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<u>BY ELECTRONIC MAIL</u>
RFI OSW-2018 Comments
Large Scale Renewables Team
New York State Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

Re: RFI OSW-2018 Comments

Equinor Wind US LLC ("Equinor") appreciates the opportunity to provide comments on the New York State Energy and Research Development Authority's ("NYSERDA") Request for Information ("RFI") respecting a procurement framework for offshore wind renewable energy credits ("OREC").

Equinor, together with its affiliates and ultimate parent Equinor ASA, is a global energy producer with over four decades of experience in safely developing and operating large-scale offshore assets and infrastructure, including offshore wind resources. Equinor is committed to the growth and deployment of renewable energy resources in the United States. Equinor holds Lease No. OCS-A 0512 issued by BOEM on March 15, 2017 and currently is in the early phase development of Empire Wind, an offshore wind project located in federal waters south of Long Island and east of the Rockaways. Empire Wind is the company's first, significant investment in offshore wind in the US and, when complete, will have the potential to power approximately a million homes with renewable energy generated off the coast of New York.

Equinor appreciates the significant time and effort that NYSERDA has spent in crafting a regulatory framework for the procurement of offshore wind resources. As Equinor explained in its comments before the New York Public Service Commission ("NYPSC"), a well-designed procurement framework is critical to allowing New York to achieve its objective of fostering the development of 2.4 gigawatts of offshore wind by 2030 and to ensuring that the growth of the offshore wind industry generates economic benefits for the State of New York. In that regard, Equinor notes that it believes that the general regulatory framework set out in the NYPSC's July 12, 2018 Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement[1] represents a sound conceptual framework for the procurement and development of offshore wind resources as part of NYSERDA's Phase 1 procurement. Equinor encourages NYSERDA to build upon this framework by issuing a Request for Proposals ("RFP") that promotes the competitive supply of ORECs, provides certainty to developers, and helps ensure that the

[1] In the Matter of Offshore Wind Energy, Case 18-E-0071, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement (July 12, 2018) ("July 12 Order").

development of offshore wind resources promotes New York's economic and environmental goals.

I. Responses to Specific Questions

A. Procurement Schedule

1. Bid Submission Timeline (Q1, Page 1)

In establishing the time period that bidders should be afforded to prepare their bids following the issuance of the RFP, it is critical that NYSERDA strike an appropriate balance between moving forward expeditiously with procurement and providing interested developers sufficient time to develop a well-supported bid that allows NYSERDA to evaluate the relative costs and benefits associated with a project. As a practical matter, the preparation of a bid will require prospective developers to compile and integrate the results of a range of quantitative and qualitative analyses concerning the prospective project and project site, including compiling detailed information regarding potential wind, geospatial, and geophysical data. Although Equinor and other developers have been assembling data, cost estimates, and other project information in anticipation of the upcoming RFP, prospective developers will need to be given sufficient time to allow them to complete and integrate the results of these analyses in their bids. In addition, there are certain elements of project development that cannot be advanced or completed until the terms of the RFP are finalized and released, including supply chain negotiations, financing, and commodity offtake strategies. For that reason, Equinor recommends that NYSERDA provide prospective bidders with a minimum of three months following the release of the RFP to finalize and submit their bids.[2]

2. Duration of Bids (Q2, Page 1)

Equinor supports NYSERDA's proposal to require bids to remain firm and binding for 6 months. In particular, Equinor's position is that requiring bids to remain open for a 6 month period balances the goal of providing NYSERDA with sufficient time to evaluate bids and select winning projects with the goal of limiting uncertainty for a prospective developer.

B. Procurement Quantity (Q3-4, Pages 1-2)

In the RFI, NYSERDA notes that it plans to seek a combined 800 MW of offshore wind resources through procurements conducted in 2018 and 2019. NYSERDA requests comment on whether the 2018 RFP should prescribe a minimum or maximum capacity or annual OREC quantity per bid and, if so, what values should be employed.

As an initial matter, Equinor strongly supports conducting a solicitation process that procures resources based upon their capacity rather than an annual OREC volume. There are a number of

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[2] Equinor notes that other states that have conducted similar solicitations have provided parties up to six months to prepare their bid submissions. *See* Timeline for Massachusetts 83C Solicitation, *available at*: https://macleanenergy.com/83c/83c-timeline/.

potential disadvantages to use of an annual OREC volume as the basis for procurement. First, since the annual OREC volumes offered by a prospective developer will necessarily reflect its best estimate of production over the term of a contract and may vary significantly from actual production, procuring offshore wind resources on the basis of annual OREC volumes creates a risk of over- or under-procurement. Second, requiring the submission of bids based upon an annual OREC quantity would require developers participating in the solicitation process to submit bids based upon their estimate of the output of their resources over the term of a 20- to 25-year contract period. Such a requirement would significantly increase the risks faced by prospective developers and may increase overall procurement costs by encouraging prospective developers to increase their bid prices to reflect the associated risks.

With respect to requirements related to the size of bids submitted into the RFP, Equinor encourages NYSERDA to provide developers with the flexibility to submit bids for projects of differing capacity. In Equinor's experience, the scale and scope of a project will have a significant impact on the relative costs of a project, with the potential for significant cost savings and economies of scale as the size of a project increases. Allowing developers to submit multiple bids of various sizes—ranging up to 800 MW—will provide NYSERDA with the ability to evaluate the relative costs and benefits of projects of different sizes, including whether a larger project would result in a lower price per OREC. Thus, allowing developers to submit bids of various sizes will help to ensure that NYSERDA is procuring offshore wind from the most efficient and cost-effective resources possible, realizing potential cost-savings associated with economies of scale and reducing costs to consumers.

C. Interconnection and Deliverability

1. Challenges Associated With Downstate Injection Points (Q6, Page 2)

Developers seeking to interconnect their projects at downstate interconnection points will face specific risks and challenges that should be taken into account in the RFP. Among these is uncertainty about the costs of interconnection, including whether they will be required to fund upgrades to the transmission system and the scope of the upgrades required. In reality, developers may not receive confirmation of their cost responsibility for network upgrades until months or years after a developer submits an offer to supply ORECs. As a result, any bids submitted in the RFP will necessarily reflect a conservative estimate of a developer's likely costs.

2. Delivery Requirement (Q7-Q8, Page 2)

Equinor strongly supports limiting the RFP to projects that can economically and physically deliver their energy into the New York control area, either by direct generator lead line into the market operated by the New York Independent System Operator ("NYISO") or into an adjacent control area with long-term firm transmission capacity available to New York. Developers bidding in projects located outside of the New York control area should be required to demonstrate that their bid is supported by firm, long-term transmission arrangements capable of ensuring that the project will be able to reliably deliver its output to New York with a high degree of confidence under a full range of operating circumstances. Ultimately, the benefits associated with procuring

ORECs from offshore wind resources located outside the New York control area will be significantly diminished if procured resources are unable to deliver energy to New York due to delivery issues, including, but not limited to, transmission curtailments. For that reason, Equinor believes that it would be appropriate to limit participation in the RFP to resources that are capable of demonstrating that they have procured (or will procure) long-term firm transmission rights capable of supporting delivery of the quantity of capacity committed to the New York control area for the duration of the OREC contract.

It is also appropriate for developers to bear the risks and costs of any transmission losses and constraints associated with the delivery of energy from resources located outside of the New York control area as well as any new costs for such delivery that may arise in the future due to unforeseen circumstances. For instance, in evaluating the quantity of capacity that can be supplied by an external resource, it would be appropriate for NYSERDA to limit any procurement based on the quantity of capacity that can actually be delivered by an external resource into the New York control area (as opposed to the installed capacity of the resource). This will ensure that the project developer—rather than New York ratepayers—bears any risks associated with transmission losses incurred in delivering energy to New York. Likewise, as noted above, any changes in the cost of transmission associated with delivering energy to the New York control area that may occur in the future should be borne by the developer.

3. Strategic Partnerships (Q10, Page 2)

NYSERDA should not award credit for strategic partnerships between an offshore wind developer and transmission owner when evaluating bids to supply ORECs. In its order establishing an offshore wind standard and a framework for Phase 1 procurement, the NYPSC rejected requests to consider separate bids for generation and transmission solutions as part of the Phase 1 procurement process and instead decided to leave the responsibility and risks associated with arranging interconnection and transmission with the project developer.[3] For that reason, it would be inconsistent with the NYPSC's order to award credit or otherwise prefer bids that employ strategic partnerships with transmission owners.

In addition, issuing an RFP that awards credits for strategic partnerships may create an incentive for companies to enter into partnerships that do not further NYSERDA's long-term goals and objectives. In particular, Equinor notes that bifurcating the ownership of an offshore wind project and the transmission and interconnection facilities used to deliver the output of the project has the potential to create inefficiencies and increase uncertainty. In particular, to the extent that parties to a strategic partnership are unable to effectively coordinate development activities, the likely result will be delays in project development and higher project costs.

For that reason, a developer's decision to enter into a strategic partnership should only be considered to the extent that it affects the bid evaluation factors outlined in the NYPSC's order (*i.e.*, price, viability, and economic development). For instance, if a developer is able to submit a lower price bid to supply ORECs because it projects that its partnership with a transmission owner

[3] July 12 Order at 55-56.

will reduce its overall costs of development, NYSERDA could reasonably take into account the lower bid price when evaluating the developer's submission. In that regard, a transmission owner that enters into a strategic partnership should be viewed as akin to a subcontractor, with the generation developer taking into account its partnership when preparing its bid and maintaining all responsibility and risks associated with project development.

D. OREC Pricing Options Under the Index OREC Structure

1. OREC Pricing Under The Index OREC Structure (Q11, Page 3)

NYSERDA should permit developers to submit a schedule of strike prices that vary on a year-to-year basis. Giving parties the flexibility to shape their bids will allow prospective developers to more accurately reflect the perceived risks of development over the life of the project. Permitting parties to submit shaped bids should not adversely affect NYSERDA's ability to evaluate bids, as NYSERDA will weigh and evaluate bids based on a net present value calculation.

2. Negative LBMPs Under the Index OREC Structure (Q12, Page 3)

Negative pricing plays an important role in promoting the reliable operation of the grid by creating an economic incentive for generators to reduce production during periods of over-generation. It is important to recognize, however, that generators are likely to vary in terms of how quickly they can curtail production in response to these pricing signals, with the result being that there may be instances where generators may incur additional costs as they work to curtail production in response to market prices. In that regard, the potential exposure to negative pricing represents a real risk and cost faced by developers seeking to participate in wholesale markets.

For that reason, it is appropriate for the reference prices used to calculate the value of ORECs to take into account the frequency of negative pricing. The use of a time-weighted average hourly NYISO day-ahead market price for the delivery month and a load-weighted average of NYISO Zone J and Zone K prices should accurately capture the potential for negative pricing.

3. UCAP Factor (Q13, Page 3)

Equinor supports the use of a 38 percent unforced capacity ("UCAP") value for the purpose of calculating the capacity value of the reference price throughout the contract term. In particular, Equinor believes that a 38 percent UCAP value represents a reasonable estimate of the quantity of capacity that will be made available in the NYISO markets by selected projects. In addition, as noted in NYSERDA's Offshore Wind Policy Options Paper, the use of a 38 percent UCAP value throughout the contract term will encourage selected projects to maximize the value of their projects.[4] At the same time, using a single fixed value throughout the life of the contract will provide prospective developers with greater certainty regarding the value of their ORECs throughout the contract term.

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[4] NYSERDA, Offshore Wind Policy Options Paper at 36 (Jan. 29, 2018).

E. OREC Pricing Options Under The Fixed OREC Structure

1. OREC Pricing Options Under The Fixed OREC Structure (Q14, Page 3)

As noted above, NYSERDA should permit developers to submit a schedule of bid prices that vary on a year-to-year basis in order allow prospective developers to more accurately reflect the perceived risks of a project over its life.

