring protocols, such as behavioral responses or changes in spatial and temporal distribution of biological resources or fishing practices.
- If impacts are present, can consider several options, including:
    - (i) explore whether further mitigation can be applied to reduce impacts (e.g., improved access through technical solutions to fishing practices and/or navigation equipment);
    - (ii) using adaptive management by applying mitigation in the spatial planning and layouts of later phases of the Lease development; and
    - (iii) sharing the results so that they can be used in adaptive management on a wider scale, for development of future lease areas in the New York Bight and wider offshore wind energy space.

3.6. Addressing data gaps

This section should describe how data gaps will be addressed.

- Equinor Wind is committed to working with F-TWG, regulators and fishing community to establish if fisheries data gaps still exist, the potential data sources and/or studies that can better inform these gaps or impacts, and to agree on methodologies for conducting meaningful studies.

3.7. Data availability

This section should describe how fisheries data will be made available in accordance with Section 2.2.5 of the RFP.

- Equinor Wind will make the following fisheries related studies publicly available:
    - 2018 benthic survey report covering the "SAP" related survey locations within Lease Area (benthic grab samples with grain size and macro fauna analysis, drop down

video stills, habitat description). This report is currently available on the Empire Wind webpage;

- 2018 benthic survey report covering "COP" related survey locations within Lease Area totaling 67 sample locations (benthic grab samples with grain size and macro fauna analysis, drop down video stills, habitat description). This report will be made available on the Empire Wind webpage, currently expected in December 2019;
- 2019 benthic survey report covering "COP" related survey locations within the proposed export cable corridors (Sediment Profile Imaging (SPI) Plan View Imaging (PVI), benthic grab samples with grain size and macro fauna analysis, drop down video stills, habitat description). This report will be made available on the Empire Wind webpage, currently expected in December 2019;
- 2017 to 2018 digital aerial survey images, monthly, quarterly and annual reports of avian species, marine mammals, sea turtles and data of large bony fish assemblages as observed from the 12 x monthly digital aerial surveys carried out from November 2017 to October 2018. These data and reports are all currently available on the ReMOTe webpage https://remote.normandeau.com/ewind_overview.php; and
- On request, and subject to Equinor Wind's approval, historical oceanographic data not deemed proprietary for the benefit of further fisheries related research, for example seawater temperature and salinity, from the Metocean Facilities deployed within the Lease Area. Requests to be made directly via Julia Bovey at jbov@equinor.com.

- Equinor Wind will consider sharing otherwise proprietary seawater temperature data from Metocean Facilities deployed within the Lease Area for researchers to better understand the "cold pool" effect in the NY Bight. Requests to be made directly via Julia Bovey at jbov@equinor.com.

4. Supporting Other Research

4.1. Support of collaborative research

This section should describe how opportunities for developing or investing in collaborative research with the fishing industry to collect ecological and/or fishing data will be identified and undertaken. The description must account for the need to coordinate with members of the F-TWG during data gathering and assessment.

- Equinor Wind will consider proposals for collaborative opportunities to conduct research and monitoring. Studies may include fishing feasibility (by technique) within operational wind farms.
- Equinor Wind will be open to collaboration with other offshore wind developers.
- Open to collaboration with other organizations.
- Options for research can be discussed through the F-TWG, or other fisheries related initiatives such as ROSA and the fishing industry.
- Equinor Wind will, where feasible, consider making existing wind farm related vessels or buoys available for research opportunities where this does not materially impact existing objectives of those resources. For example, Equinor Wind will consider proposals for adding additional or third-party self-contained sensors on survey vessels, construction vessels, operations and maintenance (O&M) vessels, wind farm structures or wind farm related buoys and metocean moorings.
- Willing to consider requests to access existing Equinor's operating offshore wind energy developments in Europe.
- Willing to make non-proprietary or business sensitive data available that can support wider fisheries research that may not be directly linked to offshore wind farm developments but can inform future fisheries practices (e.g. seawater temperature data to inform research on the "Cold Pool").

4.2. Handling/processing requests

This section should describe how requests for coordination with third-party supported scientists will be processed - including providing reasonably-requested Project data and access to the Project area for independent scientists examining environmental and fishery sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates and fisheries for the purpose of publication in peer reviewed journals.

4.3. Proposed restrictions

This section should describe any restrictions on data provision or access that may be required to protect trade secrets or maintain site security.

- Commercially sensitive data (e.g., wind resource data and operational availability estimates, geological information, etc.).

4.4. Financial commitment for third party research

This section should provide a level of financial commitment, if elected, that will be appropriated to leverage third-party environmental research funding related to fish, invertebrates and fisheries,

including federal or State-supported research. Or, if elected, provide the level of commitment to a general fund for supporting third-party research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development.

- Equinor Wind will commit to facilitating and/or conducting at least one research study into improving coexistence, for example studies that consider understanding and/or improving fishing access to operating offshore wind farms, and at least one study related to fisheries resources in relation to offshore wind farm development.
- Equinor Wind will commit to a budget of $250,000 over a 3-year period for fisheries coexistence research and $250,000 over a 3-year period for fisheries resource research.

4.5. Proposed or existing commitments/collaborations

This section should describe proposed or existing commitments and collaborations with third-party researchers in support of monitoring activities and assessing impacts.

- Equinor Wind has made the Metocean Facilities within the Lease Area available to SUNY Stony Brook to attach receiver gates for Atlantic sturgeon, and other incidental tagged marine life.
- Equinor Wind is collaborating with the Wildlife Conservation Society (WCS) and Woods Hole Oceanographic Institute (WHOI) on real-time large whale detection and notification buoys in a minimum 2-year monitoring program.
- Equinor Wind is collaborating on the potential to support ROSA.
- Equinor Wind is a member of the RODA Task Force.

5. Proposed Mitigation of Impacts to Benthic/Fishery Resources

5.1. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and risks to benthic/fishery resources and proposed mitigation measures. To this end, a description of how the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area will be considered in mitigating impacts should be included. The mitigation measures should also demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g. orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The section should also describe the planned operational protocol to avoid, minimize, and mitigate impacts to fish, invertebrates and fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers.

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Physical disturbance and habitat loss, including sensitive habitats	• Avoid, to the extent possible, siting structures (e.g. offshore wind turbine foundations) in areas of sensitive benthic habitat. • Include NOAA NMFS in survey plan review in coordination with BOEM to address potential impacts to threatened or endangered species Avoid, to the extent possible, sensitive benthic habitats through the planning of routing export cable corridors. • Bury wind farm electrical cables to sufficient depth to minimize surface protection requirements that modify the existing conditions. • Apply real time measures to avoid intrusive sampling of sensitive habitats, using drop down cameras. • Appropriate and reasonable use of foundation scour protection where needed as identified in modelling. Will calculate extent of potential habitat loss as part of COP assessments and share results with F-TWG and other working groups	X	X	X	X
Underwater noise	• Selection of gravity-based substructure (GBS) foundations that do not require percussive pile driving during foundation installation • If pile driving is used, then a "soft start" will be applied at the startup of piling. • If pile driving is used then potential use of noise reducing technologies if deemed required by regulators as appropriate to the impacts, and subject to being commercially and technically available.	X	X		

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Increased suspended sediment concentration and deposition	• Apply best management practices and timing during cable installation to minimize sediment suspension and dispersal during sensitive periods (e.g. certain spawning events). • Will undertake sediment transport modeling to quantify sediment concentrations and affected areas for COP assessments, which will be shared with F-TWG Use of scour protection around wind turbine foundations as appropriate to reduce sediment resuspension.		X	X	
Exposure to accidental spills, pollution or trash from project related vessels and structures	• Apply best practices for vessel operations. • Implement an Oil Spill Response Plan (OSRP).	X	X	X	X
Potential exposure to Electromagnetic Fields (EMF)	• Cables will be armored. • Cables will be buried to sufficient depths (for a variety of reasons), to the extent possible. • If sufficient burial is not feasible, potential for further barriers through surface cable protection. • Conduct EMF modeling and assessments to identify potential mitigation requirements. • Post construction surveys at an appropriate interval to monitor for exposed cables.			X	
Water Quality	• Export cable routing will, to the extent possible, avoid existing and historic dumping grounds to avoid resuspension of materials during construction.		X		
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

5.2. Coordination with F-TWG and other stakeholders

This section should describe how the Developer will engage with stakeholder groups such as the F-TWG and other regional fishermen that address stakeholder concerns related to benthic and fisheries resource. Specifically, describe the key types of information and design decisions where feedback will be solicited from stakeholders.

- Equinor Wind has and will continue to engage in discussion on the following topics with F-TWG, E-TWG, regulators and other stakeholder groups as appropriate to solicit feedback on studies and designs:
    - Spatial planning of export cable routing;
    - Sediment transport modeling;
    - EMF modeling and assessment;
    - Project Design Envelope;

- Project Layouts; and
- Benthic and fisheries resource data collected and assessed as part of the COP submission.

6. Proposed Mitigation of Impacts to the Recreational and Commercial Fishing Industry

6.1. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and risks to recreational and commercial fishing and proposed mitigation measures. To this end, this section should describe how the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area will be considered in mitigating impacts. The mitigation measures should also demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g. orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The section should also describe the planned operational protocol to avoid, minimize, and mitigate impacts to fish, invertebrates and fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers.

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Impacts to commercial fish species	• See section 5.1	X	X	X	X
Temporary displacement/loss of access to traditional fishing grounds during survey activities	• Equinor Wind is actively avoiding areas being fished during survey activities. • Pre-survey consultation with fishing industry to determine upcoming spatial and temporal use, which is avoided by survey vessels where feasible. • Planning of export cables routes that avoid heavily fished areas, for example static gear, prior to surveying. • Timing of offshore surveys to avoid seasonal fishing where feasible. • Dissemination of information related to offshore survey activities, with contact details for further information. • Real-time adaptive management and monitoring of fishing activity – using OFLRs, real-time AIS and consultation with the fishing community to modify survey areas of coverage as appropriate. • Engagement with recreational fishermen in the field by the OFLR.	X	X	X	X
Temporary displacement/loss of access to traditional fishing	• To the extent possible and reasonable, actively avoiding areas being fished during construction activities through pre-planning the timing and location of activities.		X		

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
grounds during construction phase	• Dissemination of construction scheduling information as early as possible with fishers. • Use of real-time fisheries monitoring and adaptive management of construction timing and location, to the extent possible. • Potential for use of construction practices such as rolling construction safety zones in consultation with the appropriate regulators, F-TWG and fishing community, to minimize overall area of temporary closed areas.				
Displacement/loss of access to traditional fishing grounds during operations phase activities	• Equinor Wind does not intend to restrict or apply for broad-based restrictions on fishing activities within the operational wind farm. To the extent that any restrictions are necessary, these may be limited to standard safety zones during the construction phase, and operational safety zones around manned or sensitive offshore platforms or access points. • Sufficient burial of inter-array and export cables to facilitate continued seabed penetrating fishing activity. Thoughtful spatial planning and project design, including the application of "Layout Rules" to ensure transparency of future layouts, with flexibility to modify layouts following consultation. Layout Rules to be finalized and consulted on with F-TWG, regulators and with wider fishing industry, and as part of development of the Navigation Safety Risk Assessment. The Layout Rules have been designed to facilitate continued access to fishing grounds, with orientation of turbine rows, alignments and spacing that are sympathetic to existing practices, based on data and feedback.			X	
Navigational safety concerns and loss of fishing gear from construction activities and the presence of structures and cables and subsequent decommissioning	• Potential use of rolling construction safety zones. • Dissemination of information to fishers on wind turbine and cable locations. • Provision of wind turbine locations for inclusion on navigational charts. • Intention to bury inter-array and export cables where feasible and based on Cable Burial Risk Assessment. • Periodical post installation cable surveys as appropriate, with sharing of information on identified navigational risks as appropriate.		X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Navigational safety concerns due to increased project related vessel traffic	• Dissemination of information of planned construction vessel activities, timing, location, routes, vessel details, etc. • Notification to fishing community of any unscheduled O&M activities. • Communications plan with emergency contacts and procedures. • Prescribed transit routes for offshore wind energy development construction and support vessels between ports and the offshore site. • Project related construction and support vessels to follow best practice guidance, including Convention on the International Regulations for Preventing Collisions at Sea (COLREGS). • Project related vessels to be made aware of final FMP and mitigation measures. • Where appropriate and feasible, an OFLR on at least one Project related construction and support vessel in the field during construction to aid communications. • FLO for contact by fishers during construction, operations and decommissioning activities. • Real-time monitoring of fishing vessel activity to apply adaptive management to project related vessel movements.		X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

6.1.1. General approach to avoiding and mitigating fishing gear loss

This section should describe how potential loss of fishing gear due to snags on turbine structures, associated cables or cable mattresses, or related structures installed or deployed as a result of offshore wind energy development, will be minimized.

- Mitigation measures include:
  - Marking & lighting of partially built structures following Private Aids to Navigations (PATONS);
  - Dissemination of charted locations of partially built and installed structures to the fishing community;
  - Provision of locations of partially built structures and installed structures in digital formats that can be uploaded to typical navigation equipment, for example navigation plotters;
  - USCG Notice to Mariners (NTMs);
  - Provision of locations of partially built structures and installed structures for updating NOAA Nautical Charts, as well as USCG Local Notices to Mariners at more frequency (i.e., weekly);

- Consultation with the fishing community with the potential to establish temporary safety exclusion zones around partially installed wind farm electrical cables;
- Provision of safety vessels around high risk structures;
- Prescribed transit routes for project related vessels;
- Real-time monitoring and notifications to fishing vessels;
- Bury cables to depths below fishing gear penetration where feasible and making the position of cables available for the fishing community; Where burial is not feasible, use of cable protection where appropriate to findings of the cable burial risk assessment (CBRA) and consultation;
- Avoidance of use of concrete mattresses in areas of snagging risk.

6.1.2. Processing claims for lost fishing gear

This section should describe how the Developer will approach claims of lost gear in the event of a snag that provides for a fair and timely review of the claim and appropriate compensation of impacted parties.

- Equinor Wind will work with F-TWG and fishing community to establish the appropriate procedures in advance of the start of construction activities.

6.2. Coordination with F-TWG and other stakeholders

This section should describe how the Developer will engage with stakeholder groups such as the F-TWG and other regional fishermen and shipping and navigation to determine Project layouts that address stakeholder concerns. Specifically, describe the key types of information and design decisions where feedback will be solicited from stakeholders.

- Fisheries data and consultation feedback from the fishing industry and maritime community has resulted in the Empire Wind Project establishing Layout Rules that aim to minimize impacts on existing fishing practices and facilitate ongoing access to traditional fishing grounds. The Layout Rules also take into account existing and future maritime navigation trends and Search and Rescue capabilities.
- Equinor Wind will consult with the fishing industry on the Project's Layout Rules and indicative layouts via F-TWG, RODA and fishing organizations.
- Equinor Wind will present the Project's Layout Rules and some indicative layouts to facilitate feedback in a "Layouts Brochure". Equinor Wind will distribute the layouts brochure directly to fisheries contacts and will make the brochure publicly available on the Empire Wind webpage at www.empirewind.com/fisheries .

Feedback from the Layouts consultations will be considered for modifying the Project's Layout Rules and potential layouts.

7. Project Decommissioning

7.1. Potential impacts based on available information and experience

This section should describe potential impacts to benthic/fisheries and the fishing industry from decommissioning the project, based on available information and relevant experience (if any).

- At this early stage it is not possible to accurately predict impacts and appropriate mitigation from decommissioning. It can be reasonably judged that impacts from decommissioning are not expected to exceed impacts from construction.
- Potential impacts and mitigation options will become clearer post construction and during operations, facilitated by monitoring.

7.2. Approach for developing plan and coordination with stakeholders

This section should describe how a decommissioning plan will be developed to identify and mitigate potential impacts, including coordination with fisheries stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage.

- The process for development of a decommissioning plan will be discussed further will E-TWG and F-TWG and relevant regulators and stakeholders.
- Lessons learned from the construction and operations activities will be applied to the decommissioning plan at the appropriate time.
- Equinor Wind will consult with the fishing industry on the Empire Wind decommissioning plans at the appropriate time, closer to the decommissioning activities.

8. (Optional) Fisheries Compensation Plan

8.1. Consideration of compensation plan

If a fisheries compensation plan is being considered to offset impacts, this section should describe how it will determine instances where all reasonable attempts to avoid and minimize Project impacts, or restoration to predevelopment conditions are not feasible and some type of fisheries compensation plan is warranted.

- Equinor Wind considers that at this early stage of development, the primary focus should be on understanding the full extent of potential impacts and what avoidance measures or effective mitigation can be applied to address them from the outset. It is therefore too early to assume the need for and quantify financial compensation measures.
- As such, Equinor Wind is not in a position to provide further details of financial compensatory measures related to potential temporary displacement or restricted access of fisheries to traditional fishing grounds related to Empire Wind.
- Should financial compensation be required, Equinor Wind will work with the relevant regulators and fisheries organizations to establish the details and principles of a compensation plan.

8.2. Approach to developing compensation plan

8.2.1. Coordination with stakeholders

This section should describe how a fisheries compensation plan was, or will be developed; how the Developer will coordinate with the F-TWG and other entities in the design or review of the fisheries compensation plan.

- As per section 8.1.

8.2.2. Third-party administration

This section should describe how the compensation plan will be administered by an nongovernmental third-party to provide reasonable and fair compensation for impacts that cannot be sufficiently addressed through other means.

- Should financial compensation be required, Equinor Wind supports a process for identifying recipients and values that is open to third-party scrutiny and may be managed by an independent third-party (under confidential agreements where sensitive information exists).

9. Additional Considerations

9.1. Additional mitigation strategies and FMP refinement

This section should describe any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the fishing community. In addition, describe how the FMP will be updated and refined based on additional information and stakeholder feedback.

- Equinor Wind will continuously evaluate and evolve this FMP, including addressing additional guidance and information, so it remains complete and sufficient.
- Equinor Wind will engage with the F-TWG and fisheries organizations and use feedback in these discussions to evolve the FMP.

9.2. Process for updating the FMP

This section should describe how feedback from the fishing industry stakeholders, F-TWG, and other agencies and working groups will be incorporated and updated in the FMP.

- As per section 9.1.

EXHIBIT F

ENVIRONMENTAL MITIGATION PLAN

Environmental Mitigation Plan

for

the Empire Wind project

Version 1.0

Prepared Pursuant to

Section 12.06 of the Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement by and Between the New York State Energy Research and Development Authority and Equinor Wind US LLC

Albany, NY

Prepared by

Equinor Wind US LLC

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October 23, 2019

Record of Revision		
Version No. and Revision Date	**Description of changes**	**Revision on pages**
[Version No; date]	[Original issue]	[page(s)]

Communication Officers, Contact Information, Links		
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Laura Morales Environment & Permitting Manager, Empire Wind	Secondary point of contact for the project on environmental matters with the environmental community.	+1 917 476 5106 lmora@equinor.com
Julia Bovey Director, External Affairs	Stakeholder Manager	+1 917 283 0198 jbov@equinor.com
Elizabeth Marchetti Fisheries Manager, Equinor Wind US	Primary point of contact between the project and fisheries	+1 401 954 2902 emarc@equinor.com

Links to project information:

Project website: www.empirewind.com

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1. Environmental Mitigation Plan Summary

1.1. Overall philosophy and principles

This section should describe the overall philosophy and principles the Developer will follow to avoid, minimize, restore, and off-set potential fisheries impacts.

- Equinor Wind believes that from the outset, measures to avoid or mitigate adverse environmental impacts, while maximizing the positive beneficial environmental impacts of an offshore wind energy project should be:
    - Identified and developed in consultation and coordination with the relevant stakeholders;
    - Based on robust baseline characterization that has been developed in consultation with relevant stakeholders;
    - Evidence based and founded on the latest science;
    - Where data gaps exist or the receptor-effect interactions are unknown, information gaps are satisfied through targeted data collection, monitoring and/or research;
    - Incorporated into spatial planning, for example project siting and design; and
    - Applied to how the project is implemented, for example surveys, construction methods and operations and maintenance activities.
- Equinor Wind recognizes the importance of adaptive management and will continue to evolve its procedures for the evaluation and mitigation of environmental resources.

1.2. Overall approach to incorporating data and stakeholder feedback

This section should describe how the Developer will use research, data, and stakeholder feedback to update the EMP and support decision-making throughout the life cycle of the project (pre-construction, surveys, site design, construction, operations, and decommissioning).

- Equinor Wind believes consultation and coordination with relevant stakeholders is important as a means of identifying potential risks or opportunities for sufficiently avoiding and mitigating environmental impacts.
- Equinor Wind has identified steps to consult with the relevant stakeholder groups to get feedback on plans, data, mitigation, and buy in on decisions in advance of the regulatory process – a "no surprises" approach.
- The EMP provides information on how potential impacts may be mitigated, with further mitigation measures to be developed in further consultation with the relevant stakeholder groups, including New York State Environmental Technical Working Group ("E-TWG").

1.3. Existing guidance and best practices that will be followed

This section should present a list of existing guidance documents, publications, tools, and/or plans that will be followed to support the EMP. Include links, if available, for all references.

- Equinor Wind will follow the following guidance documents, updating the guidance documents list as appropriate:

- NOAA NMFS. 2018. 2018 Revision to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts, April 1, 2018. Available at: https://www.fisheries.noaa.gov/resource/document/technical-guidance-assessing-effectsanthropogenic-sound-marine-mammal
- BOEM. 2013c. Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 C.F.R. Part 585 Subpart F. Available online at: https://www.boem.gov/uploadedFiles/BOEM/Renewable_Energy_Program/Regulatory_Inform ation/BOEM_Renewable_MMandST_Guidelines.pdf . The guidance recommends that the NMFS EFH mapper tool (http://www.habitat.noaa.gov/protection/efh/habitatmapper.html) be used for species identification and habitat characteristics at any particular location (BOEM 2013a, page 4).
- BOEM. 2013b. Guidelines for Providing Information on Fisheries for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 C.F.R. Part 585. Fisheries Study Guidelines. Available at https://www.boem.gov/Fishery-Survey-Guidelines/ .
- BOEM. 2013a. Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 C.F.R. Part 585. Available at https://www.boem.gov/uploadedFiles/BOEM/Renewable_Energy_Program/Regulatory_Information/Habitat%20Guidelines.pdf .
- BOEM. 2015. Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 C.F.R. Part 585. October 20, 2015. Available at https://www.boem.gov/Social-and-EconomicConditions-Fishery-Communication-Guidelines/ .
- BOEM 2017a. Guidelines for Providing Avian Survey Information for Renewable Energy Development on the Outer Continental Shelf. United State Department of the Interior – Bureau of Ocean Energy Management, Office of Renewable Energy Programs.

2. Communications and Collaboration Approach

2.1. Overview and communication plan objectives

This section should provide an overview of the communication plan and objectives and its importance in fisheries migration.

- Openness is a core value and cornerstone of Equinor Wind's approach to engaging with and sharing data with stakeholders.
- Equinor Wind will approach project development towards the COP and other state and federal permits on a "no surprises" basis. This includes sharing project updates, plans, results and information regularly and at all stages of the project so that all relevant interested parties have had sufficient opportunities to input into these processes, while also being sensitive to the potential for stakeholder fatigue.

2.2. Communication officers/positions, responsibilities, and contact information

This section will provide a list of communication officers, their role, and name and contact information. The list should provide stakeholders with an understanding of who should be called for a particular issue or question. It will also include links to the project website so readers know where to find additional information.

Name/Title	Role/Responsibilities	Contact Information
Martin Goff; Head of Environment and Permitting for Equinor Wind US	Primary point of contact for the project on environmental matters. Overview of all Equinor Wind US projects. Lead E-TWG Representative	+1 202 813 7444 mgof@equinor.com
Julia Bovey Head of External Affairs	Point of contact for the project on environmental matters related and relevant to external communications. E-TWG Representative Support	+1 917 283 0198 jbov@equinor.com
Laura Morales Environment and Permitting Manager, Empire Wind	Secondary point of contact for the project on environmental matters. Responsible for Empire Wind specific environmental matters. E-TWG Representative Support	+1 917 476 5106 lmora@equinor.com
Elizabeth Marchetti Fisheries Manager, Equinor Wind US	Primary point of contact between the project and fisheries for fisheries resource and coexistence matters. F-TWG Representative	+1 401 954 2902 emarc@equinor.com

Project website: www.empirewind.com

2.3. Identification of stakeholders

This section should describe the process by which stakeholders will be identified and classified by stakeholder group.

- Equinor Wind will continue to engage with regulatory agencies, Environmental NGOs ("ENGOs"), research institutions and relevant stakeholders either via independent meetings or through environmental round tables in order to maximize opportunities to discuss the project and solicit feedback.
- This process will continue throughout the development of the Empire Wind Project.
- Stakeholders have been identified as part of a Stakeholder Outreach Plan and Empire Wind Permitting Plan developed in support of the Empire Wind project.
- Stakeholder lists, contact details and correspondence are listed on Equinor Wind's stakeholder tracking tool, which is updated on a regular basis.

2.4. Participation in stakeholder and technical working groups

2.4.1. Communication with E-TWG

This should describe the communication and collaboration approach with members of the E-TWG and consultations.

- Equinor Wind is committed to actively participate in and contribute to the New York State E-TWG as a means to collaborate on best practices and research for offshore wind energy development, balancing environmental concerns with responsible technically and commercially feasible development, while fostering opportunities for future offshore wind energy development in the New York Bight.
- Equinor Wind is currently represented on the E-TWG by Head of Environment and Permitting for Equinor Wind US, Martin Goff, as well as by other support representatives (Julia Bovey and Laura Morales).
- Equinor Wind considers the ENGOs on E-TWG as a proxy "ENGO steering committee" for engagement with the ENGO community on responsible development.
- Equinor Wind will also proactively engage with ENGOs not directly represented on the E-TWG, for example through direct engagement or Environmental Round Tables.

2.4.2. Communication with other New York State agencies

This should describe communication with New York State agencies during each phase of the project.

- Equinor Wind will continue to engage with NY State Agencies throughout the project development process, including project updates and plans, environmental data collection, baseline data, potential mitigation options, terrestrial archaeology, historic architecture, and permitting including presentation of the draft-COP for review and feedback. The NYS agencies include:
    - NY Department of Environmental Conservation (NYSDEC);

- NY Department of State;
- NY Office of Parks, Recreation and Historic Preservation;
- New York Office of General Services; and
- New York State Energy Research and Development Authority
- New York State Department of Public Service

2.4.3. Communication with other stakeholder and working groups

This should describe any relevant participation with other stakeholder groups, such as international fisheries groups that would help inform the EMP.

- Equinor Wind will continue to participate in the Environmental-Technical Working Group (E-TWG) and will be represented on both the F-TWG and E-TWG by the same lead representative, currently Martin Goff, Head of Environment and Permitting.
- Equinor Wind will continue to engage with Tribal Nations, for example the Shinnecock Indian Nation to discuss survey results, including results from the benthic surveys, marine mammals data, results of visual simulations, and archaeological and cultural resources assessments, as well as details of the COP submission.
- Equinor Wind will continue to engage with federal agencies, including:
  - BOEM as the lead agency to ensure a smooth permitting process and soliciting feedback on baseline data requirements;
  - NOAA's National Marine Fisheries Service ("NMFS") in relation to development of survey plans, baseline characterization data, for example, benthic and fisheries data sources and providing feedback on Equinor Wind's data collection efforts, strategic advice on threatened and endangered species, Incidental Harassment Authorizations ("IHAs") for geophysical surveys and the potential future requirements for IHAs in relation to construction activities.
  - U.S. Fish and Wildlife Service ("FWS");
  - U.S. Environmental Protection Agency ("EPA");
  - U.S. Coastguard and U.S. Army Corps of Engineers ("USACE"); and
  - National Park Service ("NPS")
- Equinor Wind will engage with the general public, which includes open houses and public hearings to address comments and questions.

2.5. Communication methods and tools by phase

This section should describe the communication and outreach methods and tools that will be employed for each stakeholder group during each phase of the project.

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Public meetings, Open houses	X	X	X	X
Stakeholder workgroups	X	X	X	X
Website promotion	X	X	X	X

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Visual simulation tools	X	X	X	X
ENGO Round Tables, in person	X	X	X	X
Federal Agency Meetings, in person, webinars	X	X	X	X
State Agency Meetings, in person, webinars	X	X	X	X
E-TWG and F-TWG Meetings	X	X	X	X
Tribal Meetings; in person, webinars	X	X	X	X
Project Newsletters	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*				

3. Supporting Other Research

3.1. Support of collaborative research

This section should describe how opportunities for developing or investing in collaborative research with environmental and academic entities to collect ecological data will be identified and undertaken. The description must account for the need to coordinate with members of the E-TWG during data gathering and assessment.

- Equinor Wind is committed to collaborate with the scientific community, E-TWG, relevant stakeholders, other offshore wind energy developers and third-party groups to conduct robust and relevant research studies that relate to environmental resources and offshore wind energy developments.
- Specifically, Equinor Wind will:
    - Consider making existing wind farm related vessels, buoys or structures available for research opportunities.
    - Explore appropriate monitoring protocols, for example monitoring of potential behavioral responses or changes in spatial and temporal distribution of biological resources as a direct result of the offshore wind energy development.
- Equinor Wind advocates that technical experts conduct statistical power analyses up front in the planning process before implementing any future studies. In addition, F-TWG and/or E-TWG are appropriate forums in which to discuss the development of such analyses and should be part of this process.

3.2. Handling/processing requests

This section should describe how requests for coordination with third-party supported scientists will be processed - including providing reasonably-requested Project data and access to the Project area for independent scientists examining environmental and fishery sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates and fisheries for the purpose of publication in peer reviewed journals.

- Equinor Wind will make an effort to meet with any interested parties when contacted to discuss prospective research.
- Equinor Wind is willing to consider requests to access Equinor's existing operating offshore wind energy developments in Europe to conduct research and monitoring.

3.3. Data availability

This section should describe how data will be made available in accordance with Section 2.2.5 of the RFP.

- Equinor Wind is committed to make publicly available relevant information or data and supporting metadata that is developed throughout the Empire Wind Project that enhances the understanding of environmental characteristics, or use by wildlife, of any offshore,

nearshore or onshore areas, so long as it is not considered proprietary in nature. This includes the following data/studies:

- Data acquired as a result of monitoring required by NYSDOS, NYSDEC, NYSERDA or other regulatory bodies;
- 2018 benthic survey report covering the "SAP" related survey locations within the lease area (benthic grab samples with grain size and macro fauna analysis, drop down video stills, habitat description). This report will be made publicly available for download from the Empire Wind website at: www.empirewind.com ;
- 2018 benthic survey report covering "COP" related survey locations within the lease area totaling 67 sample locations (benthic grab samples with grain size and macro fauna analysis, drop down video stills, habitat description). This report will be made publicly available for download from the Empire Wind website at: www.empirewind.com ;
- 2019 benthic survey report covering "COP" related survey locations within the proposed export cable corridors (sampling included Sediment Profile Imaging (SPI) and Plan View (PV) imaging at 157 sample stations, with 15 reference stations and sediment grab samples for sediment grain size analysis and macrofaunal analysis for verification). This report will be made publicly available for download from the Empire Wind website at www.empirewind.com ;
- 2017 to 2018 digital aerial survey images, monthly and quarterly reports of avian species, marine mammals, sea turtles and large bony fish assemblages as observed from the 12 x monthly digital aerial surveys carried out from November 2017 to October 2018. These data and reports are all currently available on the ReMOTe webpage https://remote.normandeau.com/ewind_overview.php;
- Oceanographic data, not deemed proprietary, for example seawater temperature and salinity, from the "Metocean Facilities" deployed within the lease area. Requests to be made directly via Julia Bovey at jbov@equinor.com ;
- Non-commercially sensitive data from metocean buoys. Requests to be made directly via Julia Bovey at jbov@equinor.com ;
- Protected Species Observer (PSO) observation reports, as appropriate. Requests to be made directly via Julia Bovey at jbov@equinor.com .

- Equinor Wind is open to sharing the seawater temperature data from the Empire Wind Metocean Facilities to help support the understanding of the "cold pool" effect driving spatial and temporal distribution of marine life in the New York Bight.
- Prior to any disclosure, data made available by Equinor Wind will undergo final quality assurance/quality control ("QA/QC") to be performed by Equinor Wind.
- Equinor Wind is open to exploring outlets for sharing information (e.g., the E-TWG webpage), however, version control will be important.

3.4. Proposed restrictions

This section should describe any restrictions on data provision or access that may be required to protect trade secrets or maintain site security.

- Equinor Wind will restrict confidential, propriety, and commercially sensitive data (as noted above).

3.5. Financial commitment for third party research

This section should provide a level of financial commitment, if elected, that will be appropriated to leverage third-party environmental research funding related to fish, invertebrates and fisheries, including federal or State-supported research. Or, if elected, provide the level of commitment to a general fund for supporting third-party research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development.

- Equinor Wind entered into a funding agreement related to a grant with the Wildlife Conservation Society (WCS) and Woods Hole Oceanographic Institute (WHOI) over 3-years, which will consist of two more "Blue York" style real-time acoustic whale monitoring buoys spaced appropriately in the lease area to add to the existing buoy on the eastern edge of the lease area.
- Equinor Wind has committed to participate in the Responsible Offshore Science Alliance (ROSA).

3.6. Proposed or existing commitments/collaborations

This section should describe proposed or existing commitments and collaborations with third-party researchers in support of monitoring activities and assessing impacts.

- Equinor Wind has granted SUNY Stony Brook the opportunity to attach four fish tag receiver gates to the Empire Wind Metocean Facilities. The receiver gates, used primarily for detecting Atlantic sturgeon but also capable of detecting other tagged species, were part of a previously BOEM-funded study. Equinor Wind will coordinate with Stony Brook on opportunities to download and service the sensors during scheduled service visits every 6 months.
- As described previously in Section 3.5, Equinor Wind is collaborating with WCS and WHOI on real-time large whale detection and notification buoys in a minimum 2-year monitoring program.
- Equinor has funded and collaborated in the UK Carbon Trust ORJIP One Bird Collision Avoidance Study (ORJIP One), UK Carbon Trust ORJIP Four Acoustic Deterrent Devices (ORJIP Four), and the developer led DEPONS (Disturbance Effect on the Harbour Porpoise in the North Sea, DEPONS, 2015).
- As described in Section 3.5, Equinor Wind is funding ROSA in collaboration with other offshore wind developers.

4. Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

4.1. Baseline characterization

4.1.1. Available information

Describe existing literature and datasets that are available for baseline characterization.

- Equinor Wind evaluated the extent to which existing and publicly available data sources were suitable for characterizing environmental resources in the relevant area, including evaluation of NYSERDA's Master Plan (2017).
- Equinor Wind will reference the NYSERDA Master Plan Marine Mammals and Sea Turtles Study (2017; Appendix L) to characterize baseline conditions. This study reviewed the available data and has provided summaries of "Best Available Data" in the form of comprehensive lists of datasets for marine mammals and sea turtles and notes that current studies will provide reliable species counts when they are complete.
- Equinor Wind will rely on additional studies to assess the impact of noise on marine mammals and sea turtles, as follows:
    - Popper, A.N., A.D. Hawkins, R.R. Fay, D. Mann, S. Bartol, T. Carlson, S. Coombs, W.T. Ellison, R. Gentry, M.B. Halvorsen, S. Lokkeborg, P. Rogers, B.L. Southall, D.G. Zeddies, and W.N. Tavolga. 2014. ASA S3/SC1.4 TR-2014 Sound Exposure Guidelines for Fishes and Sea Turtles: A Technical Report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI, ASA Press. This study found that sea turtles have fairly limited capacity to detect sound, although all results are based on a limited number of individuals and must be interpreted cautiously.
    - Limited research has shown that the upper limit of the hearing range of sea turtles is generally in the range of 1,000 to 1,200 hertz (Hz):
        - Tech Environmental, Inc. 2006. Final EIR Underwater Noise Analysis. Tech Environmental, Inc. (Report 5.3.2-2). Waltham, Massachusetts.
        - Martin, K.J., S.C. Alessi, J.C. Gaspard, A.D. Tucker, G.B. Bauer, and D.A. Mann. 2012. Underwater hearing in the loggerhead turtle (Caretta caretta): a comparison of behavioral and auditory evoked potential audiograms. The Journal of Experimental Biology 215:3001-3009
    - McCauley, R.D., J. Fewtrell, A.J. Duncan, C. Jenner, M.N. Jenner, J.D. Penrose, R.I.T. Prince, A. Adhitya, J. Murdoch, and K. McCabe. 2000. Marine seismic surveys: A study of environmental implications. Appea Journal 692-706. This study serves as the best available information on the levels of underwater noise that may produce a startle, avoidance, and/or other behavioral or physiological response in sea turtles.
    - Noise injury thresholds established by the Fisheries Hydroacoustic Working Group and adopted by NOAA Fisheries.

    - Some data covering several years of timeseries currently exists on the ambient underwater sound levels within or near to the lease area, collected from noise sensors installed by WCS as part of their 'Blue York' real-time whale monitoring buoy.
    - NOAA-established guidance for evaluating noise impacts, which defines harassment thresholds for broad categories of marine species.
- Equinor Wind will comply with BOEM's site characterization requirements in 30 C.F.R. § 585.626(3)
- In consultation with federal agencies, Equinor Wind has concluded that there are sufficient data to appropriately characterize and assess impacts to marine mammals and sea turtles in support of project development.

4.1.2. Data being collected

Describe data that is currently being collected or will be collected by other organizations, to support baseline characterization.

- Equinor Wind will rely on ongoing and active data collection efforts of:
    - NYSDEC, Schlesinger and Bonacci 2014, NYSERDA, WCS, and the Atlantic Marine Assessment Program for Protected Species ("AMAAPS") surveys (NOAA NEFSC 2017 and SEFSC 2016).
    - Data collected during NYSDEC's multi-year, monthly aerial survey data collection effort from March 2017 through February 2020.
    - NYSERDA quarterly digital aerial survey program to evaluate the NY Bight area and Empire Wind project area.
    - WCS/WHOI collection of near real-time acoustic observations of whale species, including North Atlantic right whale, sei whale, humpback whale and fin whale. The data buoy is also recording the ambient sound environment at the eastern end of the lease area.
    - Cornell University passive acoustic monitoring survey for 6 large whale species (right, fin, sei, blue, sperm, and humpback) in NY Bight.
    - AMAAPS effort is a collaborative study between NOAA, BOEM, USFWS, and the U.S. Navy, which will provide seasonal, spatially-explicit density estimates for marine mammals and sea turtles (and seabirds) in the western North Atlantic Ocean. Information is currently available from surveys conducted from 2010-2016.
    - Other data collection efforts include the Georgia Department of Natural Resources' focus on tagging right whales and Geographic Information Gateway, CetMap, and other efforts to collect spatial data

4.1.3. Additional data being collected by Equinor Wind to address data gaps

Describe additional data collected that will be collected by the Developer, to support baseline characterization and to address data gaps.

- The NYSERDA natural resources appendices identify recommendations for future studies; approaches to surveys and studies; and/or best management practices for mitigation. Equinor Wind has taken these recommendations into consideration as it has developed its studies for documenting baseline conditions, and in many cases have incorporated them.
- Equinor Wind is currently collecting baseline data, analyzing data from site specific surveys, conducting assessments and carrying out extensive consultation on baseline data, potential receptors and potential environmental impacts, with the intention to finalize the environmental impact assessments to inform spatial planning and in support of submission of State and Federal permit applications.
- Equinor Wind is in the process of completing the following assessments to support the baseline characterization:
    - Offshore site characterization surveys including, oceanographic and meteorological (metocean) measurements, geophysical and geotechnical investigations, sediment & water quality sampling, and benthic sampling;
    - Underwater acoustic modeling;
    - Sediment transport analysis;
    - Navigation Risk Safety Assessment;
    - Tourism and recreation;
    - Offshore cable burial risk assessments; and
    - Electromagnetic Field ("EMF") modeling.
- Equinor Wind contracted APEM supported by Normandeau to conduct monthly digital aerial surveys, which captures digital images and of marine mammals and sea turtles in addition to avian species, large fish assemblages and opportunistic vessel sightings.
    - The Avian Survey Protocol", which included marine mammals and sea turtles, was submitted and approved by BOEM and USFWS
        - Data and reports from past and future surveys will be made available at: https://remote.normandeau.com/ewind_overview.php
- Equinor Wind will use data and observations from Protected Species Observers (PSOs) onboard project related offshore survey vessels where appropriate. PSOs recorded observations from March 2018 to December 2018, and April 2019 to August 2019.
- Equinor Wind will consider installing additional passive acoustic receivers in addition to those deployed as part of the WCS/WHOI collaboration on the existing Metocean Facilities or standalone moorings should additional spatial and temporal marine mammal data be required to support pile driving assessments.

4.2. Species at risk

Describe which species Equinor Wind believes to be of greatest concern and why.

- Equinor Wind notes that 39 marine mammals and 5 sea turtles are known to occur within the waters of the NY Bight and the lease area. All 39 marine mammals are protected by the MMPA, and some are protected by the ESA or NY State Law.
- Full details of species at risk, likely impact and proposed mitigation will be described in the COP and consulted on with the relevant stakeholders, including in the presentation of this EMP in the E-TWG.

4.3. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases of Project development should be included. In addition, provide a description of the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within the development site exclusion zone during site assessment and construction (e.g., a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury or harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies Equinor Wind would use to reduce the amount of sound at the source, if any.

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Habitat/seafloor disturbance, resulting in potential loss of habitat or modification of prey resource	• See Section 6.2	X	X	X	X
Sediment suspension and deposition, resulting in potential modification to prey resource	• See Section 6.2	X	X	X	X
Underwater noise, resulting in potential for injury or disturbance of marine mammals and sea turtles	• GBS Foundations will be the foundation type to support wind turbines for the Empire Wind project. The use of GBS removes the need for percussive pile driving and is in itself a form of mitigation to reduce construction noise levels.	X	X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	• NOAA NMFS approved Protected Species Observers ("PSOs") and Passive Acoustic Monitoring System ("PAMS") as appropriate for exclusion zone monitoring pre and during survey equipment operation • Use of PSOs and PAMS as appropriate for exclusion zone monitoring for pile driving activities where relevant. • Soft starts to noise emitting survey equipment where technically feasible and appropriate. • Soft starts to percussive pile driving, should discrete foundation locations not be suitable to GBS, requiring alternative pile driven solutions. • Monitoring and applying exclusion zones as appropriate to the noise source and level and receptor, with noise sources and exclusion zones evidence based and determined by infield measurements and/or modeling where feasible and in consultation with relevant agencies and stakeholders. • Consideration of noise mitigating technologies and timing of practices as appropriate to further assessments, in the event that percussive pile driving is required at discrete turbine foundation locations and/or offshore substation foundations.				

Increased vessel traffic, resulting in potential for increased spills; air emissions and vessel strikes/collisions on mammals and sea turtles	• Use of exclusion/safety zones:
	  ○ Real-time monitoring systems as appropriate (e.g., visual observations by PSOs, passive acoustic monitoring, use of night vision and infrared during nighttime activities) to facilitate exclusion and monitoring zones for survey and construction vessels;
	  ○ NOAA NMFS approved PSOs and PAMS where appropriate for monitoring during vessel transits
	• Adopting a Service Operations Vessel ("SOV") concept for carrying out regular O&M activities (i.e., reduced transits to/from the onshore O&M base to/from the offshore wind energy area);
	• Equinor Wind empowers all personnel onboard a vessel to raise an alert of potential marine mammals and sea turtle risk via the Lead PSO, with the Lead PSO given full mandate for mitigation decisions.
	• Equinor Wind's vessel strike avoidance measures will (and have been) consistent with: (1) NOAA
		X	X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	NMFS guidance to avoid ship collision with marine mammals and sea turtles; (2) conditions within the lease area; (3) and any Incidental Take Authorizations issued by NOAA NMFS. • Vessel collision avoidance mitigation measures including: ○ Use of dedicated shipping lanes ○ Vessel operators and crew to maintain vigilant watch for cetaceans and pinnipeds, and slow down or stop their vessel to avoid striking these protected species ○ Vessel speed of 10 knots or less in Seasonal Management Area per NOAA guidance. This applies to all vessels operating from November 1 through April 30 ○ Reduction of speed to 10 knots or less if mammal identified near an vessel (within 330 ft/100 m) ○ Maintain separation distance of 1,640 ft or greater from North Atlantic right whale. If observed, must move away from whale at 10 knots or less until separation distance is achieved. If in vessels path, engines must not be engaged until it has moved outside path and beyond 330 ft/100m. ○ Maintain separation distance of 300 ft or greater from any sighted non-delphinoid cetacean. If sighted – follow similar procedures for siting North Atlantic right whale. ○ Maintain separation distance of 164 ft (50 m) or greater from any sighted delphinoid cetacean. If sighted – follow similar procedures for siting North Atlantic right whale. ○ Maintain a separation distance of 164 ft (50 m) or greater from any sighted pinniped ○ Maintain a separation distance of 164 ft (50 m) or greater from any sighted sea turtle • Will adopt vessel speed restrictions associated with seasonal management areas ("SMA") and dynamic management areas ("DMA") relevant to the size of the vessels used and other vessel strike avoidance measures; • Vessel crew members responsible for navigation duties have and will continue to receive site specific training on marine mammal sighting/reporting and vessel strike avoidance measures.				

