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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard	Case 15-E-0302
In the Matter of Offshore Wind Energy	Case 18-E-0071

VERIFIED PETITION OF SUNRISE WIND LLC FOR AN ORDER AUTHORIZING THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY TO AMEND THE OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE PURCHASE AND SALE AGREEMENT

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I. INTRODUCTION

Pursuant to Public Service Law (PSL) §§ 4 and 5, Sunrise Wind LLC (Sunrise Wind) respectfully submits this verified petition (the Petition) to the New York State Public Service Commission (the Commission) for an order authorizing the New York State Energy Research and Development Authority (NYSERDA) to amend the Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement (the OREC Agreement) with Sunrise Wind to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in NYSERDA's third offshore wind solicitation ORECRFP22-1 (the Phase 3 RFP).

Under the OREC Agreement, NYSERDA will purchase from Sunrise Wind the offshore wind renewable energy certificates (ORECs) representing the environmental attributes associated with generating renewable energy from the Sunrise Wind Project, a 924 megawatt (MW) offshore wind facility, to be located in federal waters approximately 30 miles off the east coast of Long Island, that is expected to begin commercial operation in 2025 (the Project). The OREC Agreement includes a $110.37 per megawatt hour (MWh) "strike price," which essentially caps the total

Project revenues at approximately that amount per MWh for the OREC Agreement's entire 25-year term.

The Project will provide significant environmental, health, energy reliability, economic, and fiscal benefits to New York State. For example, the Climate Leadership and Community Protection Act (CLCPA) established multiple ambitious greenhouse gas (GHG) reduction mandates to combat climate change, including a requirement for the State to procure 9 gigawatts (GW) of offshore wind energy by 2035, which the Commission has recognized is a critical element of the State's overarching objectives of obtaining 70% of its electricity from renewable sources by 2030 and 100% of its electricity from zero-emission sources by 2040. The 924 MW Project will satisfy more than 10% of the CLCPA's offshore wind energy requirement and will contribute toward satisfying the CLCPA's renewable energy and GHG emission reduction requirements.

Unfortunately, within months of NYSERDA and Sunrise Wind executing the OREC Agreement in October 2019, the COVID-19 pandemic began. In addition to its catastrophic impacts on public health, the pandemic profoundly damaged the U.S. and global economies, resulted in extraordinary levels of inflation, and disrupted critical offshore wind supply chains. Those impacts were then exacerbated by other geopolitical events, including Russia's invasion of Ukraine, which spiked demand for renewable energy and caused further shortages and price increases for key components and assets necessary to construct the Project.

These unanticipated, extraordinary economic events beyond Sunrise Wind's control have upended its careful financial and developmental planning for the Project. The Project's capital budget has increased by [redacted], from approximately [redacted] billion to approximately [redacted] billion. As explained in more detail below, without incorporating inflation and interconnection cost

adjustments mechanisms into the OREC Agreement, Sunrise Wind believes it would not be able to obtain a final investment decision (FID) allowing it to fully construct the Project.

NYSERDA has recognized that the extraordinary inflation and other macroeconomic events since the start of the pandemic threaten the viability of New York State's nascent offshore wind industry, and the Phase 3 RFP thus includes inflation and interconnection cost adjustment mechanisms. For the reasons set forth in this Petition, the Commission should authorize NYSERDA to amend the Sunrise Wind OREC Agreement to incorporate comparable mechanisms to account for these unanticipated, extraordinary economic events. As explained in more detail below, Sunrise Wind believes that authorizing such amendments would enable it to obtain an FID for the Project to be fully constructed and thereby provide the Project's cost-effective and timely renewable energy, economic, and other benefits to the people of New York State.

II. COMMUNICATIONS

The following persons should be included on the official service list in this proceeding (including as designated service agents), and all communications concerning this filing should be addressed to them:

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III. FACTUAL AND LEGAL BACKGROUND

A. Sunrise Wind

Sunrise Wind is part of a 50/50 joint venture between Orsted North America Inc. (Ørsted NA) and Eversource Investment LLC (Eversource) that was formed in 2016. Sunrise Wind is

developing the Project, which – in addition to providing 924 MW of offshore wind energy generating capacity – will establish a regional operations and maintenance (O&M) hub in the Port Jefferson area (Suffolk County) and will connect to New York State's electricity grid at the Long Island Power Authority's (LIPA) existing Holbrook Substation in central Long Island. The Project will generate roughly 10% of New York State's offshore wind goal of 9 GW by 2035, while also bringing approximately $750 million in direct Project expenditures, 800 direct jobs, and thousands of indirect jobs to the State.

Ørsted NA is a subsidiary of Ørsted A/S (Ørsted), which is the world's leading developer of offshore wind and the only company to have successfully developed offshore wind projects in North America, Europe, and Asia. Over the past 30 years, Ørsted and its subsidiaries have completed 28 offshore wind projects at an aggregate of 8,871 MW – approximately 26% of the total global installed offshore wind capacity (excluding mainland China). Ørsted is headquartered in Denmark and, together with its affiliates, employs about 8,000 people worldwide. Ørsted NA has approximately 750 employees, approximately 4 GW of operating land-based renewable energy generation capacity, and 5 GW of offshore wind capacity in development. Among other projects, Ørsted NA owns the Block Island Wind Farm (in Rhode Island state waters), which was the first U.S. offshore wind farm. Ørsted produces approximately 91% of its energy from renewable sources, with a target of 99% renewable generation by 2025. Ørsted was recognized on the CDP Climate Change A List as a global leader on climate action and was the first energy company in the world to have its science-based net-zero emissions target validated by the Science Based Targets initiative (SBTi).

Eversource is a subsidiary of Eversource Energy, a utility and experienced transmission developer that, among other things, transmits and delivers electricity to approximately 4 million

customers in New England. Eversource Energy is a Fortune 500 company based in Boston and Hartford that has over 8,000 employees and extensive knowledge of electrical grid development, construction, and operations. Eversource Energy has been recognized as the top-ranked energy company in Newsweek's list of America's Most Responsible Companies for 2023. In addition to owning 50% of Sunrise Wind, Eversource is a service provider to the Project, and its expertise is particularly important to development and construction of the Project's onshore transmission elements.[1]

In addition to Sunrise Wind, Ørsted NA and Eversource have partnered to develop other offshore wind projects, including (1) South Fork Wind, an approximately 130 MW project that broke ground in 2022 and is slated to become New York State's first operational wind farm and the first U.S. commercial-scale wind farm in 2023, and (2) Revolution Wind, an approximately 704 MW project about 15 miles south of Rhode Island that is expected to become operational in 2025.

B. Development of New York State's Offshore Wind Program

The 2015 New York State Energy Plan included several measures to combat climate change and reduce GHG emissions, including establishing a requirement for the State to procure 50% of its electricity from renewable sources by 2030 (the 50 by 30 Goal) and an initiative to encourage development of large-scale offshore wind projects.[2]

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[1] While Eversource is in the process of selling its 50% ownership interest in the Project and the joint venture's other two offshore wind projects currently under development, it currently intends to retain its role as onshore construction manager for all three, ensuring that the Project will benefit from Eversource's experience and know-how.

[2] New York State Energy Planning Board, 2015 New York State Energy Plan. Volume 1: The Energy to Lead, at 74-75, 112, available at: https://energyplan.ny.gov/Plans/2015 (last accessed May 19, 2023) (State Energy Plan).

In 2016, in furtherance of the State Energy Plan, the Commission adopted the Clean Energy Standard (CES), which included, among other things, (1) obligations for load serving entities (LSEs) to financially support new renewable generation resources to serve their retail customers, (2) a requirement for regular renewable energy credit (REC) procurement solicitations, and (3) most relevant to this Petition, a program to maximize the value of potential new offshore wind resources.[3] In the CES Framework Order, the Commission addressed the importance of offshore wind to achieving the State's renewable energy and climate change policies:

> Achieving a de-carbonized electric system for the long-term, with reliable generation and an economically sustainable capacity factor, will inevitably depend on a mixture of technologies and combinations that are not fully developed at this time. New York is fortunate to have substantial potential for offshore wind production and with appropriate time, careful planning and deliberate action, the State has the opportunity to exploit its geographic advantage to develop offshore wind and promote the beneficial attendant economic activity associated with this burgeoning industry.[4]

The Commission noted that NYSERDA had been directed "to develop a Master Plan for offshore wind development for the State" and requested that NYSERDA's analysis include "recommendations on the best solutions for maximizing the potential for offshore wind in New York."[5]

On January 28, 2018, NYSERDA released the New York State Offshore Wind Master Plan (Offshore Wind Master Plan), which presented a comprehensive roadmap to encourage the development of 2.4 GW of offshore wind energy by 2030.[6] The Offshore Wind Master Plan was

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[3] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Adopting a Clean Energy Standard (issued Aug. 1, 2016), at 2, 13 (CES Framework Order).

[4] CES Framework Order at 18.

[5] 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), at 4 (OSW Standard Order); CES Framework Order at 103.

[6] OSW Standard Order at 2.

supported by NYSERDA's Offshore Wind Policy Options Paper as well as 20 additional studies addressing a variety of environmental, social, economic, regulatory, and infrastructure-related issues.[7]

Among other things, the Offshore Wind Master Plan reported that over 12.6 GW of offshore wind resources were operational and an additional 24.3 GW had been approved in Europe (as of that time), and that the cost of offshore wind there had fallen substantially as a result of local infrastructure development and economies of scale.[8] Based on that deployment, NYSERDA projected "that a mature offshore wind industry could deliver electricity to New York's downstate load areas at prices ranging from approximately $80-$130/MWh (in 2017 dollars) by 2030" – which now equates to approximately $100-$162/MWh in 2023 dollars because of intervening inflation.[9]

On July 12, 2018, the Commission issued the OSW Standard Order in Case 18-E-0071, which supplemented the CES Framework Order by establishing a statewide goal of adding "2.4 GW of new offshore wind generation facilities by 2030."[10] The OSW Standard was intended "to maximize the value potential of new offshore wind resources by jump-starting the industry to serve New York State."[11] The primary components of the OSW Standard included: (1) "initial procurement solicitations … in 2018 and 2019 for ORECs associated with approximately 800 MW

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[7] *Id*. at 2, 5-6; Case 18-E-0071, *supra*, NYSERDA's Offshore Wind Policy Options Paper (filed Jan. 29, 2018) (Policy Options Paper). NYSERDA's Offshore Wind Master Plan is available at https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/About-Offshore-Wind/Master-Plan (last accessed May 19, 2023).

[8] OSW Standard Order at 6 (citing Offshore Wind Master Plan at 30).

[9] *Id*. at 7. 2023 dollars were calculated using the U.S. Bureau of Labor Statistics' CPI inflation calculator (https://www.bls.gov/data/inflation_calculator.htm).

[10] OSW Standard Order at 3-4.

[11] *Id*. at 4.

of offshore wind (*i.e.*, Phase 1);" and (2) "an obligation on LSEs to obtain, on behalf of their retail customers, the ORECs procured in Phase 1 in an amount proportional to their load."[12]

The Commission found "the reasons for adopting an Offshore Wind procurement are compelling," and that offshore wind "will be an essential contributor" to "achieving the State's ambitious carbon reduction goals."[13] Further, the Commission determined that the procurement of 2.4 GW of offshore wind energy by 2030 "would account for approximately one-third of the carbon reductions" necessary to reach New York State's 50 by 30 Goal.[14]

In addition to the "essential" contribution of offshore wind energy to achieve New York State's ambitious carbon reduction objectives, the Offshore Wind Master Plan and the OSW Standard Order also recognized the industry's enormous economic benefits. For example, in the Offshore Wind Master Plan, NYSERDA explained that, due to the size of towers and blades, construction of offshore wind projects requires regionally based waterfront facilities, and dedicated port facilities are also required for ongoing operation and maintenance work.[15] NYSERDA found that New York Harbor, the Hudson River, and Long Island contain numerous suitable candidates for manufacturing, assembly, operations, and maintenance to support the offshore wind industry.[16] NYSERDA estimated that the development, construction, and operation of 2.4 GW of offshore wind energy by 2030 would create 5,000 new jobs in New York State, including 2,000 long-term O&M positions.[17]

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[12] *Id.*

[13] *Id.* at 15.

[14] *Id.* at 8.

[15] *Id.* at 7.

[16] *Id.*

[17] *Id.*

Similarly, in the OSW Standard Order, the Commission determined that "offshore wind can result in direct benefits in the form of economic development, workforce employment, and the avoidance of adverse health outcomes, and can lead to secondary benefits in the form of development of emerging technologies, a new source of coastal tourism, indirect jobs associated with construction and operation, purchase of local products and services, and new and increased tax payments by employees and facilities."[18] The Commission noted that "expenditures in New York resulting from [the 2.4 GW offshore wind program] have the potential to total over $6 billion."[19]

The Commission recognized that realizing the massive environmental and economic benefits of offshore wind would require a "jump-start" investment in the nascent industry, which would "produce great value when it results in a large and affordable renewable resource within simple transmission distance of downstate loads."[20] Further, the Commission understood offshore wind "will be substantially more expensive than onshore wind in its early stages, due to the more challenging engineering involved and the local supply-chain economics," but that "there is compelling evidence that costs will tend to decline sharply after a supply chain has been established."[21]

Based on the foregoing, the Commission directed NYSERDA to initiate a solicitation for procurement of ORECs associated with approximately 800 MW of offshore wind.[22]

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[18] *Id*. at 19.
[19] *Id*. at 18.
[20] *Id*. at 9, 18.
[21] *Id*. at 16, 18.
[22] *Id*. at 2-4, 29-30.

C. NYSERDA's 2018 Phase 1 Offshore Wind Procurement, the State's Enactment of the Climate Leadership and Community Protect Act, and NYSERDA's Selection of the Sunrise Wind Project

On November 8, 2018, NYSERDA issued its Phase 1 offshore wind procurement solicitation – ORECRFP18-1 (the Phase 1 RFP). As relevant to this Petition and as required by the Phase 1 RFP, developers submitted two price offers with each proposal: one for a fixed OREC price and the other for an adjustable "Index OREC" price based on an offer "strike price."[23] The Index OREC strike price was intended to represent "the all-in revenue requirement of the project,"[24] with NYSERDA recognizing that such pricing must "achieve the investor's target rate of return."[25] Importantly, the Phase 1 RFP stated: "For evaluation purposes, offer strike prices will be converted to a Levelized Net OREC Cost (LNOC) in base year $/MWh for … Index OREC Strike Price offers."[26] NYSERDA's LNOC calculation procedure utilized "a long-term inflation rate assumption of 2.0% per year" over the 25-year contract term.[27] Proposals in response to the Phase 1 RFP were due on February 14, 2019, and NYSERDA received 18 proposals from four developers.[28]

On July 18, 2019, the CLCPA was signed into law. Among other things, the CLCPA requires "the Commission to establish a program to ensure (1) sufficient amounts of renewable energy resources to serve 70% of load in 2030 [*i.e.*, replaced the 30 by 50 Goal with the more-

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[23] Phase 1 RFP § 4.

[24] OSW Standard Order at 34.

[25] Policy Options Paper at 64 n.79.

[26] Phase 1 RFP § 4.3.

[27] *Id.*

[28] Case 18 E-0071, *supra*, Launching New York's Offshore Wind Industry: Phase 1 Report (NYSERDA Report No. 19-41, filed Oct. 25, 2019), at S-2 (Phase 1 Report).

aggressive 70 by 30 Goal], and (2) that there are zero emissions in 2040 associated with electrical demand."[29]

The CLCPA also directs that "disadvantaged communities" (DACs) receive a target of 40% but no less than 35% of the benefits of spending on clean energy programs.[30] Accordingly, the CLCPA directs "the Commission to design the programs for achieving the renewable energy targets 'in a manner to provide substantial benefits for [DACs] … including low to moderate income consumers, at a reasonable cost while ensuring safe and reliable electric service.'"[31]

The CLCPA also requires the Commission to establish a program to develop 9 GW of offshore wind energy by 2035, which was almost four times the previous requirement of 2.4 GW by 2030.[32] The Commission thus modified the OSW Standard in accordance with the CLCPA:

> The Commission agrees that adoption of the CLCPA's statewide goal of 9 GW of offshore wind capacity by 2035 is a necessary and important step towards achieving the 70 by 30 goal. Indeed, it is requirement under the CLCPA and implementation must begin now.[33]

The Commission also found that "requiring NYSERDA to seek Commission approval for each future offshore wind solicitation would be an inefficient use of resources and would cause delay," and granted "NYSERDA the flexibility to take a long-term view when conducting offshore wind

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[29] Case 15-E-0302, *supra*, Order Adopting Modifications to the Clean Energy Standard (issued Oct. 15, 2020), at 1-2 (CES Modification Order); *see also* PSL § 66-p (2).

[30] N.Y. Environmental Conservation Law (ECL) § 75-0117. "'Disadvantaged communities' means communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate- income households" (ECL § 75-0101 [5]).

[31] CES Modification Order at 8 (citing PSL § 66-p [7]).

[32] Case 18-E-0071, *supra*, Order Authorizing Offshore Wind Solicitation in 2020 (issued Apr. 23, 2020), at 8 (2020 OSW Solicitation Order); *see* PSL § 66-p (5).

[33] CES Modification Order at 45.

solicitations and decline[d] to prescribe minimum or maximum procurements requirements for any one solicitation."[34]

Concurrent with the signing of the CLCPA into law on July 18, 2019, New York State simultaneously announced the single largest renewable energy procurement by any state in U.S. history at the time – nearly 1,700 MW – with NYSERDA's selection of two offshore wind projects for contracts from the Phase 1 RFP: (1) the Sunrise Wind Project; and (2) Equinor Wind US LLC's 816 MW Empire Wind Project.[35] The State's coinciding announcement of the selection of the Sunrise Wind Project with the signing of the CLCPA reflects that the Project will contribute toward satisfying the CLCPA's renewable energy, zero-emission, and offshore wind requirements.[36]

In summarizing its evaluation of the Sunrise Wind Project, NYSERDA noted that Sunrise Wind had "carefully considered New York's strategic role as the market center for the region, proposing major commitments to seed and support workforce training and port infrastructure investments, as well as regional operations and maintenance assets in Port Jefferson, that will secure Long Island particularly as the home for the region's long-term offshore wind workforce."[37] NYSERDA also recognized Ørsted's "global record of performance excellence" by "having installed more than one quarter of the total offshore wind capacity globally" and concluded that Sunrise Wind had presented "a well-thought-out economic benefits package, which is dispersed geographically and strategically located for long-term growth."[38] In addition to generating

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[34] *Id*. at 46.

[35] Phase 1 Report at 2.

[36] *See* 18-E-0071, *supra*, Press Release – Governor Cuomo Announces Finalized Contracts for Empire Wind and Sunrise Wind Offshore Wind Projects to Deliver Nearly 1,700 Megawatts of Clean and Affordable Renewable Energy to New Yorkers (issued Oct. 23, 2019), at 1, 6 (stating that the Sunrise Wind Project "advances" the CLCPA's requirement "to develop 9,000 megawatts of offshore wind by 2035").

[37] Phase 1 Report at 21.

[38] *Id*.

approximately 1,700 MW of carbon-free renewable energy and billions of dollars in economic development, NYSERDA also found that the Sunrise Wind and Empire Wind Projects would together deliver "approximately $700 million of avoided health impact benefits in the form of avoided hospitalizations and premature death associated with asthma and respiratory and cardiovascular diseases, demonstrating tremendous value for New York ratepayers and families."[39]

D. The Sunrise Wind OREC Agreement

In discussing the function of OREC purchase and sale agreements generally, NYSERDA has explained that "development and construction of offshore wind projects involves significant capital investment, necessitating long-term contracts from an entity such as NYSERDA in order to finance and construct the projects."[40] An OREC represents the environmental attributes associated with generation of one MWh of renewable offshore wind electricity by a project.[41] Under the OSW Standard, each LSE must acquire a percentage of the ORECs purchased by NYSERDA each year in proportion to the LSE's share of statewide electricity load.[42]

After New York State announced the selection of the Sunrise Wind Project in July 2019, NYSERDA executed the OREC Agreement with Sunrise Wind on October 23, 2019.[43] