

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on April 23, 2020

COMMISSIONERS PRESENT:

John B. Rhodes, Chair
Diane X. Burman, dissenting
James S. Alesi
Tracey A. Edwards
John B. Howard

CASE 18-E-0071 - In the Matter of Offshore Wind Energy.

ORDER AUTHORIZING OFFSHORE WIND SOLICITATION IN 2020

(Issued and Effective April 23, 2020)

BY THE COMMISSION:

INTRODUCTION

In the 2018 Offshore Wind Order, the Public Service Commission (Commission) adopted a goal to add 2,400 megawatts of offshore wind capacity in New York State by 2030.¹ The Commission also authorized the New York State Energy Research and Development Authority (NYSERDA) to hold initial procurement solicitations in 2018 and 2019, for an aggregate of approximately 800 MW or more of offshore wind. In the event that NYSERDA procured more than 800 MW in these inaugural solicitations, the Commission required NYSERDA to seek Commission authorization for additional procurements. In response to the initial procurement, NYSERDA successfully contracted for 1,696 MW of offshore wind in October 2019.

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) (Offshore Wind Order).

On January 28, 2020, NYSERDA filed a petition seeking authorization to conduct an additional procurement in 2020 for 1,000 MW or more of offshore wind, with the flexibility to evaluate a range of bids for up to 2,500 MW (Petition). In this Order, the Commission authorizes NYSERDA to issue an additional offshore wind solicitation in 2020 for 1,000 MW or more, in order to maintain New York's trajectory in meeting its clean energy goals.

BACKGROUND

On August 1, 2016, the Commission adopted a Clean Energy Standard (CES) designed to achieve a statewide goal of 50% renewable generation resources by 2030.² The CES is divided into a Renewable Energy Standard (RES) and a Zero-Emissions Credit (ZEC) requirement. The RES includes a Tier 1 component that requires each load-serving entity (LSE) to serve its retail customers through the procurement of qualifying Tier 1 Renewable Energy Certificates (RECs) from NYSERDA or other sources, or making Alternative Compliance Payments (ACPs), with the required procurement/payments ramping up annually to satisfy the State's 2030 goal.³ The RES also includes a Tier 2 maintenance program to provide financial support for existing eligible renewable facilities that are at risk of ceasing operations.

In the CES Framework Order, the Commission considered the potential role of offshore wind as a component in the mix of renewable resources needed to achieve the State's renewable

² Case 15-E-0302, et al., Order Adopting A Clean Energy Standard (issued August 1, 2016)(CES Framework Order).

³ RECs represent the environmental attributes, including but not limited to estimated avoided carbon dioxide emissions, associated with electricity generated by facilities that meet the Tier 1 eligibility criteria established in the CES Framework Order.

energy goals. Recognizing that New York has a substantial potential for offshore wind production, the Commission requested that NYSERDA perform a study to identify the appropriate mechanisms to achieve this potential, and to make recommendations for the Commission's consideration. On January 29, 2018, NYSERDA released the New York State Offshore Wind Master Plan (Master Plan), which presented a comprehensive roadmap to encourage the development of 2,400 MW of offshore wind by 2030.⁴ The Master Plan was based on 20 studies that examined a variety of environmental, social, economic, regulatory, and infrastructure-related issues, as well as an Offshore Wind Policy Options Paper (Options Paper), which NYSERDA filed with the Commission for consideration.

The Master Plan describes a significant declining cost trend for offshore wind in Europe and elsewhere where offshore wind has been deployed, as regional construction and operational capabilities are developed. The Master Plan also describes the nascent offshore wind industry in the U.S. and the associated supply chain and infrastructure limitations consistent with this early stage of development. For these reasons, the Options Paper recommended two phases for offshore wind development: Phase 1 to initiate the procurement of Offshore Wind Renewable Energy Certificates (ORECs) associated with approximately 800 MW of offshore wind over an initial two-year period; and the remainder of the offshore wind would be procured in future years as the domestic offshore wind industry matures and expected price declines materialize.

⁴ The Master Plan is available at:
<https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan>.

In the Offshore Wind Order, the Commission adopted part of Phase 1 (i) a procurement goal of 2,400 MW of offshore wind capacity by 2030, and (ii) the Offshore Wind Standard that includes an initial procurement to be held by NYSERDA, the New York Power Authority (NYPA) and/or the Long Island Power Authority (LIPA) in 2018 and 2019, for ORECs associated with approximately 800 MW or more of offshore wind. The Offshore Wind Standard also includes an obligation on each LSE to obtain, on behalf of its retail customers, the ORECs procured in Phase 1 in an amount proportional to its load. The Offshore Wind Order specified that, if NYSERDA were to procure more than 800 MW of offshore wind in the first year, the second procurement would require further authorization from the Commission.

In the Offshore Wind Order, the Commission also adopted a hybrid procurement approach for offshore wind where wind developers were required to submit two bids: one reflecting a Fixed-Price OREC similar to a Tier 1 Fixed-Price REC, and a second for a variable-priced OREC based on the Index REC method. The purpose of the Fixed-Price OREC was to provide offshore wind developers a fixed payment per OREC produced over the life of the contract, while the purpose of the Index OREC was to provide a hedge on future wholesale revenues in order to lower the cost of capital and facilitate project financing.⁵ The two-bid approach required the bidder to commit to either bid if

⁵ Unlike a Fixed-Price OREC where the price is fixed for the entire contract term, the Index OREC price varies over the life of the contract based on the net difference between the strike price and a reference price expressed in a market index. The market index is used as a proxy to estimate the market energy and capacity revenues expected to be earned by the project. Netting these revenues (as represented by the market index) from the strike price provides a greater likelihood that developers will earn their all-in revenue requirement for the project.

accepted. The bids were to be evaluated by calculating a weighted average levelized net OREC cost for each bid package.⁶ The lower of the two bids was then to be used as the basis of the contract price.⁷

NYSERDA issued its first offshore wind procurement on November 8, 2018, and received 18 proposals from four proposers, as presented in the Offshore Wind Phase 1 Report.⁸ Subsequently, NYSERDA executed contracts for two projects with an aggregate nameplate capacity rating of 1,696 MW, and estimated the average OREC cost of \$25.14 per megawatt hour (MWh). This translates to an expected bill impact of less than a dollar per month, or approximately \$0.73, for an average residential customer. NYSERDA ultimately selected the Index OREC bid option over the Fixed-Price OREC for both projects based on the competitiveness of the Index OREC prices submitted by each bidder. NYSERDA concluded that this procurement experience resulted in competitive bids and generally constituted a successful step in the fulfillment of the Commission directives in the Offshore Wind Order.

NYSERDA emphasizes in its Offshore Wind Phase 1 Report that even though it selected the initial bids using the Index OREC pricing models for both awards, it does not want to preempt the developers' appetite for risk by requiring only hedged procurements going forward. For example, some developers may prefer to bid a Fixed-Price OREC in future solicitations based on the individual characteristics of the project and associated

⁶ The weighting was 90 percent for the Index OREC and 10 percent for the Fixed-Priced OREC.

⁷ The contract specifies conditions that may trigger a reversion to the alternative price.

⁸ Case 18-E-0071, NYSERDA's Launching New York's Offshore Wind Industry: Phase 1 Report (filed October 23, 2019)(Offshore Wind Phase 1 Report).

financing needs. Developers who "balance-sheet" finance their projects or have a long-term view of rising energy prices, or projects that have their energy offtake contracted for prior to bidding, for example, may prefer the Fixed-Price OREC approach over the Index OREC. While NYSERDA opines that the Index OREC has the advantage of stabilizing project revenues and ratepayer costs, the Fixed-Price OREC may still become advantageous depending on future market and regulatory conditions. In future solicitations, NYSERDA therefore recommends that the Commission continue to consider the use of both price structures.

SUMMARY OF THE PETITION

On January 28, 2020, NYSERDA filed a petition requesting authorization for an additional offshore wind procurement in 2020 for 1,000 MW or more, and to modify a number of elements in its procurement approach to offshore wind. These proposed changes include: (1) aligning future offshore wind solicitations with the recent Index REC Order;⁹ (2) NYSERDA filing an implementation plan for stakeholder comment that will include a description of the LSE compliance obligation calculations, process and structure, and standard purchase agreement; and (3) proposed administrative funding for the additional 2020 procurement.

In proposing to advance its second offshore wind procurement for 1,000 MW or more in 2020, NYSERDA describes a number of developments subsequent to the adoption of the Offshore Wind Order that bolsters the need for further Commission action. NYSERDA notes that expeditiously conducting

⁹ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Modifying Tier 1 Renewable Procurements (issued January 16, 2020) (Index REC Order).

a second offshore wind procurement is consistent with the approach taken in the Offshore Wind Order, in which the Commission recognized that offshore wind procurement needs to begin immediately in order to cost effectively secure the economic and environmental benefits of this new industry.

Additionally, NYSERDA points to the first solicitation results and recent cost trends in the industry as further evidence of needed action by the Commission. NYSERDA's first solicitation resulted in OREC prices approximately 40 percent less than projected in NYSERDA's Master Plan. The approved projects are priced competitively relative to recent results from New Jersey and several New England states, according to NYSERDA, while also offering significant new port infrastructure investments, public-private workforce training commitments, and the promise of thousands of well-paying job opportunities. NYSERDA asserts that the awarded projects will spur New York's clean energy industry through \$3.2 billion in combined economic impacts to upstate, downstate, and Long Island, more than \$85 million investments in long-term port facilities and cutting-edge technologies, and the delivery of over 1,600 direct new jobs in project development, component manufacturing, installation, and operations and maintenance.

In addition, NYSERDA expects further cost declines in the industry as the result of strong competitive pressure on pricing among an expected robust pool of bidders and ongoing technology improvements. Conversely, potential constraints in the supply chain, a competitive global offshore wind market, and bidders' assessment of permitting risk, all bear the prospect of cost inflation, according to NYSERDA. NYSERDA anticipates that on balance, a 2020 solicitation would offer robust competition with likely lower costs and stronger overall benefits comparable to those realized under the inaugural solicitation, particularly

if competitive market forces are maximized through an expeditious issuance of the solicitation and award of contracts.

NYSERDA also points to the nation-leading goals advanced by the Climate Leadership and Community Protection Act (CLCPA); as relevant here, the goal for at least 9,000 MW of offshore wind by 2035, almost four times the previous goal of 2,400 MW and with only five additional years to achieve the goal.¹⁰ NYSERDA explains that New York will need to move expeditiously and strategically on an accelerated track to advance projects if the 9,000 MW-goal is to be achieved.

NYSERDA further argues that, in order to maximize its attractiveness for long-term investments by the burgeoning U.S. offshore wind industry, New York must provide market certainty and demonstrated commitment toward the achievement of the State's renewables goals. NYSERDA also notes the need to act quickly given the regional competition to secure existing lease areas. Indeed, NYSERDA notes that neighboring states are moving to accelerate their offshore wind markets to a now-combined 26,000 MW regional offshore wind market.