2. Negative LBMPs Under The Fixed OREC Structure (Q15, Page 3)

In the RFI, NYSERDA requests comments on how negative LBMPs should be accounted for pursuant to the Fixed OREC Structure. However, pursuant to the Fixed OREC structure, selected projects will be compensated based on their bid in OREC price, without any adjustment for market prices for energy and capacity. As a result, it does not appear that negative LBMPs are relevant to determining the compensation to selected projects under the Fixed OREC structure.

F. Bid Evaluation

1. Weighting of Fixed and Index OREC Bids (Q17, Page 3)

The Index OREC bid should be afforded significantly more weight than the Fixed OREC bid. As noted by numerous commenters in the NYPSC proceeding that culminated in the July 12 Order, the Index OREC has numerous advantages over the Fixed OREC option. Among other things, as NYSERDA and others have noted, the use of an Index OREC is likely to be far less costly for New York ratepayers over the life of the resulting contracts while maximizing the economic benefits in the state associated with offshore wind. Given these advantages, and the fact that the Fixed OREC is intended to represent a "fall back" option, Equinor urges NYSERDA to assign a 90 percent weight to the Index OREC bid.

2. Maximum Acceptable Bid Pricing (Q19, Page 3)

In establishing a maximum acceptable bid price, NYSERDA should be careful not to place undue weight on the results of offshore wind procurements that have been conducted in other states. As a practical matter, differences in the terms and conditions of a solicitation process, such as the contract term, procurement structure, and risks placed on project developers, can have a significant impact on both the level of bids submitted and the resulting price. In addition, the development of offshore wind resources off the coast of New York poses unique risks and challenges that are distinct from those associated with developing off the coast of other states. For instance, Massachusetts' recently completed RFP for offshore wind selected a project for the development off the coast of New Bedford, Massachusetts, an area that has made a significant investment in the port infrastructure necessary to support offshore wind in recent years and where essential inputs into project development are relatively inexpensive when compared to New York. In addition, differences in the size and scope of proposed projects as well as the topology of the adjacent transmission grid have a significant impact on project costs and, ultimately, the results of any procurement process. Moreover, the timing of procurement can have a significant impact on auction results, as the eligibility of offshore wind projects for investment tax credits and other financial incentives that can reduce the cost of project development can vary considerably from year-to-year. For that reason, Equinor cautions NYSERDA against relying on the results of other states' procurement processes to set the maximum acceptable bid price for New York.

3. Index OREC Strike Price Adjustment (Q20, Page 3)

In order to compare the Index OREC price with the Fixed OREC price accurately, NYSERDA should estimate the cost of the Index OREC option over the life of the contract. As a practical matter, this can be accomplished by creating a long-term forecast of energy and capacity prices and subtracting these amounts from a developer's strike price. In the interests of transparency and in order to assist bidders with evaluating the potential outcome of the NYSERDA evaluation process, NYSERDA should make any forecast prices it plans to use in its evaluation available in advance of the RFP.

G. Economic Benefits

1. Documentation of Local Benefits (Q23 – Q24, Page 4)

As affirmed in the NYPSC order, the bid evaluation process should consider the economic benefits of a proposed project and how those economic benefits affect and further New York's long-term investment in the development of offshore wind. NYSERDA should recognize that (1) most bids likely involve projects in early stages of planning and development and therefore it may be difficult for participants to foresee and evaluate the full range and distribution of economic benefits to New York; and (2) New York firms' capabilities and experience with the offshore wind industry may change between bid submission and the commencement of project development. These factors suggest it will be problematic to forecast accurately the level of investment in New York at the time of bid submission; thus it may be difficult to make commitments to create persistent and sustainable institutional or labor capabilities in the state while evaluating whether such commitments may impact overall project pricing and costs.

To the extent NYSERDA requires documentation of local benefits, such documentation should permit the developer to provide a range of likely local economic benefits while allowing the developer sufficient flexibility to update this information as project development progresses. In addition, any criteria used by NYSERDA in evaluating economic benefits to New York should be publicly available well in advance of the solicitation process to ensure participants understand how their proposals will be evaluated and how a bidder could structure its proposal to maximize the development of the supply chain and related infrastructure in New York. Criteria used to evaluate local benefits should be transparent, measurable, well-defined, and capable of consistent application to each bid to allow for accurate comparisons. To the extent NYSERDA requires submission of an economic benefit plan, Equinor suggests that this plan need only contain information directly bearing on bid evaluation criteria.

2. Required Commitment to New York Firms (Q25, Page 4)

Equinor supports the inclusion of New York firms and businesses in the development of offshore wind and the development of supply chain infrastructure in New York. The development of wind facilities off the coast of New York has the potential to increase the state's experience with the offshore wind industry and to build out supply chain infrastructure in the state.

Equinor notes that it is committed to the use of suppliers that maintain high standards respecting health, safety, environment, ethics, and corporate responsibility. In selecting suppliers, Equinor considers a range of factors, including financial stability; degree of high-level technical competence; quality assurance management systems; ethics and social responsibility; and recent related experience.

Given the nascent stage of the offshore wind industry in the U.S. generally, however, Equinor believes that brightline or prescriptive requirements on the selection of contractors may impede project development or increase the costs of offshore wind projects. For instance, primary contractors selected by Equinor may, in turn, have their own requirements for selecting sub-contractors and may have their own approved vendor lists or qualification criteria. In addition, given the early development of supply chain infrastructure within the state, a NYSERDA-approved vendor list may not fully align with the vendor list or criteria maintained by individual developers.

To the extent that NYSERDA would like to promote the use of New York labor and resources, Equinor suggests that NYSERDA organize an event where offshore wind project developers could meet with New York firms and vendors. This event could result in greater awareness of the New York firms' capabilities and experiences while allowing them to understand better the skills, resources, and experience needed by the offshore wind developers.

3. Penalties for Failure to Provide Economic Benefits Claimed (Q27, Page 5)

Estimating the economic benefits that will be provided to New York from the development of an offshore wind project requires the use of numerous assumptions, many of which may change from the time of the submission of a bid to NYSERDA to the time of actual construction. Moreover, evaluating or measuring the actual economic benefits to New York in the first three-year period of commercial operations also will require numerous assumptions and estimates. With the foregoing uncertainties inherent in the offshore wind development process, any penalties or repercussions imposed by contract should consider and account for the inherent uncertainties in the forecasts and assessments, perhaps by including an appropriate tolerance band in which no penalties will be assessed. Further, penalty provisions should account for the possibility that a reduced investment in New York may lower overall project costs for the benefit of New York ratepayers.

In addition, the focus on penalties omits the alternative scenario where an offshore wind developer invests more in New York. NYSERDA should consider whether the offshore wind developer should be incentivized to promote greater economic development in New York, rather than being penalized for failing to meet certain targets.

To the extent that NYSERDA believes a penalty is necessary, the penalty should be an additional assessment or payment in proportion to the shortfall. Alternatively, the developer could make up a shortfall with additional investment in the state. However, reducing the overall contract pricing in proportion to the shortfall could inject uncertainty into the financing arrangements for a project, making it more difficult for the developer to obtain financing for a project.

4. Fishing Mitigation Plans and Compensation Programs (Q28, Page 5; Q32, Page 6)

Equinor welcomes the proposed inclusion of a requirement to submit a Fisheries Management Plan, also termed a Fisheries Liaison & Outline Coexistence Plan, as part of the RFP. Equinor emphasizes, however, that any requirement to submit a Fisheries Management Plan at the bid stage should be limited to setting out the developer's proposed process for addressing potential impacts to fisheries and related mitigation. Because developers will not have had the opportunity to complete the design and site evaluation process at the time that they submit their bids, it would be premature to require bidders to submit a Fisheries Management Plan that fully details potential impacts and mitigation measures.

It also is worth noting that there is generally agreement by developers and the fishing community that mitigation measures to reduce impacts on fisheries should be developed through an iterative process of project design, including for example site selection, cable routing, design of foundations and cable systems, timing of works, and consideration of alternative construction methods, and that financial compensation should only be used in limited circumstances where other measures are not adequate. As such, Equinor does not believe that it would be appropriate to require or consider the submission of a compensation program as part of the RFP. While Equinor recognizes the importance of evaluating and addressing the impact on fisheries, impacts should be assessed on a case-by-case, project-specific basis. It also is important to recognize that BOEM and related federal authorities already have mechanisms in place to evaluate the potential impact of a project on fisheries resources.