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Electromagnetic Fields (EMF), resulting in potential disturbance to marine mammals/sea turtles and/or their prey resource	• Electrical cables to be armored and sufficiently buried where feasible to reduce EMF effects. • Surface cable protection where sufficient burial is not possible and where appropriate based on the cable Burial Risk Assessment (CBRA) and EMF assessments (acting as a further barrier between EMF and receptor). • Prey resource – see Section 6.3.			X	
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

4.4. Monitor for impacts during each phase

Describe how potential impacts will be monitored on these species during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

4.4.1. Pre/Post Monitoring to assess and quantify impacts and changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

- Equinor Wind will ideally target monitoring and research towards interactions between offshore wind energy developments and the receptors it is being judged against.
- Equinor Wind, in collaboration with WCS/WHOI will install two monitoring buoys to help to further understand the spatial and temporal distribution of the four large whale species within the Empire Wind project area, including potential for extending deployments to post construction monitoring.
- The WCS/WHOI buoys offer an opportunity for real-time monitoring and detection during survey and installation activities.
- Equinor Wind will explore the use of Habitat and Agent Based Modeling to facilitate a better understanding of the spatial and temporal distribution and fine scale movements of key large whale species within the New York Bight, in particular in relation to changes in environmental conditions (e. g prey resource, seawater temperature).
- Equinor Wind understands that from the outset, any research and monitoring to assess changes and impacts should be statistically robust. However, for some biological monitoring, this level of robustness is not always possible as many outside factors can influence these variations with much greater significance than the factors that can be attributed to causes from offshore wind energy developments (e.g., seawater temperature, nutrient levels, etc.). As such, Equinor Wind is open to sharing or using oceanographic data from the Metocean facilities for a better understanding of these relationships.

4.4.2. Address data gaps

Describe how data gaps will be addressed.

- Equinor Wind believes there is sufficient marine mammal and sea turtle data to inform spatial planning and support assessments in the COP and IHA applications. However, Equinor Wind is willing to collaborate on studies, research and monitoring to supplement what is required under the regulations, to inform mitigation options. For example, the collaboration with WCS/WHOI as described previously or deployment of passive acoustic sensors.
- Equinor Wind will engage with relevant stakeholders, for example through the regulatory process and E-TWG to identify areas where data gaps beyond the COP exist for further monitoring and research and will consider proposals for research on a case by case basis.

4.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

- Equinor Wind has not finalized a process for alternative protocols, but is open to exploring this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.
- Equinor Wind will take additional measures to avoid or reduce potential impacts to marine mammal and sea turtle prey resources in consultation with E-TWG and BOEM and other stakeholders, consistent with the E-MP.
- Equinor Wind will continue to consult with NOAA NMFS and other key stakeholders throughout the project development process in order to determine if any alternative or additional appropriate and proportionate mitigation measures may be necessary.
- All required mitigation and monitoring measures will be compiled into a single document: "Protected Species Mitigation Protocol," which will be updated as Equinor Wind continues its survey development activities in 2019 and forward.

Equinor Wind is open to consulting with relevant agencies, ENGOs and E-TWG on further appropriate and proportionate mitigation options, for example, real-time monitoring or observations of marine mammals when in transit and commitments to monitor daily reports on marine mammal sightings and DMAs.

5. Proposed Mitigation of Impacts to Birds and Bats

5.1. Baseline characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

5.1.1. Available information

Describe existing literature and datasets that are available for baseline characterization.

- Equinor Wind will follow BOEM guidelines on the baseline assessment of avian and bat species and potential impacts in support of the COP (30 C.F.R. § 585.626(a)(3)) and associated consultations under Section 7 be conducted with the USFWS.
- Equinor Wind will rely on the following information for its baseline characterization of birds:
- NYSERDA funded digital aerial avian surveys covering the Lease Area over four quarterly surveys and the Offshore planning Area (OPA) over twelve quarterly surveys (data have been combined with Equinor's surveys for species abundance modelling). Data and reports are also publicly available on https://remote.normandeau.com/nyserda_overview.php
- Information on threatened and endangered species and/or their habitat is also available through USFWS IPaC https://ecos.fws.gov/ipac/
- NYSDEC Environmental Resource Mapper https://www.dec.ny.gov/animals/38801.html
- Kinlan, B.P., Menza, C., & F. Huettmann. 2012. Predictive Modeling of Seabird Distribution Patterns in the New York Bight. Chapter 6 in "A biogeographic assessment of seabirds, deep sea corals and ocean habitats of the New York Bight: science to support offshore spatial planning." NOAA Technical Memorandum NOS NCCOS 141 (2012).
- NYSERDA 2010a. Pre-development of avian species for the proposed Long Island – New York City Offshore Wind Project Area. Final Report prepared for the New York State Energy Research and Development Authority. October 2010.
- Kinlan, B.P., Winship, A.J., White, T.P., & J. Christensen. 2016. Modeling At-Sea Occurrence and Abundance of Marine Birds to Support Atlantic Marine Renewable Energy Planning: Phase I Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Sterling, VA. OCS Study BOEM 2016-039. xvii+113 pp. Available at https://www.data.boem.gov/PI/PDFImages/ESPIS/5/5512.pdf .
- NYSERDA 2017. New York State Offshore Wind Master Plan, November 2017. https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-NewYork-State-Overview/NYS-Offshore-Wind-Master-Plan
- Studies funded by BOEM on baseline offshore and nearshore avian studies:

    - Paton, P., K. Winiarski, C. Trocki, and C. McWilliams. 2010. Spatial Distribution, Abundance and Flight Ecology of Birds in Nearshore and Offshore Waters in Rhode Island. Chapter 11a in: Rhode Island Ocean Special Area Management Plan (Ocean SAMP) Volume 2. University of Rhode Island, Kingston, RI. 304pp.
    - Veit, R.R., T.P. White, S.A. Perkins, and S. Curley. 2016. Abundance and Distribution of Seabirds off Southeastern Massachusetts, 2011-2015. U.S. Department of the Interior, Bureau of Ocean Energy Management, Sterling, Virginia. OCS Study BOEM 2016-067. 82 pp.
    - Williams, K.A, I.J. Stenhouse, E.E. Connelly, and S.M. Johnson. 2015. Mid-Atlantic Wildlife Studies: Distribution and Abundance of Wildlife along the Eastern Seaboard 2012-2014. Biodiversity Research Institute. Portland, Maine. Science Communications. Series BRI 2015-19. 32 pp.
- NJDEP 2010a. Ocean/Wind Power Ecological Baseline Studies, Final Report, January 2008December 2009. New Jersey Department of Environmental Protection Office of Science. https://www.nj.gov/dep/dsr/ocean-wind/report.htm
- Cetacean and Seabird Assessment Program (CSAP) database of bird observations from 1980-1988
- Rhode Island Block Island Wind Farm and the Massachusetts Cape Wind Project baseline assessment data
- Carbon Trust ORJIP One Bird Collision Avoidance Study co-funded by Equinor - Skov, H., Heinanen, S. Norman, T., Ward, R.M., Mendez-Roldan, S & Ellis, I. 2018. ORJIP Bird Collision and Avoidance Study. Final Report- Aprl 2018. The Carbon Trust. United Kingdom. 247 pp. https://www.carbontrust.com/media/675793/orjip-bird-collision-avoidance-study_april2018.pdf
- Equinor Wind will rely on the following existing information for its baseline characterization of bats:
    - NYSDEC. 2015a. List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State. New York State Department of Environmental Conservation. Available at http://www.dec.ny.gov/animals/7494.html. NYSDEC. 2015b. New York State Wildlife Action Plan (SWAP) Species of Greatest Conservation Need. http://www.dec.ny.gov/animals/7179.html
    - NYSERDA 2017. New York State Offshore Wind Master Plan, November 2017. https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-NewYork-State-Overview/NYS-Offshore-Wind-Master-Plan

5.1.2. Data being collected

Describe data that is currently being collected or will be collected by other organizations, to support baseline characterization.

- Currently there are no third-party surveys for avian and bats underway over the Empire Wind project site. Details of surveys that have been performed are covered in Section 5.1.1 and surveys that have or are currently being performed by Equinor Wind are in Section 5.1.3.

5.1.3. Additional data being collected by Equinor Wind to address data gaps

Describe additional data collected that will be collected by the Developer, to support baseline characterization and to address data gaps.

- Equinor Wind has or is in the process of completing the following assessments, which will consist of both desktop and/or field surveys:
    - Equinor Wind contracted APEM supported by Normandeau to conduct monthly digital aerial surveys from November 2017 to October 2018, with monthly results, monthly reports and quarterly and final reports made publicly available on the following webpage: https://remote.normandeau.com/ewind_overview.php.

APEM and the methodology chosen was similar to the approach taken by NYSERDA having used APEM and these methods to conduct quarterly digital aerial surveys over the New York Bight and lease area. A summary of the scope of the digital aerial survey is as follows:

- Surveys conducted once per month over a 12-month period;
- Image resolution at sea surface of 1.5 cm ground sampling distance ("GSD");
- Grid survey design;
- Grid imagery footprint of 310 m by 219 m;
- A 2.5-mi (4 km) buffer around the lease area;
- Minimum of 20% of the lease area and buffer imaged, with 10% of area analyzed;
- Monthly results displayed online; and
- Monthly, quarterly and annual reporting, also provided online.

The assessment approach and methods were designed to supplement the substantial body of existing data and to meet BOEM's data requirements for site characterization studies to evaluate the potential effects of the proposed project. In addition, the supplemental quarterly digital aerial surveys conducted by APEM Ltd. on behalf of NYSERDA provide an excellent spatial and temporal characterization of the lease area.

- The Empire Wind "Avian Survey Protocol" survey plan, which included marine mammals and sea turtles, was submitted and approved by BOEM and USFWS
- Equinor Wind installed a passive bat detector onboard the survey vessel RV Ocean Researcher to detect passing bats while the vessel was engaged in other survey activity in the lease area from April 2018 through December 2018.
    - Equinor Wind will share the results of the monitoring with the relevant regulatory authorities and stakeholders, and consider whether there is a further need to collect additional site-specific data offshore.

5.2. Species at risk

Describe which species the Empire Wind believes to be of greatest concern and why.

- The lease area provides habitat for approximately 40 waterbird species, including seaducks, loons, gulls, scoters, terns, alcids, gannets, and shorebirds (NYSERDA 2010a, Kinlan et al. 2012, Kinlan et al. 2016, NYSERDA 2017d).
- Full details of avian species at risk, likely impact and proposed mitigation will be described in the COP and consulted on with the relevant stakeholders, including in presentation of this EMP at the E-TWG.
- Equinor Wind identified the following bats with the greatest potential to migrate through the lease area on their way between breeding and wintering grounds in the spring and fall:
    - eastern red bat,
    - hoary bat, and
    - silver-haired bat.
- Equinor Wind will follow BOEM guidelines and use the Mid-Atlantic Ocean Data Portal's data of temporal use, abundance, and species distribution by avian species or groups in the lease area. The modeling data can also be used to potentially identify species that are high risk for collision or displacement, and species that are protected by federal and/or state laws.

5.3. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps the Empire Wind will pursue to minimize risk to birds and bats (e.g. lighting); and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time.

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Collision risk to marine birds and bats	• Minimum lower blade tip height above sea surface of 85 ft (26 m) to reduce the risk of seabird collisions within the lower flight height bands.			X	
Impacts from accidental oil spills from project related vessels or structures	• Preparation of an Oil Spill Readiness Plan		X	X	X
Habitat impacts onshore and offshore, including disturbance and displacement	• Sympathetic lighting of onshore and offshore structures, vessels and plant to minimize disturbance and displacement;		X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	• Trenchless cable installation methods for the export cable at landfall and onshore to avoid sensitive areas (for example dune areas, beaches); • Consideration of measures for discouraging and/or provision of alternative roosting; • Considerate vessel movements in the vicinity of rafting bird; and • Limiting onshore land disturbance measures to non-nesting seasons for sensitive species (time-of-year restrictions).				
Changes to prey resources	• See Section 6.3	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

5.4. Monitor for impacts during each phase

Describe how potential impacts will be monitored on these species during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

5.4.1. Pre/Post Monitoring to assess and quantify changes

Describe how changes to environmental resources will be quantified using statistically sound methods

- Equinor Wind believes that monitoring of highly mobile species such as birds should focus on behavioral responses rather than pre-, during and post construction monitoring of abundance, which may not always have robust statistical power to identify change as a direct result of the wind farm.
- Should further monitoring of birds be required, for example for Roseate terns, then Equinor Wind is willing to explore monitoring through novel techniques such as GPS tagging exercises, subject to approvals from the relevant regulatory agencies.
- Equinor Wind will continue desktop studies and stakeholder discussions for avian and bat species. During field studies, Equinor Wind will complete appropriate surveys to further characterize the project area and determine presence/absence of habitat within proposed project activities
- Impacts to avian and bat species will be sufficiently examined as part of BOEM's NEPA process as part of the COP, through state permitting processes and in consultation with USFWS and relevant stakeholders, and that, where appropriate, mitigation will be implemented to reduce impacts to as low as practicable.

5.4.2. Address data gaps

Describe how data gaps will be addressed.

- Equinor Winds notes that further research and monitoring is important where data and knowledge gaps remain that present uncertainties over potential significant adverse impacts attributable to the effects of offshore wind farm development.
- Equinor Wind will engage with relevant stakeholders, for example through the regulatory process and E-TWG to identify areas where data gaps may exist for further monitoring and research and will consider proposals for research on a case by case basis.

5.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted birds and bats in an alternative location.

- Equinor Wind has yet to finalize a process for alternative protocols, but is open to exploring this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.

6. Proposed Mitigation of Impacts to Fish, Invertebrates, and their Habitats

6.1. Baseline characterization

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

6.1.1. Available information

Describe existing literature and datasets that are available for baseline characterization.

- Public data sources are suitable for characterizing benthic habitat and fisheries resources in the project area, including:
  - The evaluation of NYSERDA's Master Plan Fish and Fisheries Study (2017; Appendix J).
  - NOAA National Centers for Coastal Ocean Science and BOEM Comprehensive Seafloor Substrate Mapping and Model Validation in the Atlantic (2019).
  - Estuarine Living Marine Resource database (NOAA 2000) provide descriptions of spatial and temporal distributions of species (by life stage) in Hudson River/Raritan Bay and the Great South Bay, however, the database is not updated regularly.
  - Use of commercial and recreational fisheries effort data as a proxy for fish species.

6.1.2. Data being collected

Describe data that is currently being collected or will be collected by other organizations, to support baseline characterization.

- NOAA National Centers for Coastal Ocean Science and BOEM Comprehensive Seafloor Substrate Mapping and Model Validation in the Atlantic research/survey collected sediment grab samples at 400 locations in the lease area, as well as bathymetric data and opportunistic fisheries data.
- BOEM funded studies carried out by Stony Brook University, including arrays of fish tag receiver moorings in the Empire Wind lease area and extending towards Raritan Bay, which will provide more details on the spatial and temporal distribution of Atlantic sturgeon.

6.1.3. Additional collected by the Developer to address data gaps

Describe additional data collected that will be collected by the Developer, to support baseline characterization and to address data gaps.

- Equinor Wind commissioned benthic sampling in 2018 by Gardline Environmental covering the entire Lease Area and building on previous comprehensive benthic surveys carried out by NOAA's National Center for Coastal Ocean Science (NOS). These Equinor Wind surveys were conducted at a total of 67 sample stations, and included grab samples, drop down digital video and stills imagery. Grab samples were analyzed for sediment grain size distribution and macro faunal analysis. This report will be made publicly available for download from the Empire Wind website.
- Equinor Wind commissioned, benthic sampling was conducted in 2019 by Inspire Environmental, covering all of the proposed potential export cable routes for the Lease Area, including the proposed Gowanus export cable route for the Empire Wind project. Sampling included Sediment Profile Imaging (SPI) and Plan View (PV) imaging at 157 sample stations, with 15 reference stations and sediment grab samples for sediment grain size analysis and macrofaunal analysis for verification. This report will be made publicly available for download from the Empire Wind website.
- Geophysical, benthic habitat (through geophysical interpretation), and geotechnical surveys from March 2018 to November 2018 across the entire Lease Area and export cable corridors, with additional geophysical and geotechnical surveys carried out in 2019 to fill in data gaps and cover areas from landfall to the 65 ft (20 m) depth contour.
- With the site specific and existing benthic data, and the existing fisheries data, there is sufficient data for the purpose of the COP impact assessments, spatial planning and/or mitigation. However, Equinor Wind will consult with E-WTG and relevant federal agencies and stakeholders on requirements for further surveys for targeted benthic and fisheries monitoring and research.

6.2. Species at risk

Describe which species the Empire Wind believes to be of greatest concern and why.

- Equinor Wind notes that fish and invertebrate species of interest in the lease area fall into three groups based on regulatory status: (1) species managed under the MSA; (2) species listed under the ESA; and (3) non-game fish and invertebrate species that are considered important prey (or shelter, in the case of biogenic habitats) for fish and wildlife.
- In addition, the role of the benthic habitat as a fisheries resource is fundamental to the identification of essential fishing habitat (EFH), as reflected in the emphasis on EFH in BOEM's benthic survey guidance (BOEM 2013a). EFH has been designated in the lease area for various life stages of more than two dozen nonmigratory managed species, including finfish, sharks and rays, and invertebrates.
- Designated EFH for three (3) coastal migratory pelagic and seventeen (17) highly migratory managed fish species also occurs in the lease area.
- Three federally-listed endangered fish may occur in the lease area:
    - Atlantic salmon (*Salmo salar*);
    - the Atlantic sturgeon (*Acipenser oxyrinchus*); and

- shortnose sturgeon (*Acipenser brevirostrum*).

- NYSDEC lists a number of other fish species as endangered, most if not all, are associated with fresh water habitat which will be evaluated, as applicable to the export cable route.
- Full details of species at risk, likely impact and proposed mitigation will be described in the COP and consulted on with the relevant stakeholders, including in presentation of this EMP at the E-TWG.

6.3. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how the Developer will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment).

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Physical disturbance and habitat loss, including sensitive habitats	• Avoid, to the extent possible, siting structures (e.g. offshore wind turbine foundations) in areas of sensitive benthic habitat. • Include NOAA NMFS in survey plan review in coordination with BOEM to address potential impacts to threatened or endangered species Avoid, to the extent possible, sensitive benthic habitats through the planning of routing export cable corridors. • Bury wind farm electrical cables to sufficient depth to minimize surface protection requirements that modify the existing conditions. • Apply real time measures to avoid intrusive sampling of sensitive habitats, using drop down cameras. • Appropriate and reasonable use of foundation scour protection where needed as identified in modelling. • Will calculate extent of potential habitat loss as part of COP assessments and share results with E-TWG and other working groups	X	X	X	X
Exposure to underwater noise	• Selection of gravity-based substructure (GBS) foundations as the primary foundation type, which do not require percussive pile driving during foundation installation • If pile driving is used, then a "soft start" will be applied at the startup of piling. • If pile driving is used then potential use of noise reducing technologies if deemed	X	X		X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	required by regulators as appropriate to the impacts, and subject to being commercially and technically available.				
Increased suspended sediment concentration and impacts to water quality	• Apply best management practices and timing during cable installation to minimize sediment suspension and dispersal during sensitive periods (e.g. certain spawning events). • Will undertake sediment transport modeling to quantify sediment concentrations and affected areas for COP assessments, which will be shared with E-TWG and F-TWG. • Use of scour protection around wind turbine foundations as appropriate to reduce sediment resuspension. • Avoid routing the export cable corridor through existing and historic dumping grounds. •		X	X	X
Exposure to accidental spills, pollution, or trash from project related vessels	• Using industry Best Practices for vessel operation, and implementing an Oil Spill Response Plan ("OSRP").	X	X	X	X
Potential exposure to Electromagnetic Fields (EMF)	• Cables will be armored. • Cables will be buried to sufficient depths (for a variety of reasons), to the extent possible. • If sufficient burial is not feasible, potential for further barriers through surface cable protection. • Conduct EMF modeling and assessments to identify potential mitigation requirements. • Post construction surveys at an appropriate interval to monitor for exposed cables.			X	
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

6.4. Monitor for impacts during each phase

Describe how potential impacts will be monitored on these types of fish and invertebrates during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

6.4.1. Pre/Post Monitoring to assess and quantify changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

- Equinor Wind understands that from the outset, any research and monitoring to assess changes and impacts should be statistically robust. However, for some biological monitoring, this level of robustness to adequately detect change as a direct result of an offshore wind farm is not always possible as many outside factors can influence these variations with much greater significance than the factors that can be attributed to causes from offshore wind energy developments (e.g., seawater temperature, nutrient levels, etc.).
- As such, Equinor Wind is open to monitoring that explore other approaches to detect and quantify change, where further monitoring is appropriate, for example behavioral responses. Equinor Wind will work with the regulatory agencies, E-TWG and relevant stakeholders to identify research and monitoring needs and agree on methodology.

6.4.2. Address data gaps

Describe how data gaps will be addressed.

- Equinor Wind will conduct further research and monitoring where data and knowledge gaps remain that present uncertainties over potential significant adverse impacts attributable to the effects of offshore wind farm development.
- Equinor Wind is open to discussing further monitoring and research to fill data gaps as appropriate through regulatory agencies, E-TWG and relevant stakeholders.

6.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- Equinor Wind has yet to finalize a process for alternative protocols, but is open to exploring this further in consultation with the E-TWG, regulatory agencies and relevant stakeholders.

7. Project Decommissioning

7.1. Potential impacts on marine wildlife, birds, bats, and fisheries

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

- Equinor Wind does not expect impacts form decommissioning to exceed impacts resulting from the worst-case scenarios associated with construction.
- As monitoring during operations provides a better understanding of the spatial and temporal presence of marine mammals, sea turtles, birds, bats, and fish habitats within the lease area, mitigation measures can be more tailored and effective at further reducing the likelihood and level of impacts.
- Equinor Wind will collaborate on further research into the effects and potential impacts associated with decommissioning, including coordination with the E-TWG and F-TWG, using the experiences in Europe to help inform that process as well as experiences from decommissioning of oil and gas installations and other offshore wind developments on the eastern seaboard of the United States.

7.2. Approach for developing a decommissioning plan and coordination with stakeholders

This section should describe how a decommissioning plan will be developed to identify and mitigate potential impacts, including coordination with stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage.

- Equinor Wind has and will continuously evaluate and evolve this EMP so that all the components of the EMP are complete and sufficient, including the decommissioning plan.
- Equinor Wind expects that additional guidance and information will become available throughout the planning and regulatory process and as such will continue to consider its relevance to the EMP at the appropriate intervals.

8. Additional Considerations

8.1. Additional mitigation strategies and EMP refinement

This section should describe any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the environment. In addition, describe how the EMP will be updated and refined based on additional information and stakeholder feedback.

- Equinor Wind will continue to monitor new and novel approaches to mitigation in the offshore wind industry both in the US and from Equinor's existing offshore wind farms and developments elsewhere in the world, including the forums and networks Equinor Wind is present.
- Equinor Wind is open to collaborative research on potential mitigation strategies, with other developers, agencies and stakeholders.

8.2. Process for updating the EMP

This section should describe how feedback from the fishing industry stakeholders, F-TWG, and other agencies and working groups will be incorporated and updated in the EMP.

- Equinor Wind has and will continuously evaluate and evolve this EMP so that all the components of the EMP are complete and sufficient.
- Equinor Wind expects that additional guidance and information will become available throughout the planning and regulatory process and as such will continue to consider its relevance to the EMP at the appropriate intervals.

EXHIBIT G

FORM OF GUARANTY

THIS GUARANTY is dated and effective as of _____ (as amended, restated or modified from time to time, the "Guaranty"), and is made by _____, a _____ organized under the laws of the _____ (the "Guarantor"), in favor of the New York State Energy Research and Development Authority ("NYSERDA"), a New York public benefit corporation, having a principal business address of 17 Columbia Circle, Albany, New York 12203. All capitalized terms used and not otherwise defined herein shall have the meanings ascribed to them in the Agreement.

WHEREAS, pursuant to an Offshore Wind Renewable Energy Certificate Standard Form Purchase and Sale Agreement dated as of _____ (the "Agreement") by and between _____, a _____ organized under the laws of the _____ (the "Seller"), and NYSERDA, the Seller has agreed sell to NYSERDA and NYSERDA has agreed to purchase from Seller certain renewable energy certificates ("ORECs"), as more specifically set forth in the Agreement; and

WHEREAS, in order to induce NYSERDA to purchase the ORECs, and with full knowledge that NYSERDA would not purchase the ORECs without this Guaranty, Guarantor has agreed to execute and deliver this Guaranty to NYSERDA, for the benefit of NYSERDA, as security for Seller's performance of certain of its obligations under the Agreement;

WHEREAS, Guarantor is a _____ of Seller and will significantly benefit from NYSERDA's purchase of the ORECs from the Seller; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the parties hereinafter set forth and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties each intending to be legally bound, hereby do agree as follows:

1. <u>GUARANTY</u>.

(a) Guarantor irrevocably, absolutely and unconditionally guarantees to NYSERDA the full and prompt payment no later than two (2) business days following written demand by NYSERDA, of an amount in U.S. dollars equal to the Contract Security that (i) is calculated in accordance with Sections 15.01 and 15.02 of the Agreement, and (ii) NYSERDA is entitled to retain or, in the event that Contract Security is provided in the form of an Acceptable Guaranty, to receive, in accordance with Section 15.07 of the Agreement (the "Guaranteed Obligations").

(b) Guarantor understands, agrees and confirms that NYSERDA may enforce this Guaranty up to the full amount of the Guaranteed Obligations against Guarantor without proceeding against Seller or under any other guaranty covering all or a portion of the Guaranteed Obligations. This Guaranty is a guaranty of prompt payment and performance and not of collection.

(c) The aggregate amount covered by this Guaranty shall not exceed [_____] (the "Guaranty Capped Value").

2. LIABILITY OF GUARANTOR ABSOLUTE. The liability of Guarantor hereunder is primary, absolute and unconditional and is exclusive and independent of any security for or other guaranty of the obligations of Seller whether executed by Guarantor, any other guarantor or by any other party, and the liability of Guarantor hereunder shall not be affected or impaired by any circumstance or occurrence whatsoever, including, without limitation: (a) any other continuing or other guaranty, undertaking or maximum liability of Guarantor or of any other party as to the Guaranteed Obligations, (b) any payment on or in reduction of any such other guaranty or undertaking, (c) any dissolution, termination or increase, decrease or change in personnel by Seller, (d) the failure of either Guarantor to receive any benefit from or as a result of its execution, delivery and performance of this Guaranty, (e) any payment made to NYSERDA pursuant to the Agreement that NYSERDA repays Seller pursuant to court order in any bankruptcy, reorganization, arrangement, moratorium or other debtor relief proceeding, and Guarantor waives any right to the deferral or modification of its obligations hereunder by reason of any such proceeding, (f) any action or inaction by NYSERDA as contemplated in Section 5 hereof, (g) any invalidity, rescission, irregularity or unenforceability of all or any part of the Guaranteed Obligations, (h) any statute of limitations affecting its liability hereunder or the enforcement thereof, which Guarantor hereby waives to the fullest extent permitted by applicable law, (i) any law that provides that the obligation of a guarantor must neither be larger in amount or in other respects more burdensome than that of the principal or that reduces a guarantor's obligation in proportion to the principal obligation, (j) any bankruptcy, insolvency, reorganization, arrangement, readjustment of debt, liquidation or dissolution proceeding commenced by or against any Person, including without limitation any discharge of, or bar or stay against collecting, all or any of the Guaranteed Obligations in or as a result of any such proceeding, (k) any extension of credit or the grant of any lien under Section 364 of the United States Bankruptcy Code, or (l) the application or non-application of Section 1111(b)(2) of the United States Bankruptcy Code.

3. REPRESENTATIONS, WARRANTIES, AND COVENANTS OF GUARANTOR. In order to induce NYSERDA to enter into the purchase of ORECs pursuant to the Agreement, Guarantor represents, warrants and covenants that:

(a) Guarantor (i) is a duly organized and validly existing corporation, partnership or limited liability company, as the case may be, in good standing under the laws of the jurisdiction of its organization and (ii) has the corporate, trust, partnership or limited liability company power and authority, as the case may be, to own its property and assets and to transact the business in which it is engaged and presently proposes to engage;

(b) Guarantor has the corporate, trust, partnership or limited liability company power and authority, as the case may be, to execute, deliver and perform the terms and provisions of this Guaranty and has taken all necessary corporate, trust, partnership or limited liability

company action, as the case may be, to authorize the execution, delivery and performance by it of this Guaranty;

(c) Guarantor has duly executed and delivered this Guaranty, and this Guaranty constitutes the legal, valid and binding obligation of such Guarantor enforceable in accordance with its terms;

(d) neither the execution, delivery or performance by Guarantor of this Guaranty, nor compliance by it with the terms and provisions hereof, will (i) contravene any provision of any applicable law, statute, rule or regulation or any applicable order, writ, injunction or decree of any court or governmental instrumentality or (ii) conflict with, violate or result in any breach of any of the terms, covenants, conditions or provisions of, or constitute a default under any agreement, contract or instrument to which Guarantor is a party, except where non-compliance would not reasonably be expected to have a material adverse effect upon the legality, validity, binding effect or enforceability against Guarantor of this Guaranty; and

(e) no order, consent, approval, license, authorization or validation of, or filing, recording or registration with (except as have been obtained or made prior to the date when required and which remain in full force and effect), or exemption by, any governmental or public body or authority, or any subdivision thereof, is required to authorize, or is required in connection with, (i) the execution, delivery and performance of this Guaranty by such Guarantor or (ii) the legality, validity, binding effect or enforceability of this Guaranty, in each case, except where non-compliance would not reasonably be expected to have a material adverse effect upon the legality, validity, binding effect or enforceability against Guarantor of this Guaranty.

4. WAIVERS BY GUARANTOR.

(a) Guarantor hereby waives to the fullest extent permitted by applicable law notice of acceptance of this Guaranty and notice of the existence, creation or incurrence of any new or additional liability to which it may apply, and waives promptness, diligence, presentment, demand of payment, demand for performance, protest, notice of dishonor or nonpayment of any such liabilities, suit or taking of other action by NYSERDA against, and any other notice to, any party liable thereon (including Guarantor, any other guarantor or Seller) and Guarantor further hereby waives any and all notice of the creation, renewal, extension or accrual of any of the Guaranteed Obligations and notice or proof of reliance by NYSERDA upon this Guaranty, and the Guaranteed Obligations shall conclusively be deemed to have been created, contracted or incurred, or renewed, extended, amended, modified, supplemented or waived, in reliance upon this Guaranty.

(b) Guarantor waives any right to require NYSERDA to: (i) proceed against Seller, any other guarantor of the Guaranteed Obligations or any other party; (ii) file or enforce a claim in any bankruptcy or other proceeding with respect to any person; and (iii) pursue any remedy in NYSERDA's power whatsoever. Guarantor waives any defense based on or arising out of any defense of Seller, any other guarantor of the Guaranteed Obligations or any other party other than payment in full in cash of the Guaranteed Obligations, including, without limitation, any

defense based on or arising out of the disability of Seller, any other guarantor of the Guaranteed Obligations or any other party, or the unenforceability of the Guaranteed Obligations or any part thereof from any cause, or the cessation from any cause of the liability of Seller other than payment in full in cash of the Guaranteed Obligations. NYSERDA may, at its election, exercise any right or remedy it may have against Seller or any other party, or any security, without affecting or impairing in any way the liability of any Guarantor hereunder except to the extent the Guaranteed Obligations have been paid in full in cash. Guarantor waives any defense arising out of any such election by NYSERDA, even though such election operates to impair or extinguish any right of reimbursement, contribution, indemnification or subrogation or other right or remedy of Guarantor against Seller, any other guarantor of the Guaranteed Obligations or any other party or any security.

(c) Guarantor has knowledge and assumes all responsibility for being and keeping itself informed of Seller's affairs and assets and of all other circumstances bearing upon the likelihood of events giving rise to NYSERDA's right to retain the amounts of the Contract Security in accordance with the terms of the Agreement, and has adequate means to obtain from Seller on an ongoing basis information relating thereto and Sellers ability to perform its obligations under the Agreement, and agrees to assume the responsibility for keeping, and to keep, so informed for so long as this Guaranty is in effect.

(d) Guarantor warrants and agrees that each of the waivers set forth in Section 2 and in this Section 4 is made with full knowledge of its significance and consequences and that if any of such waivers are determined to be contrary to any applicable law or public policy, such waivers shall be effective only to the maximum extent permitted by applicable law.

5. RIGHTS OF NYSERDA. NYSERDA may at any time and from time to time without the consent of, or notice to, Guarantor, without incurring responsibility to Guarantor, without impairing or releasing the obligations or liabilities of Guarantor hereunder, upon or without any terms or conditions and in whole or in part:

(a) change the manner, place or terms of payment of the Contract Security pursuant to the terms of the Agreement, which may have the effect of changing the amount of the Guaranteed Obligations, and the guaranty herein made shall apply to the Guaranteed Obligations as so changed; provided that in no event shall the amount exceed the Guaranty Capped Value;

(b) exercise or refrain from exercising any rights against Seller, any other guarantor of Seller or others or otherwise act or refrain from acting;

(c) consent to or waive any breach of, or any act, omission or default under, the Agreement or any of the instruments or agreements referred to therein, or otherwise amend, modify or supplement the Agreement or any of such other instruments or agreements;

(d) act or fail to act in any manner which may deprive Guarantor of its right to subrogation against Seller to recover full indemnity for any payments made pursuant to this Guaranty; and/or

(e) take any other action or omit to take any other action which would, under otherwise applicable principles of common law, give rise to a legal or equitable discharge of Guarantor from its liabilities under this Guaranty (including, without limitation, any action or omission whatsoever that might otherwise vary the risk of such Guarantor or constitute a legal or equitable defense to or discharge of the liabilities of a guarantor or surety or that might otherwise limit recourse against such Guarantor).

6. CONTINUING GUARANTY. This Guaranty is a continuing one and all liabilities to which it applies or may apply under the terms hereof shall be conclusively presumed to have been created in reliance hereon. No failure or delay on the part of NYSERDA in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein expressly specified are cumulative and not exclusive of any rights or remedies that NYSERDA would otherwise have. No notice to or demand on Guarantor in any case shall entitle Guarantor to any other further notice or demand in similar or other circumstances or constitute a waiver of the rights of NYSERDA to any other or further action in any circumstances without notice or demand.

7. EXPENSES. Guarantor hereby agrees to pay all reasonable out-of-pocket costs and expenses of NYSERDA in connection with the enforcement of this Guaranty and the protection of NYSERDA's rights hereunder and any amendment, waiver or consent relating hereto (including, in each case, without limitation, the reasonable out-of-pocket fees and disbursements of counsel employed or retained by NYSERDA).

8. BENEFIT AND BINDING EFFECT. This Guaranty shall be binding upon Guarantor and its successors and assigns and shall inure to the benefit of NYSERDA and its successors and assigns.

9. AMENDMENTS; WAIVERS. Neither this Guaranty nor any provision hereof may be changed, waived, discharged or terminated except with the written consent of Guarantor directly affected thereby and with the written consent of NYSERDA.

10. NOTICE. All notices and other communications shall be in writing and addressed to such party at (a) in the case of NYSERDA, as provided in the Agreement, and (b) in the case of Guarantor, at its address set forth opposite its signature page below; or in any case at such other address as any of the Persons listed above may hereafter notify the others in writing.

11. CONSENT TO JURISDICTION; SERVICE OF PROCESS.

(a) This Guaranty shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts executed and to be performed in New York State without regard to its conflicts of laws principles. The parties irrevocably acknowledge and accept that all actions arising under or relating to this Guaranty shall be brought exclusively in a United States District Court or New York State Court located in Albany, New York having subject matter jurisdiction over such matters, and each of the Parties hereby consents to and accepts such personal jurisdiction of, and waives any objection as to the laying of venue in, such courts for purposes of such action. Guarantor further irrevocably consents to the service of process out of any of the aforementioned courts in any such action or proceeding by the mailing of copies

thereof by registered or certified mail, postage prepaid, to Guarantor at its address set forth opposite its signature below, such service to become effective 30 days after such mailing. Guarantor hereby irrevocably waives any objection to such service of process and further irrevocably waives and agrees not to plead or claim in any action or proceeding commenced hereunder that such service of process was in any way invalid or ineffective. Nothing herein shall affect the right of NYSERDA to serve process in any other manner permitted by law or to commence legal proceedings or otherwise proceed against Guarantor in any other jurisdiction.

(b) Guarantor hereby irrevocably waives (to the fullest extent permitted by applicable law) any objection that it may now or hereafter have to the laying of venue of any of the aforesaid actions or proceedings arising out of or in connection with this Guaranty brought in the courts referred to in Section11(a) above and hereby further irrevocably waives and agrees not to plead or claim in any such court that such action or proceeding brought in any such court has been brought in an inconvenient forum.

(c) GUARANTOR AND NYSERDA (BY ITS ACCEPTANCE OF THE BENEFITS OF THIS GUARANTY) HEREBY IRREVOCABLY WAIVES ALL RIGHTS TO A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS GUARANTY OR THE TRANSACTIONS CONTEMPLATED HEREBY.

12. COUNTERPARTS. This Guaranty may be executed in any number of counterparts and by the parties hereto on separate counterparts, each of which when so executed and delivered shall be an original, but all of which shall together constitute one and the same instrument.

IN WITNESS WHEREOF, Guarantor has caused this Guaranty to be executed and delivered as of the date first above written.

Address:

_____

as Guarantor

By:_____

Name:

Title:

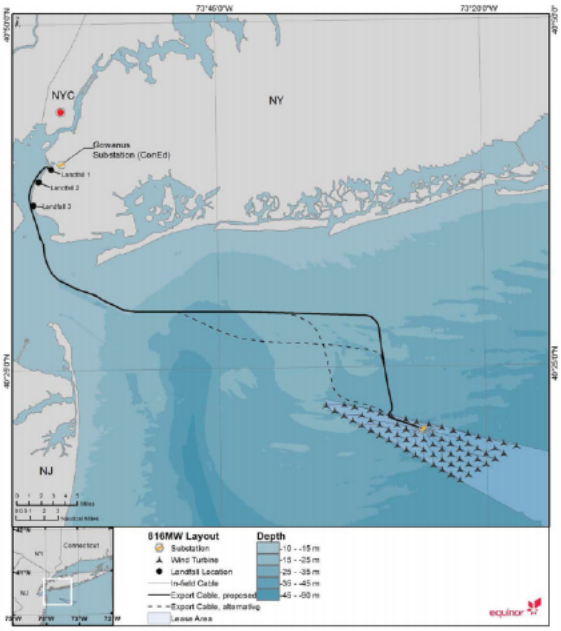
Accepted and Agreed to:

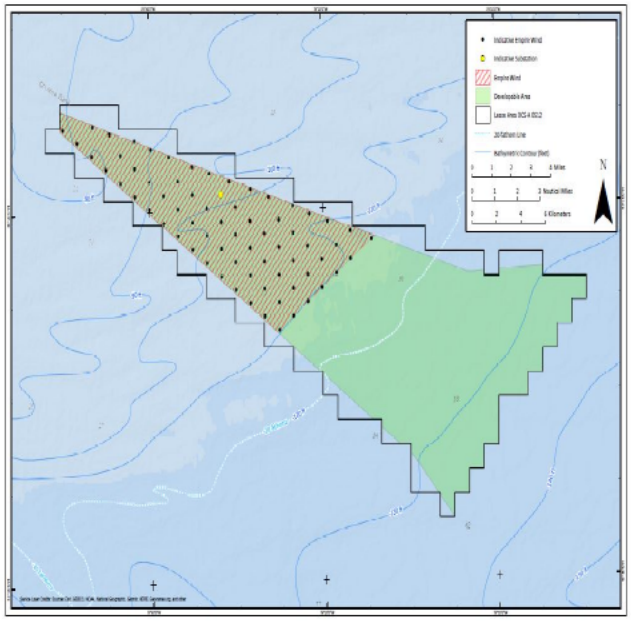
NYSERDA

EXHIBIT H

DESCRIPTION OF SELECTED PROJECT

Selected Project: Those turbines, identified below and with the attributes described herein, owned or controlled by Seller [redacted] and designated by Seller to be included in the Selected Project, and related equipment necessary to deliver electric energy to the Delivery Point. Seller shall update the facility descriptions contained in this Exhibit H from time to time in accordance with the terms herein; provided, however, that any change to the Site Perimeter shall be made in accordance with Section 12.09 of this Agreement, and any change to the Offer Capacity shall be made in accordance with Section 15.07(b) of this Agreement.





Turbine	Serial Number	Turbine	Serial Number	Turbine	Serial Number
[redacted]					

[redacted]

Delivery Point: ConEdison Gowanus 345 kV Substation.

Point of Interconnection: ConEdison Gowanus 345 kV Substation. [redacted]

Offer Capacity: 816 MW

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

EXHIBIT I

ECONOMIC BENEFITS CLAIMS AND VERIFICATION

I. Definitions

For purposes of this Exhibit I, the following definitions apply:

Agreed-Upon Procedures Report (AUPR) – a confidential report of findings based on specific procedures performed on a subject matter; defined by the American Institute of Certified Public Accountants (AICPA) Statements on Standards for Attestation Engagements, Number 18, Attestation Standards: Clarification and Recodification. Independent CPAs performing an AUPR do not provide an opinion or negative assurance. Instead, the AUPR is in the form of procedures and the Independent CPA's findings resulting from the performance of those procedures. It is produced by the Independent CPA pursuant to this Exhibit I to support Seller's economic benefits claims.

Claimed Expense – an expenditure included as a Category 1 or 2 Economic Benefit in the Economic Benefits Report prepared by the Seller.

General Contractor – an individual or company that has a direct contractual relationship with Seller (including any affiliate acting on behalf of Seller) for work performed in federal waters related to the construction and installation of the Selected Project. For the sole purpose of the verification of economic benefits in accordance with Exhibit I, the terms "construction" and "installation" shall extend only to construction and installation work performed in federal waters and shall exclude the transportation and certification of components for the Selected Project.

Host Community Agreement – a contract between Seller and a state or municipal government entity within New York State, or a with a New York State non-governmental organization, detailing the rights and obligations of each party during the construction, operation, and decommissioning of the Selected Project, including financial, health, economic development and/or environmental benefits that will be provided to the community by Seller.

Independent CPA – the independent New York State certified public accountant, funded at the Seller's expense, that performs the steps to complete the agreed upon procedures and prepare an AUPR. The Independent CPA must not be an employee of Seller or its affiliates, and must not prepare the Economic Benefits Report and accompanying documents.

New York State Firm – a company, business, or entity with a principal place of business in New York State. A branch, office, or worksite location of a non-New York State firm that operates within New York will be treated as a New York State Firm for the purposes of economic benefits verification so long the supporting documentation from such firm makes evident that the Claimed Expense was for work performed in New York State, services provided in New York State, or for materials, goods, or equipment sourced from New York State.

Payment Application – a construction document (for example, AIA Form G702 or similar) that details payments made to a General Contractor or subcontractor.

Payments in Lieu of Taxes (PILOT) – payments made to local government(s) to compensate for some or all of the tax revenue lost as a result of tax-exempt ownership or use of land or property.

Pursuant to Section 19.02, this Exhibit I supersedes and replaces ORECRFP18-1 and the Proposal with regard to Seller's commitments to provide Economic Benefits.

II. Types of Eligible Economic Benefits Claims in Categories 1 and 2

Category 1 Economic Benefits are comprised of spending and job creation in New York State by Seller and its affiliates and contractors and their supply chains that are specific to the Selected Project. [redacted] Category 1 Economic Benefits may include:

Category 1: Project-Specific Spending and Job Creation in New York State

a. Payments for labor-related expenditures in New York State. Examples include gross wages (including employer-side payroll tax payments), and benefit costs incurred in association with the direct employment of New York State construction, boat crews, rail and port workers, contractors and laborers, engineering or environmental service providers, consultants, other employees and financial and legal service providers associated with the Selected Project.

b. Payments for in-state purchases of goods and services. Includes expenditures as a result of:

   i. The purchase and consumption of local goods and services (including sales tax), such as, but not limited to, food, lodging, vehicles, equipment, fuel; and/or

   ii. The purchase of materials sourced from within New York State such as, but not limited to, gravel, steel, concrete and similar materials and/or the purchase and use of equipment and products manufactured or assembled within New York State and/or the use of rental equipment or similar supplies sourced within New York State (wind turbine components not manufactured within New York State are excluded); and/or

iii. Ongoing operations and maintenance expenses that are anticipated through the first three (3) Contract Years of the Contract Delivery Term.

c. Payments, rents and taxes paid to local New York State entities. Includes:

i. New or increased revenues for jurisdictions in New York State from the Contingent Award Notification Date through the end of the first three (3) Contract Years of the Contract Delivery Term, including tax payments, PILOT payments, and/or payments under Host Community Agreements.

ii. Payments to fishing mitigation or compensation initiatives; and/or

iii. Payments intended to mitigate the visual, environmental, historical, cultural or other impacts associated with development, construction, operation or decommissioning of the Selected Project.

d. Financing expenditures (fees to in-state banks related to financing transactions but not the cost of borrowing).

e. Transmission and interconnection fees and expenditures, including those paid to NYISO or a New York utility relating to services provided within New York State. Expenditures associated with overbuilt transmission, that is, transmission in excess of what is required to accommodate the Selected Project, may not be claimed; provided, however, that fees and expenditures associated with transmission and interconnection facilities, and upgrades to such facilities, identified through the NYISO interconnection process and funded by the Seller shall qualify as a Category 1 benefits.

f. Other expenditures in line with the intent of this Category, when accompanied by supporting explanation as to their effect to support spending and job creation in New York.

<u>Category 2: Offshore Wind Industry-Related Supply Chain and Infrastructure Investment</u>

Category 2 Economic Benefits include long-term capital investments by Seller and/or its affiliates in offshore wind-enabling supply chain, infrastructure, workforce development and research and development initiatives in the state that are intended to have an enduring impact on the offshore wind industry and the New York State economy. Category 2 Economic Benefits may include:

a. Investments in the offshore wind-related supply chain, such as ports that provide staging, assembly or other services to the offshore wind industry, and manufacturing infrastructure for components used in the manufacture of offshore wind generation or interconnection equipment.

b. Investment in transportation facilities capable of serving future offshore wind installation, operation and maintenance needs, such as investment in Jones Act compliant vessels.

c. Investments in workforce development applicable to future offshore wind development in New York State, such as establishing a training facility, donating key components for training purposes to technical schools in New York State, building of training labs or materials testing facilities. Investments in input activities identified in Category 3 (see Exhibit D) may be included if they create capabilities to support future offshore wind facilities.

d. Investment in research and development in New York State applicable to improvements in offshore wind generation and delivery equipment and technology.

e. Investments in development of broadly-applicable sea bed, wind and metocean data (not specific to the Selected Project) that will be made publicly available, and that have beneficial impact to future offshore wind development that would benefit New York State.

f. Other investments in line with the intent of this Category, when accompanied by supporting explanation as to their effect to support the development of the offshore wind industry supply chain and future offshore wind investment in New York.

III. Verification

Economic Benefits Report. Within one hundred twenty (120) days of the third anniversary of the Contract Delivery Term, Seller must submit the Economic Benefits Report through the Independent CPA.

Verification Process. The verification process for the Seller is as follows:

a. No later than thirty (30) months after the beginning of the Contract Delivery Term, Seller will provide the name of its selected Independent CPA to NYSERDA. Upon engagement, Seller will provide this Agreement, highlighting the Expected Total Dollars and this Exhibit I, to the Independent CPA, with appropriate redactions of any non-public information unrelated to Economic Benefits or the Economic Benefits Report.

b. Seller will prepare an Economic Benefits Report that both summarizes in narrative form and documents the total dollar amount of actual Economic Benefits accrued to New York in each of Economic Benefits Category 1 and Category 2 as a result of the development, construction, modification, and operation of the Selected Project from the Contingent Award Notification Date through the end of the first three (3) years of the Contract Delivery Term. The Economic Benefits Report shall also describe the activities of Seller in fulfillment of Section 12.01(c) of this Agreement with respect to

Economic Benefits Category 3, described in Exhibit D, over the same period. The Independent CPA will not verify those Category 3 Economic Benefits in the AUPR, except to the extent such activities result in expenditures claimed as Category 2 Economic Benefits as noted above.

c. Acceptable documentation for expenditures incurred by Seller, its affiliates, or its contractors (other than expenditures incurred by a General Contractor in connection with construction and installation activities) shall include the following (for an individual expense within each category of expense, any one of the listed documents or any combination thereof will be acceptable).

   i. For labor-related expenses: either W-2s,1099s or other tax documentation; copies of subcontracts or other labor-related arrangements detailing labor provided under such contracts and that provide confirmation that labor is: associated with work performed within New York; or, in the case of work performed outside of New York, that labor is sourced from within New York or covered by the Project Labor Agreement described in Section 18.11 of this Agreement.

   ii. For operations and maintenance expenses: either itemized receipts; a check register report per vendor (which includes the check numbers, dollar amounts, invoice numbers paid and totals); each corresponding individual invoice that was submitted for payment accompanied by proof of payment; or a bank statement with applicable checks or wire transfers.

   iii. For goods and services sourced from New York State Firms: either receipts for hotels, meals, fuel, rental cars, and equipment purchased in New York (per diem payments made to non-New York State residents without specific, itemized expenses are not an acceptable form of documentation); a check register report per vendor for goods or services sourced from a New York State Firm (which includes the check numbers, dollar amounts, invoice numbers paid and totals); each corresponding individual invoice for services, equipment, materials and goods sourced from a New York State Firm that was submitted for payment accompanied by proof of payment; or a bank statement with applicable checks or wire transfers.

   iv. For other expenditures: such evidence of payment as the context requires, provided that such documentation must show the date and purpose of the expenditure.

   v. Seller may redact personal, sensitive, legally protected and other non-public information (e.g., social security number, tax identification number, street address, apartment number, etc.) from documentation to comply with Applicable Law, enhance privacy protection, and otherwise inhibit the potential improper use of such information.

vi. Seller and/or its affiliates may use other forms of documentation for a category of expense, subject to NYSERDA's approval, which shall not be unreasonably denied, conditioned, or delayed.

d. Expenditures incurred by a General Contractor (and/or its subcontractor(s)) in connection with construction or installation of the Selected Project require the following documentation:

i. If the General Contractor(s) is located in New York State: Acceptable documentation of in-house labor billed to the Selected Project by the contractor includes payroll records with confirmation from the General Contractor that each employee covered by the Claimed Expense is either (1) a New York State resident, or (2) covered by the Project Labor Agreement approved by NYSERDA pursuant to Section 18.11 of this Agreement. General Contractor may also self-certify costs of in-house equipment use. Acceptable documentation includes records of equipment use in construction of the Selected Project. Documentation should be accompanied by a letter signed by a principal of the company attesting to the expenses.

ii. New York subcontractors utilized by the General Contractor: Acceptable documentation includes the General Contractor's check register reports by vendor (which includes the check numbers, dollar amounts, invoices paid and totals); the last Payment Application and final release waiver for each subcontractor to corroborate the payments in the check register report; or a bank statement with applicable checks or wire transfers.

iii. New York State Firms utilized by the General Contractor (lower tier subcontractors or not part of a subcontract agreement): Acceptable documentation includes the General Contractor's (and/or its direct or lower tier subcontractor's) check register reports by vendor (which includes the check numbers, dollar amounts, invoices paid and totals); corresponding individual invoices that were submitted to the General Contractor and/or its subcontractor at any tier for payment; or a bank statement with applicable checks or wire transfers.

iv. The costs of labor, materials, goods, or services incurred in connection with work undertaken by an out of state firm, but which nonetheless are attributable to New York workers, workers covered by the Project Labor Agreement, or New York State Firms may be documented in the manner described above, along with such additional documentation necessary to identify and support the portion of overall costs attributable to New York labor or workers covered by the Project Labor Agreement.

e. Seller may not include indirect benefits or those created by any "multiplier effect" or other attribution method under which the creation of peripheral spending and jobs might be credited to direct capital infused into the economy. Only those Economic Benefits meeting the criteria and falling within the Categories 1 and 2 may be included in the Economic Benefits Report.

f. Seller should provide its Economic Benefits Report to the Independent CPA, collect all supporting documentation to support the Claimed Expenses in the Economic Benefits Report, and submit all documentation requested by the Independent CPA as needed.

g. The Independent CPA will submit the Agreed-Upon Procedure Report to NYSERDA within one hundred twenty (120) days of the third anniversary of the commencement of the Contract Delivery Term. Neither Seller nor the Independent CPA shall provide the documentation underlying the claims in the Economic Benefits Report to NYSERDA. Seller, however, must retain such documentation in accordance with Section 6.04 of this Agreement so that it can be made available to NYSERDA upon NYSERDA's request pursuant to Section 7.01 of this Agreement.

h. NYSERDA will examine the verified Economic Benefits Report and the Agreed-Upon Procedure Report, and confirm the calculation of the Verified Total Dollars by the Independent CPA. NYSERDA will compare the Verified Total Dollars, in total, to the Expected Total Dollars, and proceed in accordance with Section 12.01(b) of this Agreement.

IV. Guidance for Independent CPA; Agreed Upon Procedures

This section sets forth the agreed upon procedures that the Independent CPA must follow in order to issue the AUPR related to the Seller's Economic Benefits Report.

Deadline for Submission. The Independent CPA is responsible for submitting the AUPR within one hundred twenty (120) days of the third anniversary of the commencement of the Contract Delivery Term. The AUPR must be received by NYSERDA on or before this date.

Organization of Report. The Independent CPA should organize its submission to NYSERDA as follows:

- AUPR
- Procedures and Findings
- Seller's original Economic Benefits Report

Use of Sampling Techniques. The Independent CPA will review each expenditure valued at more than $50,000 over the period covered by, and as reported in, the Economic Benefits Report. At its discretion, the Independent CPA may rely on sampling of representative expenditures under $50,000. If sampling is used, however, the Independent CPA must review a sample of transactions to be determined by the value and number of items included in the overall

population, but no fewer than 150 such transactions or the number of such transactions that the Independent CPA determines would be statistically significant, whichever is greater. If sampling is used, the Independent CPA must also disclose the population and sample size in the AUPR.

Applying General Procedures to Specific Circumstances. This document provides guidance and specific examples of the procedures to be performed in providing NYSERDA with assurances as to the accuracy and completeness of Seller's Economic Benefits Report. Because accounting systems and data structures vary among companies, the requirements described in this Exhibit I are not intended to be all-inclusive, but rather represent the guidance and principles to be applied in performing tests of the documentation associated with the information submitted to NYSERDA by Seller.

General Notes on Performing the AUPR.

a. The AUPR must be produced by responding to each step in the Economic Benefits Agreed Upon Procedures that follow this section. When submitting the AUPR to NYSERDA, a scan of a printout is acceptable, as is a PDF with electronic signatures.

b. While performing the Agreed Upon Procedures, the Independent CPA may develop a list of questioned costs, including but not limited to unsubstantiated or inaccurate dollar value claims, etc. The Seller may choose to remove any unsubstantiated claims from its report prior to submission of a final Economic Benefits Report to NYSERDA.

c. If the Independent CPA confronts an issue that the Independent CPA believes is not reasonably resolved by the guidance and principles contained in this Exhibit I, the Independent CPA may email designated points of contact at Seller and NYSERDA, who will make good faith efforts resolve the question by mutual agreement as quickly as possible. Any such resolution shall be memorialized in the AUPR.

Agreed Upon Procedures.

The purpose of performing the agreed upon procedures is to ensure and confirm the information submitted by the Seller on the Economic Benefits Report is accurate and that claimed Economic Benefits fall within Category 1 and Category 2 as described above.

a. Inquire of the Seller whether each transaction listed in Category 1 and 2 on the Economic Benefits Report is related to the development, construction, operation and/or maintenance of the Selected Project.

b. From the Seller's Economic Benefits Report, if sampling is used, select an appropriate sample for detailed testing of underlying transactions in accordance with the sampling

methodology noted above. Disclose the population as well as the sample size for each category in the AUPR.

c. For labor-related expenditures incurred by Seller, an affiliate, or under a contract with New York State Firm:

    i. Compare the expenditures claimed for each transaction selected to the Seller's, its affiliates,' or a contractor's payroll records (e.g., payroll journals, W-2 forms, or benefits invoices) and determine:

        1. The name of the employer/purchaser is the Seller, an affiliate, or a contractor of the Seller or its affiliate.

        2. In the case of expenses incurred in connection with construction and installation of the Selected Project by a General Contractor or expenses incurred by an entity that is not a New York State Firm, the employee's address is located in New York State or the employer has certified that the employee is covered by the Project Labor Agreement approved by NYSERDA pursuant to Section 18.11 of this Agreement.

        3. Expenditure amounts agree to the payroll records and/or other supporting acceptable documentation.

        4. The payment was for services rendered during the time period described in this Exhibit I.

        5. Expenditure agrees to the relevant provided financial records of Seller and/or its affiliates (which may include payroll journal, general ledger, cancelled checks, etc.)

        6. Expenditure is listed under the proper category.

d. For Seller's purchases of goods and services:

    i. Compare the expenditures claimed for each transaction selected to the Seller's or its affiliates' supporting documentation accompanying the Economic Benefits Reports and determine:

        1. Seller (or Seller's affiliate or contractor) is named as the employer, payor on the invoice, and/or as party to the applicable agreement.

        2. Expenditure amounts agree to the supporting acceptable documentation.

        3. The payment was for services rendered or goods received during the time period specified in this Exhibit I.

4. Payment is associated with goods, services, equipment, materials, operations and/or maintenance expenses.

5. The vendor is a New York State Firm; or an out of state firm that has expenses attributable to New York workers, workers covered by the Project Labor Agreement, or materials, goods, or services sourced from New York.

6. Expenditure agrees to the relevant provided financial records of Seller and/or its affiliates (which may include cash disbursements journal, payroll journal, general ledger, cancelled checks, etc.)

7. Expenditure is listed under the proper category.

ii. Inspect records supporting in-house equipment expenditures and obtain copy of letter provided by the Seller (or its affiliate(s)) or General Contractor attesting to the accuracy of the expenditures reported for in-house equipment use.

e. For Category 2 expenditures and/or investments not covered by (c) or (d) above:

i. Compare each Claimed Expense to Seller's supporting documentation accompanying the Economic Benefits Report and determine:

1. Seller (or Seller's affiliate or General Contractor) made the expenditure and/or investment.

2. Expenditure/investment amounts agree to the supporting acceptable documentation.

3. The payment was made during the time period specified in this Exhibit I.

4. The payee or investment is in New York, or the expenditure and/or investment was made for a Category 2 purpose for the benefit of New York (including the establishment of a fund accessible by New York residents or entities, or for a purpose to benefit New York).

f. For other expenditures:

i. Compare the expenditures claimed for each transaction selected to the Seller's supporting documentation accompanying the Economic Benefits Reports and determine:

1. Seller (or Seller's affiliate or General Contractor) is named as the employer, payor on the invoice, and/or as party to the applicable agreement or other documentation.

2. Expenditure amounts agree to the supporting acceptable documentation.

3. The payment was for services rendered or goods received during the time period specified in this Exhibit I.

4. The expenditure falls within either Category 1 or 2 as described above.

5. The payee is a New York State Firm, a New York State municipality, or other counterparty described in Category 1 or 2 above.

6. Expenditure agrees to the relevant provided financial records (which may include cash disbursements journal, payroll journal, general ledger, cancelled checks, etc.)

V. Severability

For the avoidance of doubt, if any limitation, condition, or requirement imposed by this Exhibit on Seller's right to claim Economic Benefits is declared illegal, void or unenforceable as described in Section 18.06 of this Agreement, this Exhibit shall be construed to allow Seller to claim Economic Benefits as though such limitation, condition or requirement were omitted.

EXHIBIT J

PROJECT LABOR AGREEMENT REQUIREMENTS

The final form of PLA presented to NYSERDA for review and approval pursuant to Section 18.11 of this Agreement should address:

1. Provisions that appropriately limit applicability of the PLA to United States-based (including Federal waters) covered work on the Selected Project (and not extending to any other work performed by contractors and subcontractors, or to the work of their affiliated entities), ensuring that Selected Project contractors or subcontractors are not required to become a signatory to any other labor agreement, and appropriately providing for the supremacy of the PLA over any potentially conflicting labor agreements that might otherwise apply to contractors and subcontractors. The PLA must apply to all covered construction and all contractors and subcontractors, of whatever tier, performing construction work on the Selected Project (subject to appropriate exceptions), and the PLA should be available to all contractors and subcontractors, of whatever tier, regardless of their union affiliation;

2. Provisions for appropriate union recognition and security (limited to Selected Project work) and the referral of skilled craft workers, including provisions for staffing in the event qualified referrals are not reasonably available and for the reasonable use of a number of core employees by contractors and subcontractors (regardless of union affiliation and referral practices that might otherwise exist);

3. Comprehensive labor harmony provisions to ensure against schedule disruption as a result of worksite disputes or other labor disputes of any kind;

4. Comprehensive provisions for the resolution of workplace disputes through third party resolution, including provisions for the resolution of jurisdictional disputes (without disruption to the schedule of the Selected Project), and appropriate provisions for labor management cooperation;

5. Appropriate provisions to allow the cost-effective and efficient coordination of multiple trades and contractors and subcontractors (notwithstanding any local labor agreements that might otherwise be applicable to contractors and subcontractors), as well as other appropriate management rights (such as appropriate provisions respecting specialty work and/or workers; adequately ensuring the contractors' or subcontractors' choice of materials, techniques, methods, technology or design, or, regardless of source or location; use and installation of equipment, machinery, package units, pre-cast, pre-fabricated, pre-finished, or pre-assembled materials, tools, or other labor-saving devices; the installation or use of materials, supplies or equipment regardless of their source (including as may be required by a vendor and/or to ensure warranty coverage); and to perform off-site work, subject to any restrictions imposed by law);

6. Appropriate provisions promoting minority- or women-owned business enterprise ("MWBE") employment, as well as the employment of New York workers and low-

income workers;

7. Appropriate provisions for the use of apprentices; and

8. Appropriate provisions for rules governing worksite access and conduct.

Appendix B. Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement by and Between the New York State Energy Research and Development Authority and Sunrise Wind US LLC. Dated: October 23, 2019

REDACTED VERSION
Agreement No. 14652

OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE PURCHASE AND SALE AGREEMENT

BY AND BETWEEN

THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

AND

SUNRISE WIND LLC

Dated: October 23, 2019

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This Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement ("Agreement") is entered into as of October 23, 2019 (the "Effective Date") by and between the New York State Energy Research and Development Authority ("NYSERDA"), a public benefit corporation, having a principal business address of 17 Columbia Circle, Albany, New York 12203, and Sunrise Wind LLC ("Seller"), a Delaware limited liability company, having a principal business address of 437 Madison Avenue, Suite 1903, New York NY 10022. NYSERDA and Seller are each referred to herein as a "Party" and are collectively referred to herein as the "Parties."

WHEREAS, the New York State Public Service Commission ("PSC") through its "Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement"[1] ("Phase 1 Order") established, as part of its Clean Energy Standard,[2] an Offshore Wind Standard with a goal of having 2,400 megawatts ("MW") of offshore wind facilities operational and delivering energy to New York State by 2030; and

WHEREAS, in the Phase 1 Order the PSC directed and authorized NYSERDA, as the central procurement administrator, to issue solicitations, during 2018 and 2019, for the procurement of the renewable energy certificates representing the attributes associated with the generating capacity of offshore wind generating capacity (hereinafter defined in Article I as "ORECs"); and

WHEREAS, NYSERDA has conducted a competitive solicitation in the form of ORECRFP18-1 to procure ORECs; and

WHEREAS, Seller has participated in ORECRFP18-1 and has been selected by NYSERDA for an award with respect to the Sunrise Wind Project (hereinafter defined in Article I as the "Selected Project"); and

WHEREAS, Seller agrees to sell to NYSERDA, and NYSERDA agrees to purchase from Seller, the ORECs associated with the energy production of the Selected Project during the Contract Delivery Term, on the terms and subject to the conditions set forth herein;

NOW, THEREFORE, for and in consideration of the premises and agreements set forth herein and other good and valuable consideration, the receipt, sufficiency, and adequacy of which are hereby acknowledged, this Agreement has been entered into by the Parties to define, among other things, their rights and obligations concerning the ORECs associated with the generation of electric energy by the Selected Project, the delivery by Seller of ORECs to NYSERDA, and payments by NYSERDA to Seller during the term of this Agreement.

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[1] *See* Case 18-E-0071, In the Matter of Offshore Wind Energy, issued and effective July 12, 2018 (the "Offshore Wind Standard").

[2] *See* Case 15-E-0302, et al., Large-Scale Renewable Program and Clean Energy Standard, Order Adopting a Clean Energy Standard issued and effective August 1, 2016.

Article I

Definitions

The terms defined in the recitals, the preamble, this Article I or any other Articles of this Agreement, whenever used in this Agreement (including in any Exhibit hereto), shall have the respective meanings indicated in such provision for all purposes of this Agreement (each such meaning to be equally applicable to the singular and the plural forms of the respective terms so defined). All references herein to a Section, Article or Exhibit are to a Section, Article or Exhibit of or to this Agreement, unless otherwise indicated. The words "hereby", "herein", "hereof", "hereunder" and words of similar import refer to this Agreement as a whole (including any Exhibit) and not merely to the specific section, paragraph or clause in which such word appears unless so specified. The words "include", "includes", and "including" shall be deemed, in every instance, to be followed by the phrase "without limitation." Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. Except as otherwise expressly provided herein, all references to "dollars" and "$" shall be deemed references to the lawful money of the United States of America.

Acceptable Guaranty: An unconditional, irrevocable, direct-pay guaranty (a) in the form of Exhibit G duly executed by an Acceptable Guarantor; and (b) as to which NYSERDA has received (i) such financial statements in respect of such Acceptable Guarantor as it has reasonably requested, (ii) customary legal opinions with respect to capacity, authority and enforceability of such guaranty and as to such other matters as reasonably requested by NYSERDA, and (iii) corporate documents, resolutions, copies of any necessary consents and approvals and customary certificates by and in respect of such Acceptable Guarantor as may be reasonably requested by NYSERDA.

Acceptable Guarantor: A corporation, business trust, partnership, limited liability company or other legal entity that has outstanding senior unguaranteed and unsecured long-term debt that is rated at least "BBB" by S&P or "Baa2" by Moody's.

Actual Production: The amount of electric energy production in MWh generated by the Selected Project during any Contract Year, measured at the Delivery Point.

Annual OREC Cap: An amount of ORECs equal to the product of 1.1 and the P10 Annual OREC Exceedance. The Annual OREC Cap under this Agreement shall be 4,861,780 ORECs unless and until the P10 Annual OREC Exceedance is adjusted by Seller in accordance with Section 2.01(e). Seller will retain ownership and all rights to ORECs that exceed the Annual OREC Cap.

Applicable Law: All applicable provisions of all constitutions, treaties, statutes, laws (including the common law), rules, regulations, ordinances, and codes and any order, writ, injunction, decree, judgment, award, decision or determination of any court of jurisdiction or any federal, state, municipal or other governmental department, commission, board, bureau, agency, authority or instrumentality, including the NYISO tariffs.

Applicable OREC Price: The methodology for determining the Monthly OREC Price as set out in Section 4.01 of this Agreement.

BOEM: The Bureau of Ocean Energy Management within the U.S. Department of the Interior.

Business Day: Means any day except a Saturday, Sunday or a New York State or NERC recognized holiday.

Commercial Operation: A state of operational readiness under which (i) generating capacity is available and physically producing electric energy, and (ii) all rights, abilities, permits and approvals to schedule and deliver energy to the Delivery Point have been obtained.

Consulting State Agency: The New York State Department of State, the New York State Department of Environmental Conservation, the New York State Office of Parks, Recreation and Historic Preservation, the New York State Office of General Services, and NYSERDA, and any other state agency that NYSERDA directs Seller to include.

Contingent Award Notification Date: The date on which NYSERDA notified Seller that it had been selected for an award contingent on the negotiation of this Agreement. For purposes of this Agreement, the Contingent Award Notification Date was May 15, 2019.

Contract Delivery Term: A period that shall commence on the first day of the month after any portion of the Selected Project commences Commercial Operation and end at the earlier of (i) the date upon which the Contract Tenor has elapsed, or (ii) the Outer Limit Date. If less than twenty-five percent (25%) of the Selected Project has commenced Commercial Operation (as determined on an installed capacity basis as compared to the Offer Capacity), Seller may elect to delay the commencement of the Contract Delivery Term for a period not to exceed one year after any portion of the Select Project has achieved Commercial Operation. Seller must make such election in writing in conformance with the requirements of Article XIX of this Agreement.

Contract Security: All amounts provided to NYSERDA, in the form of cash, Letters of Credit, or an Acceptable Guaranty, as determined in Article XV of this Agreement.

Contract Tenor: The maximum duration of the Contract Delivery Term. The Contract Tenor under this Agreement shall be 25 years; provided that, once the Contract Delivery Term has begun, if a Force Majeure causes the cessation of production or delivery of at least fifty percent (50%) of the Operational Installed Capacity, the Contract Tenor for such portion of the Selected Project affected by such Force Majeure shall be extended on a day-for-day basis for the duration of such cessation of production or delivery.

Contract Year: A 12-month period commencing with the beginning of the Contract Delivery Term and each anniversary thereof within the Contract Delivery Term. As used in this Agreement, the phrase "Contract Year" followed by a number shall refer to a discrete Contract Year within the Contract Delivery Term such that "Contract Year 1" refers to the first 12-month period commencing with the beginning of the Contract Delivery Term, "Contract Year 2" refers to the second such 12-month period, and so on.

Delivery Point: The generator bus or location where (a) the administrator of the wholesale power market, or (b) the operator of the transmission/distribution utility, public authority or municipal

electric company, measures, or otherwise determines, energy production from the Selected Project.

Economic Benefits: Financial expenditures benefitting New York State within Categories 1 and 2 specified in Exhibit I and that Seller can demonstrate: (1) will accrue subsequent to the Contingent Award Notification Date, and (2) would not have accrued but for the award under ORECRFP18-1.

Economic Benefits Report: A confidential report by Seller to NYSERDA prepared in accordance with Exhibit I of this Agreement.

Economic Benefits Shortfall: The amount by which the Verified Total Dollars of Economic Benefits is less than the product of 0.85 and the Expected Total Dollars.

Environmental Attributes: All environmental characteristics, claims, credits, benefits, emissions reductions, offsets, allowances, and allocations, however characterized, denominated, measured or entitled, attributable to the generation of Actual Production by the Selected Project, including but not limited to: (i) any direct emissions or any avoided emissions of pollutants to the air, soil or water including but not limited to sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), particulate matter and other pollutants; (ii) any direct or avoided emissions of carbon dioxide (CO_2), methane (CH_4) and other greenhouse gases that have been or may be determined by the United Nations Intergovernmental Panel on Climate Change to contribute to altering the Earth's climate by trapping heat in the atmosphere; (iii) all set-aside allowances and/or allocations from emissions trading programs made unnecessary for compliance in such program as a result of performance under this Agreement, including but not limited to allocations available under 6 NYCRR §§ 204, 237 and 238; and (iv) all credits, certificates, registrations, recordations, or other memorializations of whatever type or sort, representing any of the above; provided, however, that Environmental Attributes shall not include: (a) any federal production tax credits; (b) any state or federal investment tax credits or other tax credits associated with the construction or ownership of the Selected Project; (c) any depreciation deductions under Applicable Laws (including any bonus or accelerated depreciation); or (d) any state, federal or private grants, financing, guarantees or other credit support relating to the construction or ownership, operation or maintenance of the Selected Project or the output thereof, in each case whether arising before or after the Effective Date.

Expected Total Dollars: The total amount, in nominal dollars, of Economic Benefits in Categories 1 and 2 (as described in Exhibit I) expected to accrue to New York State as a result of the development, construction, modification, interconnection, and operation of the Selected Project from the Contingent Award Notification Date through the end of the first three (3) Contract Years. The amount of Expected Total Dollars under this Agreement is $408,493,272.

Fixed OREC Price: A fixed, as-offered price in dollars per OREC as described in Section 4.02 of this Agreement.

Forward Certificate Transfer: An automated monthly transfer of ORECs to NYSERDA as described in Section 10.3 of the NYGATS Operating Rules.

General Terms of Use: The terms of use for the NYGATS, operated and administered by APX, Inc. (or its successor) for NYSERDA.

Independent Engineer: A licensed professional engineer with expertise in the development of offshore wind energy projects, reasonably selected by and retained by Seller in order to determine the Operational Installed Capacity of the Selected Project as provided in Section 2.01(c) of this Agreement.

Independent System Operator/Transmission Owner Agreement ("ISO/TO Agreement"): The agreement, which includes Appendices A-1 and A-2, that establishes the terms and conditions under which the transmission owners transferred to the ISO Operational Control (as defined in the ISO/TO Agreement) over designated transmission facilities.

Index OREC Price: An adjustable price in dollars per OREC that nets a fixed, as-offered strike price monthly against a reference price expressed in a market index as determined pursuant to Section 4.03 of this Agreement.

Maximum Project Capacity: The product of the Offer Capacity and 1.05. The Maximum Project Capacity for the Selected Project is 924 MW.

Monthly OREC Price: A price in dollars per OREC for each month of the Contract Delivery Term. If the Applicable OREC Price is the Fixed OREC Price, the Monthly OREC Price shall be calculated pursuant to Section 4.02 of this Agreement. If the Applicable OREC Price is the Index OREC Price, the Monthly OREC Price shall be calculated pursuant to Section 4.03 of this Agreement.

New York Control Area (NYCA): The geographic bounds of the electricity system that is under the control of the NYISO, which includes transmission facilities listed in the ISO/TO Agreement Appendices A-1 and A-2, as may be amended from time to time.

New York Generation Attribute Tracking System (NYGATS): The tracking system, administered under the auspices of NYSERDA, that records electricity generation attribute information within New York State, and processes generation attribute information from energy imported and consumed within New York State, as a basis for creating generation attribute certificates, including ORECs. NYGATS will create exactly one OREC per MWh of generation attributable to the Selected Project and delivered to the Delivery Point in accordance with the applicable electricity delivery requirement set forth in Article III of this Agreement.

New York State Environmental Disclosure Rules: The program rules adopted by the PSC in Case 94-E-0952, Opinion No. 98-19, Opinion and Order Adopting Environmental Disclosure Requirements and Establishing a Tracking Mechanism, (issued December 15, 1998) Appendix pp. 2-3, as amended from time to time.

NYGATS Operating Rules: The operating rules, the General Terms of Use, and other guidelines published by NYGATS and as amended from time to time.

NYISO: The New York Independent System Operator, Inc. is the administrator of the wholesale power markets in New York and manages the physical electrical operations of the New York Control Area.

NYISO Capacity Market: Collectively, the wholesale markets for capacity administered by NYISO.

NYISO Energy Market: Collectively, the wholesale markets for electric energy administered by NYISO.

NYSERDA NYGATS Account: The NYGATS account established by NYSERDA into which Seller shall transfer ORECs as performance under this Agreement.

Offer Capacity: The electric generating capacity of the Selected Project. The Offer Capacity under this Agreement shall be 880 MW, unless and until reduced by Seller pursuant to Section 15.07(b) of this Agreement.

Offshore Wind Renewable Energy Certificate (OREC): The electronic record of generation data created by NYGATS and representing all of the attributes including the Environmental Attributes of one MWh of electricity generation from the Selected Project.

Operational Installed Capacity: The gross generating capacity, in MW, of the Selected Project that has achieved Commercial Operation and for which an Independent Engineer's report has been submitted to NYSERDA pursuant to Section 2.01(c) of this Agreement.

Outer Limit Date: A backstop date upon which the Contract Delivery Term ends, regardless of whether the Contract Tenor has elapsed. The Outer Limit Date is January 1, 2052.

Prevailing Wage: Shall have the meaning set forth in Section 18.10 of this Agreement.

Project Labor Agreement or PLA: As described in Section 18.11 of this Agreement, a collective bargaining agreement (including a pre-hire agreement) covering Seller, contractors in the construction industry working on the Selected Project, and a bona fide building and construction trade labor organization representing craft workers on the Selected Project.

Proposal: Documents submitted by Seller in response to ORECRFP18-1 with respect to the Selected Project, described as Sunrise Wind "Sunrise Wind Alt 2" (Offer Data Form ID Name "Alt 2", 880 megawatt, 25-year Index OREC, Level Pricing, 25-year Tenor).

P10 Annual OREC Exceedance: An amount of electrical energy (in MWh), such that the estimated probability in any given year that generation from the Selected Project delivered to the Delivery Point would exceed that amount is 10 percent. As of the Effective Date, the P10 Annual OREC Exceedance for the Selected Project is 4,419,800 and may be updated as provided in Section 2.01(e) of this Agreement.

Reference Capacity Price: A broad index of NYISO Capacity Market prices for the coastal and near-coastal zones of New York State calculated as set forth in Section 4.03 of this Agreement.

Reference Energy Price: A broad index of NYISO Energy Market prices for the coastal and near-coastal zones of New York State calculated as set forth in Section 4.03 of this Agreement.

Selected Project: The offshore wind generation facility selected for award by NYSERDA in ORECRFP18-1 and as described in Exhibit H to this Agreement.

Summer Capability Period: The period commencing May 1 through October 31 of each year.

Uncompleted Offer Capacity: The amount by which the product of 0.95 and the Offer Capacity exceeds the Operational Installed Capacity.

Verified Total Dollars: The total dollar amount of Economic Benefits in Categories 1 and 2 as calculated pursuant to Exhibit I and verified to have accrued to New York as a result of the development, construction, modification, interconnection, and operation of the Selected Project from the Contingent Award Notification Date through the end of the first three (3) Contract Years.

Winter Capability Period: The period commencing November 1 of each year through April 30 of the following year.

Zones G (Hudson Valley), H (Millwood), I (Dunwoodie), J (New York City) and K (Long Island): The NYISO electric regional load zones defined in the NYISO services tariff as of the Effective Date.

Article II

Purchase and Sale of ORECs

Section 2.01. Purchase and Sale Obligations.

(a) On the terms and subject to the conditions of this Agreement, Seller agrees to sell, assign, convey, deliver and transfer to NYSERDA, and NYSERDA agrees to purchase from Seller, all right, title and interest in the ORECs produced by the Selected Project during each month of the Contract Delivery Term.

(b) For the avoidance of doubt, the only products Seller is selling and NYSERDA is buying under this Agreement are ORECs and all rights, title, and interest associated with those ORECs. Seller is not selling to NYSERDA and NYSERDA is not purchasing any electric energy, capacity, or ancillary services associated with the Selected Project.

(c) As a condition precedent to NYSERDA's purchase obligation in Section 2.01(a), Seller shall deliver to NYSERDA the report of an Independent Engineer demonstrating that the Operational Installed Capacity of the Selected Project is no greater than the Maximum Project Capacity.

(1) If Seller elects to build the Selected Project in phases, Seller may deliver an Independent Engineer's report for each phase; provided that NYSERDA shall purchase ORECs only from those portions of the Selected Project for which the Operational Installed Capacity has been confirmed by an Independent Engineer's report.

(2) If Seller elects to install additional offshore wind facilities within the same leased area as the Selected Project, Seller shall deliver to NYSERDA, in writing, a plan for verifying that the generation and associated ORECs from the Selected Project will be accounted for separately from any generation and ORECs produced by such additional facilities.

(d) Notwithstanding Subsection 2.01(a), in no Contract Year shall NYSERDA be obligated under this Agreement to purchase from Seller, nor Seller obligated under this Agreement to sell to NYSERDA, more ORECs than the Annual OREC Cap. Seller shall be free to sell, assign, transfer or otherwise subject to any encumbrance any ORECs produced by the Selected Project in excess of the Annual OREC Cap.

(e) With NYSERDA's written consent, which shall not be unreasonably withheld, conditioned, or delayed, Seller may, at any time prior to Commercial Operation of the Selected Project, adjust the P10 Annual OREC Exceedance (and, therefore, the Annual OREC Cap) to reflect changes in the technical or meteorological assumptions upon which the prior estimate was based or changes in the capacity of the Selected Project up to the Maximum Project Capacity.

Section 2.02. NYSERDA's Rights, Title and Interest in ORECs. The right, title, and interest to the ORECs NYSERDA is acquiring under this Agreement shall include perpetual and exclusive rights to such ORECs and the underlying Environmental Attributes, including but not limited to the exclusive rights to claim or represent, consistent with New York State Environmental Disclosure Rules: (i) that the energy associated with ORECs was generated by the Selected Project; and (ii) that New York State and/or the Offshore Wind Standard is responsible for the environmental benefits, including reductions in emissions and/or other pollution or any other environmental benefit resulting from the generation of the energy associated with the ORECs.

Section 2.03. Transfer. Seller shall transfer ORECs up to the Annual OREC Cap to the NYSERDA NYGATS Account on a monthly basis via a Forward Certificate Transfer. At the time of transfer by Seller to NYSERDA, the ORECs shall be free and clear of all liens, judgments, encumbrances and restrictions.

Section 2.04. Other Attributes. In the event that, because of the Environmental Attributes of the Actual Production, Seller becomes eligible, at no incremental cost to Seller other than de minimis administrative cost, for credits, allowances or other benefits under any emission-trading, emission-recordation, renewable energy, or other greenhouse gas emissions reduction regime other than the Clean Energy Standard and the Offshore Wind Standard ("Credits"), NYSERDA may request that Seller take all commercially reasonable actions necessary to apply for and secure such title to such Credits, to the maximum extent to which the Selected Project is entitled.

Seller shall provide NYSERDA with evidence of taking such actions. NYSERDA and Seller shall reasonably cooperate to cause title to such Credits to be conveyed to NYSERDA after such title is secured by Seller.

Section 2.05. Assignment of ORECs. NYSERDA shall be free to sell, assign, transfer or otherwise subject to any encumbrance, any of the ORECs NYSERDA acquires under this Agreement, at any time and from time to time to any entity and on such terms and conditions as NYSERDA may desire. Any financial or other consideration received by NYSERDA from any such action shall inure solely to NYSERDA's benefit, to be applied as determined by NYSERDA as the central procurement administrator of the Offshore Wind Standard program or a successor and shall not affect Seller's rights or obligations under the terms of this Agreement.

Article III

Electricity Delivery Requirements

Section 3.01. Selected Project Interconnecting in the New York Control Area. The Actual Production associated with the ORECs for the Selected Project must either be (a) delivered into a market administered by the NYISO for end-use in New York State, (b) delivered through a wholesale meter under the control of a utility, public authority or municipal electric company such that it can be measured, and such that consumption within New York State can be tracked and verified by such entity or by the NYISO, or (c) delivered through a dedicated generation meter at the Delivery Point that shall be compliant with the requirements and standards stated in Section 5.3 of the NYGATS Operating Rules, as such rules may be amended or changed from time to time.

Section 3.02. Bilateral Sales. Nothing in this Agreement shall be read to prohibit bilateral sales by Seller for electric energy, capacity, or ancillary services produced by the Selected Project. Electric energy from the Selected Project sold on a bilateral basis will produce ORECs and NYSERDA will purchase such ORECs in accordance with Article II of this Agreement, provided that the energy is delivered into the NYCA in accordance with this Article.

Article IV

Pricing and Payment

Section 4.01. Determination of Applicable OREC Price.

(a) The Applicable OREC Price shall be the Index OREC Price, as determined pursuant to Section 4.03 of this Agreement, for the entire Contract Delivery Term, unless and until the Index OREC Price described in this Agreement is invalidated by a final, unstayed judgment of a court of competent jurisdiction.

(b) In the event that the Index OREC Price is invalidated as described in Section 4.01(a), NYSERDA shall notify Seller that the Applicable OREC Price shall be the Fixed OREC Price as described in Section 4.02 of this Agreement. From the date that NYSERDA so notifies Seller until the end of the Contract Delivery Term, the Applicable OREC Price

shall remain the Fixed OREC Price unless and until a change in Applicable Law occurs that once again renders the Index OREC Price lawful notwithstanding previously being held invalid. In such case, NYSERDA will so notify Seller and the Applicable OREC Price shall revert to the Index OREC Price, effective as of the date of such notification by NYSERDA. Any and all changes to the Applicable OREC Price under this Subsection 4.01(b) shall be prospective from the effective date of such change.

(c) If, pursuant to Subsection 4.01(b), the Applicable OREC Price changes in the middle of the month, NYSERDA will pay Seller for that month: (1) the Index OREC Price for each OREC created during the portion of the month in which the Index OREC price was the Applicable OREC Price, and (2) the Fixed OREC Price for each OREC created during the portion of the month in which the Fixed OREC Price was the Applicable OREC Price.

Section 4.02. Fixed OREC Price. In the event that the Fixed OREC Price becomes the Applicable OREC Price pursuant to Section 4.01(a) of this Agreement, the Fixed OREC Price for each month in the respective Contract Years shall be:

Contract Year 1:	$61.87
Contract Year 2:	$61.87
Contract Year 3:	$61.87
Contract Year 4:	$61.87
Contract Year 5:	$61.87
Contract Year 6:	$61.87
Contract Year 7:	$61.87
Contract Year 8:	$61.87
Contract Year 9:	$61.87
Contract Year 10:	$61.87
Contract Year 11:	$61.87
Contract Year 12:	$61.87
Contract Year 13:	$61.87
Contract Year 14:	$61.87
Contract Year 15:	$61.87
Contract Year 16:	$61.87
Contract Year 17:	$61.87
Contract Year 18:	$61.87
Contract Year 19:	$61.87
Contract Year 20:	$61.87
Contract Year 21:	$61.87
Contract Year 22:	$61.87
Contract Year 23:	$61.87
Contract Year 24:	$61.87
Contract Year 25:	$61.87

Section 4.03. Index OREC Price.

(a) For each month, the Index OREC Price shall equal the Index OREC Strike Price minus

the Reference Energy Price minus the Reference Capacity Price.

(1) The Index OREC Strike Price, for each month in the respective Contract Years shall be:

Contract Year 1:	$110.37
Contract Year 2:	$110.37
Contract Year 3:	$110.37
Contract Year 4:	$110.37
Contract Year 5:	$110.37
Contract Year 6:	$110.37
Contract Year 7:	$110.37
Contract Year 8:	$110.37
Contract Year 9:	$110.37
Contract Year 10:	$110.37
Contract Year 11:	$110.37
Contract Year 12:	$110.37
Contract Year 13:	$110.37
Contract Year 14:	$110.37
Contract Year 15:	$110.37
Contract Year 16:	$110.37
Contract Year 17:	$110.37
Contract Year 18:	$110.37
Contract Year 19:	$110.37
Contract Year 20:	$110.37
Contract Year 21:	$110.37
Contract Year 22:	$110.37
Contract Year 23:	$110.37
Contract Year 24:	$110.37
Contract Year 25:	$110.37

(2) Using data published by NYISO for its day-ahead energy market, NYSERDA shall calculate the Reference Energy Price for each month by:

(i) identifying the location-based marginal price ("LBMP") for each hour of the month in both Zone J and Zone K, and the amount of electric energy in MWh consumed in each zone in each hour ("Hourly Zonal Load");

(ii) for each such hour, calculating a "Load-Weighted Average Price" by dividing the sum of (A) the product of the LBMP for Zone J and the Hourly Zonal Load for Zone J, and (B) the product of the LBMP for Zone K and the Hourly Zonal Load for Zone K, by the sum of the Hourly Zonal Load for Zone J and the Hourly Zonal Load for Zone K;

(iii) taking the simple (not load-weighted) average of the Load-Weighted Average Prices across the two zones for each hour of the month to determine the Reference Energy Price.

(3) Using data published by NYISO for its monthly spot market unforced capacity ("UCAP") prices, NYSERDA shall calculate the Reference Capacity Price for each month by:

(i) identifying the UCAP prices in dollars per kW-month for NYISO Zones G, H, I, J, and K (the "Applicable Zones"), and the energy consumed in MWh for each zone ("Monthly Zonal Load");

(ii) calculating the "Reference UCAP Price" (the load-weighted average of the monthly UCAP prices in each Applicable Zone) by dividing the sum of the products of the UCAP price for each zone and the Monthly Zonal Load for each Applicable Zone by sum of the Monthly Zonal Loads for all Applicable Zones;

(iii) taking the product of (A) the Reference UCAP Price ($/kW-month), (B) the UCAP Production Factor submitted by Seller in its Proposal for the Winter Capability Period (38%) or Summer Capability Period (38%), as applicable, (C) the Operational Installed Capacity (MW), and (D) a conversion factor of 1,000 kW/MW;

(iv) dividing the total amount of dollars calculated in (iii) by the total amount of ORECs produced from the Selected Project for that month (including any ORECs produced in excess of the Annual OREC Cap) to determine the Reference Capacity Price.

(b) The following formulae depict the calculation of the Monthly OREC Price based on the Index OREC Price in accordance with Section 4.03(a).

$$\text{Monthly OREC Price} = OSP^{Index} - \text{REP} - \text{RCP}$$

where:

OSP^{Index} = Index OREC Strike Price ($/MWh)
REP = Reference Energy Price ($/MWh)
RCP = Reference Capacity Price ($/MWh)

The calculation of each month's Reference Capacity Price will be based on a Reference UCAP Price. The Reference UCAP Price is converted to its $/MWh equivalent, the Reference Capacity Price, through the following equation.

$$\text{RCP} = \frac{\text{RUP x UPF x IC x 1,000}}{\text{OQ}}$$

where:

RUP = Reference UCAP Price ($/kW-month)

UPF = UCAP Production Factor (decimal fraction), 38% for both the Summer Capability Period and Winter Capability Period.
IC = Installed capacity (ICAP) of the generator (MW)
OQ = Metered delivered energy (MWh)
1,000 = kW to MW conversion factor

Section 4.04. Invoices.

(a) Within fifteen (15) days after the conclusion of each month, NYSERDA shall inform Seller of the Monthly OREC Price for that month.

(b) Seller shall submit monthly invoices for the ORECs transferred by Seller into the NYSERDA NYGATS Account and associated with the Actual Production in the prior month during the Contract Delivery Term. Invoices for the prior month shall not be submitted before the fifteenth (15) day of the following month; invoices submitted before the fifteenth (15) day of the following month shall not be considered proper invoices for purposes of NYSERDA's Prompt Payment Policy. Invoices shall be submitted electronically to NYSERDA's online invoice system at: https://services.nyserda.ny.gov/Invoices/ or, if this Selected Project is managed through NYSERDA's Salesforce application, via NYSERDA's Salesforce Portal with Seller's log-in credentials. Invoices must reflect the quantity of ORECs transferred to the NYSERDA NYGATS Account for the prior month, and must be accompanied by such information and data requested by NYSERDA and sufficient for NYSERDA to verify compliance with the electricity delivery requirements in Article III and other requirements in this Agreement. NYSERDA shall have no obligation to pay any invoice submitted more than six (6) months after NYSERDA notifies Seller of the Monthly OREC Price for the ORECs transferred in the month for which payment is requested. Invoices submitted by Seller shall be deemed to have been submitted on its initial date of receipt by NYSERDA even if Seller subsequently adjusts such initial invoice (including pursuant to Section 5.01, or to comply with this Section 4.04(b)).

Section 4.05. Payment. The amount payable to Seller with respect to each monthly invoice shall be the product of: (a) the number of ORECs associated with the Actual Production during the prior month and transferred to the NYSERDA NYGATS Account, and (b) the Monthly OREC Price for the prior month, subject to the Annual OREC Cap during each Contract Year. If, for any month, the amount payable to Seller is a negative amount because the Monthly OREC Price for that month was negative, NYSERDA shall make no payment to Seller for that month and instead shall record a debit in such amount ("Monthly Debit"). Any Monthly Debit shall be deducted from each subsequent month's payment by NYSERDA until the Monthly Debit is fully recovered. Any Monthly Debit that goes unrecovered for twelve months shall be settled by Seller in cash within thirty (30) days after the conclusion of such twelve-month period, except that all Monthly Debits outstanding at the conclusion of the Contract Delivery Term shall be settled by Seller in cash within thirty (30) days after the conclusion of the Contract Delivery Term.

Section 4.06. Prompt Payment Policy. Subject to Section 4.04, NYSERDA shall make payments to Seller in accordance with and subject to its Prompt Payment Policy Statement,

attached hereto as Exhibit C. Such payments shall be made by wire transfer to an account designated by Seller. NYSERDA shall have no obligation to pay any invoice not accompanied by all information requested by NYSERDA in accordance with Section 6.01.

Section 4.07. Changes in Law.

(a) In the event that a change in Applicable Law after the Effective Date (i) reduces materially, or when such change in Applicable law takes effect (the "Change in Law Date") will reduce materially, the NYISO Capacity Market revenues available either to offshore wind facilities that participate in the Offshore Wind Standard program, or to intermittent resources as a class, and (ii) does not apply generally to all generation facilities in NYISO but does apply selectively based on generator fuel or technology type, the intermittent or variable nature of the generation resource, or receipt of compensation for Environmental Attributes, the Parties shall negotiate in good faith to agree mutually to amend the definition of Reference Capacity Price in this Agreement, prospective from the Change in Law Date, to reflect a more accurate index capacity price for offshore wind facilities delivering to the NYCA, which shall be a Reference Capacity Price of zero in the event such change in Applicable Law has the effect of excluding offshore wind facilities that participate in the Offshore Wind Standard program from the NYISO Capacity Market entirely. For avoidance of doubt, changes in Applicable Law that may qualify under the first sentence of this Section 4.07(a) may include, but are not limited to: (x) changes to the scope, exemptions, or methodology for calculating the offer floors imposed by NYISO as market power mitigation measures in Section 23 of its Market Services Tariff, or any newly implemented minimum offer price rules including but not limited to the imposition of a two-stage auction to coordinate the entry of resources receiving compensation for Environmental Attributes; and (y) imposition of a capacity performance structure that would reduce the capacity value of offshore wind as a generation resource.

(b) In the event that a change in Applicable Law after the Effective Date eliminates the NYISO Capacity Market entirely and without replacement, the Parties agree the Reference Capacity Price shall be zero.

(c) In the event that a change in Applicable Law after the Effective Date changes, or on the Change in Law Date will change, the price structure or methodology, settlement, zonal structure, or terminology used in either the NYISO Energy Market or NYISO Capacity Market such that the calculation of Reference Energy Price or Reference Capacity Price as described in Section 4.03 of this Agreement becomes impossible or no longer reasonably reflects the objective of providing a market based index of energy and/or capacity prices in the zones described in Section 4.03, in each case as they existed on the Effective Date, the Parties shall negotiate in good faith to amend this Agreement, prospective from the Change in Law Date, to make such conforming changes as are necessary to achieve that objective.

Article V

Adjustments

Section 5.01. True-Up Adjustments. NYSERDA may (and, at the request of Seller, shall) review past invoices, including, but not limited to, the calculation of the Reference Energy Price and Reference Capacity Price, to determine if a true-up adjustment is necessary. If necessary, NYSERDA shall adjust, including by means of set-off, payments to subsequent invoices consistent with adjustments by NYGATS based on NYISO or other local control area billing settlement true-up procedures, based on actual metered production data measured at the Delivery Point, actual and verified data reflecting compliance with the electricity delivery requirements set forth in Article III, and/or based on the number of ORECs transferred.

Section 5.02. Time Period for Disputes and Adjustment of Invoices. A Party may seek a correction of any invoice, or any adjustment to an invoice, rendered under this Agreement within twelve (12) months of the date the invoice or adjustment to an invoice was rendered. Unless a party has submitted a written request for review of an invoice or an adjustment to an invoice within twelve (12) months of the date of the invoice or adjustment to the invoice, the invoice or adjustment shall be considered final and not subject to further adjustment.

Article VI

Records and Reports

Section 6.01. Monthly Reports. Seller shall, at NYSERDA's request, provide NYSERDA access to generation and delivery data, including detailed monthly market accounting settlement or other pertinent data from the administrator(s) of the energy market into which energy from the Selected Project was delivered, from the entity or party in control of any meter through which the energy from the Selected Project was delivered, and from the administrator of any attribute accounting system operating in such control area.

Section 6.02. Progress Reports. Beginning on the first such date following the Effective Date, and continuing through the commencement of the Contract Delivery Term, Seller shall provide quarterly written progress reports to NYSERDA, on March 1, June 1, September 1, and December 1. Progress reports shall be made based on facts known to Seller on the date of submittal to NYSERDA, and NYSERDA acknowledges that the facts underlying the subject matter of such reports are constantly changing. Such reports shall be in letter form and shall describe at a minimum (a) Seller's progress in obtaining all required environmental or other permits and/or local approvals; (b) the status of development and/or construction planning or activities with regard to the Selected Project; (c) the status of the interconnection process between the Selected Project and the administrator of the control area; (d) purchases, delivery, and/or installation of any major equipment associated with the Selected Project; (e) activities undertaken pursuant to Seller's community outreach plan, including timely notice of upcoming meetings and known outreach events and activities for the next quarter that representatives of NYSERDA may attend; (f) the status of Seller's activities associated with the New York State Supplier Opportunity (See ORECRFP18-1 at Section 2.2.9); (g) updates to Seller's Fisheries Mitigation Plan and/or Environmental Mitigation Plan; and (h) an estimated date for Commercial

Operation. Such reports shall also include copies of any permits or approvals granted and/or copies of any correspondence of any type denying or refusing any permit or approval. Seller shall notify NYSERDA within twenty (20) days of discovering any event that could reasonably cause a material delay in any of the activities listed above. Commencing with the first progress report that indicates that construction activities falling within the scope of Section 18.10 have commenced and with each subsequent progress report submitted on June 1 and December 1 thereafter, Seller shall include a written attestation prepared by a New York State independent certified public accountant or other qualified party, in a form to be agreed upon, confirming that the Prevailing Wage requirement of Section 18.10 is being met.

Section 6.03. Additional Documents. Within thirty (30) days of the Effective Date, Seller shall provide to NYSERDA:

(a) a certificate, dated as of the most recent practicable date prior to the Effective Date, issued by the Delaware Secretary of State confirming the corporate good standing of Seller;

(b) a certificate of an appropriate officer or authorized representative of Seller, dated as of the most recent practicable date prior to the Effective Date, in form and substance reasonably satisfactory to NYSERDA and certifying: (i) the names and signatures of the officers or authorized representatives of Seller authorized to sign any documents to be delivered hereunder, and (ii) the accuracy and completeness of resolutions of Seller, authorizing and approving all matters in connection with the transactions contemplated thereby; and

(c) a rendering of the site layout plan required by Section 6.4.3 of ORECRFP18-1 in shapefile format for geographic information system software.

Seller shall promptly provide NYSERDA with updated and corrected versions of the above-referenced materials upon any change in the information provided therein.

Section 6.04. Maintenance of Records. Except as excused by NYSERDA in writing, Seller shall keep, maintain, and preserve throughout the term of this Agreement and for a period of seven (7) years following the expiration of this Agreement, full and detailed books, accounts, and records pertaining to Seller's performance under the Agreement, including without limitation, all bills, invoices, payrolls, subcontracting efforts and other data evidencing, or in any material way related to, the direct and indirect costs and expenses incurred by Seller in the course of such performance. The foregoing records may be kept, maintained, or preserved on any information storage device, or one or more electronic networks or databases, provided that such records can be converted into clearly legible form within a reasonable time. Seller may destroy or otherwise dispose of a record falling within the scope of this Section seven (7) years following the creation thereof with the written consent of NYSERDA, such consent not to be unreasonably withheld.

Article VII

Audits

Section 7.01. Audits. NYSERDA shall have the right from time to time and at all reasonable times during the term of the Agreement and a period of seven (7) years thereafter to inspect and audit any and all books, accounts and records pertaining to Seller's performance under this Agreement, at the office or offices of Seller where they are then being kept, maintained and preserved in accordance with Section 6.04. If such books, accounts and records are not kept at an office within the State of New York, within a reasonable time of a request by NYSERDA, Seller shall make such books, accounts and records available to NYSERDA at NYSERDA's offices or at an agreed upon location within the State of New York. Except to the extent any invoice or adjustment to an invoice is final under Section 5.02, any invoice rendered under this Agreement shall be subject to retroactive adjustment (reduction or increase) regarding amounts included therein that are found by NYSERDA on the basis of any audit of Seller by an agency of the United States, the State of New York or NYSERDA not to constitute a properly invoiced amount.

Article VIII

Assignment and Change of Control

Section 8.01. General Restrictions. Except as specifically permitted by this Article VIII, the assignment, transfer, conveyance, or other disposal of this Agreement or any of Seller's rights, obligations, interests or responsibilities hereunder, in whole or in part, without the prior express written consent of NYSERDA is prohibited and shall be void and of no effect as to NYSERDA. Such consent shall not be unreasonably withheld, conditioned, or delayed. Seller agrees to reimburse NYSERDA for NYSERDA's reasonable costs and expenses incurred by its use of outside attorneys, consultants, accountants and advisors in connection with this Agreement in response to Seller's requests made pursuant to this Section 8.01, without regard to whether such consent is provided. NYSERDA shall provide an invoice to Seller for such charges, with appropriate documentation, and Seller shall pay such invoice within thirty (30) days. When assignable, this Agreement shall be binding upon, shall inure to the benefit of, and may be performed by, the successors and assignees of the Parties; provided, however, that no assignment, pledge or other transfer of this Agreement by Seller shall operate to release Seller from any of its obligations under this Agreement (and shall not impair any Contract Security provided by Seller hereunder) unless such assignee, pledgee or transferee (a) agrees in writing to assume all of Seller's obligations under this Agreement, and (b) provides Contract Security to replace that previously provided by Seller, in which case, at Seller's request, NYSERDA (or its successors or assigns) will execute a release of Seller from its obligations thereunder.

Section 8.02. Permitted Assignments by Seller. NYSERDA's consent shall not be required for Seller to either (a) pledge or assign the Selected Project, this Agreement, or the accounts, revenues, or proceeds from this Agreement in connection with financing arrangements, or (b) assign the Selected Project and this Agreement to an affiliate if the then-current Contract Security remains in place. Upon Seller's reasonable request, NYSERDA shall execute a consent to assignment associated with a financing in a commercially reasonable form acceptable to

NYSERDA and Seller. For purposes of this Section 8.02, the term "affiliate" shall include any company, corporation, or other entity that controls, is controlled by, or is under common control with Seller, but only for so long as such control, directly or indirectly, meets the following definition. For purposes of this definition, "control" shall mean ownership or control, directly or indirectly, of at least fifty percent (50%) of the shares having voting rights, or other equivalent rights of the subject entity entitled to vote. The affiliates of Seller (i) shall include Orsted North America Inc. and Eversource Investment LLC, together with each of their respective affiliates, and (ii) any entity that is wholly owned in equal parts by Orsted North America Inc. and Eversource Investment LLC, but (iii) shall not include (x) the Danish government or any member or instrumentality thereof or (y) any persons or entities controlled by the Danish government or any member or instrumentality thereof other than Ørsted A/S and the persons that it directly or indirectly controls.

Section 8.03. Assignment with Change of Control. Seller may, upon written notice, assign its rights and obligations hereunder, or transfer such rights and obligations by operation of law, to any entity (a) with which or into which such Seller merges or consolidates; (b) which acquires greater than fifty percent (50%) of Seller's equity interests or actual control of Seller; or (c) to which Seller transfers all or substantially all of its assets; in each case provided that such other entity agrees to be bound by the terms hereof.

Section 8.04. Participation of New York State Electric Utilities or Their Affiliates. Notwithstanding any provision to the contrary in this Article VIII, Seller may not sell, grant, transfer, or otherwise convey any right or interest in the Selected Project or any transmission facilities or transmission rights-of-way associated with the Selected Project to any New York State electric utility or affiliate thereof without NYSERDA's prior approval, which shall not be unreasonably conditioned, delayed or denied. NYSERDA shall not grant such approval absent a commitment by the subject New York State electric utility (or affiliate thereof) that such entity shall adhere to all applicable rules, restrictions, or codes of conduct approved by the PSC, including without limitation, Consolidated Edison Company of New York, Inc.'s Code of Conduct filed on March 1, 2019 in Case 15-M-0501, any subsequent revisions thereto, or any other rule of the PSC intended to protect New York State ratepayers against affiliate abuse.

Article IX

Seller's Warranties and Guarantees

Section 9.01. Seller Warranties and Guarantees. As a material inducement to NYSERDA to enter into this Agreement, Seller makes the following warranties and guarantees, as of the Effective Date, all of which shall survive the execution and delivery of this Agreement:

(a) that Seller (i) is a limited liability company duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization; (ii) has or will have all requisite corporate power, and has or will have all material governmental permits necessary to own its assets or lease and operate its properties and carry on its business as now being or as proposed to be conducted, to construct, finance, own, maintain and operate the Selected Project, to execute and deliver this Agreement, and to consummate the transactions contemplated herein; and (iii) is qualified to do business and is in good

standing in all jurisdictions in which the nature of the business conducted by it makes such qualification necessary;

(b) that the execution, delivery and performance by Seller, the entry into this Agreement by Seller, and the consummation of the transactions contemplated by this Agreement will not: (i) violate any Applicable Law or any provision of the limited liability company agreement or other governing documents of Seller; (ii) violate, conflict with, result in a breach of or constitute (alone or with notice or lapse of time or both) a default or an event of default under any indenture, agreement (including the limited liability company agreement of Seller), mortgage, deed of trust, note, lease, contract or other instrument to which Seller is a party or by which it or any of its property is bound; or (iii) result in the creation or imposition of any lien upon any property or assets of Seller;

(c) that Seller has, or reasonably expects to have prior to the time needed, all real property rights to construct, interconnect, and operate the Selected Project;

(d) that the ORECs transferred to NYSERDA under this Agreement, will be free and clear of any liens, encumbrances and/or defects of title as of the date of transfer;

(e) that the attributes included in the ORECs transferred to NYSERDA under this Agreement shall not have otherwise been, nor will be sold, retired, claimed or represented as part of electricity output or sales, or used to satisfy obligations in any other jurisdiction;

(f) that this Agreement will be duly executed and delivered by Seller and will constitute the legal, valid and binding obligation of Seller enforceable against Seller in accordance with the terms thereof;

(g) as of the Effective Date, to the best of Seller's knowledge after due inquiry, that there are no existing undisclosed or threatened material legal actions, claims, or encumbrances, or liabilities that may adversely affect Seller's performance of this Agreement or NYSERDA's rights hereunder;

(h) as of the Effective Date, that Seller has no knowledge that any information or document or statement furnished by Seller in connection with this Agreement or the documents submitted to NYSERDA under ORECRFP18-1 contain any untrue statement of a material fact or omits to state a material fact necessary to make the statement not misleading; and

(i) Seller certifies that all information provided to NYSERDA with respect to State Finance Law Sections 139-j and 139-k is complete, true and accurate.

Section 9.02. Continuing Nature of Representations, Warranties and Guarantees. The representations and warranties set forth in this Article are made as of the Effective Date and deemed made continually throughout the Contract Delivery Term, except to the extent that such representation and warranty states that it is permitted or required to be made only as of a specific date. If at any time during the Contract Delivery Term, Seller has knowledge of any event or information that causes any of the representations and warranties of an ongoing nature in this

Article IX to be untrue or misleading, Seller shall provide NYSERDA with prompt written notice of the event or information, the representations and warranties affected, and the corrective action Seller shall take. The notice required pursuant to this Section shall be given as soon as practicable after the occurrence of each such event.

Section 9.03. Limitation on Representations, Warranties and Guarantees. Except as expressly set forth herein, there is no warranty of merchantability or fitness for a particular purpose with respect to the ORECs transferred hereunder, and any and all implied warranties are disclaimed.

Article X

NYSERDA's Representations, Warranties and Guarantees

Section 10.01. NYSERDA Representations, Warranties and Guaranties. As a material inducement to Seller to enter into this Agreement, NYSERDA makes the following warranties and guarantees, as of the Effective Date, all of which shall survive the execution and delivery of this Agreement:

(a) that NYSERDA is an instrumentality of the State of New York and a public authority and public benefit corporation, created under the New York State Public Authorities Law, validly existing and in good standing under the laws of the State of New York;

(b) that NYSERDA has all necessary power and authority to execute and deliver this Agreement and all other agreements contemplated herein and hereby and to consummate the transactions contemplated hereby and thereby. The execution and delivery by NYSERDA of this Agreement and all other agreements contemplated herein and hereby and the consummation of the transactions contemplated hereby and thereby have been or, if not yet executed and delivered, will be when executed and delivered, duly authorized by all necessary actions on the part of NYSERDA, and no other actions or proceedings on the part of NYSERDA are necessary to authorize this Agreement or any other agreement contemplated herein and hereby or the consummation of the transactions contemplated hereby and thereby;

(c) that the execution, delivery and performance by NYSERDA of this Agreement does not (i) violate any Applicable Law; (ii) violate, conflict with, result in a material breach of or constitute (alone or with notice or lapse of time or both) a material default or event of default under any indenture, agreement, mortgage, deed of trust, note, lease, contract or other instrument to which NYSERDA is a party or by which NYSERDA or any of its property is bound; or (iii) result in the creation or imposition of any lien upon any property or assets of NYSERDA. This Agreement will not conflict with any other agreement or contract to which NYSERDA is a party;

(d) that this Agreement has been duly executed and delivered by NYSERDA and constitutes the legal, valid and binding obligation of NYSERDA enforceable against NYSERDA in accordance with the terms thereof;

(e) that NYSERDA is familiar with and in compliance with all Applicable Law, except where the failure to so comply would not result in a material adverse effect on NYSERDA's ability to perform its obligations; and

(f) that there is no action, suit or claim at law or in equity, or before or by a governmental authority pending or, to the best knowledge of NYSERDA after due inquiry, threatened against NYSERDA or affecting any of its properties or assets that could reasonably be expected to result in a material adverse effect on NYSERDA's ability to perform its obligations.

Section 10.02. Continuing Nature of Representations, Warranties and Guarantees. The representations and warranties set forth in this Article are made as of the Effective Date and deemed made continually throughout the Contract Delivery Term, except to the extent that such representation and warranty states that it is permitted or required to be made only as of a specific date. If at any time during the Contract Delivery Term, NYSERDA has knowledge of any event or information that causes any of the representations and warranties in this Article X to be untrue or misleading, NYSERDA shall provide Seller with prompt written notice of the event or information, the representations and warranties affected, and the corrective action NYSERDA shall take. The notice required pursuant to this Section shall be given as soon as practicable after the occurrence of each such event.

Article XI

Indemnification and Insurance

Section 11.01. Indemnification. Seller shall protect, indemnify, and hold harmless NYSERDA and the State of New York from and against all third party liabilities, losses, claims, damages, judgments, penalties, causes of action, costs and expenses (including, without limitation, reasonable attorneys' and/or experts' fees and expenses) ("Loss") imposed upon or incurred by or asserted against NYSERDA or the State of New York resulting from, or arising out of or relating to Seller's breach of this Agreement or to the extent caused by the alleged negligence, unlawful act or omission, or intentional misconduct of Seller in the course of the development of the Selected Project, or the production or delivery of ORECs under this Agreement. Seller shall have no obligation to protect, indemnify, or hold harmless NYSERDA or the State of New York with respect to any claims asserted against NYSERDA or the State of New York challenging (i) the legal validity of (a) this Agreement, (b) the purchase or sale of ORECs, or (c) the competitive solicitation process held by NYSERDA to procure ORECs; or (ii) the administration of NYGATS and/or the OREC program under the Phase 1 Order and related regulatory proceedings (including any dispute arising out of the resale of ORECs by NYSERDA). The obligations of Seller under this Article shall survive any expiration or termination of this Agreement and shall not be limited by the amount of Seller's insurance coverage.

Section 11.02. Indemnification Procedures. NYSERDA shall give reasonable notice to Seller of any claim or notice of the commencement of any action, administrative or legal proceeding or investigation as to which indemnification under this Article may apply or promptly after NYSERDA has actual knowledge of any other Loss that would result in a claim

for indemnification. NYSERDA shall reasonably cooperate with Seller in the defense of any such claim. Seller shall use counsel reasonably satisfactory to NYSERDA to defend any such claim (with consent to counsel not to be unreasonably withheld, conditioned, or delayed) and shall control the defense of any such claim. NYSERDA may participate in the defense of any such claim at its own expense. Seller may not agree to any settlement or compromise of any claim without NYSERDA's prior written consent (which consent may not be unreasonably withheld, conditioned, or delayed) that is not an unconditional release of NYSERDA from any and all liabilities upon the payment of money that will be paid by Seller.

Section 11.03. Failure to Defend. If Seller fails to assume the defense of a claim meriting indemnification, NYSERDA may at the expense of Seller contest, settle or pay such claim, and Seller shall promptly reimburse NYSERDA for all costs reasonably incurred and documented by NYSERDA associated therewith.

Section 11.04. Insurance. Seller, at no cost to NYSERDA, shall maintain or cause to be maintained, on or before the date upon which construction begins and continuing throughout the duration of the Contract Delivery Term, commercial general liability insurance in an amount customary for projects of this type and size. All such insurance shall be evidenced by certificates of insurance, each of which shall: (a) name or be endorsed to cover NYSERDA and the State of New York as additional insureds; and (b) provide that such insurance may not be cancelled or modified until at least 30 days after receipt by NYSERDA of written notice thereof.

Article XII

Economic Benefits, Fisheries, and Environmental Obligations

Section 12.01. Economic Benefits Report and Verification.

(a) Within one hundred twenty (120) days after the third anniversary of the commencement of the Contract Delivery Term, Seller shall submit an Economic Benefits Report funded at its expense and prepared in accordance with Exhibit I. The Economic Benefits Report shall calculate and verify the actual Economic Benefits, in dollars, that have resulted from Seller's activities.

(b) Within sixty (60) Business Days of receipt, NYSERDA shall either: (1) accept the Economic Benefits Report in its entirety, in writing, indicating that the total Verified Total Dollars meets or exceeds the product of 0.85 and the Expected Total Dollars, or (2) return the Economic Benefits Report to Seller with a written response to Seller explaining NYSERDA's preliminary conclusion that there is an Economic Benefits Shortfall. Such response will include a description of any Economic Benefits claimed by Seller that have been preliminarily determined to be invalid or improperly documented, if any. If NYSERDA's preliminary determination is inconsistent with the Agreed-Upon Procedures Report, such response also will explain NYSERDA's basis for such variance. Seller will be given a reasonable opportunity to dispute NYSERDA's preliminary conclusion and/or to revise and resubmit the Economic Benefits Report.

(c) Seller agrees to make reasonable efforts to undertake and complete all activities and

perform all obligations described in Exhibit D (Category 3 Economic Benefits) to this Agreement.

Section 12.02. Economic Benefits Shortfall. If there is an Economic Benefits Shortfall, Seller shall: (1) provide to NYSERDA for NYSERDA's approval a plan to make additional economic investments in New York State in an amount reasonably comparable to the amount of the Economic Benefits Shortfall; or (2) upon the mutual agreement of the Parties, pay the amount of the Economic Benefits Shortfall or cause such amount to be paid into an account for the receipt of such funds created by NYSERDA, within six (6) months of NYSERDA's final notification of the amount owed under Subsection 12.01(b) of this Agreement; such amounts may, at Seller's direction, be deducted by NYSERDA from payments owed to Seller under Article IV of this Agreement.

Section 12.03. Consultation with New York State Agencies. Seller shall consult with the Consulting State Agencies at the request of such agencies regarding the planning and development of the Selected Project, and will make best efforts to respond to feedback timely provided by the Consulting State Agencies. Concurrent with submitting the Construction and Operations Plan ("COP") for the Selected Project to BOEM, Seller shall share such COP with NYSERDA for distribution to any Consulting State Agency that may request a copy of same. NYSERDA acknowledges that, after submission of the COP, the review process organized under the National Environmental Policy Act ("NEPA") will present a forum for some New York State Agencies to participate in the analysis of the Selected Project's environmental impacts, including as cooperating agencies in the scoping, data collection, and alternatives-evaluation aspects of the NEPA process. Accordingly, NYSERDA will rely on the NEPA review process to create opportunities for the Consulting State Agencies to engage with and analyze the COP for the Selected Project to the greatest extent practicable. Nevertheless, without compromising the centrality of the NEPA review process with respect to the COP, Seller agrees to meet with Consulting State Agencies, at their reasonable request, during the development, construction, and operational phases of the Selected Project.

Section 12.04. Technical Working Group Participation. Upon NYSERDA's request, Seller shall participate in any technical working groups convened by NYSERDA and related to offshore wind development, and through such technical working groups engage with the relevant stakeholder groups regarding the Selected Project.

Section 12.05. Fisheries Mitigation Plan. Seller has provided as Exhibit E to this Agreement a Fisheries Mitigation Plan. The Parties contemplate that the Fisheries Mitigation Plan will evolve due to various factors, including, but not limited to, the State Agency Consultation and Technical Working Group Participation described above, and through interactions with BOEM and other federal agencies during the federal review of the Site Assessment Plan ("SAP") and COP. Seller shall amend the Fisheries Mitigation Plan from time to time to reflect such continuing consultation and processes and shall provide updated Fisheries Mitigation Plans to NYSERDA. Seller may also amend the Fisheries Mitigation Plan in ways that do not derive from consultation with state or federal agencies if (i) such amendment does not materially reduce Seller's mitigation commitments in the Fisheries Mitigation Plan, or (ii) NYSERDA consents in writing (such consent not to be unreasonably withheld, conditioned, or delayed). Updates to the Fisheries Mitigation Plan shall be noted in the quarterly progress reports

required by Section 6.02. Seller shall undertake all activities and perform all obligations described in the Fisheries Mitigation Plan, as provided in Exhibit E and updated from time to time, unless excused by NYSERDA on the grounds that such activities or obligations are impractical in light of project objectives or unnecessary to protect fishery resources. In the case of any inconsistency between Exhibit E and the body of this Agreement, the body of this Agreement shall control.

Section 12.06. Environmental Mitigation Plan. Seller has provided as Exhibit F to this Agreement an Environmental Mitigation Plan. The Parties contemplate that the Environmental Mitigation Plan will evolve due to various factors, including, but not limited to, the State Agency Consultation and Technical Working Group Participation described above, and through interactions with BOEM and other federal agencies during the federal review of the SAP and COP. Seller shall amend the Environmental Mitigation Plan from time to time to reflect such continuing consultation and processes and shall provide updated Environmental Mitigation Plans to NYSERDA. Seller may also amend the Environmental Mitigation Plan in ways that do not derive from consultation with state or federal agencies if (i) such amendment does not materially reduce Seller's mitigation commitments in the Environmental Mitigation Plan, or (ii) NYSERDA consents in writing (such consent not to be unreasonably withheld, conditioned, or delayed). Updates to the Environmental Mitigation Plan shall be noted in the quarterly progress reports required by Section 6.02. Seller shall undertake all activities and perform all obligations described in the Environmental Mitigation Plan, as provided in Exhibit F and updated from time to time, unless excused by NYSERDA on the grounds that such activities or obligations are impractical in light of project objectives or unnecessary to protect environmental resources. In the case of any inconsistency between Exhibit F and the body of this Agreement, the body of this Agreement shall control.

Section 12.07. Site and Environmental Data. Seller agrees to provide to NYSERDA, upon NYSERDA's request, any information or data and supporting metadata that is developed in furtherance of the Selected Project and relates to environmental characteristics, or use by wildlife, of any offshore, nearshore or onshore areas, as well as any data sponsored or developed by Seller relating to the potential impacts of the construction, operation, or decommissioning of the Selected Project on the environment and wildlife of such areas (collectively, "Site and Environmental Data"). Seller further agrees, upon NYSERDA's request, to make Site and Environmental Data publicly available on an ongoing basis as soon after collection as is practicable. Data that Seller, a third party that Seller has consulted as part of the environmental review process or in the course of developing its fisheries mitigation plan, or a regulatory authority deems proprietary or confidential business information, or otherwise is inappropriate for disclosure (such as cultural resource survey results, wind resource data, Metocean data and geophysical/geotechnical data), or that Seller has received subject to a non-disclosure agreement, will not be considered Site and Environmental Data for purposes of this Section.

Section 12.08. Lighting Controls. Seller shall make commercially reasonable efforts to design the Selected Project using lighting controls to minimize nighttime visibility from shore and risk to wildlife.

Section 12.09. Site Perimeter. Seller's Proposal included a site layout plan that delineated the perimeter of the area in which offshore wind turbines may be placed for the Selected Project

("Site Perimeter"). Pursuant to Section 6.03 of this Agreement, Seller has agreed to render the site layout plan, including the Site Perimeter, in a shapefile format for geographic information system software. Seller agrees that no more than five percent (5%) of the offshore wind electric generation facilities that comprise the Selected Project, measured on an installed capacity basis, shall be located outside Site Perimeter, as determined according to the geographic information system file submitted by Seller, without NYSERDA's prior written consent (not to be unreasonably withheld, conditioned, or delayed).

Article XIII

Events of Default

Section 13.01. Event of Default. For the purposes of this Agreement, "Event of Default" shall mean any of the following:

(a) Representations, Warranties and Guarantees. Any representation, warranty, or guarantee made in this Agreement, or any attestation made pursuant to Section 15.06 of this Agreement, that shall prove to have been false or misleading in any material respect as of the time made or deemed to be made, and such false or misleading representation, warranty, or guarantee is not fully cured within ten (10) days after the responsible Party discovers its error, provided, however, that such period shall be extended for an additional period of up to sixty (60) days if the responsible Party is unable to cure within the initial ten (10) day period so long as such cure is diligently pursued by the responsible Party until such breach has been corrected; or

(b) Other Obligations. A Party shall default in the performance of any of its obligations under Sections 2.01, 2.03, 4.05, 6.04, 7.01 and 12.02 of this Agreement and such default shall continue un-remedied for a period of thirty (30) days after the defaulting Party receives notice thereof from the non-defaulting Party; provided, however, that such period shall be extended for an additional period of up to thirty (30) days if, despite using commercially reasonable efforts, the defaulting Party is unable to cure within the initial thirty (30) day period so long as such cure is diligently pursued by the defaulting Party until such breach has been corrected; or

(c) Voluntary Proceedings. A Party shall (i) apply for or consent to the appointment of, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or of all or a substantial part of its property; (ii) make a general assignment for the benefit of its creditors; (iii) commence a voluntary case under the Bankruptcy Code; (iv) file a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or readjustment of debts; (v) fail to convert in a timely and appropriate manner, or acquiesce in writing to, any petition filed against it in an involuntary case under the Bankruptcy Code; or (vi) take any corporate action for the purpose of effecting any of the foregoing; or

(d) Involuntary Proceedings. A proceeding or case shall be commenced against a Party, without its application or consent, in any court of competent jurisdiction, seeking (i) its liquidation, reorganization, dissolution or winding-up, or the composition or readjustment

of its debts; (ii) the appointment of a trustee, receiver, custodian, liquidator or the like of all or any substantial part of its assets; or (iii) similar relief under any law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or adjustment of debts, and such proceeding or case shall continue un-dismissed, or an order, judgment or decree approving or ordering any of the foregoing shall be entered and continue un-stayed and in effect, for a period of sixty (60) or more days; or an order for relief against a Party, shall be entered in an involuntary case under the Bankruptcy Code; or

(e) Interconnection. Unless otherwise agreed in writing by NYSERDA (not to be unreasonably withheld, conditioned, or delayed), failure of the NYISO Transmission Planning Advisory Subcommittee to accept the system reliability impact study on or before [redacted]; or

(f) COP Submission. Unless otherwise agreed in writing by NYSERDA (not to be unreasonably withheld, conditioned, or delayed), failure of Seller to submit its COP to BOEM on or before [redacted]; or

(g) Abandonment. On or after the Selected Project (or any phase thereof) enters Commercial Operation, the permanent relinquishment by Seller of all of its possession and control of the Selected Project, other than a transfer permitted under this Agreement or to the extent caused by Force Majeure or an Event of Default by NYSERDA; or

(h) Failure to Provide Additional Contract Security. Failure by Seller to provide to NYSERDA, on or before January 1, 2023, and periodically thereafter, additional Contract Security, by the dates and in the amounts set out in Section 15.02, and such failure is not remedied within ten (10) Business Days of the respective due dates of such additional Contract Security; or

(i) Prevailing Wage Default. Failure by Seller to ensure that any failure to pay the Prevailing Wage in accordance with Section 18.10 is cured within 12 months from the date of written notification by NYSERDA.

Section 13.02. Effect of an Event of Default. In addition to any other remedy available to it under this Agreement or under Applicable Law, upon any occurrence of an Event of Default, the non-defaulting Party shall be entitled to suspend performance of its obligations under this Agreement until the earlier of such time as (a) such Event of Default has been cured, or (b) the non-defaulting Party has elected to terminate this Agreement pursuant to Article XIV below. Notwithstanding the foregoing, (i) for any Event of Default by Seller prior to commencement of Commercial Operation by the Selected Project (or any portion thereof), NYSERDA shall be entitled only to stipulated damages pursuant to Article XV; and (ii) for any Event of Default after commencement of Commercial Operation by the Selected Project (or any portion thereof), if NYSERDA elects not to suspend performance of its obligations and Seller transfers ORECs to NYSERDA, NYSERDA shall be obligated to accept such ORECs and pay for such ORECs in accordance with this Agreement.

Article XIV

Termination

Section 14.01. Termination. This Agreement may be terminated:

(a) at any time by either NYSERDA or Seller if: (i) an Event of Default occurs (and following the expiration of any applicable cure period), (ii) the Party seeking to terminate this Agreement hereunder is the non-defaulting Party, and (iii) the non-defaulting Party has not waived such Event of Default in writing;

(b) at any time by the mutual written consent of Seller and NYSERDA;

(c) at any time prior to Commercial Operation by Seller upon an attestation from appropriate representative of Seller that (i) the Selected Project is less than twenty-five percent (25%) constructed on an installed capacity basis, and (ii) Seller has relinquished any and all effort to further develop or construct the Selected Project;

(d) by NYSERDA in the event it is found that the certification filed by Seller in accordance with New York State Finance Law Sections 139-j and 139-k was intentionally false or intentionally incomplete;

(e) by NYSERDA in the event it is found that Seller made material misrepresentations in the certification filed by Seller in accordance with New York State Tax Law Section 5-a that were intentionally false when made.

Section 14.02. Effect of Termination. Except as otherwise set forth in Section 18.03 below, in the event of a termination of this Agreement as provided in Section 14.01 above, neither Party shall have any further right or obligation hereunder. In addition, the Parties agree that, in the case of a termination based on the default of Seller, irreparable damage would occur in the event that NYSERDA could not obtain ORECs pursuant to this Agreement from the date of Event of Default in which Seller was the defaulting Party, and accordingly, each Party hereby agrees that NYSERDA shall be entitled to elect to compel specific performance of this Agreement to compel the transfer to NYSERDA of all ORECs associated with Actual Production following the date of any termination for such an Event of Default in accordance with the terms hereof, subject to payment in accordance with this Agreement, together with any other remedy at law or equity available to NYSERDA in connection therewith, without the necessity of demonstrating the inadequacy of money damages. If NYSERDA elects to compel specific performance pursuant to the preceding sentence, NYSERDA shall notify Seller of its intention to elect such remedy within thirty (30) Business Days of terminating this Agreement in the manner provided by Section 19.01 and initiate such action promptly thereafter and such remedy of specific performance shall be in effect for the remainder of the Contract Delivery Term. Notwithstanding the foregoing, for any termination by Seller or NYSERDA prior to Commercial Operation of any portion of the Project NYSERDA shall be entitled only to stipulated damages pursuant to Article XV.

Section 14.03. Good Faith Negotiation. Both Parties agree that, should any dispute arise during the term of this Agreement, the Parties will make a good faith, though non-binding effort to reconcile any difference or dispute before the filing of an action in any court.

Section 14.04. Damages. Neither Party shall be liable to the other for consequential, incidental, punitive, exemplary, or indirect damages, lost profits or other business interruption damages arising from the breach of this Agreement; provided, however, that nothing in this Section 14.04 shall limit (i) Seller's obligations under Section 11.01 of this Agreement, or (ii) either Party's liability for fraud.

Section 14.05. No Recourse. The Parties agree that their obligations arising under (or relating to) this Agreement shall be without recourse to any member, unitholder, director, officer, shareholder, authorized representative or partner of either Party, any controlling person thereof, or any successor of any such member, unitholder, director, officer, shareholder, authorized representative partner or controlling Person (each a member of the "Extended Group"); and no member of the Extended Group shall have any liability in such capacity for the obligations of either Party; provided, however, that notwithstanding the foregoing, nothing in this Section 14.05 shall negate, excuse, limit, reduce, or otherwise affect (a) the obligations and liability of any member of the Extended Group under any guaranty executed by such member of the Extended Group pursuant to Section 15.05 below; or (b) NYSERDA's right and ability to pursue, enforce, and obtain any and all remedies and relief against any member of the Extended Group under any guaranty executed by such member of the Extended Group pursuant to Section 15.05 below. The Parties reserve the right to modify or terminate this Agreement without the consent of any member of the Extended Group.

Article XV

Contract Security

Section 15.01. Initial Contract Security. No more than five (5) Business Days after the Effective Date, unless otherwise agreed to by NYSERDA, Seller must provide Contract Security, in the form of cash, certified funds, a Letter of Credit conforming to the requirements of Section 15.03, or an Acceptable Guaranty conforming to the requirements of Section 15.05, in an amount equal to the product of the Offer Capacity (in MW) and five thousand dollars ($5,000). Seller may provide the Contract Security through any combination of the forms set forth in the preceding sentence.

Section 15.02. Additional Contract Security. Seller shall provide additional Contract Security in an amount equal to the product of the Uncompleted Offer Capacity (in MW) (less any Offer Capacity Reduction as defined in Section 15.07(b)) and twenty-thousand dollars ($20,000) on or before January 1, 2023. Every twelve (12) months thereafter, Seller shall provide incremental additional Contract Security in an amount equal to the product of the Uncompleted Offer Capacity (in MW) (less any Offer Capacity Reduction as defined in Section 15.07(b)) and ten-thousand dollars ($10,000), until such time as the Operational Installed Capacity equals or exceeds the product of 0.95 and the Offer Capacity (less any Offer Capacity Reduction as defined in Section 15.07(b)).

Section 15.03. Letter of Credit. Any Letter of Credit shall be a clean, unconditional and irrevocable standby letter of credit in favor of NYSERDA as beneficiary, issued for direct payment by a bank that is a member of the New York Clearinghouse Association, substantially in the form of the letter of credit attached hereto as Exhibit B ("Letter of Credit"), in a face amount that, either individually or in combination with another form of Contract Security under Section 15.01, is equal to the Contract Security amount, and which Letter of Credit shall provide that the issuing bank will pay to NYSERDA amounts in aggregate up to that same face amount upon presentation of only the Sight Draft in the amount to be drawn and the Payment Certificate, in the form of Annex A and Annex B, respectively, to such Letter of Credit, and have an expiration date not shorter than one (1) year together with an automatic renewal provision. Should the Operational Installed Capacity be less than the product of 0.95 multiplied by the Offer Capacity by a date thirty (30) days prior to the expiration date of the Letter of Credit, and Seller not having provided NYSERDA or arranged with NYSERDA to provide a substitute Letter of Credit prior to such expiration, NYSERDA shall be thereupon entitled to draw on the Letter of Credit for the full amount then outstanding and the funds received shall be held by NYSERDA until a substitute Letter of Credit has been provided, or for application against subsequent obligations of Seller.

Section 15.04. Replacement Letter of Credit. Any assignee within Article VIII of this Agreement shall, simultaneously with its assignment becoming effective, deliver to NYSERDA a replacement Letter of Credit meeting the requirements of this Article, and NYSERDA shall, within twenty (20) Business Days after receipt of a compliant replacement Letter of Credit, return the original Letter of Credit to Seller. Upon the failure of an assignee to deliver a compliant replacement Letter of Credit to NYSERDA simultaneously with its assignment becoming effective, NYSERDA shall be thereupon entitled to draw on the Letter of Credit for the full amount then outstanding and the funds received shall be held by NYSERDA for application against subsequent obligations of Seller and/or the assignee under this Agreement.

Section 15.05. Acceptable Guaranty. Seller may fulfill the requirements of Sections 15.01 and Section 15.02 through an Acceptable Guaranty. If at any time a guaranty provided under this Section 15.05 ceases to be an Acceptable Guaranty, Seller shall provide to NYSERDA replacement Contract Security in the form of cash, certified funds, a substitute Acceptable Guaranty, or Letters of Credit conforming to the requirements of Section 15.01 and Section 15.03 within five (5) Business Days.

Section 15.06. Refund of Security. Amounts required by Seller as Contract Security will be reduced and refunded by NYSERDA to Seller as follows:

(a) Within thirty (30) Business Days of NYSERDA's receipt of an Independent Engineer's report (which may be the same report submitted for purposes of Section 2.01(c) of this Agreement) demonstrating that the Operational Installed Capacity equals or exceeds the product of 0.95 and the Offer Capacity.

(b) On a prorated basis, expressed as a fraction of the Contract Security equal to the Operational Installed Capacity divided by the product of 0.95 and the Offer Capacity, within thirty (30) Business Days of NYSERDA's receipt of an attestation from the appropriate representative of Seller that the Operational Installed Capacity is greater than zero and less than the product of 0.95 and the Offer Capacity. For clarity, the cumulative

total amount of Contract Security returned to Seller under this Subsection 15.06(b) at any point in time shall not exceed the amount equal to the Contract Security multiplied by the Operational Installed Capacity at that point in time divided by the product of 0.95 and the Offer Capacity.

Section 15.07. Retention of Security. Amounts provided by Seller as Contract Security and not refunded pursuant to Section 15.06 above will be retained by NYSERDA as follows:

(a) In their entirety, (i) upon termination of this Agreement under Section 14.01(a) of this Agreement due to the occurrence of a Seller Event of Default if such Event of Default remains uncured after the expiration of the applicable cure period, or (ii) upon termination under Section 14.01(c);

(b) On a prorated basis if Seller notifies NYSERDA in writing that Seller intends to build the Selected Project such that, once complete, the Operational Installed Capacity will be less than the product of 0.95 and the Offer Capacity (such amount by which the Operational Installed Capacity is less than 95% of the Offer Capacity being the "Offer Capacity Reduction"). The amount that will be retained, expressed as a fraction of the total Contract Security held by NYSERDA as of the date of such notification, shall equal the Offer Capacity Reduction divided by the Offer Capacity. In the event that Seller has provided the Contract Security in the form of a Letter of Credit or an Acceptable Guaranty, NYSERDA shall be entitled to draw on the Letter of Credit or obtain payment under the Acceptable Guaranty, respectively, for the prorated amount of the Contract Security calculated in accordance with this Section 15.07(b) as of the date of Seller's written notification to NYSERDA of Seller's intent in respect of the Offer Capacity Reduction.

Section 15.08. Stipulated Damages. NYSERDA and Seller hereby agree, acknowledge and stipulate that NYSERDA's retention of amounts provided by Seller as Contract Security pursuant to this Article XV, in the proportions stated within this Article, is fair and reasonable under the circumstances and in light of the uncertainty and inability to quantify adequately the harm that would result to NYSERDA as a result of the events that permit NYSERDA to retain such amounts of the Contract Security.

Section 15.09. Failure to Extend BOEM Lease. In the event that the Contract Delivery Term exceeds the duration of Seller's offshore wind lease issued by BOEM, Seller shall use commercially reasonable efforts to seek an extension of the lease as necessary to allow the Seller to fulfill its obligations under this Agreement. If Seller is unable, wholly or in part, to perform its obligations under this Agreement due to expiration of the operations term of such lease or denial of its extension request, such non-performance shall be excused. Seller shall not be liable for any losses or damages arising out of a failure to perform that occurs due to expiration of the operations term of its offshore wind lease.

Article XVI

Force Majeure

Section 16.01. Force Majeure Defined. "Force Majeure" means an event or circumstance that was not reasonably anticipated as of the Effective Date: (a) that was not within the control of the Party claiming its occurrence; (b) that could not have been prevented or avoided by such Party through the exercise of reasonable diligence; and (c) that directly prohibits or prevents such Party from performing its obligations under this Agreement. For avoidance of doubt, to the extent meeting the foregoing requirements, examples of events that may constitute Force Majeure include:

> acts of God, an act or threatened act of the public enemy, war (imminent, declared or otherwise), blockade, accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals or other assistances to, or adjuncts of, shipping or navigation, perils of the sea, air crash, shipwreck, train wrecks or other failures or delays of transportation, nuclear emergency, radioactive contamination, cyber-attack, ionizing radiation, release of hazardous waste or materials, sabotage, terrorist acts, invasion, insurrection, riot, non-site specific industrial disturbance by a union or organized labor (including any non-site specific strike or boycott), fire, flood, lightning, earthquake, hurricane, tornado, waves or winds of extreme force, access to the Selected Project being limited due to weather or sea state conditions, extreme accumulation of snow or ice, naturally occurring epidemic, explosion or any similar cataclysmic occurrence, acts, inaction or restraints of a governmental authority (which do not constitute a change in Applicable Law falling within the scope of Section 4.07 of this Agreement) which temporarily or permanently prevent required performance under this Agreement, including limitations on the scheduling of Selected Project installation and maintenance directly arising out of or resulting from such Force Majeure or unavailability of NYGATS.

Under no circumstances shall Force Majeure include (w) any full or partial curtailment in the electric output of the Selected Project that is caused by or arises from a mechanical or equipment breakdown or other mishap or events or conditions attributable to normal wear and tear or flaws, unless such curtailment or mishap would otherwise qualify as a Force Majeure, (x) any occurrence or event that merely increases the costs or causes an economic hardship to a Party, or (y) any occurrence or event that was caused by or contributed to by the Party claiming the Force Majeure. In addition, a delay or inability to perform attributable to a Party's lack of preparation, a Party's failure to timely obtain and maintain all necessary permits or qualifications, a failure to satisfy contractual conditions or commitments, or lack of or deficiency in funding or other resources shall each not constitute a Force Majeure or be the basis for a claim of Force Majeure.