NYSERDA explains that, as neighboring states advance their offshore wind procurements, projects in existing federal lease areas can be expected to secure offtake agreements in those markets, resulting in a decrease in the available lease areas and the number of competitive bidders. NYSERDA asserts that New York needs to proceed with at least a 1,000 MW procurement in the summer of 2020 to have cost-competitive access to more than 8,300 MW of existing lease area capacity and up to six unique bidders providing strong competitive pressure

¹⁰ The CLCPA, which will be subject to future Commission action, requires, in part, that at least 70% of New York's electricity come from renewable energy sources by 2030. See, Chapter 106 of the Laws of 2019.

in the marketplace. Conversely, NYSERDA explains that, if New York waits to issue a solicitation until 2021, a more limited number of lease areas would be available with associated fewer bidders, which could adversely affect competition and thus project pricing.

NYSERDA notes that offshore wind represents a \$70 billion capital expenditure opportunity to businesses in the offshore wind power supply chain over the course of the next decade. According to NYSERDA, top-tier manufacturers and suppliers are actively building detailed plans for investments in the region but are still hesitant in the short-term as they look to confirm project pipelines to lock in their investments. NYSERDA expects that critical decisions regarding manufacturing footholds will be made by many suppliers within the next twelve months, and that these early actions will by and large determine manufacturing investments and clusters thereafter. New York's commitment to issuance of another competitive solicitation in 2020, NYSERDA argues, will encourage developers and their suppliers to take the long view in a market that supports economic development.

Finally, in bolstering its request for an additional solicitation, NYSERDA notes the extension of the federal Investment Tax Credit (ITC) for wind facilities that begin construction in 2020. NYSERDA anticipates that it would be in a position to make awards in a timeframe that developers could secure the ITC tax credit savings to the benefit of New York ratepayers, and would allow the port infrastructure investments to be developed with greater confidence.

NYSERDA proposes that, if approved, the 2020 solicitation would follow the directives established in the Offshore Wind Order's requiring evaluation weighting of 70 percent price, 20 percent economic benefits, and 10 percent

viability. NYSERDA would also continue to employ the cost containment measures prescribed within the Offshore Wind Order, including the use of a confidential benchmark price in its price evaluation, and the ability to reject all bids. In addition, NYSERDA would continue to consult with Department of Public Service Staff (Staff) in considering the portfolio, timing, and balancing of benefits appropriate to meet the Commission's objectives and in determining an award group.

NYSERDA proposes limited changes to the offshore wind procurement process going forward to align with the Index REC Order. These changes include: (1) allowing bidders to offer either a Fixed-Price or Index OREC bids, rather than the hybrid approach used in the first procurement; (2) using a Reference Energy Price that reflects the average locational based marginal price (LBMP) from a project's New York Independent System Operator, Inc. (NYISO) zone of delivery; and (3) using a Reference Capacity Price that is calculated using a project's specific NYISO-designated locality (i.e. New York City, Long Island, Zones G-J, or Rest of State).

NYSERDA also recommends changes to the LSE obligation development process. In this respect, although the Offshore Wind Order set March 31, 2019 as the date for LSEs to provide NYSERDA with executed contracts for the purchase of ORECs, that date has been extended by the Secretary of the Commission, at NYSERDA's request, to April 30, 2020. While NYSERDA anticipates that the LSE purchase agreements would be very similar to that used in the existing RES and ZEC programs, it has yet to provide a standard OREC purchase agreement for review by the LSEs or other stakeholders. Instead, NYSERDA proposes filing an implementation plan for stakeholder comment that will include a description of the compliance obligation calculations, and process and structure, as well as a standard purchase agreement

for ultimate Commission approval. NYSERDA claims that its proposal will not interfere with the administration of the program and will allow all parties to proceed on a more informed basis.

Finally, NYSERDA requests an additional \$4.4 million to cover administrative costs from July through December 2020, related to an additional 2020 offshore wind procurement. NYSERDA intends to add an additional 2.0 full time equivalents (FTEs) for the balance of 2020 to support the program's growing focus on supply chain, stakeholder engagement, and contract management. Administrative costs from January 2021 and beyond are anticipated to be built into a revised CES and Offshore Wind Standard comprehensive budget. Consistent with the approach taken for administration under the Offshore Wind Order, NYSERDA proposes to use existing unspent Renewable Portfolio Standard (RPS) funds to cover these incremental administrative costs.

PUBLIC NOTICE

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking was published in the State Register on February 19, 2020 [SAPA No. 18-E-0071SP2]. The time for submission of comments pursuant to the SAPA notice expired on April 20, 2020. The comments received are addressed below, as relevant to the Discussion section topic areas. A full summary of the comments received is attached in Appendix A.

LEGAL AUTHORITY

The Commission's authority derives from the New York State Public Service Law (PSL), through which numerous legislative powers are delegated to the Commission. Pursuant to PSL §5(1), the "jurisdiction, supervision, powers and duties" of the Commission extend to the "manufacture, conveying,

transportation, sale or distribution of . . . electricity." PSL §5(2) requires the Commission to "encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources."

PSL §66(2) provides that the Commission shall "examine or investigate the methods employed by [] persons, corporations and municipalities in manufacturing, distributing and supplying . . . electricity . . . and have power to order such reasonable improvements as will best promote the public interest, preserve the public health and protect those using such . . . electricity. . ." Further, PSL §65(1) provides the Commission with authority to ensure that "every electric corporation and every municipality shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and, in all respects, just and reasonable." The Commission also has authority to prescribe the "safe, efficient and adequate property, equipment and appliances thereafter to be used, maintained and operated for the security and accommodation of the public" whenever the Commission determines that the utility's existing equipment is "unsafe, inefficient or inadequate."¹¹ PSL §4(1) also expressly provides the Commission with "all powers necessary or proper to enable [the Commission] to carry out the purposes of [the PSL]" including, without limitation, a guarantee to the public of safe and adequate

¹¹ PSL §66(5).

service at just and reasonable rates,¹² environmental stewardship, and the conservation of resources.¹³

DISCUSSION

The deployment of offshore wind energy is a key component for New York to achieve its ambitious clean energy goals. As the Commission noted in the Offshore Wind Order, offshore wind addresses the transmission and siting constraints that would otherwise inhibit the development of land-based renewable power in the downstate area, and offshore wind facilities have a higher capacity factor than other weather-variable renewable resources. Offshore wind is particularly well suited for the Atlantic coast, from siting and operations to system efficiency and potential output. Clean power delivered directly to the downstate capacity zones will also have the effect of displacing local fossil fuel-fired generation and reducing local air contaminants.

The rapid expansion of the offshore wind market in the U.S. has resulted in significant price declines. NYSERDA's first solicitation resulted in prices 40% lower than anticipated, and potential cost reduction drivers such as the extension of the ITC, a maturing U.S. industry, and ongoing technology improvements that are increasing production factors could result in even greater price declines in subsequent solicitations. Although New York is presently the epicenter for

¹² See *International R. Co. v Public Service Com.*, 264 AD 506,510 (1942).

¹³ PSL §5(2); see also, *Consolidated Edison Co. v Public Service Commission*, 47 N.Y.2d 94 (1979) (overturned on other grounds) (describing the broad delegation of authority to the Commission and the Legislature's unqualified recognition of the importance of environmental stewardship and resource conservation in amending the PSL to include §5).

this important new industry, the State has competition for this valuable resource and limited ability to expand its available siting in federal waters.

Regional competition to secure existing lease areas is accelerating and the offshore wind supply chain is quickly ramping up, with New York and neighboring states increasing their offshore wind goals to a combined 26,000 MW, but with little additional lease areas being designated by the federal government. The Offshore Wind Order anticipated that, by the time NYSERDA issued a Phase 2 solicitation, the federal Bureau of Ocean Energy Management (BOEM) would have leased additional wind energy areas (WEAs) where eligible projects could be built. However, it now appears no new WEAs will be available for lease until 2021 at the earliest. Projects in existing federal lease areas are expected to secure agreements with neighboring states for their production.

New York must provide market certainty and a demonstrated commitment toward the achievement of its renewables goals if it is to secure long-term investments by the burgeoning U.S. offshore wind industry. According to NYSERDA, if New York proceeds with at least a 1,000 MW procurement in the summer of 2020, it will have cost-competitive access to more than 8,300 MW of existing lease area capacity and up to six unique bidders providing strong competitive pressure in the marketplace. On the other hand, NYSERDA asserts that waiting to issue a solicitation until 2021 could adversely affect competition and project pricing due to a more limited number of lease areas and potentially fewer bidders.

Several commenters express support for NYSERDA's Petition and urge the Commission to approve a 2020 offshore wind solicitation. Natural Resource Defense Council (NRDC), along

with a number of environmental and clean energy organizations,¹⁴ filed comments asserting the importance of New York building off the success of the Phase 1 solicitation by conducting a second solicitation expeditiously to help ensure that New York achieves its clean energy goals. These commenters also point to the increased offshore wind generation capacity goals presented in the CLCPA as justification for prompt approval of NYSERDA's Petition.

Similarly, the New York Offshore Wind Alliance (NYOWA) expresses strong support for NYSERDA's Petition and asserts that NYSERDA's inaugural solicitation was a clear success. NYOWA argues that the State cannot achieve the statutorily required standard of 70% renewable energy by 2030 without offshore wind and recommends quick Commission approval of a 2020 solicitation so that developers can take advantage of available tax credits, which will result in lower bid prices and benefit New York ratepayers. NYOWA further recommends that NYSERDA expedite the availability of workforce training and port development funds so that developers bidding into the 2020 solicitation can take them into consideration and adjust their bids accordingly.

The New York Power Authority (NYPA) also supports a 2020 offshore wind solicitation. NYPA states that the proposed 2020 solicitation would advance the State's ambitious and

¹⁴ NRDC filed joint comments with Sierra Club, National Wildlife Federation, New York League of Conservation Voters, Renewable Energy Long Island, Environmental Advocates of New York, New Yorkers for Clean Power, Pace Energy & Climate Center, NY-GEO, Green Education and Legal Fund, Defenders of Wildlife, Solarize Albany, All Our Energy, South Shore Audubon Society, Bronx Climate Justice North, North Bronx Racial Justice, RiSE, Environmental Justice Task Force of the WNY Peace Center, Nassau Hiking & Outdoor Club, NYCD-16 Indivisible, Colorbrightongreen.org, NYPAN Environmental Committee, Sisters of St. Dominic of Blauvelt, N.Y., South Asian Fund for Education, Scholarship and Testing, People of Albany United for Safe Energy (PAUSE), and 350NYC.

nation-leading clean energy goals while consideration of Phase 2 issues is ongoing.

RWE Renewables Americas, LLC (RWE) supports NYSERDA's Petition and recommends that the Commission publish a long-term solicitation schedule which would provide insight and certainty in the U.S. market. RWE recommends solicitations in 2020, 2021, and then in odd-numbered years until the 9,000 MW target is achieved. RWE also cautions that bids may be more competitive post-2020 and capture greater savings for ratepayers beyond the application of the 18 percent federal ITC due to: (1) increased competition; (2) decreased costs because NY Bight lease areas may be closer to interconnection points; (3) costs will continue to decline with the establishment and maturation of local supply chain; and (4) completion of NYSERDA and NYISO transmission studies that would allow for more efficient system planning to reduce overall system costs. Similarly, EnBW North America, Inc. (EnBW) supports NYSERDA's Petition for a second solicitation but recommends that NYSERDA pursue a more limited solicitation in 2020 of closer to 1,000 MW of total awards. EnBW suggests that waiting to procure the remainder of the full 2,500 MW potential may result in additional cost savings.

Shell Energy North America (US), L.P. and Shell New Energies (together, Shell) also supports the Petition and urge the Commission to authorize a 2020 solicitation, noting that its affiliates have secured leasehold rights on 312,000 acres near New York. Additionally, Bay State Wind, LLC (BSW) further supports NYSERDA's Petition and a 2020 offshore wind solicitation.

Ravenswood Development, LLC (Ravenswood) supports the Petition as a significant step toward reaching the CLCPA goal of deploying 9,000 MWs of offshore wind by 2035, and urges the Commission to ensure that NYSERDA's second offshore wind

solicitation capitalizes on the lessons learned in Phase 1 and delivers the most value to the State and its electricity customers. Ravenswood suggests that the Commission set a timeline for solicitation, bids, and award that puts offshore wind projects in a position to take advantage of declining federal tax benefits.

Consistent with the positions taken by these commenters, the Commission is persuaded to act now in order to maintain New York's trajectory in meeting its clean energy goals. This Order therefore authorizes NYSERDA to procure the environmental attributes associated with 1,000 MW or more of additional offshore wind in 2020, with the flexibility to consider attributes for projects totaling 2,500 MW if the pricing and other terms are sufficiently compelling.¹⁵ While some commenters suggest a smaller solicitation in order to benefit from declining costs and more advanced transmission planning in years ahead, the Commission is convinced that allowing NYSERDA some flexibility in this area is warranted. The unexpectedly low prices in the first solicitation, coupled with NYSERDA's expectation that critical decisions regarding manufacturing footholds will be made by many offshore wind suppliers within the next twelve months, bolsters the need to display a significant commitment for these resources. These early actions by the industry will likely determine manufacturing investments thereafter.

While the Commission understands the need for a transparent schedule of future solicitations, as suggested by

¹⁵ NYSERDA requests the flexibility to evaluate a range of bids that can maximize the competitive outcome, including bids for up to 2,500 MW of offshore wind. This would represent additional 1,800 MW beyond the 2,400 MW already considered in the Offshore Wind Order.

some commenters, the uncertainty regarding future federal lease areas and the nascent characteristics of the offshore wind industry could make such a schedule unreliable. Irrespective, procuring 9,000 MW of offshore wind by 2035 will require a rigorous, stable, and consistent timetable of solicitations, so establishing a forward, static schedule without flexibility to modify solicitation dates due to exogenous circumstances will merely introduce the risk of timetable slippage and the resulting investor uncertainty.

In its 2020 solicitation, NYSERDA is directed to follow the requirements of Offshore Wind Order regarding evaluation weighting of 70 percent price, 20 percent economic benefits (including investment in port infrastructure improvements), and 10 percent project viability.¹⁶ Anbaric comments that this weighting structure undervalues project viability and recommends that project viability weighting be increased to 30%, or that weighting be broken into two steps with only those projects that score highly on viability in the initial step advancing to evaluation of price and economic benefits. With respect to economic benefits, Anbaric urges the Commission to emphasize the development of a sustained sector of New York-based supply chain companies.

Multiple Intervenors (MI) believes that cost (price) should be the sole criterion upon which NYSERDA evaluates competing projects because customer funds are not unlimited, and customers are being required to fund many policy initiatives. MI comments that a material portion of the economic benefits package evaluated in Phase 1 is comprised of benefits offered specifically by developers that are distinct from the

¹⁶ As part of the flexibility afforded to NYSERDA in reviewing bids, NYSERDA shall have the ability to reject a bid if a project scores a zero for project viability.

contemplated OSW projects such that the benefits are likely already reflected in OREC bids. Thus, MI asserts that customers are actually paying for at least a portion of those benefits through higher OREC prices. Moreover, MI recommends that instead of the 10% weighting afforded to project viability, viability should be evaluated as a pre-condition to further bid consideration.

Ravenswood believes that the viability metric should include an assessment of the likely interconnection and permitting challenges of building transmission infrastructure. Additionally, Ravenswood urges the Commission to direct NYSERDA to value offshore wind project proposals that are paired with battery storage due to the potential capacity and magnitude of grid-balancing value such a proposal could provide. Doing so, Ravenswood continues, can enable the State to make progress on its offshore wind goals while at the same time leveraging the potential of offshore wind to also reach its energy storage goals. Finally, Ravenswood recommends that the NYSERDA solicitation should consider projects that can demonstrably and significantly create jobs and reduce pollution in environmental justice communities.

While the Commission appreciates comments seeking to change bid evaluation criteria, we decline to adopt the requested modifications at this time. We agreed that price is a key consideration and should remain the most important factor in the 2020 competitive solicitation. Accordingly, NYSERDA is directed to maintain the relative weighting of price at 70%. However, price should not be the sole consideration given that the economic benefits and viability of a project are crucial aspects of ensuring the successful deployment of offshore wind during this early stage. Moreover, using price as the sole factor in bid evaluation would undervalue the potential economic

benefits offshore wind projects can provide, and ignore the importance of viability for such complex undertakings, particularly in light of timing factors driving a 2020 procurement, including the imminent expiration of the ITC. However, the Commission declines to increase the weighting of project viability, as suggested by Anbaric. Such an approach is not necessary given that NYSERDA will continue to have the authority to reject any bid that receives a score of zero on project viability, thus reducing the chance that unviable projects ultimately get selected.

Regarding Ravenswood's recommendation to consider the benefits associated with pairing offshore wind projects with storage when evaluating bids, the Commission notes that capacity and grid-balancing benefits will be evaluated under the economic benefits criterion. It is expected, however, that these considerations may play a more important role in future solicitations when the results of ongoing transmission planning efforts can inform the value and potential use cases of energy storage coupled with offshore wind.

Additionally, the 2020 solicitation shall contain cost containment measures including the use of a confidential benchmark price in its price evaluation, and the ability to reject all bids. NYSERDA shall otherwise continue to consult with Staff in considering the portfolio, timing, and balancing of benefits appropriate to meet the Commission's objectives and in determining an award group.

The Long Island Commercial Fishing Association (LICFA) submitted a request for an extension of the comment deadline on the day comments were due, asserting that additional time is needed so that all fishing community members of the Fisheries Technical Working Group (F-TWG) may, through LICFA, comment on the Petition. The Commission denies this request

given the time sensitivity of the procurement addressed in the body of the Order.

Procurement Modifications

NYSERDA shall conform the 2020 offshore wind solicitation with the Index REC Order. The initial offshore wind solicitation employed a hybrid procurement structure that required separate Index OREC and Fixed-Price OREC bids for each proposal.¹⁷ The bids received were jointly evaluated using a 90 percent Index OREC/10 percent Fixed-Price OREC weighting formula. NYSERDA notes that the coupling of the two bids through the hybrid evaluation structure complicated the evaluation process by blending prices from a scoring perspective. The Commission adopted this initial approach for several reasons, including the possibility of bidders being inhibited by the financial risk of non-adjustable contracts given the novelty of the Index OREC approach.

NYOWA supports NYSERDA's proposed 2020 solicitation modifications and agrees that these modifications are likely to improve the cost effectiveness of the Index OREC structure, while maintaining high levels of feasibility and market compatibility. MI supports the proposal to abandon use of the 90 percent indexed/10 percent fixed weighting formula and suggests that NYSERDA be required to solicit both fixed-price and indexed-price OREC bids from interested developers. However, MI recommends that NYSERDA rely primarily on fixed-price bids and only accept indexed-price bids that are demonstrably superior from the perspective of customers responsible for paying ORECs. MI expresses concerns regarding

¹⁷ The Purchase and Sale Agreement included a reversion clause upon which the Index OREC structure would revert to the Fixed-Price OREC structure should the Index OREC structure become legally invalid or prohibited.

reliance on indexed-price bids and believes that indexed-priced ORECs would shift market price risks from developers to captive customers.

Shell supports the proposal to eliminate the hybrid approach used in the first solicitation and instead allow bidders to choose between these two options. Additionally, citing recent auction results and industry maturation, Shell recommends that the Commission consider moving away from the Index OREC structure to a forward OREC structure, or at least direct NYSERDA to specify proposals using both forms. Shell argues that such limited modifications to bidding parameters will permit ongoing discovery of price differences and risk premiums that will provide valuable market information to be used in developing future solicitations.

BSW also supports the proposal to eliminate the hybrid bidding approach. In addition, BSW favors aligning the 2020 offshore wind solicitation with the Index REC Order.

The Commission adopts an approach consistent with the Index REC Order, where developers will now have the option to bid either a Fixed-Price OREC bid or an Index OREC bid, but not both. As the Commission noted in the Offshore Wind Order, a procurement structure is more likely to succeed if it enables bidders to optimize their bids based on their own perceptions of potential risks and rewards. Relying solely on a Fixed-Price OREC could constrain some developers who need the hedging component intrinsic to an Index OREC to allow for financing on reasonable terms. Moreover, as the Offshore Wind Order made clear, the complexity of offshore wind projects necessitates the need to provide some assurance of future revenue streams that would allow access to financing on reasonable terms and at the lowest cost to ratepayers. In response to Shell's comment on the need for a forward OREC option, the Index OREC already

includes forward pricing in its methodology. The success of the first solicitation further advises against modification of the Index OREC approach.

NYSERDA shall evaluate bid prices by calculating the expected levelized net OREC cost under each bid type, using the pre-determined energy and capacity price outlook, as explained below, to properly evaluate all Index OREC bids. Bids under both structures shall thus be evaluated head-to-head using this single cost metric to ensure optimal cost effectiveness for ratepayers. Under this approach, developers will enjoy more flexibility to adapt to their financing and operational needs.

While allowing developers to submit Index OREC bids addresses the concern of potential "double payments" to renewable generation projects in the event that carbon pricing is adopted in the wholesale energy market, that concern remains for developers who elect to submit a Fixed-Price OREC bid. As was required in the Index REC Order, for future Fixed-Price OREC bids that are ultimately awarded a contract, NYSERDA is directed to include provisions in those contracts to allow for modification to the OREC price in order to address any double payments in the event that the generator is otherwise compensated for its renewable attributes.

The Reference Energy Price and Reference Capacity Price used in calculating the Index OREC shall also conform with the Index REC Order. The Commission therefore directs NYSERDA to use a Reference Energy Price that reflects the average LBMP from a project's NYISO zone of delivery. Similarly, NYSERDA shall use a Reference Capacity Price that is calculated using a project's specific NYISO-designated locality (i.e., New York City, Long Island, Zones G-J, or Rest of State).

Additionally, with respect to Unforced Capacity (UCAP) Production Factors, within the Index REC structure, the

Reference Capacity Price is converted to its per MWh equivalent.¹⁸ Consistent with the Index REC Order, developers shall have the option to select a UCAP production factor that will be utilized for the life of the contract.¹⁹

Under certain circumstances using the Index OREC methodology, the sum of the Reference Energy Price and Reference Capacity Price could potentially exceed the strike price, requiring a payment from the developer to NYSERDA. To address the unlikely scenario that a payment is required from the developer to NYSERDA, NYSERDA is directed to, consistent with the Index REC Order, net out any payments it would receive from generators from subsequent OREC payments under NYSERDA's contract obligations. Regarding times when the LBMP is negative, the resulting OREC price paid to the developer could be correspondingly higher than normal. Therefore, the Commission adopts a ceiling on the Index OREC price payable for all hours at the strike price, consistent with the Index REC Order.

Phase 2 Issues

The Offshore Wind Order anticipated that Phase 2 would be informed by the experience with Phase 1, as well as market developments, and determined that issues not addressed in Phase 1, including transmission options and evaluation of additional environmental impact criteria, should be reserved for consideration in Phase 2. The Offshore Wind Order identified a radial "backbone" transmission system, as opposed to the direct radial transmission system utilized in Phase 1, as a primary

¹⁸ The UCAP Production Factor is identified as the percentage of the generator's Installed Capacity that can contribute during peak hours.

¹⁹ This shall include a single production factor for winter and a single production factor for summer, that are fixed for the term of the contract.

consideration for Phase 2. In that regard, the Commission recognized that the location of additional lease areas would be essential to the design of any backbone system. Additionally, the Commission expected that such lease areas would be identified in time for a Phase 2 solicitation.

Several commenters propose that long-term, coordinated transmission planning will be essential to ensuring the success of future offshore wind solicitations. NYPA supports a coordinated approach to transmission planning for any offshore wind procurements beyond the 2020 Solicitation, citing the potential for direct radial transmission lines to overwhelm available interconnection points. NYOWA also supports continued transmission and interconnection planning but recognizes that it is premature to rely on a planned offshore wind transmission solution in the 2020 solicitation and that the radial interconnection approach is more appropriate.

Anbaric suggests waiting for the results of ongoing offshore wind transmission studies before issuing the next solicitation. They advocate for an upfront, farsighted approach to planning offshore wind transmission. Anbaric supports a backbone transmission system and cautions that poor interconnection planning can make it physically and economically challenging for subsequent offshore wind projects to land cables and interconnect to available onshore substations.

Shell acknowledges that radial transmission can address the interconnection requirements of the pending solicitation but asserts that careful planning for a backbone ocean-grid transmission infrastructure system will provide greater efficiency and cost effectiveness in the long term. Shell requests that the Commission direct Staff and NYSERDA to use available transmission information to develop the implementation of a practical transmission backbone system and

associated land-based upgrades. Shell further recommends establishment of cost allocation conditions to address transmission upgrades.

BSW supports NYSERDA's recommendation to continue the radial interconnection approach employed in NYSERDA's Phase 1 solicitation on the grounds that interjecting a separate procurement for a transmission backbone at this juncture will cause undue delay and set back New York's burgeoning OSW program back by several years.

The Joint Utilities also underscore the importance of thoughtful transmission development, particularly with respect to onshore facilities.²⁰ They note the technical complexities of importing such large amounts of energy in to dense, load centers in developed, downstate areas using existing infrastructure, especially as later projects vie for a limited number of interconnection points. The Joint Utilities recommend a coordinated and cohesive approach to transmission development and refer to a grid study currently being conducted by NYSERDA that could be used to direct coordinated distribution and transmission resource investments necessary to accommodate offshore wind generation. The Joint Utilities suggest that waiting for the results of this study could prove beneficial, even if following such a timeline means vacating ITC support for projects that could begin in 2020.

Several commenters suggested the development of a backbone transmission system. The Commission's directive to study a potential backbone system for Phase 2 and beyond is currently being examined by NYSERDA and Staff. It is expected

²⁰ The Joint Utilities include Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; New York State Electric & Gas Corporation; Niagara Mohawk Power Corporation d/b/a National Grid; Orange & Rockland Utilities, Inc.; and Rochester Gas and Electric Corporation.

that this transmission planning effort will help inform Staff and NYSERDA in making recommendations for future solicitations. However, it now appears that no new lease area will be available until 2021 at the earliest. Consequently, the Commission will continue to rely on direct radial connections in the near term while alternative transmission approaches are considered. As various commenters point out, reliance on direct radial interconnections for this solicitation remains appropriate while alternative options are developed.

NYSERDA continues to work with stakeholders, including the State's offshore wind Technical Working Groups, to develop procurement approaches that can enhance the design and performance of offshore wind projects, mitigate those projects' impacts, while at the same time preserving the economic and environmental benefits of offshore wind. The Offshore Wind Order requires NYSERDA to, with the benefit of any experience gained during the Phase 1 process, advance the role of Environmental and Fishing Mitigation plans with best practices established by the Technical Working Group.

NYOWA supports continuing to include environmental and fisheries mitigation plans in the 2020 solicitation bids, as well as the continuation of the work of the environmental and fisheries technical working groups (E-TWG and F-TWG, respectively). NYOWA further supports NYSERDA's assertion that the Offshore Wind Order provided NYSERDA with the authority to continue advancing the role of the environmental and fisheries mitigation plans in the 2020 solicitation, including the E-TWG-recommended best management practices (BMPs), where appropriate, as well as other experience gained during Phase 1.

The E-TWG filed comments supporting the State's offshore wind goals and proposing further environmental considerations for the procurement process as either eligibility

conditions or as beneficial scoring criteria in order to advance environmentally responsible offshore wind power. The E-TWG recommends that the Environmental Mitigation Plan (EMP) for the 2020 solicitation require bidders to provide full details describing how their plans comply with each section of the permitting and approval process. E-TWG urges that the Commission require the solicitation to state that all awarded projects be required to implement specific BMPs including: (1) use of best available control technology to avoid, minimize, and mitigate underwater noise; (2) restrictions on construction activities and geophysical surveys with detrimental noise levels; (3) commitments that pile driving and geophysical survey work with significant noise levels will not commence when visual monitoring is not feasible; (4) monitoring the clearance zone for marine mammals using a multi-method approach, including Passive Acoustic Monitoring (PAM), Protected Species Observers (PSOs) approved by the National Marine Fisheries Service, and/or other proven technologies; (5) use of trained crew members as lookouts to reduce marine mammal collision risk; (6) reduced artificial lighting during all phases of development; and (7) implementing mitigation measures if avian monitoring indicates a need. The E-TWG also recommends that preferential scoring credit be given to projects that fully commit to adopting quiet foundations.

The Commission continues to recognize the efforts of New York State's Technical Working Groups in helping to build understanding between diverse stakeholders, and to identify and develop, as a process of consensus building, BMPs that define basic standards for offshore wind energy development. The Commission recognizes that the integration of BMPs may be appropriate for inclusion in future rounds of offshore wind energy procurements, as identified by the Technical Working

Groups. While the Commission declines to adopt a prescriptive approach requiring specific BMPs for this offshore wind solicitation, NYSERDA is afforded the flexibility to take these considerations into account when structuring the solicitation and evaluating bids, as it deems appropriate based on its prior experience.

NYSERDA intends to consider the following issues in the eligibility or bid scoring calculations: promoting alignment of benefits delivered to disadvantaged communities consistent with the CLCPA; continuing leadership in environmental and fishing mitigation planning and research as well as on-going participation in NYSERDA's Technical Working Groups; inclusion of Environmental and Fishing Mitigation Plans that include reasonable and appropriate BMPs; and incorporating environmental or commercial fishing impact criteria and assessments. Consistent with the Offshore Wind Order, NYSERDA shall continue to have the flexibility to take these considerations into account when evaluating bids.

Administrative Costs

NYSERDA expects its administrative costs for the latter half of 2020 to equal approximately \$2.1 million plus the addition of salary and overhead, ongoing offshore wind program development, and the NYS Cost Recovery Fund (CRF) expense. These items represent a combined total of \$4.4 million, and are in addition to the administrative budget authorized in the Offshore Wind Order. NYSERDA argues that this funding represents a comprehensive "stop-gap" to cover program needs from July through December 2020, including staff growth required to build necessary capacity to meet the State's offshore wind goals.

NYSERDA proposes to allocate a proportionate share of the annual CRF to the 2020 offshore wind solicitation.²¹ Additionally, if actual cost allocations exceed NYSERDA's estimates, NYSERDA proposes to reallocate approved but uncommitted offshore wind administrative funds to be held for future ratepayer benefit.

Consistent with the approach taken in the Offshore Wind Order for program administration, NYSERDA proposes to use existing unspent RPS funds to cover incremental administrative costs. The Offshore Wind Order authorized NYSERDA to expend up to \$9,797,000 in funding to cover NYSERDA's administrative costs in implementing Phase 1 of the Offshore Wind Standard. This funding allowed NYSERDA to continue the work begun under the original \$15 million in offshore wind-related funding authorized under two Clean Energy Fund investment plans which was used to fund the Offshore Wind Master Plan and other pre-development activities.²²

NYSERDA files quarterly reports detailing the use and balance of funding available for its offshore wind activities under the CEF Order. As of the report filed January 23, 2020 (which covers administration through December 31, 2019), approximately \$4 million remains uncommitted from the originally

²¹ The CRF is a fee assessed to NYSERDA and other public authorities by New York State for an allocable share of state governmental costs attributable to the provision of services to public benefit corporations pursuant to Section 2975 of the Public Authorities Law.

²² Case 14-M-0094, et al., Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund (issued January 21, 2016) (CEF Order); see also, Clean Energy Fund Investment Plan: Large-Scale Renewables Chapter. April 19, 2019. <https://www.nyserda.ny.gov/-/media/Files/About/Clean-Energy-Fund/CEF-Large-Scale-Renewable.pdf>.

authorized funding.²³ Additionally, this amount was ultimately offset by \$1.74 million in bid fees paid by proposers, as provided in the Offshore Wind Order.

NYSERDA explains that administrative funds authorized in the Offshore Wind Order for Phase 1 are expected to be used in early 2020 for ongoing program administration, the hiring of an offshore wind fisheries liaison, industry events and public outreach efforts, port infrastructure Request For Proposal support, various analytical activities, and support for Technical Working Groups and related efforts. Additionally, as of December 2019, NYSERDA reports that OREC funding currently funds 3.5 FTEs of general program staff, 0.4 FTEs of legal staff, 0.5 FTEs of transmission staff, and 1.0 FTEs of fishing liaison support; a total of approximately 5.4 FTEs. Moreover, NYSERDA plans to transition an additional 1.0 FTEs to OREC funding, creating a total of 6.4 FTEs through June 2020.

NYSERDA requests authorization for administrative funding for an additional 2.0 FTEs for the remainder of 2020 to support the program's growing focus on supply chain, stakeholder engagement, and contract management. NYSERDA requests additional administrative funding to execute the next solicitation and to continue program development in the second half of 2020. Additionally, the administrative funding requested would support non-recurring consultant and legal support along with program and system development which builds upon the Phase 1 design.

The Joint Utilities urge the Commission to periodically review the cost effectiveness of the offshore wind program in a manner similar to its review of other customer-funded renewable energy programs. They further recommend that

²³ Case 18-E-0071, NYSERDA OREC Quarterly Administrative Report Q4 2019 (filed January 23, 2020).

the Commission consider the use of previously collected ratepayer funds from Regional Greenhouse Gas Initiative (RGGI) allowances and the Clean Energy Fund (CEF) for use in procuring offshore wind generation, as well as suggesting that the NY Green Bank could support offshore wind project financing and reduce OREC prices. MI supports NYSERDA's proposal to rely on unspent RPS funds and other sources of funding for its incremental expenses.

The Commission approves NYSERDA's proposed budget of \$4,414,461 to cover its administrative costs associated with administration of the Commission's Offshore Wind Standard from July through December 2020. NYSERDA shall use existing unspent RPS funds to cover these incremental administrative costs and shall allocate a proportionate share of the annual CRF to the 2020 offshore wind solicitation. Additionally, NYSERDA shall retain any unspent administrative funds for future ratepayer benefit. Administrative costs for January 2021 and beyond shall be built into a revised Clean Energy Standard and Offshore Wind Standard comprehensive budget.

NYSERDA shall continue to file quarterly itemized reports on costs associated with administration and shall continue to keep detailed accounting of all costs in administering the program and any unspent administrative funds shall be used for future ratepayer benefit. NYSERDA shall also, as was done in Phase 1, offset program costs with any bid fees received in response to its 2020 solicitation. To address the Joint Utilities interest in periodic reviews, the solicitation evaluation process used for 2020 will include a robust evaluation of cost-effectiveness, including market pricing analysis. Additionally, NYSERDA shall file quarterly reports containing itemized expenses associated with administration and

the development costs of the offshore wind platforms and systems.

Buyer Side Mitigation

NYOWA believes that the solicitation should recognize the possible application of NYISO's Buyer-Side Mitigation (BSM) provisions and strive for neutrality among all bidders to avoid any unfair advantage. Otherwise, NYOWA asserts that it will be challenging to evaluate proposals on a comparable basis, especially given current market uncertainty. By specifically addressing BSM in its solicitation and in the form OREC agreement, NYOWA believes that NYSERDA can level the playing field and foster transparency in the development of proposals.

Anbaric recommends procuring offshore wind transmission separate from offshore wind generation. Doing so, Anbaric suggests, can reduce project costs by 20-30% and better position offshore wind generators to bear the impact of any BSM measures.

Ravenswood recommends that evaluation criteria for the solicitation should not directly or indirectly prejudice or discriminate against offshore wind projects interconnecting into NYISO Zone J as a result of BSM rules. Ravenswood notes that the BSM rules do not apply to NYISO Zone K and that the Commission should avoid favoring one region over the other.

The Commission recognizes the concerns raised by parties regarding the potential application of BSM measures. While these concerns reach beyond this solicitation, the Commission finds that appropriate contract provisions may address the risks that these measures place on developers, as well as the increased costs that could be unnecessarily shifted to ratepayers, and will afford NYSERDA flexibility to address this matter in either the solicitation process, in contracting with selected projects, or both.

STATE ENVIRONMENTAL QUALITY REVIEW ACT

On February 6, 2020, the Commission accepted as complete the Draft Supplemental Generic Environmental Impact Statement (SGEIS) analyzing the potential environmental impacts associated with the State's potential procurement of an additional 1,800 MW of offshore wind energy in the near term. The minimum 30-day public comment period provided for the Draft SGEIS ended on March 20, 2020. On April 1, 2020, the Commission accepted, as complete, a Final SGEIS. In conjunction with the decisions made in this Order, the Commission has considered the information in the Final SGEIS and hereby adopts the State Environmental Quality Review Act (SEQRA) Findings Statement prepared in accordance with Article 8 of the Environmental Conservation Law and 6 NYCRR Part 617, by the Commission as lead agency for these actions. The SEQRA Findings Statement is attached to this Order as Appendix B. The SEQRA Findings Statement is based on the facts and conclusions set forth in the Final SGEIS. The offshore wind program is expected to yield overall positive environmental impacts, primarily by reducing the State's use of, and dependence on, fossil fuels, among other benefits.

CONCLUSION

For the reasons stated above, and in accordance with the discussion in the body of this Order, the Commission approves NYSERDA's request for authorization to conduct an additional offshore wind procurement in 2020, including the modifications to the procurement process discussed above. Additionally, NYSERDA's request for additional administrative funding to support its offshore wind procurement program is approved.

The Commission orders:

1. The New York State Energy Research and Development Authority is authorized to issue a solicitation in 2020 for the procurement of Offshore Wind Renewable Energy Certificates, pursuant to the procurement methods and criteria discussed in the body of this Order.

2. The New York State Energy Research and Development Authority is authorized to expend up to \$4,414,461 for Salary and Overhead, Technical Support, System Development, NYS Cost Recovery Fee Expenses, and Offshore Wind program Development, as discussed in the body of this Order.

3. The New York State Energy Research and Development Authority (NYSERDA) shall file quarterly reports containing itemized expenses associated with administration and the development costs of the offshore wind platforms and systems described in the body of this order. Each year, commencing after Offshore Wind Renewable Energy Certificate (OREC) payments begin, NYSEDA shall reconcile any variance between the actual calendar year Offshore Wind Program expenses and the authorized forecasted expenses as part of the OREC reconciliation. NYSEDA shall retain any unspent administrative funds for future ratepayer benefit.

4. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least one day prior to the affected deadline.

5. This proceeding is continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS
Secretary

SUMMARY OF COMMENTSCommenting Parties:

Anbaric Development Partners, LLC (Anbaric)
Bay State Wind (BSW)
EnBW North America, Inc. (EnBW)
Joint Utilities (JU)¹
Joint Environmental Parties²
Multiple Intervenors (MI)
New York Offshore Wind Alliance (NYOWA)
New York Power Authority (NYPA)
Offshore Wind Environmental Technical Working Group (E-TWG)³
Ravenswood, LLC (Ravenswood)
RWE Renewables (RWE)
Shell Energy North America, L.P., and Shell New Energies (Shell)

Anbaric

Anbaric encourages the Commission to include a greater emphasis on the economic benefits components of the next and

¹ Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; New York State Electric & Gas Corporation; Niagara Mohawk Power Corporation d/b/a National Grid; Orange & Rockland Utilities, Inc.; and, Rochester Gas and Electric Corporation.

² Natural Resource Defense Council, Sierra Club, National Wildlife Federation, New York League of Conservation Voters, Renewable Energy Long Island, Environmental Advocates of New York, New Yorkers for Clean Power, Pace Energy & Climate Center, NY-GEO, Green Education and Legal Fund, Defenders of Wildlife, Solarize Albany, All Our Energy, South Shore Audubon Society, Bronx Climate Justice North, North Bronx Racial Justice, RiSE, Environmental Justice Task Force of the WNY Peace Center, Nassau Hiking & Outdoor Club, NYCD-16 Indivisible, Colorbrightongreen.org, NYPAN Environmental Committee, Sisters of St. Dominic of Blauvelt, N.Y., South Asian Fund for Education, Scholarship and Testing, People of Albany United for Safe Energy, and 350NYC.

³ Also includes the Biodiversity Research Institute and The Nature Conservancy.

subsequent solicitations, and on bidders demonstrating the development of a sustained New York-based supply chain. In the wake of COVID-19, Anbaric comments, the offshore wind industry offers a rare opportunity to create New York jobs with new or expanded local businesses and manufacturers, and as such the Commission should evaluate the sourcing of equipment of the first two procurement awards and assess how many enduring New York jobs they will create.

Anbaric states that the proposal by NYSERDA to replicate the Phase 1 evaluation weighting of 70 percent price, 20 percent economic benefits, and 10 percent viability significantly under-values the importance of project viability. Anbaric suggests establishing a two-step process whereby only projects that score high on viability to move to the next phase of evaluation; the second step would be the weighted evaluation without the viability being assigned a percentage. Anbaric asserts that this method would weed out projects that might acknowledge great economics, but have a low viability of being completed. A second solution proposed would be to increase the project viability percentage from 10 percent to perhaps 30 percent.

Anbaric states that by procuring offshore wind transmission separate from offshore wind generation, New York can lower the cost of ORECs for offshore wind significantly. According to Anbaric, to better position offshore wind generators to bear the impact of any buyer-side mitigation (BSM) measures, procurement of direct access offshore wind transmission can be conducted independent of any procurement of an offshore wind generation resource that will use that offshore wind transmission to transmit its power to the onshore grid. Reducing the cost to transmit offshore wind generation to the

onshore grid, Anbaric continues, would position offshore wind generators in a better position to have their capacity clear in a NYISO capacity auction.

BSW

BSW supports the NYSERDA petition and supports NYSERDA's recommendation to continue the radial interconnection approach employed in NYSERDA's Phase 1 solicitation, because interjecting a separate procurement for a transmission backbone at this juncture will cause undue delay and set back New York's burgeoning offshore wind program back by several years. BSW believes the hybrid evaluation structure resulted in unnecessary risk premiums in pricing, and supports NYSERDA's effort to align the 2020 offshore wind solicitation with the Commission's recent Index REC Order. BSW supports NYSERDA's proposal to modify the Reference Energy Price and Reference Capacity Price.

EnBW

EnBW supports NYSERDA's petition, but recommends that NYSERDA pursue only 1,000 MW in 2020, and wait until after the Federal Bureau of Energy Management (BOEM) New York Bight offshore wind lease auction in 2021. EnBW asserts that by waiting, New York will be able to take advantage of the benefits of a more competitive market. Further, EnBW states that future solicitations will address important work that the State is currently undergoing this year to reduce costs and environmental impacts, and grow local investments in ports and supply chains. In addition, EnBW continues, NYSERDA and NYISO will have completed and published their ongoing transmission studies, which will facilitate more efficient and cost-effective transmission system planning. EnBW argues that allowing more

time will provide offshore wind developers time to coordinate with and invest in the port projects after the State has made awards through its imminent solicitation for Offshore Wind Port Infrastructure.

E-TWG

E-TWG states that they fully support the State's offshore wind energy goals but propose further environmental considerations for the procurement process as either eligibility conditions or as beneficial scoring criteria in order to advance environmentally responsible offshore wind power. E-TWG recommends that the Environmental Mitigation Plan (EMP) for Phase 2 require bidders to provide full details describing how their plans comply with each section of the permitting and approval process, and developers should be required to include these plans in all federal and state permits submitted after contracts are awarded. E-TWG advises that EMPs include details concerning pre-, during, and post-construction monitoring; for marine mammals a plan to avoid, minimize, and mitigate underwater noise from development should be required; for birds and bats pre- and post-construction should address questions related to displacement, barrier effects, and collisions, along with minimizing the loss or alteration of critical bird and bat habitat.

E-TWG urges the Phase 2 solicitation to state that all awarded projects be required to implement the following specific BMP: (1) use of best available control technology to avoid, minimize, and mitigate underwater noise; (2) restrictions on construction activities and geophysical surveys with detrimental noise levels; (3) commitment that pile driving and geophysical survey work with significant noise levels will not commence when

visual monitoring is not feasible; (4) monitoring the clearance zone for marine mammals for a minimum of 60 minutes prior to the initiation of pile driving activity and 30 minutes prior to the initiation of survey work with significant sound levels using a multi-method approach, including Passive Acoustic Monitoring (PAM), Protected Species Observers (PSOs) approved by the National Marine Fisheries Service, and/or other proven technologies; (5) use of trained crew members as lookouts to reduce marine mammal collision risk; (6) reduce artificial lighting during all phases of development; and (7) implement mitigation measures if avian monitoring indicates a need. E-TWG also recommends that preferential scoring credit be given to projects that fully commit to adopting quiet foundations.

JU

The JU emphasizes the importance of transmission development, and notes the technical complexities of importing such large amounts of energy into dense load centers using existing infrastructure, especially as later projects vie for a limited number of interconnection points. The JU warns that increasingly complex grid interactions with offshore wind generation could increase project costs and even imperil service reliability. The JU recommends a coordinated and cohesive approach to transmission development. To this end, the JU refers to a grid study currently conducted by NYSERDA and required by the recent Accelerated Renewable Energy Growth and Community Benefit Act that could be used to direct coordinated distribution and transmission resource investments necessary to accommodate offshore wind generation.

The JU also suggests that waiting for the results of this study could prove beneficial, even if following such a

timeline means vacating Investment Tax Credit (ITC) support for projects that could begin in 2020, in the event that the benefits of cost-effective transmission development offset the loss of these subsidies. The Ju believes that the Commission should consider this option carefully, observing also that additional time will give bidders sufficient time to prepare cost-effective proposals, especially in light of the current public health crisis. While recognizing the enthusiasm for advancing the next offshore wind solicitation, the JU recommend that the Commission capitalize on this ongoing NYSERDA grid study to coordinate necessary transmission projects, either at the project-level or in developing a common network.

The JU requests that the Commission periodically assess the cost effectiveness of the offshore wind procurement in a manner similar to its review of other customer-funded renewable energy programs. The JU recommends that the Commission consider the use of previously collected ratepayer funds from Regional Greenhouse Gas Initiative (RGGI) allowances and the Clean Energy Fund (CEF) for use in procuring offshore wind generation, as well as suggesting that the New York Green Bank could support offshore wind project financing and reduce OREC prices. Lastly, the JU refers to an implementation plan expected from NYSERDA that will include compliance calculations and develop a standard purchase agreement for load-serving entities (LSE). The JU requests collaborative involvement in this plan, stating that the present petition is directly related to the load-serving entity obligation.

MI

MI recommends that NYSERDA rely primarily on fixed-price bids and only accept indexed-price bids that are

demonstrably superior from the perspective of customers responsible for paying ORECs. MI continues to have serious concerns regarding reliance on indexed-price bids, the evaluation of which relies on long-term price forecasts, the accuracy of which may be highly speculative and potentially very poor. MI believes that indexed-price bids shift market price risks from developers to captive customers, notwithstanding the fact that developers are the entities best-positioned to bear and mitigate such risks.

MI believes that cost should be the sole criterion upon which NYSERDA evaluates competing projects, and recommends that the Commission should avoid potentially increasing the cost to customers by according undue weight to such factors as economic development and project viability. MI believe that a material portion of the economic benefits evaluated in Phase 1 is comprised of benefits offered specifically by developers that are distinct from the contemplated project, and it is naïve to assume that the cost of such benefits is not reflected in OREC price bids. MI argues that customers essentially are paying for those benefits through higher OREC prices.

Accordingly, MI finds no compelling reason to evaluate such benefits in isolation, which can result in certain developers being given "credit" for benefits that contribute to higher OREC prices than what likely would have been proposed absent reliance on such evaluation criterion. MI states there has not been any demonstration that such ancillary economic activity is materially different from project to project justifying the use of separate evaluation criterion.

MI recommends that a 10% evaluation of a project on viability criterion should be treated as a condition precedent to a contract award. MI states that it is not clear how NYSERDA

accurately can evaluate between various levels of viability, such as to award two seemingly viable projects different weights for such criterion. MI states that the Commission should, at a minimum, reduce the current 20 percent weighting and exclude from consideration additional "benefits" offered by bidders separate and apart from what naturally would flow from development of the proposed project.

Joint Environmental Parties

The Joint Environmental Parties strongly support the prompt approval of the NYSERDA petition, and contend that building on the accomplishments of the initial solicitation is vital to achieving clean energy requirements mandated by the Climate Leadership and Community Protection Act (CLCPA). Furthermore, they add that CLCPA goals represent a quadrupling of state offshore wind generation capacity which will require sufficient time for necessary permitting, approval, and construction.

The Joint Environmental Parties call for authorization of the NYSERDA request to allow it take advantage of the recent extension of the ITC, and anticipates increased competition among East Coast states to procure offshore wind energy generation. The Joint Environmental Parties predict that New York will be able to secure the necessary capital and resources at more advantageous prices if it acts early, noting that the initial offshore wind procurement provided significant ratepayer benefits with a monthly customer bill impact of only \$0.73.

The Joint Environmental Parties also called for the second offshore wind solicitation to consider both environmental and labor issues in its development. They urge that NYSERDA emphasize best management practices for marine ecosystems and

biodiversity conservation that will be affected by construction and operation, and request NYSERDA to devise additional environmental eligibility criteria for the next solicitation, in addition to considering suggestions from the E-TWG in developing environmental mitigation plans. The Joint Environmental Parties also recommend continuation of the strong labor protections provided in the initial offshore wind procurement, including a prevailing wage requirement and good faith negotiations.

NYOWA

NYOWA supports NYSERDA's petition, and argues that the historical pace of renewable energy development in New York would have to quadruple just to meet the non-offshore wind targets contained in the CLCPA. Therefore, NYOWA states it is critical that New York aggressively move ahead with the next offshore wind solicitation to meet the CLCPA's targets. NYOWA recommends that the Commission make clear that NYSERDA has the authority to award bids to a combination of projects that total 2,500 MW of new capacity. NYOWA notes that there is a 26,000 MW regional offshore wind market and if New York does not act swiftly, there is substantial risk that it will forfeit existing lease area capacity to other states and delay the jobs and environmental and economic development benefits that a successful Phase 2 solicitation offer. Additionally, NYOWN comments that it is possible that NYSERDA could make awards in a timeframe that allows developers to take advantage of the ITC.

NYOWA recommends NYSERDA expedite the availability of workforce training and port development funds so developers bidding into the Phase 2 solicitation can consider them in their bids accordingly. NYOWA supports the continuation of the inclusion of environmental and fisheries mitigation plans in

Phase 2 bids. NYOWA supports NYSERDA's assertion in the Petition that it has authority to continue advancing the role of the environmental and fisheries mitigation plans in the Phase 2 solicitation, including the E-TWG-recommended BMPs where appropriate as well as other experience gained during Phase.

NYOWA supports continued transmission and interconnection study and planning to prepare not only for this next solicitation but also for the 9,000 MW of offshore wind capacity that is required to be developed over the next decade. NYOWA agrees with NYSERDA's conclusion that it is premature to rely on a planned offshore wind transmission solution in the 2020 solicitation and that the radial interconnection approach is more appropriate. NYOWA supports continued inclusion of prevailing wage and project labor agreement provisions because those provisions helped foster creative partnerships between developers and labor unions. NYOWA supports NYSERDA's proposed phase 2 solicitation modifications and agrees that these modifications are likely to improve the cost effectiveness of the Index OREC structure while maintaining high levels of feasibility and market compatibility.

NYOWA believes that BSM provisions of the solicitation should strive for neutrality among all bidders to avoid any unfair advantage. According to NYOWA, the solicitation should be structured to avoid signaling a preferred interconnection zone, and NYSERDA should be mindful of diversity (including offshore wind projects that have already received awards in New York) and potential constraints in the existing transmission system. By specifically addressing BSM in its solicitation and in the form OREC Agreement, NYOWA believes that NYSERDA can level the playing field and foster transparency.

NYPA

NYPA believes that the Commission should approve the proposed 2020 solicitation, and concurs with NYSERDA's analysis that numerous industry, labor, and consumer benefits would result from facilities procured through the 2020 solicitation. NYPA notes that these benefits would be incremental to those already identified in NYSERDA's Offshore Wind Master Plan. NYPA states that it is evaluating how it can best use its new statutory authority, including under the recently-enacted Accelerated Renewable Energy Growth and Community Benefit Act, to support the CLCPA's renewable energy and offshore wind targets, and looks forward to working with NYSERDA and other stakeholders on renewable energy generation and transmission matters related to the 2020 Solicitation and subsequent procurements.

NYPA argues that future solicitations should utilize a coordinated transmission approach. NYPA has completed a study and analysis comparing strategies undertaken by European nations to deploy offshore wind systems over the past two decades, and found that a sole reliance on radial approach will overwhelm available interconnection points and delay the meeting New York's offshore wind goals. Therefore, NYPA supports a coordinated approach to transmission planning for any offshore wind procurements beyond the 2020 Solicitation. NYPA believes that the coordinated approach is better suited to develop the offshore and onshore grids necessary to support the CLCPA's offshore wind goals.

RWE

RWE requests that the Commission publish a long-term solicitation schedule which would provide insight and certainty

in the U.S. market. They recommend solicitations in 2020, 2021, and then in odd-numbered years until the 9,000 MW target is achieved. RWE believes this will allow for the necessary investments to trigger business opportunities for the manufacturing, construction, transport, and installation of offshore wind components across the region. RWE states that a staggered solicitation schedule between New York and other Northeast states will help smooth the supply curve and prevent issues that may arise with multiple, concurrent project submittals.

It is RWE's position that bids may be more competitive post-2020 and capture greater savings for ratepayers beyond the application of the ITC by the following combined factors: (1) increased competition from participation of additional leaseholders; (2) decreased costs because NY Bight lease areas may be closer to interconnection points; (3) capital costs will continue to decline with the establishment and maturation of local supply chain; and (4) completion of various transmission studies will allow for more efficient system planning, reducing overall system costs.

Shell

Shell supports the NYSERDA petition and acknowledges that radial transmission is capable of addressing the interconnection requirements of the pending solicitation, but that careful planning a transition to an ocean-grid, backbone transmission infrastructure will provide greater efficiency and cost effectiveness in the long term. Shell requests that the Commission direct Staff and NYSERDA to use available transmission information to develop a practical transmission backbone system and associated land-based upgrades. Shell

argues that these will generate a healthier market with increased competition, reduce capital costs, and create a foundation for future investments in an expanded, long-term offshore wind system. Shell recommends that Staff collaborate with the NYISO to develop a more detailed analysis of downstate transmission constraints and that NYSERDA should assemble information from its first offshore wind solicitation for the purpose of developing a transmission backbone system. The Commission should also establish cost allocation conditions to address these upgrades.

Shell also agrees with NYSERDA's request to eliminate the hybrid OREC approach and instead allowing bidders to choose between these two options. Shell notes that the requirement to consider both fixed and adjustable bids was overly complicated, and its continued use will likely contribute to procurement delays. Shell also supports NYSERDA's request to modify Index OREC calculations to align energy and capacity reference prices that better align with market-clearing prices in each zone. Finally, Shell recommends that the Commission consider moving away from the Index OREC structure to a Forward OREC structure, or at least direct NYSERDA to specify proposals using both forms. Shell argues that such limited modifications to bidding parameters will permit ongoing discovery of price differences and risk premiums that will provide valuable market information to be used in developing future solicitations

Ravenswood

Ravenswood supports the Petition and urges the procurement include evaluation criteria that quantitatively captures: (1) added environmental and grid-balancing benefits of a project's actual or potential pairing with significant and

flexible energy storage capacity while minimizing mitigation risks; (2) the risks associated with locational permitting and interconnection challenges; (3) the benefits of having projects interconnecting to Zone J and Zone K compete on a level playing field; and (4), job creation as well as pollution reduction in disadvantaged communities. Ravenswood suggests the Commission set a timeline for solicitation, bids, and award.

Ravenswood notes that an incentive to offshore wind projects to include grid flexibility assets, like energy storage, in their proposals, is not included in the Petition's Phase 2 considerations. Ravenswood argues that NYSERDA should give value to projects that include paired energy storage resources with minimal mitigation risk and that connect on land to parts of the grid that can handle capacity that the OSW projects are expected to produce. Ravenswood suggests that NYSERDA should assign points to proposals that include energy storage with minimal mitigation risk for: (1) the avoided transmission upgrades that the project would enable; (2) the positive grid balancing benefits of the project; and, (3) achieving the State's policy goal for energy storage deployment. Further, Ravenswood argues that the Commission should direct NYSERDA to score proposals to capture the full benefit of a paired energy storage resource if it minimizes risks.

Ravenswood notes that if the NYSERDA solicitation appropriately encouraged paired projects, developers could account for these benefits in their production models, offering pricing reflective of a bundled product. Ravenswood recommends that an offshore wind resource that will be or could be partners with a properly located battery storage facility should be of higher value to New Yorkers than a stand-alone OSW resource. Additionally, Ravenswood suggests that NYSERDA's evaluation

criteria should sufficiently weigh grid balancing attributes of the proposed projects, specifically those provided by actual or potential paired energy storage and the added transmission capacity such projects enable.

Ravenswood recommends that evaluation criteria should not directly or indirectly prejudice or discriminate against OSW projects interconnecting into NYISO Zone J. Ravenswood notes that the BSM rules, for now, apply only to resources seeking to provide capacity to NYISO load zones G, H, I, and J; the BSM rules do not apply to NYISO Zone K, which covers most of Long Island. In sum, Ravenswood comments that there is little clarity as to which BSM rules will apply to OSW projects and storage resources that may be paired with those projects. Weighting too heavily the impacts of BSM measures (or the absence thereof), Ravenswood continues, could result in over-deployment in Zone K, adding complexity and costs not currently accounted for.

Ravenswood believes that NYSERDA's solicitation criteria should weigh feasibility and risk of interconnection and permitting in assessing project viability. Ravenswood does not believe that the evaluation criteria is sufficient to differentiate projects based on their interconnection and permitting challenges. Ravenswood argues that the permitting metric which aims to capture potential permitting delays in the context of the project development timeline, but does not capture risks to permitting other than "opposition to the Project." Ravenswood suggests that NYSERDA could award points within this category for projects based on the level of interconnection and permitting challenge. Further, Ravenswood argues that projects could still receive points under a separate criterion for the transmission benefits they provide, but those

benefits would be balanced against interconnection and permitting challenges.

Ravenswood notes that many of these issues were raised in the comment periods and public hearings for the South Fork Wind Project. Three alternative routes for the transmission cable in its Article VII application were proposed, and faced vehement opposition from members of the public who did not wish to see their communities or properties disturbed by this construction. Ravenswood states that challenges and permitting delays have impacted every OSW project in the United States to date. Ravenswood recommends that the NYSERDA solicitation should consider projects that can demonstrably and significantly create jobs and reduce pollution in environmental justice communities. Offshore wind projects that can safe harbor or otherwise qualify for larger federal tax credits will be able to reflect that value in their OREC bids, with minor risk that this would impede their ability to participate in the NYISO capacity markets, therefore, lowering costs to customers.

State Environmental Quality Review Act

FINDINGS STATEMENT

April 23, 2020

Pursuant to Article 8 (State Environmental Quality Review Act (SEQRA)) of the Environmental Conservation Law and 6 New York Codes, Rules, and Regulations (NYCRR) Part 617, the New York State Public Service Commission (Commission), as Lead Agency, makes the following findings.

Name of Action: In the Matter of Offshore Wind Energy (18-E-0071): Order Authorizing Offshore Wind Solicitation 2020

SEQRA Classification: Unlisted Action

Location: New York State/Offshore Waters

Date Final Supplemental Generic Environmental Impact Statement (GEIS) Filed: April 8, 2020

Final SGEIS Available at: <http://www.dps.gov>

I. PURPOSE AND DESCRIPTION OF THE ACTION

In the attached order, the Public Service Commission (Commission) authorizes the New York State Energy Research and Development Authority (NYSERDA) to procure the environmental attributes associated with approximately 1,000 megawatts (MW), and up to 2,500 MW, of additional offshore wind power (i.e., generation capacity) in 2020. This procurement could include the attributes associated with up to approximately 1,800 MW of generation capacity beyond the goal for 2,400 MW of offshore wind generation capacity by 2030, which the Commission adopted in the 2018 Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement in Case 18-E-0071 (2018 OSW Order).

In May 2018, the Commission prepared a Generic Environmental Impact Statement (GEIS) pursuant to the New York State Environmental Quality Review Act (SEQRA) that analyzed the potential environmental impacts associated with the State's procurement of 2,400 MW of offshore wind environmental attributes by 2030. The Commission published the Final GEIS (2018 GEIS) as part of the 2018 OSW Order. The 2018 GEIS and 2018 OSW Order complement the Order Adopting a Clean Energy Standard (CES or CES Order), in which the Commission recognized

the development of offshore wind generation as one of many avenues required to achieve the State's renewable energy goals.

In October 2019, NYSERDA executed two contracts totaling 1,696 MW of offshore wind generation. As a result of this successful inaugural solicitation and the rapid maturation of the offshore wind market in New York since then, a second statewide solicitation in 2020 could procure environmental attributes associated with offshore wind generation that exceeds the 2,400 MW analyzed in the 2018 GEIS.

The Supplemental GEIS (SGEIS) considers, in general and conceptual terms, the effects of the Proposed Action. The Proposed Action under consideration in this SGEIS is the near-term procurement of environmental attributes associated with approximately 1,800 MW of additional offshore wind (i.e., beyond the 2,400 MW goal previously established by the Commission) through a competitive procurement for resources with the ability to deliver energy into New York.¹ The procurement contemplated by the Proposed Action would likely result in the development of new offshore wind development in New York State's marine and coastal waters. Such projects may be developed in a variety of scenarios consisting of a broad range of variables, including, but not limited to, the geographic area affected by the project, the marine environment subject to development, project schedules, physical scale, and technologies employed. Because these aspects have not yet been determined for each project, it is not possible at this stage to perform a meaningful assessment of the potential environmental impacts of future offshore wind projects pursuant to SEQRA requirements. However, each individual project in the procurement, once selected and advanced to the deployment stage, would be subject to site-specific assessment pursuant to SEQRA.

Consistent with 6 NYCRR §617.9(a)(7), the SGEIS evaluates the potential for significant adverse environmental impacts at a broader and more general scale arising from the near-term procurement of environmental attributes associate with approximately 1,800 MW of additional offshore wind. The scope of the SGEIS addresses issues either not addressed in the 2018 GEIS or that need further analysis based on the increased scale of the proposed offshore wind procurement, including the resources for which potential unavoidable adverse impacts may occur and, therefore, potential cumulative impacts could occur.

¹ The approximate 1,800 MW of offshore wind evaluated in the 2020 SGEIS is in addition to the 2,400 MW evaluated in the 2018 GEIS.

II. FACTS AND CONCLUSIONS RELIED UPON

In developing this findings statement, the Commission has reviewed the Final SGEIS, issued on April 8, 2020. The following findings are based on the facts and conclusions set forth in the Final SGEIS.

A. Public Need and Benefits

This SGEIS incorporates by reference the description of public benefits as required by 6 NYCRR § 617.9(b)(5)(i) that may result from increasing the supply of offshore wind resources described in Section 1.3 of the 2018 GEIS, such as the potential to lead indirectly to development of emerging technologies, a new source of coastal tourism, employment associated with construction and operations, purchases of local products and services, and new and increased tax payments by employees and facilities. Depending on the site- or location-specific aspects of offshore wind energy development that results from the Action, and considering NYSERDA's October 2019 *Launching New York's Offshore Wind Industry: Phase 1 Report* (Phase 1 Report), increasing the supply of offshore wind energy resources by 1,800 MW is expected to result in the following public benefits:

- **Public health benefits.** The procurement of an additional 1,800 MW of offshore wind generation is expected to yield climate change mitigation and public health benefits greater than those identified in the 2018 GEIS. It would also be expected to increase public health benefits in proportion to estimates in the NYSERDA Phase 1 Report. The 2018 GEIS and the NYSERDA 2018 *Offshore Wind Policy Options Paper* (Offshore Wind Options Paper) estimated that the development of 2,400 MW of offshore wind generation could produce climate change mitigation benefits valued at \$1.9 billion in potential carbon benefits² from the reduction in carbon dioxide (CO₂) and that the resulting reductions in New York metropolitan area air pollution could generate approximately \$1 billion in health benefits. Based on the Phase 1 Report, the Phase 1 procurement of 1,696 MW will provide \$0.7 billion in health benefits.
- **Economic development benefits.** Procurement of an additional 1,800 MW of offshore wind serving New York State is expected to result in a proportional increase in the number of jobs estimated in the 2018 GEIS and NYSERDA's Phase 1

² The carbon benefits represent an avoidance of costs related to climate, such as changes in net agricultural productivity, human health, and property damages from increased flood risk.

Report. The 2018 GEIS and Offshore Wind Options Paper estimated an annual average of 1,900 to 3,500 peak annual jobs that would support the development of 2,400 MW of offshore wind in New York State. These jobs would be associated with project development, component manufacturing, installation, and operations from the development of offshore wind. The number of jobs per MW based on estimates from NYSERDA's Phase 1 Report were within the range of estimates identified in the Offshore Wind Options Paper.

