



The New York Power Authority (NYPA) respectfully submits the following comments to the New York State Energy Research and Development Authority’s (NYSERDA) Offshore Wind Renewable Energy Credits Request for Information (RFI OSW-2018). These comments are being voluntarily submitted with the intent of assisting NYSEDA in developing a Request for Proposals (RFP) for Offshore Wind Renewable Energy Credits (ORECs). The RFP is being developed pursuant to the New York State Public Service Commission (PSC) Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement issued in Case No. 18-E-0071 and dated July 12, 2018.

Respondent Information

Katherine Rougeux, Business Development Manager
New York Power Authority
Office: 716-842-3211 | Cell: 914-355-0682
Katherine.Rougeux@nypa.gov

New York Power Authority Background & Previous Experience

The New York Power Authority is the largest state public power organization in the nation, operating 16 generating facilities and more than 1,400 circuit-miles of transmission lines throughout New York State. More than 70 percent of the electricity NYPA produces is clean renewable hydropower. NYPA remains true to its mission to “power the economic growth and competitiveness of New York State by providing customers with low-cost, clean, reliable power and the innovative energy infrastructure and services they value” without the use of any tax revenue or state credit. Customers include large and small businesses, not-for-profit organizations, community-owned electric systems and rural electric cooperatives and government entities. NYPA is the only statewide electricity supplier, and provides the lowest-cost electricity in New York State. NYPA is poised to support the development of offshore wind and serve our customers’ varying renewable energy needs.

More than a century after the introduction of commercial electricity, the grid and the role of the utility are being dramatically reimagined. Through Governor Cuomo’s Reforming the Energy Vision initiative (REV), New York State has become a nationwide leader in evolving the infrastructure and business model of the energy industry. From smart generation and transmission to renewable energy, transportation and beyond, NYPA is one of the key creators and implementers of REV initiatives. NYPA is well-positioned to help move the state into the new era of energy production, and towards meeting the state’s clean energy goals, including the Clean Energy Standard goal of 50% renewable generation resources by 2030, as well as the more recent goal of 2.4GW of offshore wind by 2030. NYPA has a long history of innovation dating back to the 1950s and 1960s when NYPA built its major hydroelectric plants on the St. Lawrence and Niagara rivers, and has a vested interest in continuing its history of innovation through support of offshore wind.

Recent progress includes NYPA’s Large-Scale Renewable RFP, issued in June 2017, to contract with developers of large-scale renewable projects to serve customers’ renewable energy needs and support New York’s Clean Energy Standard goal. The RFP sought proposals for various products and financing structures in order to provide low-cost renewables to meet customer needs. NYPA received more than 130 projects proposals from 51 developers, representing over 9 gigawatts of potential renewable resources from solar, wind, biomass and hydroelectric technologies. Through the RFP process, which is

still in the evaluation stage, NYPA has obtained valuable experience with the procurement of large-scale renewables.

NYPA operates one-third of the bulk-power transmission lines in New York State, helping to form the backbone of the statewide grid for electric power distribution. Through its role as a Transmission Owner (TO), NYPA has experience building, upgrading, and maintaining transmission throughout the state, and coordinating with other transmission operators and the New York Independent System Operator (NYISO) to actively improve New York's grid. NYPA has a long history of supporting the development of the state's power infrastructure, including the development of large-scale renewable projects, for the benefit of NYPA customers and the State of New York.

PROCUREMENT QUANTITY

Question #4: Should the 2018 RFP allow bidders to submit multiple bids with differing capacity or OREC quantities? Should this be a continuous range, or should specific discrete target quantities be prescribed by NYSERDA?

NYSERDA should allow bidders to submit multiple bids with differing capacity or OREC quantities, as such bids may reveal economies of scale and give NYSERDA options to award multiple bidders and achieve supplier diversity. Bidders should be permitted to submit bids in excess of 800 MW, but should be required to submit a bid not exceeding 800 MW. NYSERDA should consider the value of making awards to multiple bidders in the interest of diversity, and accordingly NYSERDA should advise bidders of its view on this aspect of the procurement in an effort to encourage bidders to provide multiple options at smaller capacities, if desired.

INTERCONNECTION & DELIVERABILITY

Question #6: Are there unique challenges associated with interconnection of offshore wind into downstate New York injection points in New York City and/or Long Island that should be taken into consideration when preparing the RFP? If yes, please identify the challenges.