5. Employment of New York Residents (Q29, Page 5)

As noted above, Equinor supports economic development in New York from the development of the offshore wind industry, including the employment of New York residents. Equinor has developed infrastructure projects, including offshore wind projects, in other countries and has focused on and had successful initiatives to employ and train local residents. This has provided Equinor with significant experience in working with local residents to provide job opportunities and job training, either directly or through subcontractors. For instance, opportunities for foundation manufacturing, wind turbine staging training, OSHA training, and access to offshore wind turbines have the potential to generate high-quality employment opportunities for New York residents. Equinor also envisions opportunities for New York small businesses to be involved as subject-matter experts in the supply chain and with research and development grants. As explained above, the significant time period between bid submission and project development, coupled with possibly changing capabilities and experience levels of New York firms, makes it difficult to assess accurately the level of New York resident employment. NYSERDA should not impose prescriptive contractual obligations requiring the employment of a percentage or specific number of New York residents.

H. Information to Demonstrate Project Viability (Q30, Pages 5-6)

The NYPSC order identified various criteria to evaluate whether a participant's project is sufficiently viable for consideration. Equinor generally supports these criteria, as they are important in the selection process, but NYSERDA also should consider that most of the projects submitted will likely be in early stages of development. As such, NYSERDA should recognize that the various details provided in a bid may be subject to change, and developers require reasonable flexibility to accommodate revisions to proposed projects in early stages of development. In addition, given the early stages of development, requiring overly detailed information for each milestone could be difficult or burdensome for a developer to provide. Developers, such as Equinor, will as part of the design realization process, engage a number of subject matter expert design companies and vessel operators to properly scale the project viability needs. NYSERDA should recognize these steps and the resulting information in evaluating the viability of a bid. Finally, NYSERDA also should consider that much of the information sought below may be developed and evaluated in the course of BOEM's review and the accompanying NEPA review of a construction and operation plan ("COP"). Equinor provides the following additional comments.

Permitting Plan and Status – Equinor believes that a participant should submit a reasonable permitting plan, identifying expected permits and certifications needed for the project, the relevant agency and expected timeline for obtaining such permits and certifications, and the current status of the bidder's efforts to obtain such permits and certifications (i.e., whether an application has been filed). NYSERDA also should recognize that the permitting plan may be revised as the project develops, and will be subject to the outcome of the RFP.

Financing Plan – Participants should provide appropriate information to demonstrate their financial strength and reliability to complete the proposed project. This factor should be given significant weight and should be examined closely by NYSERDA as financial weakness could threaten the timely completion of a project or increase costs to New York ratepayers. Appropriate financial information should include audited financial statements, credit reports, and the participant's credit rating.

Developer Experience – NYSERDA should prioritize and afford significant weight to recent experience developing offshore wind projects. NYSERDA should examine the proposed project with the participant's past experience with projects of similar size, cost, scope, and technical difficulty. Further, NYSERDA also should consider related offshore infrastructure experience and the participant's ability to successfully install and operate this offshore infrastructure of comparable scope and complexity as offshore wind facilities. In addition, NYSERDA should consider not just the participant's experience but also the institutional and company-wide experience in managing similar projects competently and safely.

Proposed Technology – Participants should provide sufficient detail about the proposed project to allow NYSERDA to evaluate whether it would meet the procurement requirements. The required information should recognize that most projects responding to an RFP may be in early stages of project development and may not be sufficiently advanced in the BOEM leasing process to have developed mature plans for an offshore wind facility. However, consistent with the design envelope approach used by BOEM, participants should provide information regarding baseline technology, such as the wind turbine and foundation design, and also accompany this information with an assessment of the expected cost variability range. A design envelope approach allows for a sufficiently wide scope of designs to maintain flexibility to address issues that might arise later with the supply chain, engineering feasibility, or permitting. Premature commitment to a specific technology may foreclose a developer from using other technologies that ultimately are determined to be more efficient, cost-effective, or reliable as the project progresses or as new technology becomes available. Participants also should provide a sensitivity scenario evaluating how changing technology could impact costs.