- ***Accelerated cost reductions for offshore wind technologies.*** The development of a regional offshore wind energy industry necessary to produce an additional 1,800 MW in generation capacity could allow New York State to achieve cost advantages, economies of scale, and other market benefits observed in similar endeavors in Europe. When combined with the health benefits and economic development benefits discussed above, the 2020 procurement would result in an overall benefit to New Yorkers. For example, the NYSERDA Phase 1 Report estimated that the equivalent costs of two contracts totaling 1,696 MW of offshore wind generation capacity represented a nearly 40% cost decline from estimates in the Offshore Wind Options Paper. The Phase 1 offshore wind contracts are expected to range between a net direct cost of approximately \$0.4 billion and a net direct benefit of approximately \$1.9 billion, based on contracted prices and depending on future market prices.

B. Potential Impacts

The construction and operation of a specific facility were not the subject of the 2018 GEIS nor this SGEIS, so the applicability, magnitude, duration, intensity, etc., of the types of impacts identified below would depend substantially on the specific offshore wind energy facility, setting, local species, and local communities of the affected area(s). It should further be noted that, depending on the location and other attributes of a specific offshore wind energy project, that project may have additional types of impacts not enumerated below. The 2018 GEIS concluded that the resources for which potential unavoidable adverse impacts may occur and, therefore, potential cumulative impacts could occur as well include: (1) displacement, disturbance, or loss of habitat for marine mammals and sea turtles; (2) sensory disturbance to fish; (3) conflict with use of space for commercial and recreational vessels; and (4) displacement, disturbance, or loss of habitat and mortality/injury to birds. Therefore, this SGEIS considers the

effects of the incremental increase of approximately 1,800 MW of offshore wind on these resources specifically.

Other areas of potential impact analyzed in the 2018 GEIS that were determined to not experience a change in type or scale of impacts include: benthic communities, cultural resources, socioeconomic resources, visual and aesthetic resources, air quality, and climate change. These resources continue to not experience a potential significant adverse effect from the change in type or scale of impacts associated with the additional expected procurement, and therefore are not analyzed further in this SGEIS.

Marine Mammals and Sea Turtles

The additional 1,800 MW of offshore wind may result in some minor additional spatial coverage, sensory disturbance activities, and associated temporary displacement of marine mammals and sea turtles or no additional spatial coverage and displacement depending on the selected wind facility design, including turbine size and spacing. As described in Chapter 5 of the 2018 GEIS, impacts may occur on marine mammals and sea turtles from increased vessel traffic and sensory disturbance activities, specifically, pile-driving, excavation activities, and vessel traffic during construction. Activities associated with construction and operation of projects providing an additional 1,800 MW of offshore wind would follow measures required by regulation or through consultation with state and federal agencies in compliance with the Marine Mammal Protection Act and the Endangered Species Act. Given the spatial distribution of offshore wind projects, the available habitat, potential reductions in pile driving, and project-specific agency consultations, the procurement of an additional 1,800 MW of offshore wind is not expected to have a significant adverse impact on marine mammals and sea turtles.

Fish

The procurement of an additional 1,800 MW of offshore wind generation may produce minor impacts on fish, including additional spatial coverage, sensory disturbance activities, and associated temporary displacement. The extent and severity of these effects is dependent on wind facility design, including turbine size and spacing. Chapter 5 of the 2018 GEIS identifies increased construction activities and sensory disturbance as potential sources of impact on these organisms, specifically piledriving, excavation, and vessel traffic. Construction and operation of offshore wind generation facilities would be conducted in compliance with the Magnuson Steven Fishery Conservation and Management Act and all other applicable

regulations in consultation with federal and state agencies. Piledriving for foundations would occur in isolated areas on a limited schedule, and most affected fish species would be expected to relocate to surrounding areas and thereby experience disturbances less frequently or of lower magnitude. Given the spatial distribution of offshore wind projects, the available habitat, potential reductions in piledriving, and project-specific agency consultations, the procurement of an additional 1,800 MW of offshore wind is not expected to have a significant adverse impact on fish populations.

Marine Commercial and Recreational Fishing

Impacts from the procurement of an additional 1,800 MW of offshore wind generation may include minor additional spatial coverage and spatial conflicts with commercial and recreational fishing outfits. The extent and severity of these effects is dependent on wind facility design, including turbine size and spacing. Chapter 5 of the 2018 GEIS identified multiple-use overlaps between project development and commercial and recreational fishing where these activities may coincide spatially, but ultimately concluded that large areas of the marine environment would remain unaffected by the construction and operation of offshore energy infrastructure. The U.S. Bureau of Ocean Energy Management and New York State have advanced efforts to avoid, minimize, and mitigate impacts on commercial and recreational fisheries since 2018 and the scale-up would continue to leave large areas available without conflicts for fishing. Therefore, the procurement of an additional 1,800 MW of offshore wind is not expected to have a significant adverse impact on marine commercial and recreational fishing.

Birds

The procurement of an additional 1,800 MW of offshore wind generation may produce minor impacts on birds, including additional spatial coverage. The extent and severity of these effects is dependent on wind facility design, including turbine size and spacing. Chapter 5 of the 2018 GEIS identified construction noise, human presence, and vessel traffic as potential causes of disturbance and displacement of bird populations. Furthermore, birds are vulnerable to direct collision with project equipment like construction cranes and towers, but particularly moving wind turbine blades. More frequent collisions are associated with the use of larger blades and the relative increase in rotor-sweep zone. However, the use of larger rotor assemblies in smaller numbers may reduce the overall possibility of bird collisions, compared to a greater

number of turbines with physically smaller blades. Therefore, the procurement of an additional 1,800 MW of offshore wind is not expected to have a significant adverse impact on birds.

C. Mitigation of Potential Adverse Impacts

In compliance with 6 NYCRR §§617.9(b)(5)(iv) and 617.11(d)(5) of SEQRA, this SGEIS identifies federal and state regulations that will help ensure, to the maximum extent practicable, avoidance, minimization, or mitigation of adverse environmental impacts that may occur due to the Proposed Action's procurement of offshore wind energy. This SGEIS incorporates by reference material from Chapter 4 of the 2018 GEIS and provides relevant updates to federal and state regulations and guidance concerning offshore wind development activities, as well as updates related to avoidance, minimization, and mitigation strategies.

The required avoidance, minimization, and mitigation of potential environmental impacts from future offshore wind development would occur at a site-specific level. The following are examples of measures that would avoid, minimize, or mitigate, to the extent practicable, potential impacts on environmental resources from offshore wind energy development:

- Location of development projects to avoid, to the extent practicable, impacts on protected or sensitive resources and existing or planned marine uses and development;
- Implementation of federal and state regulatory requirements, guidelines, and best management practices to minimize and mitigate potential impacts. Limits on construction activity to specified times and/or seasons to reduce potential impacts on sensitive receptors (e.g., community facilities and recreational activities);
- Adherence to appropriate setbacks to minimize potential operational and visual impacts;
- Conduct proper assessment of existing resources and potential impacts on these resources;
- Development of plans to protect natural resources (e.g., emergency response plans, erosion/scour control plans); and,
- Utilize appropriate lighting design and controls to minimize offsite illumination and light pollution.

Under the proposed additional 1,800-MW procurement, new and previously identified measures would be implemented on a

project-specific basis, as required by the necessary state and federal permits and authorizations, in accordance with federal and state laws and regulations. The measures required by regulation are subject to revision if determined to be necessary by the responsible issuing agency, organization, or entity. Existing guidance or regulations may be updated or revised and/or new guidance or regulations may be developed after publication of this SGEIS.

D. Alternatives Considered

Under SEQRA, the primary alternative to the Proposed Action is the No Action alternative. Under this alternative, the State still expects to achieve its offshore wind goals. However, under the No Action alternative, the State would not procure the additional approximately 1,800 MW of offshore wind in the near-term and instead, procurement would be limited to the 2,400 MW of offshore wind evaluated in the 2018 GEIS. Therefore, the No Action alternative may result in less timely development of offshore wind projects and a less diverse generation mix in the State's renewable energy portfolio. This scenario could result in either adverse or beneficial changes, depending on the potential use of other renewable energy sources that ultimately would be used under the No Action alternative to achieve the State's goals and directives. A No Action alternative would require more grid solar and onshore-wind development, which would likely result in greater potential land use and other land-based environmental impacts. New structure required for land-based renewable generation could require permanent habitat loss and tree removal to create open spaces, in addition to causing temporary disturbances during construction. Under the No Action alternative, additional development of offshore wind facilities in the region may still occur, along with any impacts on the marine environment associated with such development. The No Action alternative would also alter the corresponding socioeconomic costs and benefits associated with the Proposed Action.

E. Unavoidable Adverse Impacts

Unavoidable adverse impacts are impacts that, if an action is implemented, cannot be avoided or adequately mitigated. The Final SGEIS is not intended to evaluate specific renewable resource projects and their potential site-specific environmental impacts; rather it identifies whether the Proposed Action or alternatives could pose unavoidable adverse impacts at a generic level. As set forth in Chapter 5, there are no unavoidable adverse impacts that could not be mitigated through one or more of the mechanisms discussed in Chapter 4.

Similarly, as discussed in Chapter 6, the No Action alternative presents no such unavoidable adverse impacts.

F. Irreversible and Irretrievable Commitment of Resources

The future construction and operation of new offshore wind energy farms that may occur in response to the Proposed Action could result in irreversible and irretrievable commitments of resources. However, such commitments would be identified in site-specific environmental analyses and subsequently avoided or minimized in accordance with applicable laws and regulations.

G. Growth-Inducing Aspects

The Proposed Action has the potential to lead indirectly to development of emerging technologies, a new source of coastal tourism, employment associated with construction and operation, purchases of local products and services, and new and increased tax payments by employees and facilities. This SGEIS incorporates by reference material from Chapter 9 of the 2018 GEIS and updates relevant growth-inducing effects. The Proposed Action of procuring an additional 1,800 MW of offshore wind in the near term is expected to lead to a proportional increase in development of emerging technologies, coastal tourism, employment associated with construction and operation, purchases of local products and services, and tax payments by employees and facility owners.

H. Effects on Energy Consumption

The procurement of an additional 1,800 MW of offshore wind, to the extent it does not significantly impact retail prices, is not expected to directly or indirectly affect the amount of electricity used in the State or the amount of energy conserved in the State. The Proposed Action may affect the State's electric generation portfolio and foster greater penetration and adoption of renewable energy resources at the grid scale. The Proposed Action could increase the proportion of offshore wind-generated electricity in New York's energy mix, thereby helping the State to achieve its renewable energy goals and directives.

III. CONCLUSIONS

Based on the discussion set forth in the Final SGEIS, the Commission makes the findings stated above regarding the potential environmental impacts and benefits of the State's procurement of an additional 1,800 MW of offshore wind generation, and certifies the following:

1. The requirements of the State Environmental Quality Review Act, as implemented by 6 NYCRR 617, have been met;

2. Consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the Action being undertaken continues to yield overall environmental benefits, primarily by reducing the State's use of and dependence on fossil fuels. It avoids or minimizes adverse environmental impacts to the greatest extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable; and
3. As applicable to the coastal area, the Action being undertaken is consistent with applicable policies set forth in 19 NYCRR §600.5.