New York City and Long Island are densely developed regions of the state, which will make land availability for the routing of transmission lines and the siting of interconnection facilities a challenge. In particular, a number of transmission facilities are electrically congested and may require extensive expansions. In this regard, selection of the optimal interconnection point that can take advantage of spare capacity and land availability as close to the load center as possible is critical. Furthermore, deliverability of power through the transmission system to load centers is a potential issue depending on the interconnection location. NYSERDA should encourage developers to partner with local transmission owners who have expertise and assets to optimize the most cost effective transmission interconnection solution.

As there are a limited number of interconnection points to accommodate offshore wind injections on Long Island and New York City, it is imperative that they are utilized optimally. NYSERDA has indicated that it will not place value on proposals that would build a larger interconnection than needed to accommodate the proposed project, therefore, it is expected that developers will be proposing transmission leads with capacity to deliver their project output and no more. As such, NYSERDA should evaluate whether the developer's proposed interconnection point is optimal and sufficiently utilized. For example, a proposal that utilizes the only available interconnection position at a key substation for an injection of 400 MW where the substation has an injection capacity of 1000 MW would be a poor utilization of this limited interconnection space. Instead, projects should utilize substation interconnections that maximize the utilization of the facility and avoid stranding interconnection capacity.

NYSERDA should encourage developers to present a clear demonstration of routing and property control, or a detailed, feasible plan to achieve it. Developers should demonstrate an understanding of the impacts of the interconnection on the local transmission system, and NYSERDA should incorporate those impacts in its assessment of proposals. NYSERDA should request bidders provide full information regarding infrastructure and siting assumptions, and provide consideration for proposals with clearly identified interconnection plans that address the particular challenges in the area.

Question #7: The Order requires that an eligible project must deliver its energy into the New York Control Area (NYCA), either by direct lead into New York or directly into an adjacent control area with transmission into NYCA (Order, p. 46).

A. Please specify the transmission service requirements and the transmission path from an adjacent control area to enable delivery into NYCA. What requirements should be included in the RFP to support NYSERDA's need to verify delivery into the NYCA?

Similar to its Tier 1 REC requirements and associated qualification rules for imports, NYSERDA should qualify ORECs that are imported from an adjacent RTO using non-firm transmission rights and a unit specific contract path from a qualifying offshore wind facility.

Question #8: With respect to capacity attributes of projects:

A. What transmission arrangements would have to be made in ISO-NE or PJM to facilitate the long-term delivery of capacity to NYCA? What requirements should be included in the RFP for NYSERDA to evaluate the feasibility of delivery of capacity to NYCA?

B. For projects interconnected in a control area adjacent to NYCA but that deliver capacity into NYCA, please describe the risks associated with such delivery. How could these risks be allocated? What options are available to proposers to manage such risks?

NYSERDA should clarify how it plans to evaluate a project's ability to provide capacity. Presumably, if a project is able to capture capacity revenue in the NYISO wholesale market, in particular from constrained localities like Zone J, this revenue source would offset its REC price, and thus would logically already be captured in NYSERDA's price comparison. As part of project viability, NYSERDA should evaluate its confidence in the developer's ability to capture this revenue as a way to mitigate price increases or attrition risk.

The NYISO tariff prescribes various requirements to qualify as an importing capacity supplier. NYSERDA should evaluate the developer's plans to qualify as a NYISO capacity resource, and the firmness and clarity of its plans to procure satisfactory transmission service. NYSERDA should also be aware of the risk associated with a project utilizing import facilities from PJM with Firm Transmission Withdrawal Rights as they may be assessed significant and unforeseen cost allocations from PJM for transmission expansion projects (i.e. RTEP or Regional Transmission Expansion Program). Furthermore, NYSERDA should evaluate the risk of any offshore wind capacity resource being subject to a minimum offer floor in a Mitigated Capacity Market through the NYISO's Buyer-Side Mitigation rules.

Question #9: What level of detail should proposers be required to provide to demonstrate the reasonableness of their transmission cost estimates for HVDC or AC export cables, interconnection, and/or transmission system upgrades (if needed) included in their bid prices?

NYSERDA should require bidders to submit detailed interconnection cost estimates which should include, at a minimum, the following costs for each element of the interconnection (e.g., substation, transmission line, converter station): preliminary engineering and permitting costs, engineering design costs, material costs, installation labor costs, administrative and legal costs, post construction mitigation costs, real property costs, known system upgrade facility costs, and contingency. Unit material prices and unit labor costs should also be provided. These costs should be supported by descriptions that include all of the major equipment elements, including conductor size, length and type, transformer upgrades, as well as single-line diagrams, and conceptual layout diagrams for interconnection points. Bidders should also be required to submit any contracts or estimates used in the development of their cost estimate, subject to confidentiality, as well as a schedule for development and construction of the transmission interconnection.