Section 16.02. Effect of Force Majeure. If either Party is unable, wholly or in part, by Force Majeure to perform obligations under this Agreement, such performance shall be excused and suspended so long as the circumstances that give rise to such inability exist or would exist if the Party claiming the Force Majeure used commercially reasonable efforts to cure such circumstances, but for no longer period. The Party whose performance is affected shall give

prompt notice thereof; such notice may be given orally or in writing but, if given orally, it shall be promptly confirmed in writing, providing details regarding the nature, extent and expected duration of the Force Majeure, its anticipated effect on the ability of such party to perform obligations under this Agreement, and the estimated duration of any interruption in service or other adverse effects resulting from such Force Majeure, and shall be updated or supplemented to keep the other Party advised of the effect and remedial measures being undertaken to overcome the Force Majeure. Such inability shall be promptly corrected to the extent it may be corrected through the exercise of commercially reasonable due diligence. Neither Party shall be liable for any losses or damages arising out of a suspension of performance that occurs because of Force Majeure.

Article XVII

Compliance with Certain Laws

Section 17.01. Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts executed and to be performed in New York State without regard to its conflicts of laws principles. The parties irrevocably acknowledge and accept that all actions arising under or relating to this Agreement, and the transactions contemplated hereby and thereby shall be brought exclusively in a United States District Court or New York State Court located in Albany, New York having subject matter jurisdiction over such matters, and each of the Parties hereby consents to and accepts such personal jurisdiction of, and waives any objection as to the laying of venue in, such courts for purposes of such action.

Section 17.02. Laws of the State of New York. Seller shall comply with all of the requirements set forth in Exhibit A hereto.

Section 17.03. All Legal Provisions Deemed Included. It is the intent and understanding of Seller and NYSERDA that each and every provision of law required by the laws of the State of New York to be contained in this Agreement shall be contained herein, and if, through mistake, oversight or otherwise, any such provision is not contained herein, or is not contained herein in correct form, this Agreement shall, upon the application of either NYSERDA or Seller, promptly be amended so as to comply strictly with the laws of the State of New York with respect to the inclusion in this Agreement of all such provisions. In such event, the Parties shall negotiate such amendment in good faith with the intent that such amendment reflects, as closely as possible, the terms and conditions of this Agreement in effect prior to such amendment; provided that such amendment shall not in any event alter (a) the purchase and sale obligations of the Parties pursuant to this Agreement, or (b) the pricing and payment provisions of this Agreement.

Section 17.04. Permits and Approvals. Seller shall be responsible to obtain all applicable permits and regulatory approvals that may be required in order to develop and/or operate the Selected Project over the duration of the Contract Delivery Term, and NYSERDA's obligations to purchase ORECs is conditional on Seller's acquisition of such permits and approvals. Nothing in this Agreement in any way replaces or modifies the necessity or applicability of any permit or approval process. Seller shall provide prompt notice to NYSERDA of the initiation of any

criminal or regulatory investigation, hearing, proceeding, or review process ("Process") by any Federal or State entity regarding any actual or alleged violation of any permit or approval obtained or applied for with respect to the Selected Project, as well as of any modification, penalty and/or fine that may be imposed or occur as a result of such a Process or violation.

Section 17.05. Other Legal Requirements. The references to particular laws of the State of New York in this Article and elsewhere in this Agreement are not intended to be exclusive and nothing contained in such Article, Exhibit and Agreement shall be deemed to modify the obligations of each Party to comply with all legal requirements.

Article XVIII

Additional Provisions

Section 18.01. Forward Contract. Each Party represents and warrants to the other that it is a "forward contract merchant" within the meaning of the United States Bankruptcy Code, that this Agreement is a "forward contract" within the meaning of the United States Bankruptcy Code, and that the remedies identified in this Agreement shall be "contractual rights" as provided for in 11 U.S.C. § 556 as that provision may be amended from time to time.

Section 18.02. Taxes/Costs. Seller shall be responsible for and obligated to pay all present and future taxes, fees, levies and costs that may be assessed by any entity including but not limited to NYGATS with respect to Seller's provision of ORECs to NYSERDA, or with respect to the measurement, tracking, and verification and participation in NYGATS necessary for the creation and transfer of the ORECs and/or the energy with which they are associated, into the NYSERDA NYGATS account.

Section 18.03. Term. Unless terminated earlier under this Article, this Agreement shall expire upon the expiration of the Contract Delivery Term. Upon such date or upon earlier termination of this Agreement under Article XIV, neither Party shall have any further obligation to the other, except that Article I, Sections 2.02, 2.03, 5.01, 7.01, 11.01, 11.02, 14.02, 15.06, 17.01, 18.03, 18.04, 19.01, 19.02, 20.01, 21.02, 21.03, 21.04, and all payment obligations under Article IV shall survive.

Section 18.04. Waiver. Either Party to this Agreement may (a) extend the time for the performance of any of the obligations or other acts of the other Party, (b) waive any inaccuracies in the representations and warranties of the other Party contained herein or in any document delivered by the other Party pursuant hereto, or (c) waive compliance with any of the agreements or conditions of the other Party contained herein. Any such extension or waiver shall be valid only if set forth in an instrument in writing signed by the Party to be bound thereby. Any waiver of any term or condition shall not be construed as a waiver of any subsequent breach or a subsequent waiver of the same term or condition, or a waiver of any other term or condition, of this Agreement. No provision of this Agreement will be deemed to have been waived unless the waiver is in writing; no delay by either Party in exercising its rights hereunder, including the right to terminate this Agreement, shall be deemed to constitute or evidence any waiver by such Party of any right hereunder. The rights granted in this Agreement are cumulative of every other right or remedy that the enforcing Party may otherwise have at law or in equity or by statute.

Section 18.05. Independent Contractor. The status of Seller under this Agreement shall be that of an independent contractor and not that of an agent, and in accordance with such status, Seller and its respective officers, agents, employees, representatives and servants shall at all times during the term of this Agreement conduct themselves in a manner consistent with such status and by reason of this Agreement shall neither hold themselves out as, nor claim to be acting in the capacity of, officers, employees, agents, representatives or servants of NYSERDA nor make any claim, demand or application for any right or privilege applicable to NYSERDA, including, without limitation, rights or privileges derived from workers' compensation coverage, unemployment insurance benefits, social security coverage and retirement membership or credit. Nothing in this Agreement shall be construed as creating a partnership, joint venture or other relationship between NYSERDA and Seller for any reason.

Section 18.06. Severability. Without limiting the terms of Section 4.01, if any provision of this Agreement shall be declared by any court of competent jurisdiction to be illegal, void or unenforceable, all other provisions of this Agreement shall not be affected and shall remain in full force and effect. If any provision of this Agreement is so broad as to be unenforceable, that provision shall be interpreted to be only so broad as will enable it to be enforced.

Section 18.07. Seller Expense. Seller shall, at its own expense, make all arrangements necessary to: (a) register the Selected Project and transfer ORECs to the NYSERDA NYGATS Account, and (b) interconnect the Selected Project and comply with the electricity delivery requirements set out in Article III. This requirement encompasses Seller's purchasing or arranging for all services including, without limitation, transmission, ancillary services, any control area services, line losses and transaction fees necessary to deliver energy to the New York Control Area, in accordance with all rules and protocols of the NYISO, throughout the Contract Delivery Term. NYSERDA shall, at its own expense, make all arrangements necessary to accept the transfer of ORECs pursuant to this Agreement, and shall be responsible for any applicable fees or charges incident to the purchase or subsequent sale of ORECs to third parties

Section 18.08. Environmental Disclosure. The Parties agree that, at the time of the execution of this Agreement, New York employs NYGATS for the tracking, registration, and trading of generation attributes, including renewable or environmental attributes or credits, and that NYGATS will be used by the New York State Department of Public Service to accomplish verification of the transactions consummated hereunder as part of the Environmental Disclosure Rules.

Section 18.09. No Third Party Beneficiaries. Nothing herein is intended to or should be construed to create any rights of any kind whatsoever in any persons not party to this Agreement.

Section 18.10. Prevailing Wage. Although this is not a public work covered by NYS Article 8, and unless otherwise provided in a PLA covering the construction of the Project, all laborers, workmen and mechanics (within the meaning of those terms under NYS Labor Law Article 8) performing construction activities within the United States (including federal waters) with respect to the Selected Project, including, but not limited to, the assembly, staging, installation, erection, and placement of the Selected Project and its electrical interconnection as well as those construction activities related to start-up and commissioning of the Selected

Project, whether through long-term or short-term employment, must be paid wages and benefits in an amount not less than the Prevailing Rates that would be applicable in the area where the Selected Project construction activities occur. For construction activities occurring in New York, the Prevailing Rates shall be determined under NYS Labor Law Section 220. For construction activities that occur outside of New York, the Prevailing Rates shall be determined under the prevailing wage law of the state in which the Selected Project construction activities occur that would be applicable to a public work. For construction activities in federal waters, the rates shall be those applicable at the location of the port or ports from which the laborers, workmen, or mechanics are based for purposes of that offshore work. For the avoidance of doubt, a laborer, workman, or mechanic will not be deemed to be based at a port due solely to his or her short-lived or incidental presence at, or transit through, the port (or state in which the port is located). Unless provided otherwise in any negotiated PLA, it is generally expected that covered construction, for the purpose of this Section, will include United States-based offsite fabrication traditionally performed on-site by construction craft when that fabrication produces items specifically designed for construction of the Selected Project, fabrication occurs off-site for the convenience of the contractor, and the fabrication is part of a single integrated construction process. This requirement applies: (1) to all laborers, workmen and mechanics performing construction activities, whether direct employees of the Seller or of Seller's subcontractor(s), and (2) regardless of whether or not such employment was claimed as an Economic Benefit in its Proposal.

Section 18.11. Project Labor Agreement.

(a) Unless extended by NYSERDA, Seller shall, no later than 30 days after the date of BOEM's approval of the COP for the Selected Project, present to NYSERDA for its review a plan outlining its intentions with respect to the negotiation of a PLA to cover construction activities within the United States (including in federal waters) on the Selected Project. NYSERDA should be kept reasonably apprised of negotiations as they proceed, and NYSERDA shall have the right to have one or more representatives attend negotiation sessions as it determines is in its best interests. A final form of PLA, agreed to by Seller and the trades, consistent with the description in Exhibit J to this Agreement shall be presented to NYSERDA for review and approval no later than 180 days after BOEM's approval of the COP for the Selected Project (unless extended by NYSERDA, which request for extension shall not be unreasonably withheld, conditioned, or delayed).

(b) NYSERDA may appoint a mediator of its own choosing who shall endeavor to assist the parties in their negotiations: (i) at any time upon mutual agreement of Seller and the trades; (ii) at the request of either Seller or the trades at any point after active negotiations on the PLA have been ongoing for no less than ninety (90) days; or (iii) at the request of either Seller or the trades at any point more than 180 days after BOEM's approval of the COP for the Selected Project. In the event that mediation does not result in a final form of PLA agreed to by the Seller and the trades within three (3) months of the date that the mediator is appointed, NYSERDA shall determine whether the time for negotiations should be extended. In the event that NYSERDA decides not to extend the time for negotiation, NYSERDA may determine that, notwithstanding good faith efforts by Seller, satisfactory completion of PLA negotiations is no longer practicable. In the event that, after good faith negotiations and mediation, NYSERDA determines that satisfactory

completion of PLA negotiations is no longer practicable, then NYSERDA may require the Seller to provide, in addition to the data and information otherwise to be maintained and that may be requested by NYSERDA pursuant to Sections 6.02, 6.04, 12.01 and 18.10, (1) a workforce development plan, and (2) a plan to implement, or information showing the completion of, appropriate worker safety training programs.

(c) NYSERDA's review of any agreed-upon final form of PLA will be based on the specific terms of the negotiated PLA and will take into account the best interests of NYSERDA with respect to the Selected Project, and the public it serves, and will include consideration of project viability, the cost-effectiveness of the PLA, and the need for timely completion of the Selected Project. NYSERDA will complete and provide the results of such review to Seller within thirty (30) days or the final form of PLA as presented shall be deemed approved. If NYSERDA disapproves the final form of PLA, NYSERDA will identify changes to the final form of PLA that would render it approvable, and Seller will promptly resume negotiations with the trades. No more than sixty (60) days after such disapproval, so long as Seller and the trades have negotiated in good faith during that period, NYSERDA will render a determination under Section 18.11(b) of this Agreement regarding whether satisfactory completion of PLA negotiations is no longer practicable.

Article XIX

Notices, Entire Agreement, Amendment, Counterparts

Section 19.01. Notices.

(a) All notices, requests, consents, approvals and other communications that may or are required to be given by either Party to the other under this Agreement shall be in writing and shall be transmitted either:

(1) via certified or registered United States mail, return receipt requested;
(2) by personal delivery;
(3) by expedited delivery service; or
(4) by e-mail, return receipt requested.

Such notices shall be addressed as follows, or to such different addresses as the Parties may from time-to-time designate as set forth in paragraph (c) below:

To Seller: c/o Orsted North America Inc.
Attn: Group Legal
437 Madison Avenue
Suite 1903
New York, NY 10022
email address: US_legal_notices@orsted.com

With copies to: Eversource Energy Service Company
800 Boylston Street, 17th Floor

Boston, MA 02199
Attn: Assistant General Counsel—Competitive Business
email address: elizabeth.maldonado@eversource.com

Ørsted A/S
Nesa Allé 1
2820 Gentofte
Denmark
Attn: General Counsel
email address: ANZHA@orsted.dk

To NYSERDA: NYSERDA
Attn: Office of the General Counsel
17 Columbia Circle
Albany, New York 12203-6399
email address: pete.keane@nyserda.ny.gov

With a copy to: NYSERDA
Attn: Large-Scale Renewables Director
17 Columbia Circle
Albany, New York 12203-6399
email address: offshorewind@nyserda.ny.gov

(b) Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt of an email acknowledgement of receipt.

(c) The Parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other Party sent in accordance herewith. The Parties agree to designate individuals mutually as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the Parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

Section 19.02. Entire Agreement; Amendment. This Agreement, including the Exhibits and Schedules hereto, embodies the entire agreement and understanding between NYSERDA and Seller and supersedes all prior agreements and understandings relating to the subject matter hereof. Except as otherwise expressly provided for herein, this Agreement may be amended, modified, changed, waived, discharged or terminated only by an instrument in writing, signed by the Party against which enforcement of such amendment, modification, change, waiver, discharge or termination is sought.

Section 19.03. Counterparts. This Agreement may be executed in counterparts each of which shall be deemed an original, but all of which taken together shall constitute one and the

same instrument. Facsimile and electronic signatures shall have the same force and effect as original signatures for all purposes of this Agreement.

Article XX

Publicity

Section 20.01. Publicity. Seller and/or the Selected Project owner will collaborate with NYSERDA with regard to the preparation of any press release, public announcement, publication or media interview with respect to the Parties' entry into this Agreement or the subject matter thereof or which concerns NYSERDA or the Offshore Wind Standard program. To the extent applicable, in any such press release, public announcement publication, or media interview Seller and/or its employees shall credit NYSERDA and the funding participation of the Offshore Wind Standard program in the activities of the Selected Project. Seller may not represent that positions taken or advanced by Seller represent the opinion or position of NYSERDA, the PSC, or the State of New York.

Section 20.02. Publication of Agreement. Seller acknowledges that NYSERDA may file this Agreement publicly with the PSC or otherwise publish the Agreement. Prior to such publication, NYSERDA will redact any critical electric infrastructure information contained in the Agreement, including in the exhibits hereto, and will consider Seller's requests for the redaction of confidential business information; provided, however that NYSERDA shall not accept any such request to redact price information contained in this Agreement.

Article XXI

Confidentiality

Section 21.01. Seller Authorization. Seller may be required to authorize the direct transfer to NYSERDA by an energy market administrator or the operator of the transmission and/or distribution system into which the energy from the Selected Project is delivered of transactional and/or delivery information and data pertinent to the verification of attribute creation and electricity delivery, and thereby to waive confidentiality with respect to the disclosure of such information to NYSERDA. To the maximum extent allowed by law, NYSERDA shall treat any such information so received in accordance with the applicable confidentiality requirements of the energy market administrator or transmission operator.

Section 21.02. Freedom of Information Law. Seller acknowledges that NYSERDA is subject to and must comply with the requirements of New York's Freedom of Information Law ("FOIL"). See Public Officers' Law Article 6.

Section 21.03. Trade Secrets/Commercial Information. The FOIL (Public Officers Law § 87(d)(2)) provides an exception to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." If NYSERDA receives a request from a third party for information or a document received from Seller and that has been marked

"Confidential" or "Proprietary," NYSERDA will process such request under the procedures provided by NYSERDA's FOIL regulations.

Section 21.04. Claim of Confidentiality. Information of any tangible form including any document that Seller wishes to be protected from disclosure to third parties, including any information provided as a part of a Proposal submitted in response to ORECRFP18-1, must be marked "Confidential" or "Proprietary" at the time such information is provided to NYSERDA. NYSERDA reserves the right to make public, after the fifth anniversary of the Contingent Award Notification Date, this Agreement, in its entirety or in part.

The Parties hereto have caused this Agreement to be executed and delivered by their duly authorized representatives.

SUNRISE WIND LLC

By:

Name: Thomas Brostrøm
Title: Authorized Representative
Date: October 21, 2019

By:

Name: Patrick P. Smith
Title: Authorized Representative
Date: October 21, 2019

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

By:

Name: Alicia Barton
Title: President and CEO
Date: October 23, 2019

The Parties hereto have caused this Agreement to be executed and delivered by their duly authorized representatives.

SUNRISE WIND LLC

By:

Name: Thomas Brostrøm
Title: Authorized Representative
Date: October 21, 2019

By:

Name: Patrick P. Smith
Title: Authorized Representative
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NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

By:

Name: Alicia Barton
Title: President and CEO
Date: October 23, 2019

EXHIBITS TO OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE STANDARD FORM PURCHASE AND SALE AGREEMENT

Exhibit A	Standard Terms and Conditions for all NYSERDA Agreements
Exhibit B	Form of Irrevocable Standby Letter of Credit
Exhibit C	NYSERDA Prompt Payment Policy
Exhibit D	Seller's Category 3 Commitments
Exhibit E	Fisheries Mitigation Plan
Exhibit F	Environmental Mitigation Plan
Exhibit G	Form of Guaranty
Exhibit H	Description of Selected Project
Exhibit I	Economic Benefits Claims and Verification
Exhibit J	Project Labor Agreement Requirements

EXHIBIT A

REVISED 5/12

STANDARD TERMS AND CONDITIONS
FOR ALL NYSERDA AGREEMENTS

(Based on Standard Clauses for New York State Contracts and Tax Law Section 5-a)

The parties to the Agreement agree to be bound by the following clauses which are hereby made a part of the Agreement:

1. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is an Agreement for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this Agreement shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. If this is a building service Agreement as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. Contractor is subject to fines of $50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this Agreement and forfeiture of all moneys due hereunder for a second subsequent violation.

2. WAGE AND HOURS PROVISIONS. If this is a public work Agreement covered by Article 8 of the Labor Law or a building service Agreement covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by NYSERDA of any NYSERDA-approved sums due and owing for work done upon the project.

3. NON-COLLUSIVE BIDDING REQUIREMENT. In accordance with Section 2878 of the Public Authorities Law, if this Agreement was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to NYSERDA a non-collusive bidding certification on Contractor's behalf.

4. INTERNATIONAL BOYCOTT PROHIBITION. If this Agreement exceeds $5,000, the Contractor agrees, as a material condition of the Agreement, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the Agreement's execution, such Agreement, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify NYSERDA within five (5) business days of such conviction, determination or disposition of appeal. (See and compare Section 220-f of the Labor Law, Section 139-h of the State Finance Law, and 2 NYCRR 105.4).

5. SET-OFF RIGHTS. NYSERDA shall have all of its common law and statutory rights of set-off. These rights shall include, but not be limited to, NYSERDA's option to withhold for the purposes of set-off any moneys due to the Contractor under this Agreement up to any amounts due and owing to NYSERDA with regard to this Agreement, any other Agreement, including any Agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to NYSERDA for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto.

6. PROPRIETARY INFORMATION. Notwithstanding any provisions to the contrary in the Agreement, Contractor and NYSERDA acknowledge and agree that all information, in any format, submitted to NYSERDA shall be subject to and treated in accordance with the NYS Freedom of Information Law ("FOIL," Public Officers Law, Article 6). Pursuant to FOIL, NYSERDA is required to make available to the public, upon request, records or portions thereof which it possesses, unless that information is statutorily exempt from disclosure. Therefore, unless the Agreement specifically requires otherwise, Contractor should submit information to NYSERDA in a non-confidential, non-proprietary format. FOIL does provide that NYSERDA may deny access to records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." [See Public Officers Law, § 87(2)(d)]. Accordingly, if the Agreement specifically requires submission of information in a format Contractor considers a proprietary and/or confidential trade secret, Contractor shall fully identify and plainly label the information "confidential" or "proprietary" at the time of disclosure. By so marking such information, Contractor represents that the information has actual or potential specific commercial or competitive value to the competitors of Contractor. Without limitation, information will not be considered confidential or proprietary if it is or has been (i) generally known or available from other sources without obligation concerning its confidentiality; (ii) made available by the owner

to others without obligation concerning its confidentiality; or (iii) already available to NYSERDA without obligation concerning its confidentiality. In the event of a FOIL request, it is NYSERDA's policy to consider records as marked above pursuant to the trade secret exemption procedure set forth in 21 New York Codes Rules & Regulations § 501.6 and any other applicable law or regulation. However, NYSERDA cannot guarantee the confidentiality of any information submitted. More information on FOIL, and the relevant statutory law and regulations, can be found at the website for the Committee on Open Government (https://openfoil.ny.gov/newfoilrequest?agencyCode=DOS) and NYSERDA's Regulations, Part 501 (https://www.nyserda.ny.gov/About/New-York-State-Regulations).

7. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION.

(a) FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER. As a condition to NYSERDA's obligation to pay any invoices submitted by Contractor pursuant to this Agreement, Contractor shall provide to NYSERDA its Federal employer identification number or Federal social security number, or both such numbers when the Contractor has both such numbers. Where the Contractor does not have such number or numbers, the Contractor must give the reason or reasons why the payee does not have such number or numbers.

(b) PRIVACY NOTIFICATION**.** The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by Contractor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law.

8. CONFLICTING TERMS. In the event of a conflict between the terms of the Agreement (including any and all attachments thereto and amendments thereof) and the terms of this Exhibit A, the terms of this Exhibit A shall control.

9. GOVERNING LAW. This Agreement shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

10. NO ARBITRATION. Disputes involving this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily required) without the NYSERDA's written consent, but must, instead, be heard in a court of competent jurisdiction of the State of New York.

11. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law and Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon NYSERDA's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify

NYSERDA, in writing, of each and every change of address to which service of process can be made. Service by NYSERDA to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

12. CRIMINAL ACTIVITY. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of any allegation previously unknown to it that the Contractor or any of its principals is under indictment for a felony, or has been, within five (5) years prior to submission of the Contractor's proposal to NYSERDA, convicted of a felony, under the laws of the United States or Territory of the United States, then NYSERDA may exercise its stop work right under this Agreement. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of the fact, previously unknown to it, that Contractor or any of its principals is under such indictment or has been so convicted, then NYSERDA may exercise its right to terminate this Agreement. If the Contractor knowingly withheld information about such an indictment or conviction, NYSERDA may declare the Agreement null and void and may seek legal remedies against the Contractor and its principals. The Contractor or its principals may also be subject to penalties for any violation of law which may apply in the particular circumstances. For a Contractor which is an association, partnership, corporation, or other organization, the provisions of this paragraph apply to any such indictment or conviction of the organization itself or any of its officers, partners, or directors or members of any similar governing body, as applicable.

13. PERMITS. It is the responsibility of the Contractor to acquire and maintain, at its own cost, any and all permits, licenses, easements, waivers and permissions of every nature necessary to perform the work.

14. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this Agreement will be in accordance with, but not limited to, the specifications and provisions of State Finance Law Section 165 (Use of Tropical Hardwoods), which prohibits purchase and use of tropical hardwoods, unless specifically exempted by NYSERDA.

15. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
625 Broadway
Albany, New York 12207
Telephone: 518-292-5200
Fax: 518-292-5884
http://www.esd.ny.gov

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
625 Broadway
Albany, New York 12207
Telephone: 518-292-5200
Fax: 518-292-5803
http://www.esd.ny.gov

The Omnibus Procurement Act of 1992 requires that by signing this Agreement, Contractors certify that whenever the total amount is greater than $1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this Agreement and agrees to cooperate with the State in these efforts.

16. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

17. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

18. PROCUREMENT LOBBYING. To the extent this Agreement is a "procurement contract" as defined by State Finance Law Sections 139-j and 139-k, by signing this Agreement the

Contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, NYSERDA may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

19. COMPLIANCE WITH TAX LAW SECTION 5-a. The following provisions apply to Contractors that have entered into agreements in an amount exceeding $100,000 for the purchase of goods and services:

a) Before such agreement can take effect, the Contractor must have on file with the New York State Department of Taxation and Finance a Contractor Certification form (ST-220-TD).

b) Prior to entering into such an agreement, the Contractor is required to provide NYSERDA with a completed Contractor Certification to Covered Agency form (Form ST-220-CA).

c) Prior to any renewal period (if applicable) under the agreement, the Contractor is required to provide NYSERDA with a completed Form ST-220-CA.

Certifications referenced in paragraphs (b) and (c) above will be maintained by NYSERDA and made a part hereof and incorporated herein by reference.

NYSERDA reserves the right to terminate this agreement in the event it is found that the certification filed by the Contractor in accordance with Tax Law Section 5-a was false when made.

20. IRANIAN ENERGY SECTOR DIVESTMENT. In accordance with Section 2879-c of the Public Authorities Law, by signing this Agreement, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the State Finance Law (See www.ogs.ny.gov/about/regs/ida.asp).

EXHIBIT B

LETTER OF CREDIT

FORM OF IRREVOCABLE STANDBY LETTER OF CREDIT

IRREVOCABLE STANDBY LETTER OF CREDIT NO. _____

DATE: _____, 20__

BENEFICIARY:
THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
17 COLUMBIA CIRCLE, ALBANY, NEW YORK 12203-6399

LADIES AND GENTLEMEN:

BY THE ORDER OF:
[SELLER]
[SELLER'S ADDRESS]

WE HEREBY ISSUE OUR IRREVOCABLE CREDIT NO: _____ IN YOUR FAVOR FOR THE ACCOUNT OF _____ (THE "SELLER") FOR AN AMOUNT OR AMOUNTS NOT TO EXCEED IN THE AGGREGATE [STATE IN WORDS] U.S. DOLLARS AVAILABLE BY YOUR DRAFTS AT SIGHT ON [INSERT NAME AND ADDRESS OF ISSUING BANK], NEW YORK, NEW YORK, USA, WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

1. YOUR SIGHT DRAFT DRAWN ON US IN THE FORM OF ANNEX A HERETO (THE "SIGHT DRAFT"); AND

2. A DATED PAYMENT CERTIFICATE PURPORTEDLY SIGNED BY A DULY AUTHORIZED OFFICER OF NYSERDA IN THE FORM OF ANNEX B HERETO (THE "PAYMENT CERTIFICATE").

MULTIPLE DRAWINGS ARE PERMITTED IN AMOUNTS NOT TO EXCEED, IN COMBINATION, THE AGGREGATE AMOUNT.

DRAWINGS PRESENTED BY FACSIMILE TO FACSIMILE NUMBER _____ ARE ACCEPTABLE; PROVIDED THAT SUCH FAX PRESENTATION IS RECEIVED ON OR BEFORE THE EXPIRY DATE ON THIS INSTRUMENT IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT, IT BEING UNDERSTOOD THAT ANY SUCH FAX PRESENTATION SHALL BE CONSIDERED THE SOLE OPERATIVE INSTRUMENT OF DRAWING. IN THE EVENT OF PRESENTATION BY FAX, THE ORIGINAL DOCUMENTS SHOULD NOT BE PRESENTED.

FUNDS UNDER THIS LETTER OF CREDIT ARE AVAILABLE TO YOU AGAINST YOUR PAYMENT CERTIFICATE AND SIGHT DRAFT PRESENTED IN FULL COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT ON OR BEFORE 5:00 P.M., NEW YORK TIME, ON THE EXPIRATION DATE HEREOF. THIS LETTER OF CREDIT WILL EXPIRE ON [INSERT DATE] SUBJECT TO THE FOLLOWING SENTENCE. IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT SHALL BE DEEMED AUTOMATICALLY EXTENDED FOR SUCCESSIVE ADDITIONAL PERIODS OF 1 YEAR FROM ANY FUTURE EXPIRATION DATE HEREOF, WITHOUT AMENDMENT, UNLESS AT LEAST 90 DAYS PRIOR TO ANY SUCH EXPIRATION DATE WE NOTIFY YOU BY COURIER OR REGISTERED MAIL THAT WE ELECT NOT TO EXTEND THIS LETTER OF CREDIT FOR ANY SUCH ADDITIONAL PERIOD.

PAYMENT AGAINST CONFORMING DOCUMENTS PRESENTED UNDER THIS LETTER OF CREDIT SHALL BE MADE BY US AT OR BEFORE 5:00 P.M., NEW YORK TIME, ON THE SECOND (OR, IN THE CASE OF A PRESENTATION AFTER 10:30 A.M., NEW YORK TIME, THE THIRD) BANKING DAY AFTER PRESENTATION.

ALL PAYMENTS MADE BY US UNDER THIS LETTER OF CREDIT WILL BE MADE IN IMMEDIATELY AVAILABLE FUNDS AND WILL BE DISBURSED FROM OUR OWN FUNDS. IF REQUESTED BY YOU, PAYMENT UNDER THIS

LETTER OF CREDIT MAY BE MADE BY WIRE TRANSFER OF FEDERAL RESERVE BANK OF NEW YORK FUNDS TO YOUR ACCOUNT IN A BANK ON THE FEDERAL RESERVE WIRE SYSTEM. BENEFICIARY'S BANK [INSERT NAME AND ACCOUNT NUMBER].

THIS LETTER OF CREDIT IS NOT TRANSFERABLE. ONLY YOU MAY MAKE ANY PAYMENT CERTIFICATE AND SIGHT DRAFT UNDER THIS LETTER OF CREDIT.

ANY SIGHT DRAFT DRAWN HEREUNDER MUST BE MARKED "DRAWN UNDER [INSERT NAME AND ADDRESS OF ISSUING BANK], STANDBY LETTER OF CREDIT NUMBER [INSERT] DATE [INSERT]."

ALL BANK CHARGES INCLUDING BUT NOT LIMITED TO, FEES OR COMMISSIONS, SHALL BE FOR APPLICANT'S ACCOUNT.

MISCELLANEOUS

THIS LETTER OF CREDIT SETS FORTH IN FULL THE TERMS OF OUR UNDERTAKING. SUCH UNDERTAKING SHALL NOT IN ANY WAY BE MODIFIED, AMENDED OR AMPLIFIED BY REFERENCE TO ANY DOCUMENT OR INSTRUMENT REFERRED TO HEREIN OR IN WHICH THIS LETTER OF CREDIT IS REFERRED OR TO WHICH IT RELATES (INCLUDING, WITHOUT LIMITATION, THE AGREEMENT) AND ANY SUCH REFERENCE SHALL NOT BE DEEMED TO INCORPORATE HEREIN BY REFERENCE ANY DOCUMENT OR INSTRUMENT.

WE HEREBY AGREE WITH YOU THAT EACH DULY COMPLETED PAYMENT CERTIFICATE AND SIGHT DRAFT DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS LETTER OF CREDIT WILL BE DULY HONORED UPON PRESENTATION TO US ON OR BEFORE THE EXPIRY DATE. THE OBLIGATION OF [ISSUING BANK] UNDER THIS LETTER OF CREDIT IS THE INDIVIDUAL OBLIGATION OF [ISSUING BANK] AND IS IN NO WAY CONTINGENT UPON REIMBURSEMENT WITH RESPECT THERETO.

EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (2007 REVISION), INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION 600 (PROVIDED, HOWEVER, THAT DRAWINGS PERMITTED HEREUNDER SHALL NOT BE DEEMED TO BE DRAWINGS BY INSTALLMENTS WITHIN ARTICLE 32 OF THE UCP) AND AS TO MATTERS NOT GOVERNED BY THE UCP, SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK AND APPLICABLE U.S. FEDERAL LAW.

PLEASE ADDRESS ALL CORRESPONDENCE REGARDING THIS LETTER OF CREDIT TO THE ATTENTION OF OUR STANDBY LETTER OF CREDIT UNIT, INCLUDING THE LETTER OF CREDIT REFERENCE NUMBER AS IT APPEARS ABOVE.

ALL PARTIES TO THIS LETTER OF CREDIT ARE ADVISED THAT THE U.S. GOVERNMENT HAS IN PLACE CERTAIN SANCTIONS AGAINST CERTAIN COUNTRIES, INDIVIDUALS, ENTITIES, AND VESSELS. OUR ENTITIES, INCLUDING BRANCHES AND, IN CERTAIN CIRCUMSTANCES, SUBSIDIARIES, ARE/WILL BE PROHIBITED FROM ENGAGING IN TRANSACTIONS OR OTHER ACTIVITIES WITHIN THE SCOPE OF APPLICABLE SANCTIONS.

[NAME AND ADDRESS OF ISSUING BANK]

_____
AUTHORIZED SIGNATURE
OF OFFICER OF ISSUING BANK

Annex A to Exhibit B - Irrevocable Standby Letter of Credit

SIGHT DRAFT

Letter of Credit No. _____

Date of Letter of Credit: _____

Date of Draft: _____

FOR VALUE RECEIVED

Pay on Demand to: THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, U.S. _____ Dollars (U.S. $_____). The amount of this draft does not exceed the amount available to be drawn by the Beneficiary under the Letter of Credit.

Charge to account of [Name of Seller].

Drawn under [Name of Bank] Letter of Credit No. _____.

Payment by the bank pursuant to this drawing shall be made to _____, ABA Number _____, Account Number _____, Attention: _____, Re: _____.

To: [Issuing Bank]
[Address]
Attention: _____

_____
As Beneficiary

By: _____
[Name and Title]

Annex B to Exhibit B - Irrevocable Standby Letter of Credit

PAYMENT CERTIFICATE

To:
[Issuing Bank]
[Address]

Re: Irrevocable Standby Letter of Credit No: _____ [Insert]

The undersigned, a duly authorized officer of the undersigned Beneficiary, hereby certifies to [Issuing Bank], with reference to the Irrevocable Standby Letter of Credit No: [Insert] ("Letter of Credit"), that Seller, having provided the Letter of Credit to the New York State Energy Research and Development Authority ("NYSERDA") as Security for performance under NYSERDA Agreement No. _____ ("Agreement) in the aggregate amount of $_____, ("Letter of Credit Amount") either [check the appropriate space]:

_____ Seller failed to provide and maintain contract security in the manner required by Article XV of Agreement, under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

_____ The Agreement has been Terminated prior to Commercial Operation; under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

_____ Seller failed to provide to NYSERDA proof that the system reliability impact study was accepted by the NYISO Transmission Planning Advisory Subcommittee within the timeline prescribed by Section 13.01(e) of the Agreement.

_____ Seller failed to submit its Construction and Operations Plan to The Bureau of Ocean Energy Management within the U.S. Department of the Interior within the timeline prescribed by Section 13.01(f) of the Agreement.

_____The Operational Installed Capacity is less than 95% of the Offer Capacity or Seller has notified NYSERDA in writing that Seller intends to build the Selected Project such that, once complete, the Operational Installed Capacity will be less than 95% of the Offer Capacity; under either which circumstance, NYSERDA is authorized to draw a percentage of the Letter of Credit Amount, such percentage will be equal to 95% of the Offer Capacity minus the actual or intended Operational Installed Capacity, divided by the Offer Capacity.

_____ Seller has assigned its rights under the Agreement and the assignee has not delivered to the undersigned Beneficiary a replacement letter of credit satisfying the requirements of the Agreement; under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount;

_____the Letter of Credit is currently set to expire within thirty (30) days and the Seller has not made arrangements acceptable to the undersigned Beneficiary to provide a substitute letter of credit prior to such expiration; under which circumstance NYSERDA is authorized and entitled to draw an amount equal to one-hundred (100) percent of the Letter of Credit Amount.

The terms used herein which are not specifically defined herein are defined in the Letter of Credit or the Agreement, referenced above.

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this payment Certificate as of the ____ day of _____.

_____
As Beneficiary

By: _____
[Name and Title]

EXHIBIT C

NYSERDA PROMPT PAYMENT POLICY STATEMENT

504.1. Purpose and Applicability.

(a) The purpose of this Exhibit is to provide a description of Part 504 of NYSERDA's regulations, which consists of NYSERDA's policy for making payment promptly on amounts properly due and owing by NYSERDA under this Agreement. The section numbers used in this document correspond to the section numbers appearing in Part 504 of the regulations.[3]

(b) This Exhibit applies generally to payments due and owing by the NYSERDA to the Contractor pursuant to this Agreement. However, this Exhibit does not apply to Payments due and owing when NYSERDA is exercising a Set-Off against all or part of the Payment, or if a State or Federal law, rule or regulation specifically requires otherwise.

504.2. Definitions. Capitalized terms not otherwise defined in this Exhibit shall have the same meaning as set forth earlier in this Agreement. In addition to said terms, the following terms shall have the following meanings, unless the context shall indicate another or different meaning or intent:

(a) "Date of Payment" means the date on which NYSERDA requisitions a check from its statutory fiscal agent, the Department of Taxation and Finance, to make a Payment.

(b) "Designated Payment Office" means the Office of NYSERDA's Controller, located at 17 Columbia Circle, Albany, New York 12203.

(c) "Payment" means payment properly due and owing to Contractor pursuant to Article IV of this Agreement.

(d) "Prompt Payment" means a Payment within the time periods applicable pursuant to Sections 504.3 through 504.5 of this Exhibit in order for NYSERDA not to be liable for interest pursuant to Section 504.6.

(e) "Payment Due Date" means the date by which the Date of Payment must occur, in accordance with the provisions of Sections 504.3 through 504.5 of this Exhibit, in order for NYSERDA not to be liable for interest pursuant to Section 504.6.

(f) "Proper Invoice" means a written request for Payment that is submitted by a Contractor setting forth the description, price or cost, and quantity of goods, property or services delivered or rendered, in such form, and supported by such other substantiating documentation, as NYSERDA may reasonably require, including but not limited to any requirements set forth in this Agreement; and addressed to NYSERDA's Controller, marked "Attention: Accounts Payable," at the Designated Payment Office.

[3] This is only a summary; the full text of Part 504 can be accessed at: https://www.nyserda ny.gov/About/New-York-State-Regulations

(g)(1) "Receipt of an Invoice" means:

(i) if the Payment is one for which an invoice is required, the later of:

(a) the date on which a Proper Invoice is actually received in the Designated Payment Office during normal business hours; or

(b) the date by which, during normal business hours, NYSERDA has actually received all the purchased goods, property or services covered by a Proper Invoice previously received in the Designated Payment Office.

(ii) if the Agreement provides that a Payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice the 30th calendar day, excluding legal holidays, before the date so specified or predetermined.

(2) For purposes of this subdivision, if the Agreement requires a multifaceted, completed or working system, or delivery of no less than a specified quantity of goods, property or services and only a portion of such systems or less than the required goods, property or services are working, completed or delivered, even though the Contractor has invoiced NYSERDA for the portion working, completed or delivered, NYSERDA will not be in Receipt of an Invoice until the specified minimum amount of the systems, goods, property or services are working, completed or delivered.

(h) "Set-off" means the reduction by NYSERDA of a payment due a Contractor by an amount equal to the amount of an unpaid legally enforceable debt owed by the Contractor to NYSERDA.

504.3. Prompt Payment Schedule. Except as otherwise provided by law or regulation or in Sections 504.4 and 504.5 of this Exhibit, the Date of Payment by NYSERDA of an amount properly due and owing under this Agreement shall be no later than thirty (30) calendar days, excluding legal holidays, after Receipt of a Proper Invoice.

504.4. Payment Procedures.

(a) Unless otherwise specified in this Agreement, a Proper Invoice submitted by the Contractor to the Designated Payment Office shall be required to initiate payment for goods, property or services. As soon as any invoice is received in the Designated Payment Office during normal business hours, such invoice shall be date-stamped. The invoice shall then promptly be reviewed by NYSERDA.

(b) NYSERDA shall notify the Contractor within fifteen (15) calendar days after Receipt of an Invoice of:

(1) any defects in the delivered goods, property or services;

(2) any defects in the invoice; or

(3) suspected improprieties of any kind.

(c) The existence of any defects or suspected improprieties shall prevent the commencement of the time period specified in Section 504.3 until any such defects or improprieties are corrected or otherwise resolved.

(d) If NYSERDA fails to notify a Contractor of a defect or impropriety within the fifteen (15) calendar day period specified in subdivision (b) of this section, the sole effect shall be that the number of days allowed for Payment shall be reduced by the number of days between the 15th day and the day that notification was transmitted to the Contractor. If NYSERDA fails to provide reasonable grounds for its contention that a defect or impropriety exists, the sole effect shall be that the Payment Due Date shall be calculated using the original date of Receipt of an Invoice.

(e) In the absence of any defect or suspected impropriety, or upon satisfactory correction or resolution of a defect or suspected impropriety, NYSERDA shall make Payment, consistent with any such correction or resolution and the provisions of this Exhibit.

504.5. Exceptions and Extension of Payment Due Date. NYSERDA has determined that, notwithstanding the provisions of Sections 504.3 and 504.4 of this Exhibit, any of the following facts or circumstances, which may occur concurrently or consecutively, reasonably justify extension of the Payment Due Date:

(a) If this Agreement provides Payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice, if any documentation, supporting data, performance verification, or notice specifically required by this Agreement or other State or Federal mandate has not been submitted to NYSERDA on a timely basis, then the Payment Due Date shall be extended by the number of calendar days from the date by which all such matter was to be submitted to NYSERDA and the date when NYSERDA has actually received such matter.

(b) If an inspection or testing period, performance verification, audit or other review or documentation independent of the Contractor is specifically required by this Agreement or by other State or Federal mandate, whether to be performed by or on behalf of NYSERDA or another entity, or is specifically permitted by this Agreement or by other State or Federal provision and NYSERDA or other entity with the right to do so elects to have such activity or documentation undertaken, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when any such activity or documentation has been completed, NYSERDA has actually received the results of such activity or documentation conducted by another entity, and any deficiencies identified or issues raised as a result of such activity or documentation have been corrected or otherwise resolved.

(c) If an invoice must be examined by a State or Federal agency, or by another party contributing to the funding of the Contract, prior to Payment, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when the State or Federal agency, or other contributing party to the Contract, has completed the

inspection, advised NYSERDA of the results of the inspection, and any deficiencies identified or issues raised as a result of such inspection have been corrected or otherwise resolved.

(d) If appropriated funds from which Payment is to be made have not yet been appropriated or, if appropriated, not yet been made available to NYSERDA, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when such funds are made available to NYSERDA.

504.6. Interest Eligibility and Computation. If NYSERDA fails to make Prompt Payment, NYSERDA shall pay interest to the Contractor on the Payment when such interest computed as provided herein is equal to or more than ten dollars ($10.00). Interest shall be computed and accrue at the daily rate in effect on the Date of Payment, as set by the New York State Tax Commission for corporate taxes pursuant to Section 1096(e)(1) of the Tax Law. Interest on such a Payment shall be computed for the period beginning on the day after the Payment Due Date and ending on the Date of Payment.

504.7. Sources of Funds to Pay Interest. Any interest payable by NYSERDA pursuant to Exhibit shall be paid only from the same accounts, funds, or appropriations that are lawfully available to make the related Payment.

504.8. Incorporation of Prompt Payment Policy Statement into Contracts. The provisions of this Exhibit shall apply to all Payments as they become due and owing pursuant to the terms and conditions of this Agreement, notwithstanding that NYSERDA may subsequently amend its Prompt Payment Policy by further rulemaking.

504.9. Notice of Objection. Contractor may object to any action taken by NYSERDA pursuant to this Exhibit that prevents the commencement of the time in which interest will be paid by submitting a written notice of objection to NYSERDA. Such notice shall be signed and dated and concisely and clearly set forth the basis for the objection and be addressed to the Vice President, New York State Energy Research and Development Authority, at the notice address set forth in Article XIX of this Agreement. The Vice President of NYSERDA, or his or her designee, shall review the objection for purposes of affirming or modifying NYSERDA's action. Within fifteen (15) working days of the receipt of the objection, the Vice President, or his or her designee, shall notify the Contractor either that NYSERDA's action is affirmed or that it is modified or that, due to the complexity of the issue, additional time is needed to conduct the review; provided, however, in no event shall the extended review period exceed thirty (30) working days.

504.10. Judicial Review. Any determination made by NYSERDA pursuant to this Exhibit that prevents the commencement of the time in which interest will be paid is subject to judicial review in a proceeding pursuant to Article 78 of the Civil Practice Law and Rules. Such proceedings shall only be commenced upon completion of the review procedure specified in Section 504.9 of this Exhibit or any other review procedure that may be specified in this Agreement or by other law, rule, or regulation.

504.11. Court Action or Other Legal Processes.

(a) Notwithstanding any other law to the contrary, the liability of NYSERDA to make an interest payment to a Contractor pursuant to this Exhibit shall not extend beyond the date of a notice of intention to file a claim, the date of a notice of a claim, or the date commencing a legal action for the payment of such interest, whichever occurs first.

(b) With respect to the court action or other legal processes referred to in subdivision (a) of this section, any interest obligation incurred by NYSERDA after the date specified therein pursuant to any provision of law other than Public Authorities Law Section 2880 shall be determined as prescribed by such separate provision of law, shall be paid as directed by the court, and shall be paid from any source of funds available for that purpose.

EXHIBIT D

SELLER'S CATEGORY 3 COMMITMENTS

CATEGORY 3 INPUT ACTIVITIES

This Exhibit D includes Category 3 economic benefits associated with Seller's business engagement and workforce development plans. Category 3 consists of input activities that provide opportunities for New York State supply chain, workforce, and research and development. This category includes programmatic actions that will have desirable impacts on the New York State supply chain and workforce, but the value of which is not denominated in dollars and is therefore indirectly tied to, or difficult to compare to the expenditures grouped under Category 1 or Category 2 in Exhibit I of this Agreement.

1. Business Engagement Plan

In connection with the development, construction and operation of the Selected Project, and in order to realize the Economic Benefits, and to engage New York State Firms, Seller will use reasonable efforts in accordance with Section 12.01(c) of this Agreement to foster opportunities for New York State businesses through the following business engagement plan.

(i) Identification of Applicable New York State Firms

Seller will endeavour to identify New York State Firms with the applicable experience by providing to Empire State Development Corporation ("ESDC") a detailed description of the services (including, to the extent reasonably practicable, relevant commodity codes for such services utilized by the ESDC's business directories) expected to be used in connection with the development, construction, operations and maintenance of the Selected Project, and requesting that ESDC provide access to contact information of New York State Firms registered or otherwise qualified to provide such services—including registered small businesses, as well as Minority-owned businesses and Woman-owned businesses, in accordance with New York State Executive Law Article 15-A and 5 NYCRR Parts 142-144 and Service-Disabled Veteran-Owned Businesses, in accordance with Article 17-B.

(ii) Raising Awareness of Supplier Opportunities with the Selected Project

Seller has established a project website that contains information on how to register as a supplier. Seller will maintain this website, or a suitable substitute, over the full development phase of the Selected Project, in order to raise awareness of potential supplier opportunities. Upon receipt of contact information for New York-based businesses from ESDC, Seller will send e-mail and/or USPS correspondence to each prospective vendor making them aware of the opportunity to register on the website. Seller also will transparently collaborate with existing and potential supply chain suppliers to provide greater near-term visibility of the market and support the investment cases for enhanced supply chain capability to engage New York businesses.

(iii) Hosting Supplier Events

To raise awareness of potential opportunities, Seller will require its General Contractors, together or individually, to participate in at least three "Supplier Forums" for New York State Firms. Such events will identify potentially available scopes of work in which New York State Firms

can participate in the Selected Project. The events will be coordinated with local chambers of commerce and other business organizations. Seller will continue to promote and support supply chain opportunities at industry events and conferences for the North American offshore wind market. Seller also intends to adopt a multi-pronged approach to help New York suppliers improve their competitiveness and overcome barriers to entry, such as:

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

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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

[redacted]

2. Workforce Engagement Plan

Seller plans a comprehensive approach to engage New York State labor in the development, construction and operation of the Selected Project.

Through its Category 1 expenditures for labor-related expenditures (see Section II of Exhibit I), Seller and its General Contractors will be fostering significant job creation in New York. The Seller's Category 2 investments (see Section II of Exhibit I) will complement the need for a skilled New York State workforce for the offshore wind industry. Seller's Business Engagement Plan will, in addition to these, facilitate more opportunities for the workforce in New York State, including:

- Good Faith Efforts to Execute one or more Project Labor Agreement(s) – Consistent with Section 18.11 of this Agreement, a PLA for the Selected Project would result in the direct engagement of the union workers in New York State, and in building the necessary skills to serve the offshore wind industry within the trades.
- [redacted]

Between the direct jobs the Selected Project will create and the training pipeline the Selected Project will support through its direct investments, New York State and its residents stand to directly benefit. Additional indirect and induced jobs will derive from these actions spurring larger economic GDP growth.

EXHIBIT E

FISHERIES MITIGATION PLAN

Fisheries Mitigation Plan

for

Sunrise Wind

Version 1.0

Prepared Pursuant to

Section 12.05 of the Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement by and Between the New York State Energy Development and Research Authority and Sunrise Wind LLC dated October 23, 2019

Albany, NY

Prepared by

October 23, 2019

Record of Revision

Version No. and Revision Date	Description of changes	Revision on pages
[Version No; date]	[Original issue]	[page(s)]

Communication Officers, Contact Information, Links		
Name/Title	**Role**	**Contact Information**
John O'Keeffe **Head of Marine Affairs**	Lead for marine stakeholder communications and fisheries department; F-TWG attendee	Phone: 857-332-4485 Email: JOHNO@orsted.com
Rodney Avila **Corporate Fisheries Liaison**	Collect data about the structure of fishing communities associated with the Project area.	Phone: 857-332-4479 Email: RODAV@orsted.com
Julia Prince **NY/CT Fisheries Liaison**	Collect data about the structure of fishing communities associated with the Project area.	Phone: 857-348-3263 Email: JULPR@orsted.com
Julie Evans (NY)	Fisheries Representative-Collect and disseminate information and serve as a conduit for concerns.	jevansmtk@gmail.com
Sid Holbrook (CT)	Fisheries Representative-Collect and disseminate information and serve as a conduit for concerns.	sidholbrook@gmail.com
Massachusetts Lobstermen Association (MA)	Fisheries Representative-Collect and disseminate information and serve as a conduit for concerns.	beth.casoni@lobstermen.com
Martha's Vineyard Fishermen Preservation Trust (MA)	Fisheries Representative-Collect and disseminate information and serve as a conduit for concerns.	shelley.edmundson@gmail.com
New Bedford Port Authority (MA)	Fisheries Representative-Collect and disseminate information and serve as a conduit for concerns.	Pamela.Lafreniere@newbedford-ma.gov
Rodman Sykes (RI)	Fisheries Representative-Collect and disseminate information and serve as a conduit for concerns.	crfisheries@gmail.com

Fisheries Science Coordinator – Role Advertised	Receive, process and disseminate scientific data collected in the Lease Area(s)	Contact details to be confirmed

Links to project information:

Project website: https://us.orsted.com/Wind-projects

Fisheries website: https://us.orsted.com/Mariners

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1. Fisheries Mitigation Plan Summary

1.1. Overall philosophy and principles

This section should describe the overall philosophy and principles the Developer will follow to avoid, minimize, restore, and off-set potential fisheries impacts.

- Sunrise Wind is committed to maintaining a strong working relationship with all commercial and recreational fishermen who may be affected by a wind farm or wind farm activities in and around a lease area. Sunrise wind believes that good communication is essential to creating understanding between those who provide food for our tables and those who provide electricity for our homes. While not all conflicts can be resolved through communication alone, open and honest interaction helps to manage conflicts when they arise and identify ways to avoid or mitigate impacts that may occur.
- Communications, coordination, collaboration, and coexistence are the core principles of Sunrise Wind's fisheries engagement philosophy.

1.2. Overall approach to incorporating data and stakeholder feedback

This section should describe how the Developer will use research, data, and stakeholder feedback to update the FMP and support decision-making throughout the life cycle of the project (pre-construction, surveys, site design, construction, operations, and decommissioning).

- Sunrise Wind will build sustainable working relationships with stakeholders throughout the phases of the Project – with a focus on meaningful engagement that produces mutual benefits;
- Sunrise Wind will adopt a collaborative science approach with the fishing industry throughout all phases of the Project and share non-proprietary research and information;
- Sunrise Wind will engage and listen to representatives of the many different types of fishing activities that take place in the Project area;
- Sunrise Wind will aim, where possible, to mitigate and reduce potential impacts to fishing activities;
- Sunrise Wind will share relevant information about the proposed activities that could affect the fishing industry and coordinate activities with a view to minimizing impacts on fishermen;
- Sunrise Wind will seek input from Fisheries Representatives and Liaisons and other industry organizations to continually improve coordination with commercial and recreational fishermen of all gear types;
- Sunrise Wind will strive to fairly and quickly resolve conflicts between the Project and individual fishermen; and

1.3. Existing guidance and best practices that will be followed

This section should present a list of existing guidance documents, publications, tools, and/or plans that will be followed to support the FMP. Include links, if available, for all references.

- Sunrise Wind will follow the "Fisheries Communication and Outreach Plan" developed by Ørsted. This plan guides engagement and feedback with the commercial and recreational fishing community.
    - https://orstedcdn.azureedge.net/-/media/WWW/Docs/Corp/US/Mariners/Fisheries-Plan-Final.ashx?la=en&rev=6af2139ac2d549d683fc2a0f7f2ae532&hash=8804EF50129A9F89DE961546C61F24EB
- Sunrise Wind will implement mitigation strategies as discussed in:
    - Bureau of Ocean Energy Management (BOEM) Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 Code of Federal Regulations (CFR) Part 585.
        - https://www.boem.gov/Social-and-Economic-Conditions-Fishery-Communication-Guidelines/
    - Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf Report on Best Management Practices and Mitigation Measures: A final report for the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewal Energy Programs, Herndon, VA. OCS Study BOEM
        - https://www.boem.gov/OCS-Study-BOEM-2014-654/)
- Sunrise Wind will seek input from the New York State Fisheries Technical Working Group (NYSERDA 2019) pursuant to Section 12.04 of the Agreement.
        - https://nyfisheriestwg.ene.com/

2. Communications and Collaboration Approach

2.1. Overview and communication plan objectives

This section should provide an overview of the communication plan and objectives and its importance in fisheries migration.

- It is the goal of Sunrise Wind is to establish a "good neighbor" working relationship with commercial and recreational fisheries operating in and near our projects. The Ørsted "Fisheries Outreach and Communication Plan" (linked in Section 1.3) outlines how the Sunrise team seeks to minimize disruption of fishing activities during all phases of development and maximize ease of access and safe navigation for fishing activities during wind farm operations.
- Additionally, Sunrise Wind intends to develop a Project-specific appendix to the "Fisheries Communications and Outreach Plan" (linked in Section 1.3), consistent with the approach used by Ørsted in other offshore wind projects, and with location-specific details.

2.2. Communication officers/positions, responsibilities, and contact information

This section will provide a list of roles, name, and contact information. The list should provide stakeholders with an understanding of who should be called for a particular issue or question. It will also include links to the project and fisheries website so readers know where to find additional information.

Name/Title	Role/Responsibilities	Contact Information
John O'Keeffe **Head of Marine Affairs**	Lead for marine stakeholder communications and fisheries department; F-TWG attendee	Phone: 857-332-4485 Email: JOHNO@orsted.com
Rodney Avila **Corporate Fisheries Liaison**	Collect data about the structure of fishing communities associated with the Project area.	Phone: 857-332-4479 Email: RODAV@orsted.com
Julia Prince **CT/NY Fisheries Liaison**	Collect data about the structure of fishing communities associated with the Project area.	Phone: 851-348-3263 Email: JULPR@orsted.com
Julie Evans (NY)	Fisheries Representative- Collect and disseminate information and serve as a conduit for concerns.	jevansmtk@gmail.com
Sid Holbrook (CT)	Fisheries Representative- Collect and disseminate information and serve as a conduit for concerns.	sidholbrook@gmail.com
Massachusetts Lobstermen Association (MA)	Fisheries Representative- Collect and disseminate information and serve as a conduit for concerns.	beth.casoni@lobstermen.com

Martha's Vineyard Fishermen Preservation Trust (MA)	Fisheries Representative- Collect and disseminate information and serve as a conduit for concerns.	shelley.edmundson@gmail.com
New Bedford Port Authority (MA)	Fisheries Representative- Collect and disseminate information and serve as a conduit for concerns.	Pamela.Lafreniere@newbedford-ma.gov
Rodman Sykes (RI)	Fisheries Representative- Collect and disseminate information and serve as a conduit for concerns.	crfisheries@gmail.com

Project website: https://us.orsted.com/Wind-projects

Fisheries website: https://us.orsted.com/Mariners

2.3. Identification of fishing industry stakeholders

This section should describe the process by which stakeholders relevant to fisheries and the fishing industry will be identified and classified by stakeholder group.

- Sunrise Wind will collect data about the structure of fishing communities associated with the Project area through its extensive network of Fisheries Liaisons (FLs) and Fisheries Representatives (FRs), as described in the "Fisheries Outreach and Engagement Plan" (linked in Section 1.3). This plan includes a detailed outline of the responsibilities and qualifications of the FLs and FRs and recognizes the importance of these roles and credentials for successful outreach due to the complexities of the fishing industry with multiple gear types, port sizes, locations, and many small businesses.
- Regulatory/agency and other stakeholders will be identified based on assessments to determine permits, approvals, authorizations, or consultations required for the Project at the local, state or federal levels.
- Sunrise Wind will also work with the New York State Fisheries Technical Working Group (F-TWG) pursuant to Section 12.04 of the Agreement to identify relevant stakeholders including advocacy groups and research entities.
- Sunrise Wind also recognizes the Responsible Offshore Development Alliance (RODA) and Responsible Offshore Science Alliance (ROSA) as important regional stakeholders working on behalf of the commercial fishing community.

2.4. Participation in stakeholder and technical working groups

2.4.1. Communication with F-TWG

This should describe the communication and collaboration approach with members of the F-TWG and consultations.

- Sunrise Wind's Project representatives attended the F-TWG kick off meeting in November 2018.
- Sunrise Wind will continue working with the F-TWG and attend future meetings and workshops pursuant to Section 12.04 of the Agreement.
- Updates to this Plan are anticipated based on engagement with the F-TWG.

2.4.2. Communication with other New York State agencies

This should describe communication with New York State agencies during each phase of the project.

- Sunrise Wind will consult with NYS agencies pursuant to Section 12.03 of the Agreement.
- Pursuant to Section 12.03 of the Agreement, Sunrise Wind anticipates consulting with NYSDEC Division of Fish and Wildlife, the Marine Resources Advisory Council, and the New York State Department of State (DOS). Such communication is anticipated to include discussion of potential impacts to fisheries from survey activities and construction of the Project, including communication protocols.

2.4.3. Communication with other stakeholder and working groups

This should describe any relevant participation with other stakeholder groups, such as international fisheries groups that would help inform the FMP.

- Sunrise Wind will coordinate with Massachusetts Department Marine Fisheries (MADMF), Massachusetts Coastal Zone Management (MACZM), the Massachusetts Fisheries Working Group, Rhode Island Department Marine Fisheries (RIDMF), Rhode Island Coastal Resources Management Council (RICRMC), and the Rhode Island Fisheries and Habitat Advisory Boards regarding the identification and engagement of fishery stakeholders.
- Sunrise Wind is committed to collaborating with Responsible Offshore Development Alliance (RODA) and Responsible Offshore Science Alliance (ROSA) as well as local, state and federal agencies in development of regional science strategies.

2.5. Communication methods and tools

2.5.1. Methods by phase

This section should describe the communication and outreach methods and tools that will be employed for each stakeholder group during each phase of the project.

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Notices and facilitation (as necessary) of discussions and meetings with local fishermen in Project-associated ports	X	X		
Notification and information about survey activities distributed through digital listservs	X	X		
Notification and information about survey activities directly to fishermen active in the survey area	X	X		
Wide distribution of contact information for Fisheries Representatives/Liaisons	X	X		
Engagement of a network of Fisheries Representatives/Liaisons for information distribution	X	X		
When appropriate, placement of experienced fishing captains on survey vessels to assist in communications and de-confliction during survey activities	X	X		
Use of very high frequency (VHF) to communicate vessel intentions at designated intervals during on water activity	X	X		
Local Mariners Briefings posted on website	X	X		
Develop and follow written procedures for gear interactions that may occur in the Project Area	X	X	X	X

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Work with fishing gear groups to consider potential conflicts with gear types in the context of seasonal schedules	X	X		
Social mapping through interviews and other information sources	X	X		
A Marine Coordination Center that will be used as a base of communications for all Project vessel activity to maritime stakeholders which may include technology such as VHF/UHF marine radio and AIS monitoring.		X	X	X
Regular stakeholder meetings to provide information on non-routine maintenance and servicing activities (if necessary), to identify issues or concerns.			X	X
Fisheries Liaison to enable prompt response to stakeholder questions or concerns.	X	X	X	X
The Fisheries Outreach network for distribution of information on operations activities and maintenance vessel deployment as needed.			X	X
An open-door policy for feedback on the Project	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*				

2.5.2. Communication with vessels

This section should describe communication methods/tools with vessels actively fishing in areas in or adjacent to the Project area during site assessment and construction activities and facilitate proper notification to vessels and resource managers.

- The "Fishing and Outreach Plan" (linked in Section 1.3) describes the Project team's communication objectives, methods and tactics and during site assessment and construction activities.
- Additionally, a fishing captain or other experienced representative from the fishing industry will be onboard survey vessels, when available, to advise the vessel master and crew on fishing activity encountered. Representation depends in part on berth availability on vessels.
- The fisherman or other experienced representative from the fishing industry, chosen for his/her depth of knowledge of the local fishery, assists in avoiding gear interactions, serves as a trustworthy point-of-contact for fishermen on the marine radio, and collects valuable data on vessels and fisheries active in the survey area.

2.5.3. Protection of confidential information

This section should describe how confidential information shared by stakeholders will be protected.

- Sunrise Wind follows a company protocol for protection of confidential information shared by stakeholders.

3. Monitoring and Research Pre-, During, and Post-Construction

3.1. Identification of scope of monitoring activities/studies

This section should provide an overview of the anticipated monitoring activities, including how the specific scope of monitoring activities will be identified and what types of scientific questions will be addressed.

- Sunrise Wind will develop study topics and methodologies through an iterative process that includes input from fisheries stakeholders, the F-TWG, and regulatory authorities.
- The "Fisheries Outreach and Engagement Plan" (linked in Section 1.3) further describes the Developer's commitment to collaborative science and monitoring to better understand the impact of offshore wind projects on fish and fish habitats.

3.2. Baseline data and characterization approach

This section should describe how baseline data will be established on the spatial and temporal presence of fish and invertebrates in the proposed area of the Project at multiple life history stages included egg, larval, juvenile, adult, and spawning stages, as well as associated fish and invertebrate habitats.

3.2.1. Existing literature and data of benthic and fisheries resources

Describe existing literature and datasets that are available for baseline characterization.

- Without limitation, the following studies are available to assess the baseline characteristics for fish, invertebrates and their habitats occurring within the Project area, including but not limited to:
    - NYSERDA and/or NYSDEC studies on marine wildlife;
    - BOEM studies on marine species and lobsters and crabs;
    - NOAA studies on trawl surveys, sea scallops, and clams;
    - Other state and regional studies on ocean trawls surveys;
    - Additional studies by, RICRMC, RIDMF, MADMF, and MACZM in the waters of the northeast Atlantic related to of offshore wind development; and
    - Studies that Sunrise Wind or its affiliates have conducted in the Lease Areas and surrounding waters of the north Atlantic.
- Based on the existing literature and datasets:
    - The relevant Lease Area(s) can be characterized as: Complex ecosystem with multiple commercially valuable species including scallops, longfin squid, surf clam, etc.
    - Finfish within the vicinity of the Project Area can be categorized in two groups based on vertical habitat use: demersal and pelagic.
        - Demersal fish likely to occur in Project Area include: American plaice, Atlantic cod, black sea bass, haddock, monkfish, ocean pout, red hake, scup, skates (barndoor, little, thorny, winter), smooth dogfish, spiny

dogfish, silver hake, summer flounder, tautog, windowpane flounder, winter flounder, witch flounder and yellowtail flounder.
        - Pelagic fishes likely to occur include: Sharks, tunas (including the Atlantic Bluefin tuna), bluefish, butterfish, cobia, American eel, American shad, Atlantic herring, Atlantic mackerel, blueback herring, king mackerel, menhaden, Spanish mackerel, and striped bass
    - Common commercially harvested species in the relevant Lease Area(s) include: several species of skate and shark, longfin squid, red and silver hake, monkfish, scup summer flounder, yellowtail flounder, black sea bass, Atlantic herring, Atlantic mackerel, butterfish, bluefish, striped bass, tunas, mahi mahi, swordfish, American lobster, soft shell clam, Atlantic surf clam, blue crabs, horseshoe crabs, blue mussels, bay scallops, sea scallops, conch, eastern oyster, and northern quahog.
    - The relevant Lease Area(s) contain known spawning area for commercially harvested squid
    - Juveniles of several species of flounder have been observed in the relevant Lease Areas.
    - Winter flounder "are suspected" of spawning in the relevant Lease Area(s)
- Since August 2016, Sunrise Wind and its affiliates have been completing geophysical, geotechnical, and benthic surveys, as well as desktop analyses, to identify areas of sensitive benthic habitat in relevant Lease Area(s). As part of the regulatory process, Sunrise Wind will continue to conduct these surveys within the remainder of the Project Area, and along the proposed export cable route to New York.

3.2.2. Data collected of benthic and fisheries resources

This section should describe survey activities undertaken or that will be undertaken by the Developer that will inform the baseline characterization of benthic and fisheries resources.

- Since August 2016, Sunrise Wind and its affiliates have been completing geophysical, geotechnical, and benthic surveys, as well as desktop analyses, to identify areas of sensitive benthic habitat in the relevant Lease Area(s). As part of the regulatory process, Sunrise Wind will continue to conduct these surveys within the remainder of the Project Area, and along the proposed export cable route to New York.
- Sunrise Wind will conduct additional surveys as part of the permitting process to inform the baseline characterization including:
    - benthic habitat surveys to characterize the benthic habitat; and
    - geotechnical and high resolution geophysical (HRG) surveys.
- Sunrise Wind will coordinate with federal and state agencies and other stakeholders (e.g., universities) to further develop a baseline characterization of the Project Area.

3.2.3. Existing literature and data of the fishing industry

This section should describe the existing literature and data that are available for baseline characterization of the commercial and recreational fishing industry.

- Without limitation, the following studies are available to develop a baseline characterization of the commercial and recreational fishing industry in the area:
    - Public AIS, VMS and landings data, WindPlot data from fishermen, NMFS VTR and VMS data, and by consulting with various fishing stakeholders to determine where and how they fish and how they transit to and from their fishing grounds.

3.2.4. Data collected by the Developer or the fishing industry

This section should describe data collected, or will be collected, to support baseline characterization.

- Sunrise Wind will rely on information from interviews with fishermen that frequent the Project Area which have been conducted, as well as future interviews.
- Sunrise Wind will log data and information collected during other outreach activities and feedback from the fishing industry.
- Sunrise Wind believes that the more data that can be collected and interpreted will help both industries coexist together.
- Additionally, the Sunrise Wind will rely on the other forms of data collection described in section 3.2.

3.3. Monitor for potential impacts during each phase

This section should describe how potential impacts will be monitored on these types of life history stages during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

- Sunrise Wind plans to conduct site-specific studies during each project phase, the scope and methodologies for which will be determined in collaboration and fisheries stakeholders.
- Sunrise Wind will work with local stakeholders, including fishermen, to identify assessment priorities using outreach, surveys and questionnaires to assist in building consensus.
- Sunrise Wind also intends to use other agencies and stakeholder groups (e.g., E-TWG and F-TWG) to identify research needs and opportunities.

3.4. Assess and quantify changes to fishery resources

This section should describe how changes to fisheries resources will be quantified using statistically sound methods

- Sunrise Wind plans to conduct site-specific studies and the scope will be determined with commercial and recreational fishermen, regulatory authorities, and the F-TWG.

3.5. Assess potential changes to commercial and recreational fishing activities

3.5.1. Current and historical usage

This section should describe how the proposed Project area is used by commercial and recreational fisheries in the region, including current and historic usage as well as associated transit routes.

- Sunrise Wind will conduct research to assess current use of Project Area using the methods outlined below;
- Sunrise Wind will proactively set up and engage in discussions and participate in workshops with fishermen and local organizations to inform the mapping of typical transit routes taken by fishermen.
- Sunrise Wind is committed to reviewing public AIS, VMS and landings data, view WindPlot data from fishermen, and consulting with various fishing stakeholders to analyze where and how they fish and how they transit to and from their fishing grounds, and intends to incorporate such information into project design, layout and navigational risk assessments.

3.5.2. Changes in usage

This section should describe how changes in commercial and recreational fishing patterns will be calculated postconstruction using statistically sound methods.

- Sunrise Wind is committed to monitoring navigation data and information and continuing to consult with fishery stakeholders to analyze the extent and impact of deviations to transiting routes and fishing patterns resulting from the Project Area.
- Sunrise Wind will engage with fishermen to gain a greater understanding of how commercial and recreational fisheries are used in waters in and around the Project Area.

3.6. Addressing data gaps

This section should describe how data gaps will be addressed.

- Sunrise Wind will work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.

3.7. Data availability

This section should describe how fisheries data will be made available in accordance with Section 2.2.5 of the RFP.

- Sunrise Wind will make environmental data available in accordance with Section 12.07 of the Agreement which reflects Section 2.2.5 of the RFP.

4. Supporting Other Research

4.1. Support of collaborative research

This section should describe how opportunities for developing or investing in collaborative research with the fishing industry to collect ecological and/or fishing data will be identified and undertaken. The description must account for the need to coordinate with members of the F-TWG during data gathering and assessment.

- Sunrise Wind is committed to supporting third party research associated with development of the Project and intends to take a collaborative approach to science. Sunrise Wind has committed to providing funds to support third party research as outlined in Section 4.4.
- Sunrise Wind supports the Responsible Offshore Science Alliance (ROSA), which establishes science priorities collaboratively with agencies and the fishing industry and maximizes the value of the investment spent on fisheries science.
- Sunrise Wind will engage with the F-TWG, in accordance with Section 12.04 of the Agreement, regarding potential research topics, scopes and methodologies.
- Sunrise Wind intends to participate in transit studies and discussions as part of the F-TWG.
- Sunrise Wind will use a Science Coordinator to facilitate reasonable requests for data and other forms of participation in science initiatives designed to enhance understanding of impacts from offshore wind.

4.2. Handling/processing requests

This section should describe how requests for coordination with third-party supported scientists will be processed - including providing reasonably-requested Project data and access to the Project area for independent scientists examining environmental and fishery sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates and fisheries for the purpose of publication in peer reviewed journals.

- Sunrise Wind will use a designated Science Coordinator to receive, process and collaborate on reasonable requests for Project data.
- Sunrise Wind will establish a workspace to coordinate and facilitate data sharing.
- Sunrise Wind intends to coordinate with other vessels, including research vessels, for independent scientists to examine any environmental sensitivities as a result of the project.

4.3. Proposed restrictions

This section should describe any restrictions on data provision or access that may be required to protect trade secrets or maintain site security.

- Sunrise Wind will use a Science Coordinator who will consider any restrictions on data provision or access that Sunrise Wind believes may be required to protect trade secrets or maintain site security as part of that process.

4.4. Financial commitment for third party research

This section should provide a level of financial commitment, if elected, that will be appropriated to leverage third-party environmental research funding related to fish, invertebrates and fisheries, including federal or State-supported research. Or, if elected, provide the level of commitment to a general fund for supporting third-party research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development.

- Sunrise Wind has made commitments to third-party environmental research funding. The details of these commitments are being finalized and will be announced at a future date.

4.5. Proposed or existing commitments/collaborations

This section should describe proposed or existing commitments and collaborations with third-party researchers in support of monitoring activities and assessing impacts.

- Sunrise Wind is developing site-specific studies which would examine fisheries and benthic resource topics, such as larval distributions, benthic habitat quality, distribution of nonindigenous/invasive species, and distribution and abundance of selected commercial fisheries species within the region of influence of the Project
- Sunrise Wind will coordinate with research vessels, including fishing vessels used for research, for independent scientists to examine fishery sensitivities and other environmental topics.
- Sunrise Wind will use commercial fishing vessels for the research it conducts whenever feasible, available, and appropriate.
- Sunrise Wind is developing additional commitments and collaborations with third-party researchers which will be announced when details of the collaborations are finalized.

5. Proposed Mitigation of Impacts to Benthic/Fishery Resources

5.1. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and risks to benthic/fishery resources and proposed mitigation measures. To this end, a description of how the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area will be considered in mitigating impacts should be included. The mitigation measures should also demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g. orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The section should also describe the planned operational protocol to avoid, minimize, and mitigate impacts to fish, invertebrates and fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers.

Potential Impacts	Proposed Mitigation Measures[4]	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources	• Conducting geophysical and geotechnical surveys, benthic surveys, and desktop analyses to inform site design and layout • Seeking input from regulators, the fishing industry, and maritime industry to locate foundations and cable routes in the least impactful manner that is practicable	X			
Temporary, alteration of the seabed and localized increases in noise and turbidity	• Mobile fish and invertebrates are expected to temporarily leave the area in response to construction or decommissioning activity. Because identical habitat is widely available in the immediate area, the temporary displacement is not considered significant. • Committed to noise attenuation technologies to reduce sound from pile driving of foundations, pursuant to regulatory concurrence		X		X

[4] All proposed mitigation measures are subject to applicable regulatory processes and applicable permit requirements. This list of proposed mitigation measures is a good faith statement of currently anticipated mitigation measures. Actual mitigation measures will be pursuant to applicable permits and may vary from this list.

Potential Impacts	Proposed Mitigation Measures[4]	Phase*			
		1	2	3	4
	• Time of year restrictions on construction will reduce impacts on some biological resources. Time of year restrictions will be pursuant to regulatory concurrence.				
Changes to water quality from accidental spills and/or releases, and erosion and run-off during onshore construction	• Implementation of a Stormwater Pollution Prevention Plan (SWPPP) • Implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan • Implementation of an Oil Spill Response Plan (OSRP) • Implementation of an Erosion and Sediment Control Plan		X	X	X
Long-term changes to seabed, and habitat	• Populations of benthic organisms would not be significantly diminished by the small area of sea floor that will be disturbed by the Project construction • Use of horizontal direction drill at the landfall to minimize impacts to sensitive shoreline vegetation and shellfish resources.		X	X	
Colonization of encrusting invertebrates on wind turbine generators (WTG), which will quickly lead to the development of biogenic habitat and associated communities centered on the structures	• The shift toward a structure-based community is considered desirable because it supports higher trophic level fish that are of commercial and recreational value.		X	X	X
Mobile fish and invertebrates expected to leave area and return within several months of construction	• Because identical habitat is widely available in the immediate area, the temporary displacement is not considered significant.		X		
Distribution of mobile species, including lobsters, groundfish, and pelagic predators	• Within several months of completion of construction, the abundance and distribution of benthic invertebrates is expected to return to pre-construction conditions • Methods under evaluation to limit impacts include: ○ Micrositing WTG and export cable locations to avoid sensitive habitats where feasible;		X	X	X

Potential Impacts	Proposed Mitigation Measures[4]	Phase*			
		1	2	3	4
	○ Burying cables wherever feasible using the most appropriate tools and methods; ○ Conducting pre- and post-construction surveys and assessments; ○ Slow start (ramp up) of pile driving equipment; ○ Emplacement of scour protection; and ○ Reduction of marine debris.				
EMF Impacts	• Cable shielding to minimize EMF • Target burial depths for the export cables and inter-array cables will minimize EMF impacts		X	X	
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

5.2. Coordination with F-TWG and other stakeholders

This section should describe how the Developer will engage with stakeholder groups such as the F-TWG and other regional fishermen and shipping and navigation to determine Project layouts that address stakeholder concerns. Specifically, describe the key types of information and design decisions where feedback will be solicited from stakeholders.

Sunrise Wind will coordinate with the F-TWG (in accordance with Section 12.04 of the Agreement) and stakeholders to address concerns and mitigate impacts to benthic/fisheries resources as follows:

- Engage with stakeholder groups and F-TWG, regional fishermen and other maritime stakeholders such as maritime experts, consultants and marine safety committees to refine Project layouts.
- Undertake Navigational Safety Risk Assessment (NSRA) with the USCG and other agencies.
- Work with fisherman and other stakeholders through the dedicated Marine Affairs Department to address key concerns such as navigation, vessel access and safety.
- Obtain input and feedback on project design through membership and presentation in maritime committees, organizations and associations along the US East Coast, including the Propeller Club which has a chapter in New York.

6. Proposed Mitigation of Impacts to the Recreational and Commercial Fishing Industry

6.1. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and risks to recreational and commercial fishing and proposed mitigation measures. To this end, this section should describe how the potential adverse impacts of infrastructure design elements (e.g., turbine spacing and layout, turbine foundation type, cable burial and protection methods, and cable crossing designs) on fishing in the proposed Project area will be considered in mitigating impacts. The mitigation measures should also demonstrate that the Project area and proposed site design allows for reasonable flexibility in the site layout (e.g. orientation of turbine lines, distance between turbines, and navigation areas) to accommodate changes that may be needed in the future. The section should also describe the planned operational protocol to avoid, minimize, and mitigate impacts to fish, invertebrates and fisheries during Project construction and operation phases, such as vessel transit routes, designation and monitoring of safety zones, gear monitoring and retrieval, and communication with fishing vessels and resource managers.

Potential Impacts	Proposed Mitigation Measures[5]	Phase*			
		1	2	3	4
Fishing gear loss	• Training and communication following Gear Loss Prevention and Claim Procedure • Will bury export cables to appropriate depth to minimize risk. If depth cannot be reached, will add protective materials over cable		X	X	
Fishing vessel accidents/impacts during construction	• Engage in notification campaigns to alert fishermen of the schedule of construction activities • Communicate with vessels, including fishing vessels near construction areas using "multiple forms of media"		X		
Transit routes for fisherman	• Design elements for consideration include spacing between turbines and developing a layout with east-west rows of turbines, which will allow easier transit	X	X	X	
EMF Impacts	• Cables will be buried to an appropriate depth range, and where achieving target burial depths is prevented due to	X	X		

[5] All proposed mitigation measures are subject to applicable regulatory processes and applicable permit requirements. This list of proposed mitigation measures is a good faith statement of currently anticipated mitigation measures. Actual mitigation measures will be pursuant to applicable permits and may vary from this list.

Potential Impacts	Proposed Mitigation Measures[5]	Phase*			
		1	2	3	4
	constraints, for example hard bottom, practical low impact solutions such as appropriate cable mattresses will be utilized • Will use cable shielding to minimize EMF				
Impacts to sensitive areas	• Work with stakeholders to collect data and avoid siting the project in sensitive areas to the extent reasonably practicable	X	X		
General impacts	• Utilize Marine Coordination Center to consider and take into account stakeholder concerns		X	X	
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

6.1.1. General approach to avoiding and mitigating fishing gear loss

This section should describe how potential loss of fishing gear due to snags on turbine structures, associated cables or cable mattresses, or related structures installed or deployed as a result of offshore wind energy development, will be minimized.

- Sunrise Wind published a "Gear Loss Prevention and Claim Procedure", which it will follow. https://orstedcdn.azureedge.net/-/media/WWW/Docs/Corp/US/Mariners/Fishing-Gear-Conflict-Prevention-and-Claim-Procedure-FINAL.ashx?la=en&rev=176e942db6bd421c92f54923683004c5&hash=2CFFBF24BBABC8CF80893829A1D19501
    - Sunrise Wind will engage with communication and training to seek to minimize impacts.
    - Sunrise Wind's communication activities to prevent potential fishing gear loss will include:
        - Dockside: Fisheries Liaisons work with port Fisheries Representatives to identify mariners who fish in areas where on-water work is planned and to communicate with those fishermen directly
        - Website: Information for Mariners page will include project specific information and details for on water activities including vessel names and how to contact them: https://us.orsted.com/Mariners
        - Jump drives will be loaded with locations of existing facilities.
        - VHF updates will be provided daily
        - Transit routes: Project vessels will attempt to follow general transit routes to and from port, as safe navigation practices permit
- Sunrise Wind will undertake the following training activities:
    - Personnel working offshore will be trained on the procedures and on how to identify/avoid fishing gear.

- Contractors will be given a briefing on the importance of the local fishing communities and instructed to communicate early and often with fishing vessels while always following USCG Rules of the Road.

- Sunrise Wind will gather feedback on lessons learned, which will be incorporated into training and communications.
- Sunrise Wind will bury export cables to appropriate depth to minimize risk. If the "appropriate depth" cannot be reached, Sunrise Wind will add protective materials over cable.

6.1.2. Processing claims for lost fishing gear

This section should describe how the Developer will approach claims of lost gear in the event of a snag that provides for a fair and timely review of the claim and appropriate compensation of impacted parties.

- The Fisheries Liaisons and Fisheries Representatives will be key members of the gear claim review process.
- A qualified, independent third-party will be engaged for any claims appeals.
- The Fishing Gear Conflict Prevention and Claim Procedure can be found on the Ørsted Mariners page and on the following link https://orstedcdn.azureedge.net/-/media/WWW/Docs/Corp/US/Mariners/Gear-Plan-Redesign_Sept-2019.ashx?la=en&rev=3de711f948dc47a8bc41a1cc4e58a418&hash=BA81853C5418891FB65BC512879D7DB6

Strategies to develop alternate protocols

This section should describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- Sunrise Wind will engage with BOEM, NOAA Fisheries, and other fisheries stakeholders to identify and implement appropriate and practicable measures to avoid, minimize, and/or mitigate impacts throughout all phases of the Project as required by applicable permits.
- Following identification of potential impacts, Sunrise Wind will work with regulators to establish processes for evaluating the effectiveness of selected mitigation strategies. Additionally, it will coordinate with federal and state agencies to identify additional mitigation strategies or potential modifications to selected mitigation measures that may be implemented in the event the base mitigation strategies are determined to be insufficient by relevant regulatory agencies.

6.2. Coordination with F-TWG and other stakeholders

This section should describe how the Developer will engage with stakeholder groups such as the F-TWG and other regional fishermen and shipping and navigation to determine Project layouts that address stakeholder concerns. Specifically, describe the key types of information and design decisions where feedback will be solicited from stakeholders.

Sunrise Wind will coordinate with the F-TWG (in accordance with Section 12.04 of the Agreement) and stakeholders to address concerns and mitigate impacts to the fishing industry as follows:

- Engage with stakeholder groups and F-TWG, regional fishermen and other maritime stakeholders such as maritime experts, consultants and marine safety committees to refine Project layouts.
- Undertake Navigational Safety Risk Assessment (NSRA) with the USCG and other agencies.
- Work with fisherman and other stakeholders through the dedicated Marine Affairs Department to address key concerns such as navigation, vessel access and safety.
- Obtain input and feedback on project design through membership and presentation in maritime committees, organizations and associations along the US East Coast, including the Propeller Club which has a chapter in New York.

7. Project Decommissioning

7.1. Potential impacts based on available information and experience

This section should describe potential impacts to benthic/fisheries and the fishing industry from decommissioning the project, based on available information and relevant experience (if any).

- In March 2017, Orsted became the first developer to decommission an offshore wind project, the Vindeby Offshore Wind Farm near Lolland, Denmark (Vindeby Project).
- Sunrise Wind waste handling processes during decommissioning will focus on re-use or recycling and use disposal as the last option.
- Sunrise Wind anticipates that impacts to marine mammals, sea turtles, birds, bats and fisheries would be similar to the construction phase.

7.2. Approach for developing plan and coordination with stakeholders

This section should describe how a decommissioning plan will be developed to identify and mitigate potential impacts, including coordination with fisheries stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage.

- Sunrise Wind will decommission the project in accordance with a detailed Project-specific decommissioning plan that will be developed in compliance with applicable laws, regulations, and generally-accepted industry practices that exist at the end of the Project's operational life.
- Sunrise Wind will develop the decommissioning plan in coordination with stakeholders including regulatory agencies, fisheries and marine stakeholders, and local communities.

8. (Optional) Fisheries Compensation Plan

8.1. Consideration of compensation plan

If a fisheries compensation plan is being considered to offset impacts, this section should describe how it will determine instances where all reasonable attempts to avoid and minimize Project impacts, or restoration to predevelopment conditions are not feasible and some type of fisheries compensation plan is warranted.

- Sunrise Wind will make a decision on whether to implement a fisheries compensation plan (and if so, the relevant details) at a later date, and in connection with the permitting process.

8.2. Approach to developing compensation plan

8.2.1. Coordination with stakeholders

This section should describe how a fisheries compensation plan was, or will be developed; how the Developer will coordinate with the F-TWG and other entities in the design or review of the fisheries compensation plan.

- Sunrise's first priority is to ensure co-existence with the fishing industry in a positive and pro-active open dialogue.
- In the event a compensation plan is determined to be warranted, Sunrise will consider a fund approach, versus individual compensation approach, which has been recommended by the fishing industry. The decision to create a fund, as well as the development of an allocation framework for such a fund would be informed by engagement with the F-TWG and the fishing industry.

8.2.2. Third-party administration

This section should describe how the compensation plan will be administered by a nongovernmental third-party to provide reasonable and fair compensation for impacts that cannot be sufficiently addressed through other means.

- Sunrise Wind will make a determination of whether to create a fund, following the open dialogues with interested parties outlined throughout this document and will identify a third-party fund manager if an overall decision to implement a fund has been made.

Sunrise Wind will ensure that the third party has the appropriate qualifications and capacity to make fair and reasonable decisions for impacts that the offshore wind farm may have.

9. Additional Considerations

9.1. Additional mitigation strategies and FMP refinement

This section should describe any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the fishing community. In addition, describe how the FMP will be updated and refined based on additional information and stakeholder feedback.

- Sunrise Wind will update and refine the FMP, pursuant to Section 12.05 of the Agreement, in response to additional information on the Project area that is collected through additional survey work and outreach, as well as further development of the permit applications and Project design.

9.2. Process for updating the FMP

This section should describe how feedback from the fishing industry stakeholders, F-TWG, and other agencies and working groups will be incorporated and updated in the FMP.

- Sunrise Wind anticipates that stakeholder feedback will play an integral role in shaping study scopes and protocols to support fisheries mitigation measures that may be needed in response to assessment findings.
- Updates to the FMP are anticipated, pursuant to Section 12.05 of the Agreement, on a bi-annual basis and on an ad-hoc basis in connection with milestone events, such as preparation for permitting filings or finalization of study plans.
- Updates to the FMP are intended to reflect the results of iterative exchanges with members of the F-TWG. E-TWG and relevant stakeholders, and to be made in a manner consistent with Section 12.05 of the Agreement.

EXHIBIT F

ENVIRONMENTAL MITIGATION PLAN

Environmental Mitigation Plan

for

Sunrise Wind

Version 1.0

Prepared Pursuant to

Section 12.06 of the Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement by and Between the New York State Energy Development and Research Authority and Sunrise Wind LLC dated October 23, 2019

for

New York State Energy Research and Development Authority

Albany, NY

Prepared by

Sunrise Wind LLC

October 23, 2019

Record of Revision		
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1. Environmental Mitigation Plan Summary

1.1. Overall philosophy and principles

This section should describe the overall philosophy and principles the Developer will follow to avoid, minimize, restore, and off-set potential environmental impacts.

- At Orsted, we have a vision of a world that runs entirely on green energy. As one of the world's largest green energy developers, sustainability is deeply rooted in what we do and who we are as a company. As part of our overall philosophy we have built our sustainability targets around the UN's Sustainable Development Goals and assisted with writing the UN Sustainable Ocean Global Principles. Our annual Sustainability report can be found here - https://orstedcdn.azureedge.net/-/media/Annual_2018/Sustainability_report_2018.ashx?la=en&rev=ae72e27749aa4a34a5f2d91783da7431&hash=75AB7D9FEE750ED5FBB41D7CA5E32980
- All energy infrastructure is built in a unique environment where we aim to do our utmost to protect the natural ecosystems. It is central that we manage environmental impacts on these ecosystems well to acquire permission to build wind farms. In 2018, we adopted a new offshore wind biodiversity policy - (https://orstedcdn.azureedge.net/-/media/WWW/Docs/Corp/COM/Sustainability/Orsted-Offshore-Wind-Biodiversity-Policy.ashx?la=en&rev=be32532eb16a4b20b1f86eed77050e92&hash=D309C9DA9A633E1C47D168ACBD254797).
- The policy is built on our long-term experience and understanding of the biodiversity challenges we face when building offshore wind farms.
- Sunrise Wind will prioritize avoiding and/or minimizing environmental impacts through siting, design, and real time mitigation, consistent with its environmental stewardship approach under pinned by the Orsted values outlined above.
- Sunrise Wind understands and is committed to early identification of potential impacts, in order to avoid an impact, or to plan for impact mitigation.
- Sunrise Wind will address environmental impacts in siting of the Project components in accordance with all permits and approvals required for the Project, including all permits and approvals from applicable governmental and regulatory authorities charged with protecting the environment.
- Sunrise Wind recognizes the benefits of monitoring activities for this Project as well as the value of project-specific data for informing future aspirations for offshore wind development.
- Sunrise Wind will focus on restoring potentially impacted resources and, to the extent applicable, offsetting the environmental impact when environmental impacts cannot be avoided where possible within the parameters of the Project, in all instances as provided in applicable permits and approvals.

1.2. Overall approach to incorporating data and stakeholder feedback

This section should describe how the Developer will use research, data, and stakeholder feedback to update the EMP and support decision-making throughout the life cycle of the project (pre-construction, surveys, site design, construction, operations, and decommissioning).

- Sunrise Wind will work proactively to identify impacts with stakeholders including, but not limited to, federal and state agencies, Native American Tribes, environmental Non-Government Organization ("e-NGOs"), scientific experts, and state groups like the NYSERDA Environmental Technical Working Group ("E-TWG"). This will involve regular update meetings and briefings to those stakeholders identified above. Additionally, Sunrise will endeavor to incorporate feedback from the stakeholders identified to reduce impacts where appropriate.
- Sunrise Wind will review existing research and data, seek input from stakeholders, and conduct surveys of the Project Area, which will inform decisions made throughout the design, permitting, construction, operation, and decommissioning of the Project.
- Sunrise Wind will review proposed survey rationales and methodologies with regulatory stakeholders, along with surveys already conducted, and seek input on survey work, as well as design, construction, and operation and decommissioning plans for the Project.
- Sunrise Wind will host regular progress meetings with agencies (including relevant New York State Agencies) to provide status updates, planned project activities (i.e. field surveys, siting, etc.) and to solicit feedback as required in connection with permitting processes and permit requirements. Sunrise Wind will endeavor to incorporate feedback into Project plans where appropriate.
- Sunrise Wind will support collaborative science to further understand the potential impacts of offshore wind and will take the results into account in the development, design, construction, and operation of the Project.

1.3. Existing guidance and best practices that will be followed

This section should present a list of existing guidance documents, publications, tools, and/or plans that will be followed to support the EMP. Include links, if available, for all references.

- Sunrise will follow relevant guidance documents and rely on publications, tools and/or plans to support development of the EMP in accordance with applicable permit requirements. Such guidance documents are expected to include, but not be limited to, the following:

  Guidance Documents:
  - Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (BOEM 2018)
    - https://www.boem.gov/Draft-Design-Envelope-Guidance/
  - Guidelines for Providing Information on Marine Mammals and Sea Turtles for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 (Marine Mammal and Sea Turtle Guidelines; BOEM 2019)
    - https://www.boem.gov/BOEM-Marine-Mammals-and-Sea-Turtles-Guidelines/

- Guidelines for Providing Avian Survey information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 Subpart F (BOEM 2017)
    - https://www.boem.gov/Avian-Survey-Guidelines/
- Guidelines for Providing Information on Fisheries for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 (BOEM 2019)
    - https://www.boem.gov/Fishery-Survey-Guidelines/
- Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 (BOEM 2019)
    - https://www.boem.gov/BOEM-Renewable-Benthic-Habitat-Guidelines/
- Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 (BOEM 2017)
    - https://www.boem.gov/Guidelines_for_Providing_Archaeological_and_Historic_Property_Information_Pursuant_to_30CFR585/
- Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 (BOEM 2015)
    - https://www.boem.gov/G_G_Guidelines_Providing_Geophysical_Geotechnical_Geohazard_Information_Pursuant_to_30_CFR_Part_585/
- Guidelines for Providing Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 (BOEM 2015)
    - https://www.boem.gov/Social-and-Economic-Conditions-Fishery-Communication-Guidelines/
- Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NOAA Fisheries 2018)
    - https://www.fisheries.noaa.gov/resource/document/technical-guidance-assessing-effects-anthropogenic-sound-marine-mammal-hearing
- Data Gathering Process: Geotechnical Departures for Offshore Wind Energy (DNVGL 2018)
    - https://www.boem.gov/Data-Gathering-Process/
- Geophysical and Geotechnical Investigation Methodology Assessment for Siting Renewable Energy Facilities on the Atlantic OCS
    - https://www.boem.gov/G-and-G-Methodology-Renewable-Energy-Facilities-on-the-Atlantic-OCS/

Publications:

- U.S. Dept. of Energy *"Tethys"* database for offshore wind energy publications (USDOE-PNNL 2019)
    - https://tethys.pnnl.gov/
- NYSERDA Publications and Technical Reports
    - https://www.nyserda.ny.gov/About/Publications

        - https://www.nyserda.ny.gov/About/Publications/Offshore-Wind-Plans-for-New-York-State
    - BOEM Renewable Energy Research (BOEM 2019)
        - https://www.boem.gov/Renewable-Energy-Environmental-Studies/
    - Summary Report: Best Management Practices Workshop for Atlantic Offshore Wind Facilities and Marine Protected Species (BOEM 2018)
        - https://www.boem.gov/Final-Summary-Report-for-BMP-Workshop-BOEM/
    - Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishers on the Atlantic Outer Continental Shelf (BOEM 2013; BOEM 2014)
        - https://www.boem.gov/Draft-Report-on-Fishing-Best-Management-Practices-and-Mitigation-Measures/
        - https://www.boem.gov/OCS-Study-BOEM-2014-654/

Tools:

- Northeast Ocean Data Explorer (NROC 2019)
    - https://www.northeastoceandata.org/
- Mid-Atlantic Ocean Data Portal (MARCO 2019)
    - https://portal.midatlanticocean.org/
- BOEM/NOAA Marine Cadastre (BOEM & NOAA 2019)
    - https://marinecadastre.gov/
- NOAA Essential Fish Habitat (EFH) Data Inventory
    - https://www.habitat.noaa.gov/application/efhinventory/index.html
- Ocean Biogeographic Information System (OBIS) Mapper and Protected Species Database (OBIS 2019)
    - https://mapper.obis.org/
    - https://mgel.env.duke.edu/projects-old/obis-seamap/
- NOAA-USFWS ESA inventory/mapper and Section-7 Consultation tools – Mapper and IPaC (NOAA 2019; USFWS 2019)
    - https://www.greateratlantic.fisheries.noaa.gov/protected/section7/listing/index.html
    - https://ecos.fws.gov/ipac/
- NOAA Marine Mammal Acoustic Technical Guidance (NOAA 2018)
    - https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance
- NOAA Marine Mammal Annual Stock Assessments (NOAA 2019)
    - https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments
- Additional sources such as Marine-Life Data and Analysis Team (MDAT; http://seamap.env.duke.edu/models/mdat/) as recommended by National Oceanic and Atmospheric Administration (NOAA) Fisheries and the Bureau of Ocean Energy Management.

Plans:

- Mid-Atlantic Regional Ocean Action Plan (MARCO 2016)

        - http://midatlanticocean.org/ocean-planning/
    - Northeast Ocean Plan (NROC 2016)
        - https://neoceanplanning.org/plan/
    - New York State Offshore Wind Master Plan (NYSERDA 2017), with corresponding studies/appendices listed below
        - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan
            - New York State Offshore Wind Master Plan Birds and Bats Study (NYSERDA 2017)
                - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys
            - New York State Offshore Wind Master Plan Fish and Fisheries Study (NYSERDA 2017)
                - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys
            - New York State Offshore wind Master Plan Marine Mammals and Sea Turtle Study (NYSERDA 2017)
                - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys
            - New York State Offshore Wind Master Plan Sand and Gravel Resources Study (NYSERDA 2017)
                - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys
            - New York State Offshore Wind Master Plan Environmental Sensitivity Analysis (NYSERDA 2017)
                - https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys

Other:

- New York State Fisheries Technical Working Group (NYSERDA 2019)
    - https://nyfisheriestwg.ene.com/
- New York State Environmental Technical Working Group
    - http://www.briloon.org/offshorewindny/who

2. Communications and Collaboration Approach

2.1. Overview and communication plan objectives

This section should provide an overview of the communication plan and objectives and its importance in environmental migration.

- Sunrise Wind will engage with both regulatory (including federal and state agencies) and non-regulatory stakeholders (including the fishing community, environmental groups, and local communities).
- Sunrise Wind will carry out a detailed stakeholder mapping process to promote the Project's awareness of relevant inputs, even from hard to reach groups, and consideration of appropriate information that is applicable to the Project.

2.2. Communication officers/positions, responsibilities, and contact information

This section will provide a list of communication officers, their role, and name and contact information. The list should provide stakeholders with an understanding of who should be called for a particular issue or question. It will also include links to the project and fisheries website so readers know where to find additional information.

Name/Title	Role/Responsibilities	Contact Information
Michael Evans **Permitting Manager**	Permitting manager for Sunrise Wind	Phone: 614-218-4286 Email: MICEV@orsted.com
Sophie Hartfield Lewis **Head of US Permitting**	Department head for Orsted US Permitting	Email: SOPHA@orsted.co.uk
Mark Gardella **Manager Offshore Wind**	Responsible for onshore permitting for Sunrise Wind	Phone: 860-665-2583 Email: mark.gardella@eversource.com
James Berg **Supervisor of Permitting for Offshore Wind**	Responsible for onshore permitting for Sunrise Wind	Phone: 860-665-3421 Email: james.berg@eversource.com
Laura Morse **Science Coordinator and Environmental Manager**	Receive, process, and disseminate scientific data collected in the Lease Areas Marine mammal expert, E-TWG and F-TWG attendee	Phone: 857-310-8616 Email: LAURM@orsted.com
Jennifer Garvey **Development Manager**	New York stakeholder manager	Phone: 857-348-3258 Email: JEGAR@orsted.com

John O'Keeffe **Head of Marine Affairs**	Lead for marine stakeholder communications and fisheries department; F-TWG attendee	Phone: 857-332-4485 Email:
Rodney Avila **Corporate Fisheries Liaison**	Collect data about the structure of fishing communities associated with the Project Area.	Phone: 857-332-4479 Email: RODAV@orsted.com

Project website: https://sunrisewindny.com/

2.3. Identification of stakeholders

This section should describe the process by which stakeholders relevant to environmental issues will be identified and classified by stakeholder group.

- Sunrise Wind is continuing to work on its engagement and consultation strategy. In developing a consultation and stakeholder strategy, Sunrise Wind will take into account the following essential requirements:
    - the groups and individuals interested in or affected by the proposed development are identified;
    - Information issued to the public and consultees is accurate, understandable, issued at the appropriate time and does not overwhelm recipients;
    - Dialogue is held between those affected by the decisions and those responsible for making the decisions;
    - The comments provided by the public and consultees are incorporated within the final decision-making process and final decision;
    - Feedback is provided to all consultees, including the public, explaining the actions taken and how the final decision has been influenced by the process.
- Sunrise Wind will identify stakeholders based on a detailed and overarching approach to assessing all those interested parties including information collected from the following areas:
    - Commissioned studies that identify federal, state, and local permits, approvals, and consultations required for the Project;
    - List of potential agencies and associated authorizations required for the Project;
    - NYSERDA's recommendations;
    - E-TWG and F-TWG recommendations;
    - Attendees of Project open house events;
    - Interest groups of potentially impacted resources;
    - Recommendations provided at local community meetings;
    - Prior experience during outreach for the South Fork Wind Farm Project;

2.4. Participation in stakeholder and technical working groups

2.4.1. Communication with E-TWG

This should describe the communication and collaboration approach with members of the E-TWG and consultations.

- Sunrise Wind and its affiliates have been active participants in the E-TWG and associated work groups since their inception.
- Sunrise Wind and its affiliates have actively participated in the organizing committees for the 2018 and 2020 State of the Science workshop, and Ørsted's Sophie Hartfield Lewis was a keynote speaker in 2018.
- Sunrise Wind will further dedicate Project-specific resources to the E-TWG.
- Sunrise Wind will continue working with the E-TWG and attend future meetings and workshops. Specifically, Sunrise Wind will participate and engage relevant stakeholders participating in the E-TWG pursuant to Section 12.04 of the OREC Agreement.

2.4.2. Communication with other New York State agencies

This should describe communication with New York State agencies during each phase of the project.

- Sunrise Wind will host inter-agency Project kick-off meetings with federal and New York state regulators, and federally recognized tribes. The meeting will introduce the Project and team and key components.
- Sunrise Wind will consult with the Consulting State Agencies at the request of such agencies to provide status updates on planned Project activities (i.e. field surveys, siting, etc.) and to solicit feedback.
- Sunrise Wind will consult with the Consulting New York State Agencies pursuant to Section 12.03 of the OREC Agreement.

2.4.3. Communication with other stakeholder and working groups

This should describe any relevant participation with other stakeholder groups, such as international fisheries groups that would help inform the EMP.

- Sunrise Wind is developing a Community Outreach Plan for the Project to identify and engage various interests including local communities, environmental groups, fishing communities, recreational boating groups, low income populations, and labor and local business interest.
- In development of the Community Outreach Plan, Sunrise Wind will leverage its affiliates' experience implementing successful community outreach and engagement plans for many offshore wind projects in Europe and Asia.

2.5. Communication methods and tools by phase

This section should describe the communication and outreach methods and tools that will be employed for each stakeholder group during each phase of the project.

- Sunrise Wind will continually refine its Community Outreach Plan during each phase of the Project, subject to applicable permitting requirements.

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Outreach to local communities through informational meetings	X	X	X	X
Press releases	X	X	X	X

Proposed Outreach Methods/Tools	Phase*			
	1	2	3	4
Website promotion	X	X	X	X
Social media	X	X	X	X
Notice to Mariners	X	X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*				

3. Supporting Other Research

3.1. Support of collaborative research

This section should describe how opportunities for developing or investing in collaborative research with the environmental industry to collect ecological data will be identified and undertaken. The description must account for the need to coordinate with members of the E-TWG during data gathering and assessment.

- Sunrise Wind is committed to supporting third party research associated with development of the Project and intends to take a collaborative approach to science. Sunrise Wind has committed to providing funds to support third party research as outlined in Section 3.5.
- Sunrise Wind will engage with the E-TWG, in accordance with Section 12.04 of the OREC Agreement, regarding potential research topics, scopes and methodologies.
- Sunrise Wind and its affiliates support the Responsible Offshore Science Alliance (ROSA), which establishes science priorities collaboratively with agencies and the fishing industry and maximizes the value of the investment spent on fisheries science.
- Sunrise Wind will employ a Science Coordinator to facilitate reasonable requests for data and other forms of participation in science initiatives designed to enhance understanding of impacts from offshore wind.

3.2. Handling/processing requests

This section should describe how requests for coordination with third-party supported scientists will be processed - including providing reasonably-requested Project data and access to the Project area for independent scientists examining environmental and fishery sensitivities and/or the impacts of offshore wind energy development on fish, invertebrates and fisheries for the purpose of publication in peer reviewed journals.

- Sunrise Wind will employ a designated Science Coordinator to receive, process and collaborate on requests for Project data.
- Sunrise Wind will establish a workspace to coordinate and facilitate data sharing.
- Sunrise Wind will coordinate with non-Project vessels, including research vessels, for independent scientists to examine any environmental sensitivities as a result of the Project.

3.3. Data availability

This section should describe how data will be made available in accordance with Section 2.2.5 of the RFP.

- Sunrise Wind will make environmental data available in accordance with Section 12.07 of the OREC Agreement which reflects Section 2.2.5 of the RFP.

3.4. Proposed restrictions

This section should describe any restrictions on data provision or access that may be required to protect trade secrets or maintain site security.

- Sunrise Wind will use a Science Coordinator who will consider and, as appropriate, implement, any restrictions on data provision or access that Sunrise Wind believes may be required to protect trade secrets or maintain site security as part of that process.

3.5. Financial commitment for third party research

This section should provide a level of financial commitment, if elected, that will be appropriated to leverage third-party environmental research funding related to fish, invertebrates and fisheries, including federal or State-supported research. Or, if elected, provide the level of commitment to a general fund for supporting third-party research into relevant fish and invertebrate communities and associated commercial and recreational fisheries and the effects of offshore wind energy development.

- Sunrise Wind has made commitments to third-party environmental research funding for marine mammals and fisheries concerns. The details of these commitments are being finalized and will be announced at a future date.

3.6. Proposed or existing commitments/collaborations

This section should describe proposed or existing commitments and collaborations with third-party researchers in support of monitoring activities and assessing impacts.

- Sunrise Wind is developing site-specific studies which would examine fisheries and benthic resource topics, such as larval distributions, benthic habitat quality, distribution of nonindigenous/invasive species, and distribution and abundance of selected commercial fisheries species within the region of influence of the Project

- Sunrise Wind will coordinate with non-Project vessels, including research vessels, for independent scientists to examine fishery sensitivities and other environmental topics.

- Sunrise Wind will use commercial fishing vessels for the research it conducts whenever feasible, available, and appropriate.

- Sunrise Wind and its affiliates are developing additional commitments and collaborations with third-party researchers which will be announced when details of the collaborations are finalized.

4. Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

4.1. Baseline characterization

4.1.1. Available information

Describe existing literature and datasets that are available for baseline characterization.

- Without limitation, the following studies are available to assess the baseline characteristics for marine mammals and sea turtles potentially occurring within the Project Area:
    - NYSERDA and/or NYSDEC studies on marine wildlife and whales;
    - BOEM studies on whales, sea turtles, and marine species;
    - NOAA studies on marine mammals and marine turtles;
    - CETAP (Cetacean and Turtle Assessment Program) (1982): A characterization of marine mammals and turtles in the mid- and north Atlantic areas of the U.S. outer continental shelf. Cetacean and Turtle Assessment Program, University of Rhode Island. Final Report #AA551-CT8-48 to the Bureau of Land Management, Washington, DC, 538 pp.
    - Kraus, S.D., S. Leiter, K. Stone, B. Wikgren, C. Mayo, P. Hughes, R.D. Kenney, C.W. Clark, A. N. Rice, B. Estabrook and J. Tielens. 2016. Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles. U.S. Department of the Interior, Bureau of Ocean Energy Management, Sterling, Virginia. OCS Study BOEM 2016-054. 117 pp. + appendices.
        - https://www.boem.gov/RI-MA-Whales-Turtles/
    - NOAA Fisheries 2017a. 2017 Annual Report of a Comprehensive Assessment of Marine Mammal, Marine Turtle, and Seabird Abundance and Spatial Distribution in US waters of the Western North Atlantic Ocean – AMAPPS II.
        - Available online at: https://www.nefsc.noaa.gov/psb/AMAPPS/docs/AMAPPS%202017%20annual%20report_final.pdf
    - NOAA Fisheries. 2017b. Office of Protected Resources, Marine Mammal Stock Assessment Reports. (SARs) by Species/Stock
        - http://www.nmfs.noaa.gov/pr/sars/species.htm
    - Halpin, P.N., Read, A.J., Fujioka, E., Best., B.D., Donnelly, B., Hazen, L.J., Kot, C., Urian, K., LaBrecque, E., Dimatteo, A., Cleary, J., Good, C., Crowder, L.B., and Hyrenbach, K.D. 2009. OBIS-SEAMAP: The World Data Center for Marine Mammal, Sea Bird, and Sea Turtle Distributions. Oceanography 22(2):104–115, doi:10.5670/oceanog.2009.42.
        - http://www.tos.org/oceanography/assets/docs/22-2_halpin.pdf
        - Roberts, J. J., Best, B. D., Mannocci, L., Fujioka, E., Halpin, P. N., Palka, D. L., Garrison, L.P., Mullin, K. D., Cole, T. V. N., Khan, C. B., McLellan, W. A., Pabst, A., and Lockhart, G.G. 2016. Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico. Scientific Reports 6, 22615 (2016). https://www.nature.com/articles/srep22615

- Roberts JJ, Mannocci L, Halpin PN (2017) Final Project Report: Marine Species Density Data Gap Assessments and Update for the AFTT Study Area, 2016-2017 (Opt. Year 1). Document version 1.4. Report prepared for Naval Facilities Engineering Command, Atlantic by the Duke University Marine Geospatial Ecology Lab, Durham, NC.
    - https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/Duke%20Model%20Information/aftt_update_2016_2017_final_report_v1.4_excerpt.pdf
- Curtice C., Cleary J., Shumchenia E., Halpin P.N. 2018. Marine-life Data and Analysis Team (MDAT) technical report on the methods and development of marine-life data to support regional ocean planning and management. Prepared on behalf of the Marine-life Data and Analysis Team (MDAT).
    - Accessed at: http://seamap.env.duke.edu/models/MDAT/MDAT-TechnicalReport.pdf
- Other state and regional studies on marine mammals and sea turtles.

- Sunrise Wind will comply with BOEM's site characterization requirements in 30 CFR § 585.626(3).

4.1.2. Data being collected

Describe data collected, or will be collected, to support baseline characterization.

- Sunrise Wind will continue to conduct appropriate site assessment surveys to establish baseline conditions of wildlife within the Project Area.
- The surveys conducted by Sunrise Wind to support baseline characterization will include PSO sightings data derived from HRG and geotechnical surveys conducted in the relevant Lease Area(s).
- Sunrise Wind will rely on baseline data form NYSERDA's 3-year fine scale aerial survey of marine wildlife.
- Sunrise Wind will apply best available marine mammal densities as provided by the Duke University MDAT project.

4.1.3. Additional data being collected to address data gaps

Describe additional data that will be collected, to support baseline characterization to address data gaps.

- Sunrise Wind will continue to collect PSO sightings data derived from HRG and geotechnical surveys conducted in the relevant Lease Area(s).
- Sunrise Wind is considering development of potential study topics following a review of the literature on existing offshore wind farms (including the baseline materials described), regional and local stakeholder concerns, and data gaps identified by resource managers in the Project Area and vicinity.
- Sunrise Wind will support funding for collection of data related to the impact of noise on communication of marine and terrestrial animals for baseline characterization and impacts analysis. The details of this funding will be announced at a later date.

4.2. Species at risk

Describe which species the Proposer believes to be of greatest concern and why.

- Sunrise Wind believes, of all the marine mammals and sea turtle species that have the potential to occur within the Project Area, the five ESA-listed whales are of greatest concern because of their currently low population status.
- Sunrise Wind notes that 38 marine mammal species (cetaceans and pinnipeds) and five sea turtle species are known to occur within the north Atlantic OCS region. All 38 marine mammal species are protected by the Marine Mammal Protection Act (MMPA), and some are additionally protected by the Endangered Species Act (ESA). All of the identified sea turtle species are protected by the ESA.
- Sunrise Wind identified 10 MMPA protected species considered both common in the waters surrounding the relevant Lease Area(s) or that have the likelihood of occurring, at least seasonally:
    - harbor porpoise (*Phocoena phocoena*),
    - Atlantic white-sided dolphin (*Lagenorhynchus acutus*),
    - short-beaked common dolphin (*Delphinus delphis*),
    - bottlenose dolphin (*Tursiops truncatus*),
    - long-finned pilot whale (*Globicephala melas*),
    - Risso's dolphin (*Grampus griseus*),
    - humpback whale (*Megaptera novaeangliae*),
    - minke whale (*Balaenoptera acutorostrata*),
    - harbor seal (*Phoca vitulina*), and
    - gray seal (*Halichoerus grypus*)
- Sunrise Wind identified five ESA-listed whale species known to occur within the waters of the north Atlantic OCS region:
    - North Atlantic right whale (*Eubalaena glacialis*),
    - blue whale (*Balaenoptera musculus*),
    - fin whale (*Balaenoptera physalus*),
    - sei whale (*Balaenoptera borealis*), and
    - sperm whale (*Physeter macrocephalus*)
- Sunrise Wind identified four ESA-listed sea turtle species that are considered possible to occur in the relevant Lease Area(s):
    - Leatherback (most likely to be encountered in the waters surrounding the Lease Area(s));
    - Loggerhead (most likely to occur in the nearshore water surrounding the Lease Area(s) during summer and fall);
    - Atlantic (Kemp's) ridley (so rarely sighted that their presence either nearshore or offshore is considered unlikely); and
    - green sea turtle (most likely to occur in the nearshore water surrounding the Lease Area(s) during summer and fall).
- The presence and/or absence of marine mammals within these waters can be affected by a variety of parameters including water temperature, movements or availability of prey, and human presence or disturbance.

4.3. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases of Project development should be included. In addition, provide a description of the anticipated pre- and post-construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site; the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within the development site exclusion zone during site assessment and construction (e.g., a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury or harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies the Proposer would use to reduce the amount of sound at the source, if any.

Potential Impacts	Proposed Mitigation Measures[6]	Phase*			
		1	2	3	4
Underwater noise impacts from geophysical survey equipment	• Exclusion and monitoring zones for marine mammals and sea turtles during all site assessment surveys, including: ○ A 1,640-foot (ft) (500-meter [m]) separation distance for the North Atlantic right whale and a 328-ft (100-m) separation distance for all other marine mammal species and sea turtles. ○ Pre-clearance of exclusion zones as defined by NOAA Fisheries ○ Ramp-up and shut-down procedures • A visual monitoring program conducted by NOAA Fisheries-approved PSOs • Environmental training for all vessel personnel regarding animal identification and protocol when sightings occur • Require Project vessels to comply with NOAA ship speed regulations and BOEM lease conditions specific to vessel speeds • Tow passive acoustic monitoring equipment (PAM) during geophysical surveys, pursuant to regulatory concurrence for current approved surveys** Use of	X	X	X	

[6] All proposed mitigation measures are subject to applicable regulatory processes and applicable permit requirements. This list of proposed mitigation measures is a good faith statement of currently anticipated mitigation measures. Actual mitigation measures will be pursuant to applicable permits and may vary from this list.

Potential Impacts	Proposed Mitigation Measures[6]	Phase*			
		1	2	3	4
	night vision binoculars and infrared technology during period of poor visibility				
Underwater noise impacts from construction and installation activities	• Use of passive acoustic monitoring equipment (PAM) during foundation installation, pursuant to regulatory concurrence • Committed to noise attenuation technologies to reduce sound from pile driving of foundations, pursuant to regulatory concurrence • Will evaluate attenuation of noise from a range of methods and will assess their effectiveness, commercial viability, safety risk, and practicability • Will conduct an underwater acoustic assessment in support of evaluation of potential impacts to marine mammals due to noise generated during construction and operation of the Project, particularly with regard to pile driving activities • Will develop a Project-specific protected species mitigation and monitoring plan		X		

Ship strikes on marine mammals	• Training for all vessel personnel regarding animal identification and protocol when sightings occur
	• Use of trained Protected Species Observers (PSOs) as required by the Project-specific Protected Species Mitigation and Monitoring Plan (PSMMP)
	• Require Project vessels to comply with NOAA ship speed regulations and BOEM lease conditions specific to vessel speeds:
	  ○ 10 knots for vessels 65 ft (19.8 m) or greater during the period of November 1 through April 30.
	  ○ 10 knot (<18.5 km per hour [km/h]) speed restrictions in any Dynamic Management Area (DMA)
	• Adhere to NOAA Fisheries Operational Guidelines when in sight of marine mammals (NOAA Fisheries & NOS 2013), unless doing so would compromise human or environmental health and safety and/or the integrity of the Project
	• Adhere to NOAA Fisheries' Vessel Strike Avoidance Measures and Reporting for Mariners (NOAA Fisheries 2008).
	• Training for personnel onboard Project vessels will include marine mammal sighting and reporting that will stress individual responsibility for marine mammal awareness and protection.
		X	X	X	X

Potential Impacts	Proposed Mitigation Measures[6]	Phase*			
		1	2	3	4
	• Support the Whale Alert network to enhance awareness of and reduce the risk of ship strikes in the maritime community (http://www.whalealert.org/)				
Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission* * NOAA Fisheries has determined, and best available science supports, that for towed-PAM, its utility in further reducing impact for Orsted's HRG activities is very limited and that the proximity to propeller noise and low frequency engine noise can mask the low frequency sounds emitted by baleen whales, including right whales.*					

4.4. Monitor for impacts during each phase

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

4.4.1. Pre/Post Monitoring to assess and quantify changes

Describe how changes to environmental resources will be quantified using statistically sound methods

- Sunrise Wind is considering development of study topics and methodologies for pre- and post-construction monitoring of marine mammals and sea turtles. Any study topics and methodologies would be developed through an iterative process including input from various stakeholders and agencies from multiple states, including New York, Rhode Island, and Massachusetts. Surveys will be conducted in order to collect sufficient baseline data prior to offshore construction and will continue throughout construction and operation of the Project in accordance with applicable permit requirements.
- Sunrise Wind will evaluate other technologies to support adaptive mitigation and monitoring to increase Project flexibility through enhanced situational awareness, including:
    - autonomous real time marine mammal acoustic detectors (i.e., buoys and gliders); and
    - real time marine mammal sightings data software/platform to share data.

4.4.2. Address data gaps

Describe how data gaps will be addressed.

- Sunrise Wind will work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.
- Sunrise Wind will work with regulatory agencies when developing the monitoring and mitigation plan in an effort to address existing data gaps through pre- and post-construction monitoring in accordance with applicable permit requirements.

4.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

- Sunrise Wind will work with federal and state agencies to determine appropriate and practicable marine wildlife monitoring and mitigation methods during the construction, operation, and decommissioning phases of the Project.
- Sunrise Wind will continue to engage with BOEM, NOAA Fisheries, USFWS, and other stakeholders to identify and implement appropriate and practicable measures to avoid, minimize, and/or mitigate impacts throughout all phases of the Project as required by applicable permits.
- Following identification of potential impacts, Sunrise Wind will work with regulators to establish processes for evaluating the effectiveness of selected mitigation strategies. Additionally, it will coordinate with federal and state agencies to identify additional mitigation strategies or potential modifications to selected mitigation measures that may be implemented in the event the base mitigation strategies are determined to be insufficient by relevant regulatory agencies.

5. Proposed Mitigation of Impacts to Birds and Bats

5.1. Baseline characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

5.1.1. Available information

Describe existing literature and datasets that are available for baseline characterization.

- Without limitation, the following studies are available to assess the baseline characteristics for birds and bats potentially occurring within the Project Area:
    - BOEM 2014 Environmental Assessment, which listed the following birds likely in the relevant Lease Area(s):
        - 19 species of waterfowl,
        - 4 species of loons and grebes,
        - 10 species of shearwaters and petrels,
        - 1 species of gannet,
        - 2 species of cormorants,
        - 2 species of shorebirds (phalaropes),
        - 3 species of jaegers,
        - 6 species of alcids (auks), and
        - 20 species of gulls and terns.
    - NYSERDA and/or NYSDEC studies on marine wildlife and birds and bats;
    - NYSERDA's Offshore Wind Master Plan Birds and Bats Study;
    - BOEM studies on marine species, seabirds, and bats;
    - NOAA studies on seabirds;
    - MassCEC seabird surveys (Veit et al. 2016):
        - Three years of aerial avian surveys found 25 species of seabirds, with two species of sea ducks, Whitewinged scoter (*Melanitta deglandi*) and Long-tailed duck (*Clangula hyemalis*), occurring in the highest numbers in the relevant Lease Area(s) and nearby waters;
    - Rhode Island Ocean Special Area Management Plan (SAMP) (Paton et al. 2010);
    - NOAA MDAT models (Curtice et al. 2016, Winship et al. 2018);
    - Massachusetts Breeding Bird Atlas (Petersen and Meservey 2003);
    - National Audubon Society Christmas Bird Count (NAS 2010);
    - eBird (eBird 2012);
    - The NYSERDA Cable Landfall Permitting Study:
        - Reports that as many as 44 birds of conservation concern may occur along Long Island's southern coast and coastal areas near New York City.
        - Confirms summer long-eared bat activity in Brookhaven during surveys conducted in 2016 and 2017;
    - Published data of bats in offshore and nearshore environments:
        - Grady and Olson 2006;
        - Cryan and Brown 2007;
        - Johnson et al. 2011;

        - Hatch et al. 2013;
        - Pelletier et al. 2013;
        - Sjollemas et al. 2014;
        - Dowling et al. 2017.
    - Other states and regional studies on seabirds and bats.

5.1.2. Data collected

Describe data collected, or will be collected, to support baseline characterization.

- Sunrise Wind will continue to conduct appropriate site assessment surveys to establish baseline conditions of wildlife within the Project Area.
- The surveys conducted by Sunrise Wind or its affiliates to support baseline characterization of birds include:
    - Lease-Area-wide offshore avian boat-based survey of a relevant Lease Area between June and October 2017, which observed over 6,500 birds from 31 species in the Lease Area; and
    - Ongoing NYSERDA aerial baseline survey of NY Offshore Planning Area.
- Sunrise Wind anticipates additional avian surveys to be conducted within New York state nearshore waters, including nesting bird surveys along the landing location on Long Island, pending consultation with state and federal wildlife agencies and applicable permit requirements.
- Sunrise Wind will conduct bat surveys for the onshore areas of the Project, if appropriate, pending consultation with state and federal wildlife agencies and applicable permit requirements.

5.1.3. Additional data being collected to address data gaps

Describe additional data collected that will be collected, to support baseline characterization to address data gaps.

- Sunrise Wind anticipates additional avian surveys to be conducted onshore, including nesting bird surveys along the landing location on Long Island, pending consultation with state and federal wildlife agencies and applicable permit requirements.
- Sunrise Wind will complete a pre-construction avian assessment, consistent with BOEM 2013 and 2017 guidance, to assess construction and operation impacts covering:
    - Migratory shorebirds, wading birds, raptors, songbirds, coastal waterbirds, and marine birds (marine birds include loons, seaducks, tube-nosed species, gannets and allies, gulls and allies, terns, and auks); and
    - Species with greater Federal protection, including Bald Eagle (Haliaeetus leucocephalus), Golden Eagle (Aquila chrysaetos), Roseate Tern (Sterna dougallii), Piping Plover (Charadrius melodus), and Red Knot (Calidris canutus).
- Sunrise Wind will conduct a pre-construction bat survey for the onshore areas of the Project, if appropriate, pending consultation with state and federal wildlife agencies and applicable permit requirements.
- If appropriate, and pursuant to regulatory concurrence, Sunrise Wind is considering development of several potential study topics for biological resource monitoring following

a review of the literature on existing offshore wind farms (including the baseline materials described), regional and local stakeholder concerns, and data gaps identified by resource managers in the Project Area and vicinity.

5.2. Species at risk

Describe which species the Proposer believes to be of greatest concern and why.

- Sunrise Wind identified the following ESA-listed bird species at greatest risk/concern:
  - northwestern Atlantic Ocean population of Roseate Tern (only species observed by Veit et al (2016 study in relevant Lease Area(s)));
  - Atlantic Coast population of the Piping Plover (*Charadrius melodus*); and
  - rufa subspecies of Red Knot (*Calidris canutus rufa*).
- Sunrise Wind identified the northern long-eared bat, which is listed as endangered by the ESA and NYSDEC, as of greatest concern.
  - Ahlen et al (2009) shows evidence of bats visiting wind farms located relatively close to shore (2.5 to 4.3 mi [4 to 7 km]) in Europe, however, the Project is located 21.5 mi from Martha's Vineyard and 30.7 mi from New York.
  - Bat occurrence in offshore waters appears to be relatively low, with highest activity exhibited by migratory tree bat species.
  - Migratory tree bat activity would be limited to migration period (May, August, September).
  - NYSDEC has indicated that Long Island is generally an important area for the northern long-eared bat.

5.3. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps the Proposer will pursue to minimize risk to birds and bats (e.g. lighting); and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time.

Potential Impacts	Proposed Mitigation Measures[7]	Phase*			
		1	2	3	4
Collision risk to marine birds and bats	• Wind Turbine Generators (WTGs) will have air gaps of at least 98 ft (30 m) which minimizes collision risk to marine birds given that many seabirds fly below this height			X	
Collision risk to marine birds and bats	• During construction, consider leaving lights on only when necessary, down-shielding		X		

[7] All proposed mitigation measures are subject to applicable regulatory processes and applicable permit requirements. This list of proposed mitigation measures is a good faith statement of currently anticipated mitigation measures. Actual mitigation measures will be pursuant to applicable permits and may vary from this list.

Potential Impacts	Proposed Mitigation Measures[7]	Phase*			
		1	2	3	4
	when possible, and minimizing the use of high-intensity work lights, while complying with FAA and United States Coast Guard (USCG) requirements for lighting.				
Habitat impacts, including breeding and nesting areas - Birds	• Project will locate onshore facilities and associated work spaces on previously disturbed lands to the extent reasonably practicable • Onshore vegetation clearance and cable landing activity, where reasonably practicable, will occur outside the breeding or nesting periods. If not reasonably practicable, the area will be surveyed prior to clearance • Will take measures to reduce perching opportunities (e.g., install anti-perching devices)		X	X	X
Habitat impacts, including breeding and nesting areas - Bats	• Will work with USFWS and NYSDEC and endeavor to employ protection measures for the northern long-eared bat, including: ○ from November 1 to March 31, no cutting of trees within a quarter mile of a hibernaculum; ○ from April 1 to October 31, no cutting of known and documented roost trees within five miles of known hibernacula, and no cutting of trees within 150 feet of a documented summer occurrence; and ○ from April 1 to October 31, no cutting of trees within a quarter mile of a hibernaculum unless for protection of human life and property.		X	X	X
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

5.4. Monitor for impacts during each phase

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

5.4.1. Pre/Post Monitoring to assess and quantify changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

- Sunrise Wind and its affiliates have conducted a pre-construction offshore avian boat-based survey of a relevant Lease Area between June and October 2017, which observed over 6,500 birds from 31 species in the Lease Area.

- Sunrise Wind will complete a pre-construction avian assessment, consistent with BOEM 2013 and 2017 guidance, to assess construction and operation impacts covering:
    - Migratory shorebirds, wading birds, raptors, songbirds, coastal waterbirds, and marine birds (marine birds include loons, seaducks, tube-nosed species, gannets and allies, gulls and allies, terns, and auks); and
    - Species with greater Federal protection, including Bald Eagle (*Haliaeetus leucocephalus*), Golden Eagle (*Aquila chrysaetos*), Roseate Tern (*Sterna dougallii*), Piping Plover (*Charadrius melodus*), and Red Knot (*Calidris canutus*).
- Sunrise Wind will conduct a pre-construction survey for bat species for the onshore portions of the Project, if appropriate. The results of the bat surveys, as well as known mortality risks from non-project sources, will inform mitigation, minimization, or conservation measures for impacts to bat species in coordination with federal and state agencies.
- Sunrise Wind is considering development of study topics and methodologies for pre- and post-construction monitoring of bird and bat impacts. Any study topics and methodologies would be developed through an iterative process including input from various stakeholders and agencies from multiple states, including New York, Rhode Island, and Massachusetts. Surveys would be conducted in order to collect sufficient baseline data prior to offshore construction, and will continue throughout construction and operation of the Project, in accordance with applicable permitting requirements.

5.4.2. Address data gaps

Describe how data gaps will be addressed.

- Sunrise Wind will work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications.
- Sunrise Wind will work with regulatory agencies when developing the monitoring and mitigation plan in an effort to meet existing data gaps through pre- and post-construction monitoring in accordance with applicable permitting requirements.

5.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted birds and bats in an alternative location.

- Following identification of potential impacts, Sunrise Wind will work with regulators to establish processes for evaluating the effectiveness of selected mitigation strategies. Additionally, it will coordinate with federal and state agencies to identify additional mitigation strategies or potential modifications to selected mitigation measures that may be implemented in the event the base mitigation strategies are determined to be insufficient by relevant regulatory agencies.

6. Proposed Mitigation of Impacts to Fish, Invertebrates, and their Habitats

6.1. Baseline characterization

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

6.1.1. Available information

Describe existing literature and datasets that are available for baseline characterization.

- Without limitation, the following studies are available to assess the baseline characteristics for fish, invertebrates and their habitats occurring within the Project Area:
    - NYSERDA and/or NYSDEC studies on marine wildlife;
    - BOEM studies on marine species and lobsters and crabs;
    - NOAA studies on trawl surveys, sea scallops, and clams;
    - Other state and regional studies on ocean trawls surveys;
    - Additional studies by, RICRMC, RIDMF, MADMF, and MACZM in the waters of the northeast Atlantic related to of offshore wind development; and
    - Studies that Sunrise Wind or its affiliates have conducted in the relevant Lease Area(s) and surrounding waters of the north Atlantic.
- Based on the existing literature and datasets:
    - The relevant Lease Area(s) can be characterized as a complex ecosystem with multiple commercially valuable species including scallops, longfin squid, surf clam, etc.
    - Finfish within the vicinity of the Project Area can be categorized in two groups based on vertical habitat use: demersal and pelagic.
        - Demersal fish likely to occur in Project Area include: American plaice, Atlantic cod, black sea bass, haddock, monkfish, ocean pout, red hake, scup, skates (barndoor, little, thorny, winter), smooth dogfish, spiny dogfish, silver hake, summer flounder, tautog, windowpane flounder, winter flounder, witch flounder and yellowtail flounder.
        - Pelagic fishes likely to occur include: Sharks, tunas (including the Atlantic Bluefin tuna), bluefish, butterfish, cobia, American eel, American shad, Atlantic herring, Atlantic mackerel, blueback herring, king mackerel, menhaden, Spanish mackerel, and striped bass
    - Common commercially harvested species include: several species of skate and shark, longfin squid, red and silver hake, monkfish, scup summer flounder, yellowtail flounder, black sea bass, Atlantic herring, Atlantic mackerel, butterfish, bluefish, striped bass, tunas, mahi mahi, swordfish, American lobster, soft shell clam, Atlantic surf clam, blue crabs, horseshoe crabs, blue mussels, bay scallops, sea scallops, conch, eastern oyster, and northern quahog.

- The relevant Lease Area(s) contain known spawning area for commercially harvested squid
- Juveniles of several species of flounder have been observed in the relevant Lease Area(s)
- Winter flounder "are suspected" of spawning in the relevant Lease Area(s)

6.1.2. Data being collected

Describe data collected, or will be collected, to support baseline characterization.

- Since August 2016, Sunrise Wind and its affiliates have been completing geophysical, geotechnical, and benthic surveys, as well as desktop analyses, to identify areas of sensitive benthic habitat in the relevant Lease Area(s). As part of the regulatory process, Sunrise Wind will continue to conduct these surveys within the remainder of the Project Area, and along the proposed export cable route to New York.
- Sunrise Wind will continue to conduct appropriate site assessment surveys to establish baseline conditions of wildlife within the Project Area.
- Sunrise Wind will conduct additional surveys as part of the permitting process to inform the baseline characterization including:
  - benthic habitat surveys to characterize the benthic habitat; and
  - geotechnical and high resolution geophysical (HRG) surveys.
- Sunrise Wind will incorporate additional data from the Massachusetts Division of Marine Fisheries (MADMF) and other agencies that have proposed conducting regional studies on the impacts of offshore wind development along the northern Atlantic OCS.

6.1.3. Additional data being collected to address data gaps

Describe additional data collected that will be collected, to support baseline characterization to address data gaps.

- Sunrise Wind will continue consulting with federal and state agencies and other stakeholders (universities, commercial and recreational fishermen, etc.) to build a baseline understanding of fisheries resources and to identify sensitive habitats and areas of particular concern in the relevant Lease Area(s).
- Sunrise Wind has identified potential Project site-specific studies relevant to fisheries and benthic resources to include larval distributions, benthic habitat quality, distribution of nonindigenous/invasive species, and distribution and abundance of selected commercial fisheries species within the region of influence of the Project. These study topics were selected following a review of the literature on existing offshore wind farms, regional and local stakeholder concerns, and data gaps.

6.2. Species at risk

Describe which species the Proposer believes to be of greatest concern and why.

- Sunrise Wind identified the following essential fish habitat (EFH) species and ESA-listed species that may occur or are expected to occur within the Project Area to be of greatest concern.
- Sunrise Wind identified the following EFH species:

- various life stages of more than two dozen nonmigratory managed species, including finfish, sharks and rays, and invertebrates;
- three coastal migratory pelagic species; and
- 17 highly migratory managed fish species.
- Sunrise Wind identified the following species with known or expected EFH designation:
    - Atlantic Sea Scallop, longfin quid, northern shortfin squid, northern quahog, surfclam, clearnose skate, little skate, spiny dogfish, winter skate, American plaice, Atlantic cod, Atlantic herring, black sea bass, bluefish, butterfish, haddock, mackerel, monkfish, ocean pout, pollock, red hake, scup, silver hake, summer flounder, windowpane flounder, winter flounder, witch flounder, yellowtail flounder, king mackerel, Spanish mackerel, cobia, albacore tuna, bigeye tuna, bluefin tuna, skipjack tuna, yellowfin tuna, basking shark, blue shark, common thresher shark, dusky shark, porbeagle shark, sandbar shark, sand tiger shark, scalloped hammerhead shark, shortfin mako shark, smooth dogfish, tiger shark, and White Shark

- Sunrise Wind identified the following three ESA listed species that may occur within the relevant Lease Area(s):
    - Atlantic salmon (Gulf of Maine Distinct Population Segment),
    - Shortnose sturgeon, and
    - Atlantic sturgeon

6.3. Potential impacts/risks and mitigation measures by project stage

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how the Developer will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment).

Potential Impacts	Proposed Mitigation Measures[8]	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources	• Conducting geophysical and geotechnical surveys, benthic surveys, and desktop analyses to inform site design and layout • Seeking input from regulatory, the fishing industry, and maritime industry to locate foundations and cable routes in the least impactful manner that is practicable	X			

[8] All proposed mitigation measures are subject to applicable regulatory processes and applicable permit requirements. This list of proposed mitigation measures is a good faith statement of currently anticipated mitigation measures. Actual mitigation measures will be pursuant to applicable permits and may vary from this list.

Potential Impacts	Proposed Mitigation Measures[8]	Phase*			
		1	2	3	4
Temporary, alteration of the seabed and localized increases in noise and turbidity	• Mobile fish and invertebrates are expected to temporarily leave the area in response to construction or decommissioning activity. Because identical habitat is widely available in the immediate area, the temporary displacement is not considered significant. • Committed to noise attenuation technologies to reduce sound from pile driving of foundations, pursuant to regulatory requirements • Time of year restrictions on construction will reduce impacts on some biological resources. Time of year restrictions will be pursuant to regulatory requirements		X		X
Changes to water quality from accidental spills and/or releases, and erosion and run-off during onshore construction	• Implementation of a Stormwater Pollution Prevention Plan (SWPPP) • Implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan • Implementation of an Oil Spill Response Plan (OSRP) • Implementation of an Erosion and Sediment Control Plan		X	X	X
Long-term changes to seabed, and habitat	• Populations of benthic organisms would not be significantly diminished by the small area of sea floor that will be disturbed by the Project construction • Use of horizontal direction drill at the landfall to minimize impacts to sensitive shoreline vegetation and shellfish resources.		X	X	
Colonization of encrusting invertebrates on wind turbine generators (WTG), which will quickly lead to the development of biogenic habitat and associated communities centered on the structures	• The shift toward a structure-based community is considered desirable because it supports higher trophic level fish that are of commercial and recreational value.		X	X	X
Distribution of mobile species, including lobsters, groundfish, and pelagic predators	• Within several months of completion of construction, the abundance and distribution of benthic invertebrates is expected to return to pre-construction conditions • Methods under evaluation to limit impacts, pursuant to regulatory concurrence, include:		X	X	X

Potential Impacts	Proposed Mitigation Measures[8]	Phase*			
		1	2	3	4
	○ Micrositing WTG and export cable locations to avoid sensitive habitats where feasible; ○ Burying cables wherever feasible using the most appropriate tools and methods; ○ Conducting pre- and post- construction surveys and assessments; ○ Slow start (ramp up) of pile driving equipment; ○ Emplacement of scour protection; and ○ Reduction of marine debris; and ○ Time of Year (TOY) restrictions.				
EMF Impacts	• Will use cable shielding to minimize EMF • Target burial depths for the export cables and inter-array cables will minimize EMF impacts		X	X	
**Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission*					

6.4. Monitor for impacts during each phase

Describe how potential impacts will be monitored on these types of fish and invertebrates during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

6.4.1. Pre/Post Monitoring to assess and quantify changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

- Sunrise Wind and its affiliates will continue to conduct pre-construction studies to supplement existing baseline information that contribute to evaluating the long-term impacts.
- Sunrise Wind will conduct a pre-construction water quality assessment and sediment transport assessment to determine the spatial and temporal impacts of potential increased sediment within the water column and identify which species may be affected by these changes during construction.
- Sunrise Wind will conduct a pre-construction EMF analysis to determine the EMF exposure levels fisheries resources would experience.
- Sunrise Wind will develop study topics and methodologies through an iterative process including input from various stakeholders and agencies from multiple states, including New York, Rhode Island, and Massachusetts. Surveys will be conducted in order to collect sufficient baseline data prior to offshore construction, and will continue throughout construction and operation of the Project, in accordance with applicable permitting requirements.

- Sunrise Wind will conduct site-specific studies to examine the impact of the Project on marine resources and will comply with requirements of applicable agencies. Specifically, Sunrise Wind will examine fisheries and benthic resource topics such as larval distributions, benthic habitat quality, distribution of nonindigenous/invasive species, distribution and abundance of selected commercial fisheries species, and impacts to resources from climate change within the region of influence of the Project.

6.4.2. Address data gaps

Describe how data gaps will be addressed.

- Sunrise Wind will work with stakeholders, including regulatory agencies and local groups, in the design phase of the Project to identify data gaps to be addressed through surveys or permitting applications in accordance with applicable permitting requirements.
- Sunrise Wind will work with regulatory agencies when developing the monitoring and mitigation plan in an effort to meet existing data gaps through pre- and post-construction monitoring in accordance with applicable permitting requirements.

6.5. Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- Sunrise Wind will engage the fishing community and other relevant stakeholders including Federal and State agencies regarding mitigation measures that should be implemented to reduce potential impacts to both biological and socioeconomic resources.

7. Project Decommissioning

7.1. Potential impacts on marine wildlife, birds, bats, and fisheries

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

- In March 2017, Ørsted became the first developer to decommission an offshore wind project, the Vindeby Offshore Wind Farm near Lolland, Denmark (Vindeby Project).
- Sunrise Wind waste handling processes during decommissioning will focus on re-use or recycling, with disposal as the last option.
- Sunrise Wind anticipates that impacts to marine mammals, sea turtles, birds, bats and fisheries would be expected to be similar to the construction phase but to a lesser extent.

7.2. Approach for developing plan and coordination with stakeholders

This section should describe how a decommissioning plan will be developed to identify and mitigate potential impacts, including coordination with stakeholders, and any elements of its contemplated decommissioning plan that can be identified at this stage.

- Sunrise Wind will decommission the Project in accordance with a detailed Project-specific decommissioning plan that will be developed in compliance with applicable laws, regulations, and generally accepted industry practices that exist at the end of the Project's operational life.
- Sunrise Wind will develop the decommissioning plan in coordination with stakeholders including regulatory agencies, fisheries and marine stakeholders, and local communities.

8. Additional Considerations

8.1. Additional mitigation strategies and EMP refinement

This section should describe any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on the fishing community. In addition, describe how the EMP will be updated and refined based on additional information and stakeholder feedback.

- Sunrise Wind will update and refine the EMP, pursuant to Section 12.06 of the OREC Agreement, as outreach with stakeholders, including regulatory agencies and local communities and groups, continue and as information on the Project Area is collected through additional survey work and development of permit applications and permits.

8.2. Process for updating the EMP

This section should describe how feedback from the fishing industry stakeholders, F-TWG, and other agencies and working groups will be incorporated and updated in the EMP.

- Sunrise Wind anticipates that stakeholder feedback will play an integral role in shaping study scopes and protocols to support environmental assessments, as well as mitigation measure that may be needed in response to assessment findings.
- Updates to the EMP are anticipated on a bi-annual basis and on an ad-hoc basis in connection with milestone events, such as preparation for permitting filings or finalization of study plans.
- Updates to the EMP are intended to reflect the results of iterative exchanges with members of the E-TWG, F-TWG and relevant stakeholders.

EXHIBIT G

FORM OF GUARANTY

THIS GUARANTY is dated and effective as of _____ (as amended, restated or modified from time to time, the "Guaranty"), and is made by _____, a _____ organized under the laws of the _____ (the "Guarantor"), in favor of the New York State Energy Research and Development Authority ("NYSERDA"), a New York public benefit corporation, having a principal business address of 17 Columbia Circle, Albany, New York 12203. All capitalized terms used and not otherwise defined herein shall have the meanings ascribed to them in the Agreement.

WHEREAS, pursuant to an Offshore Wind Renewable Energy Certificate Standard Form Purchase and Sale Agreement dated as of _____ (the "Agreement") by and between _____, a _____ organized under the laws of the _____ (the "Seller"), and NYSERDA, the Seller has agreed sell to NYSERDA and NYSERDA has agreed to purchase from Seller certain renewable energy certificates ("ORECs"), as more specifically set forth in the Agreement; and

WHEREAS, in order to induce NYSERDA to purchase the ORECs, and with full knowledge that NYSERDA would not purchase the ORECs without this Guaranty, Guarantor has agreed to execute and deliver this Guaranty to NYSERDA, for the benefit of NYSERDA, as security for Seller's performance of certain of its obligations under the Agreement;

WHEREAS, Guarantor is a _____ of Seller and will significantly benefit from NYSERDA's purchase of the ORECs from the Seller; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the parties hereinafter set forth and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties each intending to be legally bound, hereby do agree as follows:

1. GUARANTY.

(a) Guarantor irrevocably, absolutely and unconditionally guarantees as a primary obligor and not merely as surety, to NYSERDA the full and prompt payment no later than two (2) business days following written demand by NYSERDA, of an amount in U.S. dollars equal to fifty percent (50%) of the Contract Security that (i) is calculated in accordance with Sections 15.01 and 15.02 of the Agreement, and (ii) NYSERDA is entitled to retain or, in the event that Contract Security is provided in the form of an Acceptable Guaranty, to receive, in accordance with Section 15.07 of the Agreement (the "Guaranteed Obligations"); [redacted]

(b) Guarantor understands, agrees and confirms that NYSERDA may enforce this Guaranty up to the full amount of the Guaranteed Obligations against Guarantor without proceeding against Seller or under any other guaranty covering all or a portion of the Guaranteed Obligations. This Guaranty is a guaranty of prompt payment and performance and not of collection, and is limited to payment and performance of the Guaranteed Obligations. The Guarantor shall not be liable for or required to pay any consequential or indirect loss (including, but not limited to, loss of profits), exemplary damages, punitive damages, special damages, or any other damages or costs.

2. LIABILITY OF GUARANTOR ABSOLUTE. The liability of Guarantor hereunder is primary, absolute and unconditional and is exclusive and independent of any security for or other guaranty of the obligations of Seller whether executed by Guarantor, any other guarantor or by any other party, and the liability of Guarantor hereunder shall not be affected or impaired by any circumstance or occurrence whatsoever, including, without limitation: (a) any other continuing or other guaranty, undertaking or maximum liability of Guarantor or of any other party as to the Guaranteed Obligations, (b) any payment on or in reduction of any such other guaranty or undertaking, (c) any dissolution, termination or increase, decrease or change in personnel by Seller, (d) the failure of either Guarantor to receive any benefit from or as a result of its execution, delivery and performance of this Guaranty, (e) any payment made to NYSERDA pursuant to the Agreement that NYSERDA repays Seller pursuant to court order in any bankruptcy, reorganization, arrangement, moratorium or other debtor relief proceeding, and Guarantor waives any right to the deferral or modification of its obligations hereunder by reason of any such proceeding, (f) any action or inaction by NYSERDA as contemplated in Section 5 hereof, (g) any invalidity, rescission, irregularity or unenforceability of all or any part of the Guaranteed Obligations, (h) any statute of limitations affecting its liability hereunder or the enforcement thereof, which Guarantor hereby waives to the fullest extent permitted by applicable law, (i) any law that provides that the obligation of a guarantor must neither be larger in amount or in other respects more burdensome than that of the principal or that reduces a guarantor's obligation in proportion to the principal obligation, (j) any bankruptcy, insolvency, reorganization, arrangement, readjustment of debt, liquidation or dissolution proceeding commenced by or against any Person, including without limitation any discharge of, or bar or stay against collecting, all or any of the Guaranteed Obligations in or as a result of any such proceeding, (k) any extension of credit or the grant of any lien under Section 364 of the United States Bankruptcy Code, or (l) the application or non-application of Section 1111(b)(2) of the United States Bankruptcy Code.

3. REPRESENTATIONS, WARRANTIES, AND COVENANTS OF GUARANTOR. In order to induce NYSERDA to enter into the purchase of ORECs pursuant to the Agreement, Guarantor represents, warrants and covenants that:

(a) Guarantor (i) is a duly organized and validly existing corporation, partnership, voluntary association, or limited liability company, as the case may be, in good standing under the laws of the jurisdiction of its organization and (ii) has the corporate, trust, partnership or limited liability company power and authority, as the case may be, to own its property and assets and to transact the business in which it is engaged and presently proposes to engage;

(b) Guarantor has the corporate, trust, partnership or limited liability company power and authority, as the case may be, to execute, deliver and perform the terms and provisions of this Guaranty and has taken all necessary corporate, trust, partnership or limited liability company action, as the case may be, to authorize the execution, delivery and performance by it of this Guaranty;

(c) Guarantor has duly executed and delivered this Guaranty, and this Guaranty constitutes the legal, valid and binding obligation of such Guarantor enforceable in accordance with its terms;

(d) neither the execution, delivery or performance by Guarantor of this Guaranty, nor compliance by it with the terms and provisions hereof, will (i) contravene any provision of any applicable law, statute, rule or regulation or any applicable order, writ, injunction or decree of any court or governmental instrumentality or (ii) conflict with, violate or result in any breach of any of the terms, covenants, conditions or provisions of, or constitute a default under any agreement, contract or instrument to which Guarantor is a party, except where non-compliance would not reasonably be expected to have a material adverse effect upon the legality, validity, binding effect or enforceability against Guarantor of this Guaranty; and

(e) no order, consent, approval, license, authorization or validation of, or filing, recording or registration with (except as have been obtained or made prior to the date when required and which remain in full force and effect), or exemption by, any governmental or public body or authority, or any subdivision thereof, is required to authorize, or is required in connection with, (i) the execution, delivery and performance of this Guaranty by such Guarantor or (ii) the legality, validity, binding effect or enforceability of this Guaranty, in each case, except where non-compliance would not reasonably be expected to have a material adverse effect upon the legality, validity, binding effect or enforceability against Guarantor of this Guaranty.

4. WAIVERS BY GUARANTOR.

(a) Guarantor hereby waives to the fullest extent permitted by applicable law notice of acceptance of this Guaranty and notice of the existence, creation or incurrence of any new or additional liability to which it may apply, and waives promptness, diligence, presentment, demand of payment, demand for performance, protest, notice of dishonor or nonpayment of any such liabilities, suit or taking of other action by NYSERDA against, and any other notice to, any party liable thereon (including Guarantor, any other guarantor or Seller) and Guarantor further hereby waives any and all notice of the creation, renewal, extension or accrual of any of the Guaranteed Obligations and notice or proof of reliance by NYSERDA upon this Guaranty, and the Guaranteed Obligations shall conclusively be deemed to have been created, contracted or incurred, or renewed, extended, amended, modified, supplemented or waived, in reliance upon this Guaranty.

(b) Guarantor waives any right to require NYSERDA to: (i) proceed against Seller, any other guarantor of the Guaranteed Obligations or any other party; (ii) file or enforce a claim in any bankruptcy or other proceeding with respect to any person; and (iii) pursue any remedy in NYSERDA's power whatsoever. Guarantor waives any and all defenses based on or arising out of any defense of Seller, any other guarantor of the Guaranteed Obligations or any other party

including, without limitation, (1) defenses arising from the bankruptcy, insolvency, dissolution or liquidation of the Seller, or any injunction, stay or similar action in any bankruptcy, insolvency or other proceeding barring or limiting payment of any Guaranteed Obligation by the Seller; (2) defenses relating to the power or authority of the Seller to enter into the Agreement, and to perform the Guaranteed Obligations thereunder, including, without limitation, any lack or limitation of status or of power, or any incapacity or disability, of the Seller, or of any other guarantor or obligor in respect of any Guaranteed Obligation, or any change whatsoever in the capital structure, constitution or business of the Seller; (3) defenses arising from any release or amendment or waiver of, or consent to departure from, any other guarantee or support document, or any exchange, release or non-perfection of any collateral, for any Guaranteed Obligation; and (4) defenses arising from any event or circumstance constituting fraud in the inducement or any other similar event or circumstance; except that such waiver shall not include a defense of the Seller arising from (i) payment in full in cash of the Guaranteed Obligations, or (ii) Seller's entitlement to a refund of all or a portion of the Contract Security pursuant to the terms of Section 15.06 of the Agreement. NYSERDA may, at its election, exercise any right or remedy it may have against Seller or any other party, or any security, without affecting or impairing in any way the liability of any Guarantor hereunder except to the extent the Guaranteed Obligations have been paid in full in cash. Guarantor waives any defense arising out of any such election by NYSERDA, even though such election operates to impair or extinguish any right of reimbursement, contribution, indemnification or subrogation or other right or remedy of Guarantor against Seller, any other guarantor of the Guaranteed Obligations or any other party or any security.

(c) Guarantor has knowledge and assumes all responsibility for being and keeping itself informed of Seller's affairs and assets and of all other circumstances bearing upon the likelihood of events giving rise to NYSERDA's right to retain the amounts of the Contract Security in accordance with the terms of the Agreement, and has adequate means to obtain from Seller on an ongoing basis information relating thereto and Sellers ability to perform its obligations under the Agreement, and agrees to assume the responsibility for keeping, and to keep, so informed for so long as this Guaranty is in effect.

(d) Guarantor warrants and agrees that each of the waivers set forth in Section 2 and in this Section 4 is made with full knowledge of its significance and consequences and that if any of such waivers are determined to be contrary to any applicable law or public policy, such waivers shall be effective only to the maximum extent permitted by applicable law.

5. RIGHTS OF NYSERDA. NYSERDA may at any time and from time to time without the consent of, or notice to, Guarantor, without incurring responsibility to Guarantor, without impairing or releasing the obligations or liabilities of Guarantor hereunder, upon or without any terms or conditions and in whole or in part:

(a) change the manner, place or terms of payment of the Contract Security pursuant to the terms of the Agreement, except the amount of the Guaranteed Obligations will not increase, and the guaranty herein made shall apply to the Guaranteed Obligations as so changed;

(b) exercise or refrain from exercising any rights against Seller, any other guarantor of Seller or others or otherwise act or refrain from acting;

(c) consent to or waive any breach of, or any act, omission or default under, the Agreement or any of the instruments or agreements referred to therein, or otherwise amend, modify or supplement the Agreement or any of such other instruments or agreements;

(d) act or fail to act in any manner which may deprive Guarantor of its right to subrogation against Seller to recover full indemnity for any payments made pursuant to this Guaranty; and/or

(e) take any other action or omit to take any other action which would, under otherwise applicable principles of common law, give rise to a legal or equitable discharge of Guarantor from its liabilities under this Guaranty (including, without limitation, any action or omission whatsoever that might otherwise vary the risk of such Guarantor or constitute a legal or equitable defense to or discharge of the liabilities of a guarantor or surety or that might otherwise limit recourse against such Guarantor).

6. CONTINUING GUARANTY. This Guaranty is a continuing one and all liabilities to which it applies or may apply under the terms hereof shall be conclusively presumed to have been created in reliance hereon. No failure or delay on the part of NYSERDA in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein expressly specified are cumulative and not exclusive of any rights or remedies that NYSERDA would otherwise have. No notice to or demand on Guarantor in any case shall entitle Guarantor to any other further notice or demand in similar or other circumstances or constitute a waiver of the rights of NYSERDA to any other or further action in any circumstances without notice or demand.

7. EXPENSES. Guarantor hereby agrees to pay all reasonable out-of-pocket costs and expenses of NYSERDA in connection with the enforcement of this Guaranty and the protection of NYSERDA's rights hereunder and any amendment, waiver or consent relating hereto (including, in each case, without limitation, the reasonable out-of-pocket fees and disbursements of counsel employed or retained by NYSERDA).

8. TERM OF GUARANTY. This Guaranty and the rights and obligations hereunder shall terminate and be of no further force or effect (and no party hereto shall have any further liability hereunder) at such time as all of the Guaranteed Obligations have been fully performed; provided, however, that for purposes of this Guaranty the discharge or modification of the Guaranteed Obligations in a bankruptcy or insolvency proceeding shall not constitute performance thereof.

9. BENEFIT AND BINDING EFFECT. This Guaranty shall be binding upon Guarantor and its successors and assigns and shall inure to the benefit of NYSERDA and its successors and assigns.

10. AMENDMENTS; WAIVERS. Neither this Guaranty nor any provision hereof may be changed, waived, discharged or terminated except with the written consent of Guarantor directly affected thereby and with the written consent of NYSERDA.

11. NOTICE. All notices and other communications shall be in writing and addressed to such party at (a) in the case of NYSERDA, as provided in the Agreement, and (b) in the case of

Guarantor, at its address set forth opposite its signature page below; or in any case at such other address as any of the Persons listed above may hereafter notify the others in writing.

12. CONSENT TO JURISDICTION; SERVICE OF PROCESS.

(a) This Guaranty shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts executed and to be performed in New York State without regard to its conflicts of laws principles. The parties irrevocably acknowledge and accept that all actions arising under or relating to this Guaranty shall be brought exclusively in a United States District Court or New York State Court located in Albany, New York having subject matter jurisdiction over such matters, and each of the Parties hereby consents to and accepts such personal jurisdiction of, and waives any objection as to the laying of venue in, such courts for purposes of such action. Guarantor further irrevocably consents to the service of process out of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by registered or certified mail, postage prepaid, to Guarantor at its address set forth opposite its signature below, such service to become effective 30 days after such mailing. Guarantor hereby irrevocably waives any objection to such service of process and further irrevocably waives and agrees not to plead or claim in any action or proceeding commenced hereunder that such service of process was in any way invalid or ineffective. Nothing herein shall affect the right of NYSERDA to serve process in any other manner permitted by law or to commence legal proceedings or otherwise proceed against Guarantor in any other jurisdiction.

(b) Guarantor hereby irrevocably waives (to the fullest extent permitted by applicable law) any objection that it may now or hereafter have to the laying of venue of any of the aforesaid actions or proceedings arising out of or in connection with this Guaranty brought in the courts referred to in Section 11(a) above and hereby further irrevocably waives and agrees not to plead or claim in any such court that such action or proceeding brought in any such court has been brought in an inconvenient forum.

(c) GUARANTOR AND NYSERDA (BY ITS ACCEPTANCE OF THE BENEFITS OF THIS GUARANTY) HEREBY IRREVOCABLY WAIVES ALL RIGHTS TO A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS GUARANTY OR THE TRANSACTIONS CONTEMPLATED HEREBY.

13. NO SHAREHOLDER LIABILITY. The Declaration of Trust of the Guarantor provides that no shareholder of the Guarantor shall be held to any liability whatever for the payment of any sum of money, or for damages or otherwise, under any contract, obligation or undertaking made, entered into or issued by the trustees of the Guarantor or by any officer, agent or representative elected or appointed by the trustees of the Guarantor and no such contract, obligation, or undertaking shall be enforceable against the trustees of the Guarantor or any of them in their or his individual capacities or capacity and all such contracts, obligations and undertakings shall be enforceable only against the trustees of the Guarantor as such, and every person, firm, association, trust and corporation having any claim or demand arising out of any such contract, obligation or undertaking shall look only to the trust estate for the payment or satisfaction thereof.

14. COUNTERPARTS. This Guaranty may be executed in any number of counterparts and by the parties hereto on separate counterparts, each of which when so executed and delivered shall be an original, but all of which shall together constitute one and the same instrument.

IN WITNESS WHEREOF, Guarantor has caused this Guaranty to be executed and delivered as of the date first above written.

Address:

_____

as Guarantor

By:_____

Name:

Title:

Accepted and Agreed to:

NYSERDA

EXHIBIT H

DESCRIPTION OF SELECTED PROJECT

Selected Project: Those turbines, identified below and with the attributes described herein, owned or controlled by Seller [redacted] and designated by Seller to be included in the Selected Project, and related equipment necessary to deliver electric energy to the Delivery Point. Seller shall update the facility descriptions contained in this Exhibit H from time to time in accordance with the terms herein; provided, however, that any change to the Offer Capacity or Site Perimeter must be undertaken in conformance with this Agreement.

[redacted]

Turbine	Serial Number	Turbine	Serial Number	Turbine	Serial Number
[redacted]					

Delivery Point: LIPA Holbrook and West Bus 138 kV substations

Point of Interconnection: LIPA Holbrook and West Bus 138 kV substations

Offer Capacity: 880 MW

[redacted]

[redacted]

[redacted]

[redacted]

EXHIBIT I

ECONOMIC BENEFITS CLAIMS AND VERIFICATION

I. Definitions

For purposes of this Exhibit I, the following definitions apply:

Agreed-Upon Procedures Report (AUPR) – a confidential report of findings based on specific procedures performed on a subject matter; defined by the American Institute of Certified Public Accountants (AICPA) Statements on Standards for Attestation Engagements, Number 18, Attestation Standards: Clarification and Recodification. Independent CPAs performing an AUPR do not provide an opinion or negative assurance. Instead, the AUPR is in the form of procedures and the Independent CPA's findings resulting from the performance of those procedures. It is produced by the Independent CPA pursuant to this Exhibit I to support Seller's economic benefits claims.

Claimed Expense – an expenditure included as a Category 1 or 2 Economic Benefit in the Economic Benefits Report prepared by the Seller.

General Contractor – an individual or company that has a direct contractual relationship with Seller (including any affiliate acting on behalf of Seller).

Host Community Agreement – a contract between Seller and a state or municipal government entity within New York State, or with a New York State non-governmental organization, detailing the rights and obligations of each party during the construction, operation, and decommissioning of the Selected Project, including financial, health, economic development and/or environmental benefits that will be provided to the community by Seller.

Independent CPA – the independent New York State certified public accountant, funded at the Seller's expense, that performs the steps to complete the agreed upon procedures and prepare an AUPR. The Independent CPA must not be an employee of Seller or its affiliates, and must not prepare the Economic Benefits Report and accompanying documents.

New York State Firm – a company, business, or entity with a principal place of business in New York State. A branch, office or worksite location of a non-New York State firm that operates within New York will be treated as a New York State Firm for the purposes of economic benefits verification so long the supporting documentation from such firm makes evident that the Claimed Expense was for work performed in or off the coast of New York State by New York State labor, services provided in New York State, or for materials, goods, or equipment sourced from New York State.

Payment Application – a construction document (for example, AIA Form G702 or similar) that details payments made to a General Contractor or subcontractor.

Payments in Lieu of Taxes (PILOT) – payments made to local government(s) to compensate for some or all of the tax revenue lost as a result of tax-exempt ownership or use of land or property.

Pursuant to Section 19.02, this Exhibit I supersedes and replaces ORECRFP18-1 and the Proposal with regard to Seller's commitments to provide Economic Benefits.

II. Types of Eligible Economic Benefits Claims in Categories 1 and 2

Category 1 Economic Benefits are comprised of spending and job creation in New York State by Seller and its affiliates and General Contractors and their supply chains that are specific to the Selected Project. [redacted] Category 1 Economic Benefits may include:

<u>Category 1: Project-Specific Spending and Job Creation in New York State</u>

a. Payments for labor-related expenditures in New York State. Examples include gross wages (including employer-side payroll tax payments), and benefit costs incurred in association with the direct employment of New York State construction, boat crews, rail and port workers, contractors and laborers, engineering or environmental service providers, consultants, other employees and financial and legal service providers associated with the Selected Project.

b. Payments for in-state purchases of goods and services. Includes expenditures as a result of:

   i. The purchase and consumption of local goods and services (including sales tax), such as, but not limited to, food, lodging, vehicles, equipment, fuel; and/or

   ii. The purchase of materials sourced from within New York State such as, but not limited to, gravel, steel, concrete and similar materials and/or the purchase and use of equipment and products manufactured or assembled within New York State and/or the use of rental equipment or similar supplies sourced within New York State (wind turbine components not manufactured within New York State are excluded); and/or

   iii. Ongoing operations and maintenance expenses that are anticipated through the first three (3) Contract Years of the Contract Delivery Term.

c. Payments, rents and taxes paid to local New York State entities. Includes:

   i. New or increased revenues for jurisdictions in New York State from the Contingent Award Notification Date through the end of the first three (3) Contract

Years of the Contract Delivery Term, including tax payments, PILOT payments, and/or payments under Host Community Agreements.

ii. Payments to fishing mitigation or compensation initiatives; and/or

iii. Payments intended to mitigate the visual, environmental, historical, cultural or other impacts associated with development, construction, operation or decommissioning of the Selected Project.

d. Financing expenditures (fees to in-state banks related to financing transactions but not the cost of borrowing).

e. Transmission and interconnection fees and expenditures, including those paid to NYISO or a New York utility relating to services provided within New York State. Expenditures associated with overbuilt transmission, that is, transmission in excess of what is required to accommodate the Selected Project, may not be claimed; provided, however, that fees and expenditures associated with transmission and interconnection facilities, and upgrades to such facilities, identified through the NYISO interconnection process and funded by the Seller shall qualify as a Category 1 benefits.

f. Other expenditures in line with the intent of this Category, when accompanied by supporting explanation as to their effect to support spending and job creation in New York.

<u>Category 2: Offshore Wind Industry-Related Supply Chain and Infrastructure Investment</u>

Category 2 Economic Benefits include long-term capital investments by Seller and/or its affiliates in offshore wind-enabling supply chain, infrastructure, workforce development and research and development initiatives in the state that are intended to have an enduring impact on the offshore wind industry and the New York State economy. Category 2 Economic Benefits may include:

a. Investments in the offshore wind-related supply chain, such as ports that provide staging, assembly or other services to the offshore wind industry, and manufacturing infrastructure for components used in the manufacture of offshore wind generation or interconnection equipment.

b. Investment in transportation facilities capable of serving future offshore wind installation, operation and maintenance needs, such as investment in Jones Act compliant vessels.

c. Investments in workforce development applicable to future offshore wind development in New York State, such as establishing a training facility, donating key components for training purposes to technical schools in New York State, building of training labs or materials testing facilities. Investments in input activities identified in Category 3 (see Exhibit D) may be included if they create capabilities to support future offshore wind facilities.

d. Investment in research and development in New York State applicable to improvements in offshore wind generation and delivery equipment and technology.

e. Investments in development of broadly-applicable sea bed, wind and metocean data (not specific to the Selected Project) that will be made publicly available, and that have beneficial impact to future offshore wind development that would benefit New York State.

f. Other investments in line with the intent of this Category, when accompanied by supporting explanation as to their effect to support the development of the offshore wind industry supply chain and future offshore wind investment in New York.

III. Verification

Economic Benefits Report. Within one hundred twenty (120) days of the third anniversary of the beginning of the Contract Delivery Term, Seller must submit the Economic Benefits Report through the Independent CPA.

Verification Process. The verification process for the Seller is as follows:

a. No later than thirty (30) months after the beginning of the Contract Delivery Term, Seller will provide the name of its selected Independent CPA to NYSERDA. Upon engagement, Seller will provide this Agreement, highlighting the Expected Total Dollars and this Exhibit I, to the Independent CPA, with appropriate redactions of any non-public information unrelated to Economic Benefits or the Economic Benefits Report.

b. Seller will prepare an Economic Benefits Report that both summarizes in narrative form and documents the total dollar amount of actual Economic Benefits accrued to New York in each of Economic Benefits Category 1 and Category 2 as a result of the development, construction, modification, and operation of the Selected Project from the Contingent Award Notification Date through the end of the first three (3) years of the Contract Delivery Term. The Economic Benefits Report shall also describe the activities of Seller in fulfillment of Section 12.01(c) of this Agreement with respect to Economic Benefits Category 3, described in Exhibit D, over the same period. The Independent CPA will not verify those Category 3 Economic Benefits in the AUPR, except to the extent such activities result in expenditures claimed as Category 2 Economic Benefits as noted above.

c. Acceptable documentation for expenditures incurred by Seller and/or its affiliates shall include the following (for an individual expense within each category of expense, any one of the listed documents or any combination thereof will be acceptable).

    i. For labor-related expenses: either W-2s,1099s or other tax documentation; copies of subcontracts or other labor-related arrangements detailing labor

provided under such contracts and that provide confirmation that labor is sourced from within New York or is covered by the Project Labor Agreement described in Section 18.11 of this Agreement.

ii. For operations and maintenance expenses: either itemized receipts; a check register report per vendor (which includes the check numbers, dollar amounts, invoice numbers paid and totals); each corresponding individual invoice that was submitted for payment accompanied by proof of payment; or a bank statement with applicable checks or wire transfers.

iii. For local goods and services: either receipts for hotels, meals, fuel, rental cars, and equipment purchased in New York (per diem payments made to non-New York State residents without specific, itemized expenses are not an acceptable form of documentation); a check register report per vendor for goods or services sourced from a New York State Firm (which includes the check numbers, dollar amounts, invoice numbers paid and totals); each corresponding individual invoice for services, equipment, materials and goods sourced from a New York State Firm that was submitted for payment accompanied by proof of payment; or a bank statement with applicable checks or wire transfers.

iv. For other expenditures: such evidence of payment as the context requires, provided that such documentation must show the date and purpose of the expenditure.

v. Seller may redact personal, sensitive, legally protected and other non-public information (e.g., social security number, tax identification number, street address, apartment number, etc.) from documentation to comply with Applicable Law, enhance privacy protection, and otherwise inhibit the potential improper use of such information.

vi. Seller and/or its affiliates may use other forms of documentation for a category of expense, subject to NYSERDA's approval, which shall not be unreasonably denied, conditioned, or delayed.

d. Expenditures incurred by a General Contractor (and/or its subcontractor(s)) require the same documentation process as outlined above. Seller is responsible for obtaining all necessary documentation from General Contractors. In addition:

i. If the General Contractor(s) is located in New York State: Acceptable documentation of in-house labor billed to the Selected Project by the contractor includes payroll records with confirmation from the General Contractor that each employee covered by the Claimed Expense is either (1) a New York State resident, or (2) covered by the Project Labor Agreement approved by NYSERDA pursuant to Section 18.11 of this Agreement. General Contractor may also self-certify costs of in-house equipment use. Acceptable documentation includes records of equipment use in construction

of the Selected Project. Documentation should be accompanied by a letter signed by a principal of the company attesting to the expenses.

ii. New York subcontractors utilized by the General Contractor: Acceptable documentation includes the General Contractor's check register reports by vendor (which includes the check numbers, dollar amounts, invoices paid and totals); the last Payment Application and final release waiver for each subcontractor to corroborate the payments in the check register report; or a bank statement with applicable checks or wire transfers.

iii. New York State Firms utilized by the General Contractor (lower tier subcontractors or not part of a subcontract agreement): Acceptable documentation includes the General Contractor's (and/or its direct or lower tier subcontractor's) check register reports by vendor (which includes the check numbers, dollar amounts, invoices paid and totals); corresponding individual invoices that were submitted to the General Contractor and/or its subcontractor at any tier for payment; or a bank statement with applicable checks or wire transfers.

iv. Labor costs that are undertaken by an out of state firm, but which nonetheless are attributable to New York workers or workers covered by the Project Labor Agreement, may be documented in the manner described above, along with such additional documentation necessary to identify and support the portion of overall costs attributable to New York labor or workers covered by the Project Labor Agreement.

e. Seller may not include indirect benefits or those created by any "multiplier effect" or other attribution method under which the creation of peripheral spending and jobs might be credited to direct capital infused into the economy. Only those Economic Benefits meeting the criteria and falling within the Categories 1 and 2 may be included in the Economic Benefits Report.

f. Seller should provide its Economic Benefits Report to the Independent CPA, collect all supporting documentation to support the Claimed Expenses in the Economic Benefits Report, and submit all documentation requested by the Independent CPA as needed.

g. The Independent CPA will submit the Agreed-Upon Procedure Report to NYSERDA within one hundred twenty (120) days of the third anniversary of the commencement of the Contract Delivery Term. Neither Seller nor the Independent CPA shall provide the documentation underlying the claims in the Economic Benefits Report to NYSERDA. Seller, however, must retain such documentation in accordance with Section 6.04 of this Agreement so that it can be made available to NYSERDA upon NYSERDA's request pursuant to Section 7.01 of this Agreement.

h. NYSERDA will examine the verified Economic Benefits Report and the Agreed-Upon Procedure Report, and confirm the calculation of the Verified Total Dollars by

the Independent CPA. NYSERDA will compare the Verified Total Dollars, in total, to the Expected Total Dollars, and proceed in accordance with Section 12.01(b) of this Agreement.

IV. Guidance for Independent CPA; Agreed Upon Procedures

This section sets forth the agreed upon procedures that the Independent CPA must follow in order to issue the AUPR related to the Seller's Economic Benefits Report.

Deadline for Submission. The Independent CPA is responsible for submitting the AUPR within one hundred twenty (120) days of the third anniversary of the commencement of the Contract Delivery Term. The AUPR must be received by NYSERDA on or before this date.

Organization of Report. The Independent CPA should organize its submission to NYSERDA as follows:

- AUPR
- Procedures and Findings
- Seller's original Economic Benefits Report

Use of Sampling Techniques. The Independent CPA will review each expenditure valued at more than $50,000 over the period covered by, and as reported in, the Economic Benefits Report. At its discretion, the Independent CPA may rely on sampling of representative expenditures under $50,000. If sampling is used, however, the Independent CPA must review a sample of transactions to be determined by the value and number of items included in the overall population, but no fewer than 150 such transactions or the number of such transactions that the Independent CPA determines would be statistically significant, whichever is greater. If sampling is used, the Independent CPA must also disclose the population and sample size in the AUPR.

Applying General Procedures to Specific Circumstances. This document provides guidance and specific examples of the procedures to be performed in providing NYSERDA with assurances as to the accuracy and completeness of Seller's Economic Benefits Report. Because accounting systems and data structures vary among companies, the requirements described in this Exhibit I are not intended to be all-inclusive, but rather represent the guidance and principles to be applied in performing tests of the documentation associated with the information submitted to NYSERDA by Seller.

General Notes on Performing the AUPR.

a. The AUPR must be produced by responding to each step in the Economic Benefits Agreed Upon Procedures that follow this section. When submitting the AUPR to NYSERDA, a scan of a printout is acceptable, as is a PDF with electronic signatures.

b. While performing the Agreed Upon Procedures, the Independent CPA may develop a list of questioned costs, including but not limited to unsubstantiated or inaccurate dollar value claims, etc. The Seller may choose to remove any

unsubstantiated claims from its report prior to submission of a final Economic Benefits Report to NYSERDA.

c. If the Independent CPA confronts an issue that the Independent CPA believes is not reasonably resolved by the guidance and principles contained in this Exhibit I, the Independent CPA may email designated points of contact at Seller and NYSERDA, who will make good faith efforts resolve the question by mutual agreement as quickly as possible. Any such resolution shall be memorialized in the AUPR.

Agreed Upon Procedures.

The purpose of performing the agreed upon procedures is to ensure and confirm the information submitted by the Seller on the Economic Benefits Report is accurate and that claimed Economic Benefits fall within Category 1 and Category 2 as described above.

a. Inquire of the Seller whether each transaction listed in Category 1 and 2 on the Economic Benefits Report is related to the development, construction, operation and/or maintenance of the Selected Project.

b. From the Seller's Economic Benefits Report, if sampling is used, select an appropriate sample for detailed testing of underlying transactions in accordance with the sampling methodology noted above. Disclose the population as well as the sample size for each category in the AUPR.

c. For Seller's or its affiliates' labor-related expenditures:

    i. Compare the expenditures claimed for each transaction selected to the Seller's or its affiliates' payroll records (e.g., payroll journals, W-2 forms, or benefits invoices) and determine:

        1. The name of the employer/purchaser is the Seller or an affiliate.

        2. The employee's address is located in New York State or the employer has certified that the employee is covered by the Project Labor Agreement approved by NYSERDA pursuant to Section 18.11 of this Agreement.

        3. Expenditure amounts agree to the payroll records and/or other supporting acceptable documentation.

        4. The payment was for services rendered during the time period described in this Exhibit I.

        5. Expenditure agrees to the relevant provided financial records of Seller and/or its affiliates (which may include payroll journal, general ledger, cancelled checks, etc.)

6. Expenditure is listed under the proper category.

d. For Seller's in-state purchases of goods and services:

i. Compare the expenditures claimed for each transaction selected to the Seller's or its affiliates' supporting documentation accompanying the Economic Benefits Reports and determine:

1. Seller (or Seller's affiliate or General Contractor) is named as the employer, payor on the invoice, and/or as party to the applicable agreement.

2. Expenditure amounts agree to the supporting acceptable documentation.

3. The payment was for services rendered or goods received during the time period specified in this Exhibit I.

4. Payment is associated with goods, services, equipment, materials, operations and/or maintenance expenses.

5. The vendor is a New York State Firm.

6. Expenditure agrees to the relevant provided financial records of Seller and/or its affiliates (which may include cash disbursements journal, payroll journal, general ledger, cancelled checks, etc.)

7. Expenditure is listed under the proper category.

ii. Inspect records supporting in-house equipment expenditures and obtain copy of letter provided by the Seller (or its affiliate(s)) or General Contractor attesting to the accuracy of the expenditures reported for in-house equipment use.

e. For Category 2 expenditures and/or investments not covered by (c) or (d) above:

i. Compare each Claimed Expense to Seller's supporting documentation accompanying the Economic Benefits Report and determine:

1. Seller (or Seller's affiliate or General Contractor) made the expenditure and/or investment.

2. Expenditure/investment amounts agree to the supporting acceptable documentation.

3. The payment was made during the time period specified in this Exhibit I.

4. The payee or investment is in New York, or the expenditure and/or investment was made for a Category 2 purpose for the benefit of New

York (including the establishment of a fund accessible by New York residents or entities, or for a purpose to benefit New York).

f. For other expenditures:

i. Compare the expenditures claimed for each transaction selected to the Seller's supporting documentation accompanying the Economic Benefits Reports and determine:

1. Seller (or Seller's affiliate or General Contractor) is named as the employer, payor on the invoice, and/or as party to the applicable agreement or other documentation.

2. Expenditure amounts agree to the supporting acceptable documentation.

3. The payment was for services rendered or goods received during the time period specified in this Exhibit I.

4. The expenditure falls within either Category 1 or 2 as described above.

5. The payee is a New York State Firm, a New York State municipality, or other counterparty described in Category 1 or 2 above.

6. Expenditure agrees to the relevant provided financial records (which may include cash disbursements journal, payroll journal, general ledger, cancelled checks, etc.).

V. Severability

For the avoidance of doubt, if any limitation, condition, or requirement imposed by this Exhibit on Seller's right to claim Economic Benefits is declared illegal, void or unenforceable as described in Section 18.06 of this Agreement, this Exhibit shall be construed to allow Seller to claim Economic Benefits as though such limitation, condition or requirement were omitted

EXHIBIT J

PROJECT LABOR AGREEMENT REQUIREMENTS

The final form of PLA presented to NYSERDA for review and approval pursuant to Section 18.11 of this Agreement should address:

1. Provisions that appropriately limit applicability of the PLA to United States-based (including Federal waters) covered work on the Selected Project (and not extending to any other work performed by contractors and subcontractors, or to the work of their affiliated entities), ensuring that Selected Project contractors or subcontractors are not required to become a signatory to any other labor agreement, and appropriately providing for the supremacy of the PLA over any potentially conflicting labor agreements that might otherwise apply to contractors and subcontractors. The PLA must apply to all covered construction and all contractors and subcontractors, of whatever tier, performing construction work on the Selected Project (subject to appropriate exceptions), and the PLA should be available to all contractors and subcontractors, of whatever tier, regardless of their union affiliation;

2. Provisions for appropriate union recognition and security (limited to Selected Project work) and the referral of skilled craft workers, including provisions for staffing in the event qualified referrals are not reasonably available and for the reasonable use of a number of core employees by contractors and subcontractors (regardless of union affiliation and referral practices that might otherwise exist);

3. Comprehensive labor harmony provisions to ensure against schedule disruption as a result of worksite disputes or other labor disputes of any kind;

4. Comprehensive provisions for the resolution of workplace disputes through third party resolution, including provisions for the resolution of jurisdictional disputes (without disruption to the schedule of the Selected Project), and appropriate provisions for labor management cooperation;

5. Appropriate provisions to allow the cost-effective and efficient coordination of multiple trades and contractors and subcontractors (notwithstanding any local labor agreements that might otherwise be applicable to contractors and subcontractors), as well as other appropriate management rights (such as appropriate provisions respecting specialty work and/or workers; adequately ensuring the contractors' or subcontractors' choice of materials, techniques, methods, technology or design, or, regardless of source or location; use and installation of equipment, machinery, package units, pre-cast, pre-fabricated, pre-finished, or pre-assembled materials, tools, or other labor-saving devices; the installation or use of materials, supplies or equipment regardless of their source (including as may be required by a vendor and/or to ensure warranty coverage); and to perform off-site work, subject to any restrictions imposed by law);

6. Appropriate provisions promoting minority- or women-owned business enterprise ("MWBE") employment, as well as the employment of New York workers and low-

income workers;

7. Appropriate provisions for the use of apprentices; and

8. Appropriate provisions for rules governing worksite access and conduct.

Endnotes

1 Case 18-E-0071, In the Matter of Offshore Wind Energy, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement (issued July 12, 2018).

2 NYSERDA. "Offshore Wind Policy Options Paper." NYS Offshore Wind Master Plan. January 29, 2018. www.nyserda.ny.gov/-/media/Files/Publications/Research/Biomass-Solar-Wind/Master-Plan/Offshore-Wind-Policy-Options-Paper.pdf

3 NYSERDA. 2018 Solicitation. https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-Solicitations/Generators-and-Developers/2018-Solicitation

4 U.S. Department of Interior. "BIDDING BONANZA! Trump Administration Smashes Record for Offshore Wind Auction with $405 Million in Winning Bids." December 14, 2018. https://www.doi.gov/pressreleases/bidding-bonanza-trump-administration-smashes-record-offshore-wind-auction-405-million

5 In 2018, NYSERDA completed a screening study as part of its Offshore Wind Master Plan that estimated the health impacts of installing 2,400 megawatts of offshore wind. This estimate scales the results from that analysis. See: https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan

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7 Case 15-E-0032, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016).

8 NYSERDA. "New York State Offshore Wind Master Plan: Charting a Course to 2,400 MW of Offshore Wind Energy". January 2018. https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan

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13 Vineyard Wind has reported a delay receiving timely permit authorization from BOEM, thereby jeopardizing its ability to commercialize the first 400 MW block in 2021.

14 Massachusetts DOER. 83C II Bids. https://macleanenergy.com/83c-ii/83c-ii-bids/

15 Massachusetts DOER. 83C II Timeline. https://macleanenergy.com/83c-ii/83c-ii-timeline/

16 Recharge News. "Orsted US offshore wind project gets key state approval". May 29, 2019. https://www.rechargenews.com/wind/1794111/orsted-us-offshore-wind-project-gets-key-state-approval

17 Renewable Energy World. PPA for 200-MW Offshore Wind Farm Approved by Connecticut Regulators. December 27, 2019. https://www.renewableenergyworld.com/articles/2018/12/ppa-for-200mw-offshore-wind-farm-approved-by-connecticut-regulators.html

18 State of Connecticut, Department of Energy and Environmental Protection. "Gov. Malloy Announces Zero-Carbon Resource Selections." December 28, 2016. https://www.ct.gov/deep/cwp/view.asp?Q=607002&A=4965

[19] Connecticut General Assembly. House Bill No. 7156 "An Act Concerning the Procurement of Energy Derived from Offshore Wind." June 7, 2019. https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&which_year=2019&bill_num=7156

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[21] In 2013, the Maine Public Utilities Commission issued a request for proposals for long-term contracts for deep-water offshore wind energy pilot projects pursuant to the 2010 Ocean Energy Act. See http://www.maine.gov/mpuc/electricity/rfps/standard_offer/deepwater2010/ and PUBLIC Law, Chapter 615, LD 1810, 124th Maine State Legislature, An Act To Implement the Recommendations of the Governor's Ocean Energy Task Force (Ocean Energy Act). http://www.mainelegislature.org/legis/bills/bills_124th/chappdfs/PUBLIC615.pdf

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[31] BOEM. 2016. "Meeting Initiates Planning for Ocean Renewable Energy Opportunities off California." Press Release (issued October 13, 2016). https://www.boem.gov/press10132016/

[32] BOEM. California Activities. https://www.boem.gov/California/

[33] NYSERDA. Revisions to ORECRFP18-1. https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00Pt000000Cps38EAB

[34] Although Mayflower Wind Energy LLC (joint venture of EDPR Offshore North America and Shell New Energies US), submitted an Intent to Propose Form, the company ultimately decided not to submit a proposal in consideration of the newness of their lease acquisition.

[35] Assigned in contracting to Sunrise Wind LLC

[36] "P" in Figure 5 represents the Preliminary Ranking of Proposals following the aggregation of the Price and Non-Price factors.

[37] "F" in Figure 5 represents the Final Ranking following the application of Public Policy Factors to the Preliminary Ranking, as described in the RFP. In this solicitation, however, Program Policy Factors were not utilized. As such, the Preliminary Ranking and Final Ranking are equivalent, as described in Section 2.2.5.

[38] Page references in this section are to Request for Proposals ORECRFP18-1 and related Appendices, available at https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-Solicitations/Generators-and-Developers/2018-Solicitation.

[39] NYSERDA's President and CEO was recused from the evaluation and selection process because of a prior client relationship.

[40] https://orsted.com/en/Investors/Orsted-at-a-glance

[41] Corresponds to a $114.58 weighted average nominal Index OREC Strike Price as presented in the OREC Purchase and Sale Agreements of Sunrise Wind and Empire Wind, together.

[42] Accounts for the avoided costs of energy, capacity, and RECs. The social cost of carbon, minus the value of carbon embedded in energy prices through RGGI, was used as a proxy for long-term REC values.

[43] Lifetime OREC Expenditure, NPV in 2018 real dollars using 6.55% discount rate; Index OREC values utilize the 2018 CARIS energy market forecast. Corresponding values in nominal dollars are $3.60 billion and $2.32 billion for Equinor and Sunrise, respectively.

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NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

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