Development and Logistics Plan – Participants should present general plans to develop port facilities and other support infrastructure and general equipment procurement plans. These plans should be sufficiently developed to allow NYSERDA to assess and evaluate the plans and the developer's general intentions, and participants also should submit sensitivity analyses reflecting a range of the anticipated costs associated with each plan. However, some of the identified plans, such as the port facilities upgrade plans and decommissioning plans, may be developed later and assessed as part of BOEM's NEPA review of a COP, to the extent these impacts are within the scope of review. NYSERDA should not require highly detailed plans when such plans will be fully developed and evaluated at later stages of regulatory review.

Interconnection Status – Participants should provide a status of the interconnection request(s), but NYSERDA should not impose threshold interconnection requirements as many projects will be in early stages of the interconnection process. In addition, participants should document their efforts to identify, evaluate, and permit routing options of the project's interconnection facilities, such as the sub-sea and shore-side cable(s) that will connect a project to the transmission system. This information will assist NYSERDA in evaluating the developer's efforts to locate and permit reasonable interconnection facilities.

Reasonableness of Project Development Milestones – Equinor suggests the milestones below should be included in any development plan proposed. To evaluate the reasonableness of these milestones, NYSERDA should ask participants to supply an appropriate level of detail and demonstrate robustness by incorporating P10, P50, and P90 scenarios for weather windows and other risks.

1. Initiation – commencement of the project development process, including

outreach, feasibility, and engagement with stakeholders

2. Planning – permitting, design, scheduling
3. Construction – execution phase, consisting of constructing the project and related facilities
4. Monitoring and Control – quality assurance and control, performance evaluation
5. Commissioning – conclusion of the project development process and commencement of commercial operations

Community Outreach – Equinor strongly supports early and consistent engagement of communities and other stakeholders concerning the potential benefits and concerns arising from development projects. Equinor has a long history of successful community-focused stakeholder engagement in relation to development projects all over the world, and it is already fully engaged in ongoing dialogue with stakeholders for Empire Wind offshore New York. Community outreach provides an important mechanism for anticipating and effectively addressing concerns and interests. Community outreach is not, however, well-suited for use as a criterion in evaluating OREC procurement.

Environmental Impact – Participants should be required to provide geophysical assessments and met-ocean design information. Requiring environmental, biological, archeological, and other similar studies at the time of bid submission would unnecessarily accelerate or duplicate the environmental review process undertaken by BOEM pursuant to its obligations under NEPA.

Wind Resource Assessment – NYSERDA should require that participants submit *indicative* information describing the wind resource, turbine power curve data, energy yield calculations, gross turbine output, expected availability, and losses by category. Technology in the wind industry continues to advance rapidly, and a participant should be allowed to update its proposal in accordance with the manufacturer's technology development plan.

I. Marine, Environmental, and Other Impacts

1. Minimum Setbacks (Q31, Page 6)

Pursuant to the July 12 Order, NYSERDA states that it has discretion to tailor the setback requirement if it determines that a modified approach is necessary to optimize the overall environmental and economic benefits. NYSERDA should not impose any minimum set-back and consider two primary concerns, discussed below.

First, imposing viewshed restrictions without the consideration of the individual facts and circumstances of a project would be unnecessarily restrictive. As a practical matter, the impact on viewsheds will vary significantly from project-to-project, and, for that reason, each offshore wind project needs to be considered on an individual basis.

Development of the offshore wind industry to date cautions against adopting a one-size fits all approach and highlights the need for flexibility. For instance, the only operational offshore wind project off the U.S. is located three miles from the Rhode Island coastline, and the state has recently procured more offshore wind about 14 miles from shore. The winner of the Massachusetts offshore wind procurement also has a lease 14 miles from shore. The competitors in the upcoming New Jersey offshore wind procurement hold federal leases as close as 11 miles from shore, and New Jersey is also moving forward with a project in State waters, about 3 miles from shore. In fact, New York has already procured offshore wind 15 miles from shore, as the state-run Long Island Power Authority contracted with the South Fork Wind Farm, which is approximately 15 miles off the cost of Massachusetts.