It would be informative for bidders to provide the expansion potential of the identified Wind Energy Area (WEA) and the associated transmission build out plans to deliver the full capability of the WEA. This information may be useful to assess the proposed transmission system interconnect capability to deliver more than the proposed project size and may be useful in developing plans for a broader offshore transmission plan.

Question #10: How should NYSERDA consider a strategic partnership between an offshore wind developer and a transmission owner in project viability or other award determinations? Are there reliability, economic, and/or operational benefits associated with such a strategic partnership as it pertains to “wet transmission,” i.e., onshore substation, offshore substation and export cable?

NYSERDA should indicate in the RFP that strategic partnerships with transmission owners are highly valued and encouraged. Strategic partnerships between developers and New York transmission owners can provide substantial benefits. The transmission owners have extensive knowledge of the New York bulk-power system, experience with the NYISO interconnection process and are most familiar with interconnection points that will provide optimal system reliability and deliverability. This experience and knowledge can be leveraged to achieve the best consumer value in the form of more cost-effective offshore wind projects and bringing offshore wind projects online sooner by navigating the NYISO and regulatory processes efficiently.

OREC PRICING OPTIONS UNDER THE INDEX OREC STRUCTURE

Question #11: Should bids be restricted to a single nominal strike price for the entire contract period? If yes, why?

A. In the alternative, should proposers be permitted to submit a schedule of nominal strike prices that vary each year? If yes, should a schedule of nominal prices that vary by year be limited to a fixed annual percentage escalator, or should annual changes be allowed to vary from year to year?

In order to provide flexibility to bidders with different financing approaches, bidders should be allowed to include an annual escalator. Nominal prices should be limited to a fixed annual percentage escalator to facilitate NYSERDA’s bid evaluation.

B. If the strike price changes annually, should the schedule of nominal prices be specified by contract year (beginning at actual commercial operation date) or by calendar year?

The schedule of nominal prices should be specified by calendar year to facilitate NYSERDA’s bid evaluation and simplify the administration of the OREC program.

Question #13: Is the current NYISO first year UCAP factor (the ratio of UCAP eligible for payment to the operable capacity of a resource in a given settlement period) of 38% reasonable to apply as a fixed value throughout the OREC contract period? If not, why not?

The Index OREC structure would periodically establish OREC prices based on average forecasted market revenues over an annual or biannual period, similar to the ZEC program. Capacity factors should be updated along with forecasted capacity prices to accommodate any evolution in NYISO policies.

OREC PRICING OPTIONS UNDER THE FIXED OREC STRUCTURE

Question #14: Should bids be restricted to a single nominal OREC price for the entire contract period? If yes, why?

A. In the alternative, should proposers be permitted to submit a schedule of nominal OREC prices that vary each year? If yes, should a schedule of nominal prices that vary by year be limited to a fixed annual percentage escalator, or should annual changes be allowed to vary from year to year?

B. If the OREC price changes annually, should the schedule of nominal prices be specified by contract year (beginning at actual commercial operation date) or by calendar year?

NYSERDA should be cognizant of the risk that a Fixed OREC structure in conjunction with the implementation of carbon pricing in the NYISO market could result in double payments to suppliers for the same attribute. Such double payments would unjustly burden consumers and distort the wholesale energy market. If NYSERDA decides to make awards under the Fixed OREC structure, it should develop appropriate contractual provisions to prevent double payments from potential NYISO implementation of carbon pricing. The Index OREC structure inherently eliminates the risk of double payments. Additionally, the Index OREC structure may result in lower pricing because it provides bidders with a measure of energy market price risk mitigation.

BID PRICE EVALUATION

Question #16: How should the Benefit Cost Analysis Framework set forth in Case 14-M-0101 (Reforming the Energy Vision) be applied or otherwise refined in the 2018 RFP regarding price evaluation?

The REV Benefit Cost Analysis (BCA) Framework does not account for benefits, such as supply chain and workforce development, that are important considerations for the nascent offshore wind technology. New York's expedited OSW deployment is purposed upon developing the supply chain and needed workforce in New York, and achieving sharp cost decline in later phases. The REV BCA Framework should be refined to account for the OSW-specific benefits.

Question #17: Per the Order, the Fixed OREC and Index OREC bids will be weighted for consideration in the price component of the evaluation (Order, pp. 39-40, Appendix B). What weighting should be chosen for each option and why?

The weighting of Fixed and Index bids should reflect the structure under which NYSERDA intends to make awards. If NYSERDA elects to award under the Index OREC structure, bids should be evaluated according to the adjusted Index OREC strike prices.

Question #20: How should the Index OREC strike price be adjusted to account for the included energy and capacity components in order to be structurally comparable to the Fixed OREC price, for purposes of both (i) comparison to the maximum acceptable bid price; and (ii) calculation of a weighted average bid price.

The Index OREC strike price should be adjusted for the forecast energy (including carbon payments, if any) and capacity revenues at the point of interconnection of the proposed project. NYSERDA should be transparent in advance about the assumptions it will use in making its forward looking energy and capacity forecast to use in the evaluation.

ECONOMIC BENEFITS

Question #23: In addition to project-specific spending and job creation in New York State, the Order encourages investment in enabling supply chain and infrastructure in New York, and commitments to offshore wind industry and supply chain stimulating activities that create real, persistent and sustainable institutional or labor capabilities in New York State, and that lower the cost of future offshore wind projects (Order, pp. 52-53).

A. What documentation of such commitments should be required in the RFP to demonstrate real and verifiable investments in these categories?

NYSERDA should encourage bidders to consult with appropriate State authorities and economic development agencies to help them identify economic development opportunities in order to maximize the impact of an investment in offshore wind. NYSERDA should include consideration for investments made in enabling supply chain and infrastructure in New York, along with supply chain stimulating activities, including workforce training and skills development to enable the implementation of the offshore wind projects. Training and development of the specialized labor required for these projects will foster a sustainable investment in New York State current and future projects. Examples of documentation that can demonstrate this investment could be in the form of program descriptions, partnerships with universities and training centers, plans for training facilities or training programs in order to develop the specialized workforce required.

Question #29: The Order recognizes that the development of offshore wind creates the potential for high-quality employment opportunities and therefore presents a significant potential benefit to New York State. What measures or arrangements do you consider the most efficient and effective ways to:

A. Ensure that the maximum potential high-quality employment opportunities are available to New Yorkers?

B. Ensure that a properly trained, highly-skilled and qualified workforce is available to fill the various labor needs throughout the duration of the project?

C. Ensure opportunities for the participation of New York small businesses?

NYSERDA should value proposals that commit to establishing new or expanding existing training programs within New York State relevant to the offshore wind industry. Consideration should be given to bidders with partnerships with New York State colleges and universities for the purposes of training and education relevant to the offshore wind industry. NYSERDA should also give consideration to bidders who present public/private partnerships that would enable opportunities for New York-based large or small businesses, leveraging strengths on both sides to meet the needs of offshore wind development and implementation. Bidders should be encouraged to work with New-York based firms throughout the implementation of the project.

PROJECT VIABILITY

Question #30: What information and documentation should be required of proposers to demonstrate viability (please be specific as to the type of information and the level of detail which should be submitted), as follows, based on the criteria listed in the Order (Order, p. 53):

B. Financing Plan: What level of disclosure should a proposer be required to submit to demonstrate financial strength, e.g., audited financial statements, project pro forma, expressions of interest from equity and debt investors, other?

NYSERDA should require bidders to present audited financial statements that demonstrate their ability to financially manage the development of the project to investor financial close, including their remaining project equity at COD. In addition, the project’s financing plan should also present a brief, project-level capital stack investor strategy that identifies the proposed construction and term financing structure. This could include tax credit investors, construction debt, term debt and any back-levered investors and a list of all the potential equity partners and sources of tax equity and/or debt. This project-level presentation should not be seen as fixed but will demonstrate an understanding of the project’s capital needs and a capital markets strategy to fulfill this need. In addition, the project pro forma should provide, among others 1) detailed financial assumptions supporting the O&M costs for the term of the NYSERDA award and 2) an outline of any financial arrangements from parent(s) or affiliates.

C. Developer Experience: How should proposers demonstrate that each member of the proposed project team has sufficient relevant experience to finance and develop the project?

NYSERDA should require that bidders identify the proposer’s and member affiliate’s business history; current management team’s experience in developing, operating and financing wind generation and offshore wind generation projects; environmental and New York State permitting experience for off-shore wind generating facilities and transmission interconnection; and any ways the current management team has or will bring global offshore wind experience to the proposal and the project’s execution through staff additions or consulting services. Developers should also demonstrate offshore wind transmission interconnection experience, and knowledge and expertise of interconnection requirements to the respective interconnection point. Additionally, if the bid is being submitted by a consortium or joint venture, they should include the legal form of the entity; identify each of its members; and identify the lead member.

E. Development and Logistics Plan: What level of site control should be required for the necessary port facilities and other support infrastructure? What level of detail should be required in order to demonstrate the reasonableness of proposer’s equipment procurement plan, including selection and scheduling for construction vessels? Should proposers be required to submit a decommissioning plan, and if so, what level of detail and specificity should be required?

NYSERDA should require bidders to include an installation strategy that should outline, among other things:

- Expected import strategy of wing turbine generator (WTG) components to a port facility (onshore transportation or marine shipping to port) and then their export strategy to the project site;
- Any manufacturing or preassembly strategy of the WTG be done at the port or other facility or alternatively transporting of some components directly to the site for assembly;
- The intended use of the port in relation to the overall life of the wind project including installation, commissioning, O&M and decommissioning;
- The type(s) of vessels needed for the project’s installation, O&M and decommissioning needs (and how the vessels will be Jones Act compliant);
- Estimated decommissioning cost and financing strategy to meet this cost;
- The type of port required for the WTG component strategy, assembly strategy and types of vessels; and
- Identification of intended port to meet the needs identified in the installation strategy, the port’s expected leasing availability and timeline for securing necessary site control.

F. Interconnection Status: Should the RFP require additional minimum requirements, beyond a valid interconnection request having been submitted to NYISO, with respect to completion of interconnection studies and the project's status in the interconnection process? If so, what should the requirements be? Please describe in detail how transmission and interconnection cost risk should be analyzed by NYSERDA.

Beyond the interconnection request, NYSERDA may wish to give stronger consideration to projects that have completed an interconnection feasibility study. This study will mitigate some risk of a proposal by offering a level of confidence that the project as proposed can be built. NYSERDA should also retain interconnection expertise to review and analyze interconnection details.

Interconnection cost risk is difficult to analyze due principally to the stage of development most projects will be in. System impact studies and facility studies will be required to fully assess a project's impact to the transmission system and to identify the mitigations necessary to resolve any negative impacts. These studies can be costly and they take time to perform. Further, to initiate these studies, developers may be required to make public their interconnection plans which they will likely not be willing to do given the competitive nature of the process. NYSERDA may wish to consider allowing developers to submit supplemental bid information related to their interconnections at some time beyond the due date for the bids. This additional information can be completed feasibility studies, system impact studies, or other analysis that NYSERDA believes will mitigate the cost risks in the submitted bid.

J. Wind Resource Assessment: At the time of proposal submission, what wind resource studies, turbine power curve data, energy yield calculation, gross (turbine) output, expected availability, and losses by category should be available or provided? Should this information be indicative or binding? What changes should be allowed?

NYSERDA should require a standard wind resource assessment from bidders. Among other things, it would include wake effect degradation based on the plant's site footprint and WTG siting, as the wake effect for offshore wind dissipates more slowly than onshore wind. Because of the development time required between NYSERDA RFP award and the initial capital market's financial close, developers will likely need to update their pro forma for capital market investors with revised project specifics, including updated wind data, but there should be no ability to update their submitted RFP price, which would be binding.

ELIGIBILITY/CONTRACT PROVISIONS

Question #40: The Order states that "[i]f NYSERDA awards a contract using the Index OREC method, the contract will specify conditions that may trigger a reversion to the Fixed OREC method and price that was bid" (Order, p. 40).

A. How should this provision be included in the contract?

NYSERDA should consider eliminating this provision from the RFP and the contract. This provision will introduce a downside risk for developers that will impact both the cost and sizing of debt financing, resulting in higher bid prices.

Question #41: Are there any other topics or risks that NYSERDA should consider in drafting the RFP?

NYSERDA should consider providing itself more flexibility in the weighting of evaluation criteria. In comparison to onshore renewable energy projects, offshore wind projects entail greater risk, and project viability should be more heavily considered. NYSERDA may also want to consider incorporating a measure of supplier diversity in the evaluation criteria, in order to provide itself the flexibility to make multiple smaller awards rather than a single large award. This project diversity would mitigate the impact of an awarded project failing to achieve commercial operation.

NYSERDA should also incorporate impacts of the OSW development on the Environmental Justice (EJ) communities in the bid evaluation criteria. In the REV proceeding, the Department of Public Service Staff is conducting a stakeholder process to assess positive and negative impacts of distributed generation on the EJ communities. NYSERDA should inform the bid evaluation criteria consistent with the REV considerations for the EJ communities.