Second, two of the critical drivers of cost of an offshore wind farm are water depth and distance to shore. Every foot deeper the water, the more materials needed and the harder the construction. Every foot further from shore, the longer the travel time to the wind farm and the longer the cable run, with more cable needed to cover the distance. Imposing a minimum set-back requirement could arbitrarily increase the costs borne by New York ratepayers. It also could put New York at a disadvantage in attracting and growing the offshore wind industry, with developers and suppliers choosing to serve the interests of surrounding states that have not adopted such requirements.

2. Environmental Information Made Public (Q33, Page 7)

Equinor generally supports efforts to promote transparency by making publicly available environmental data collected by developers in the course of site assessment, development and operations. Equinor emphasizes, however, that it is critical that NYSERDA take steps to protect confidential and proprietary information and that the types of data that can be publicly released may vary on a project-by-project basis. In order to ensure that confidential and proprietary information is protected, NYSERDA's RFP should set out clear procedures regarding how prospective developers can designate information as confidential and non-public and how disputes regarding whether information can be disclosed will be addressed. These procedures should allow prospective developers submitting bids into the RFP to designate portions of their responses as confidential and non-public in the first instance, with disputes regarding whether environmental information can be made publicly available addressed through consultation between the prospective developer and NYSERDA.

J. Eligibility/Contract Provisions

1. Eligibility Criteria (Q35-Q36, Page 7)

Equinor supports the eligibility criteria set out in the July 12 Order. Specifically, Equinor agrees that participation in the RFP should be limited to offshore wind electric generation facilities located in ocean waters of the United States, that have obtained a lease from BOEM, that become operational on or after January 1, 2015, and that deliver their electric energy into the New York control area by direct lead line or from an adjacent control area. Equinor believes that this eligibility criteria strikes an appropriate balance between ensuring that the projects that respond to the RFP are consistent with New York's environmental and economic goals while avoiding unduly restrictive criteria that could serve to artificially constrain the pool of resources eligible to compete to supply New York's offshore wind needs.

2. Contract Term (Q37, Page 7)

NYSERDA asks whether it should require participants to submit offers for one or more specified terms or allow participants to propose various contract durations. For simplicity and to readily allow comparison of proposals, Equinor suggests that all proposals use a term of 25 years.

3. Setting the Commercial Operation Date (Q38, Page 7)

Because the offshore wind industry in the United States and New York is in early stages of development, there is a higher risk that unforeseen issues, such as permitting difficulties and supply chain disruptions, will delay development of projects than in more mature industries. These disruptions cannot always be foreseen and add risks to a project. For that reason, exposing developers to financial penalties for a failure to meet a commercial operation date would significantly increase uncertainty for developers, resulting in higher bids.

As an alternative to adopting a financial penalty, NYSERDA should provide an option for exiting the agreement with little or preferably no fiscal penalty for delays or a failure to reach COD. This would reduce the financial risk on developers while also providing an incentive for completing the project.

4. Contract Reversion to Fixed OREC Method (Q40, Page 8)

Equinor strongly believes that the contract should not allow discretionary reversion back to the fixed OREC method. If NYSERDA wishes to retain this optionality, it must be restricted to specific circumstances. For instance, reversion to the Fixed OREC methodology may be allowed if a successful legal challenge invalidates the Index OREC method. And if so, should be subject to negotiations between NYSERDA and developer. This optionality also should be limited to the project development period, before a developer's final investment decision. The ability to switch the OREC methodology from index to fixed for commercial or economic reasons would seriously impact the financial viability of projects and would substantially increase the risks faced by the developer, potentially increasing costs to New York ratepayers.

II. Conclusion

Thank you for giving Equinor the opportunity to respond to the RFI.

Very truly yours,

/s/ Meagan Keiser

Meagan Keiser
Equinor US
Lead Counsel
New Energy Solutions
1050 K Street NW, Suite 950
Washington, D.C. 20001
Phone: (202) 370-5221
mekei@equinor.com

Counsel for Equinor Wind US LLC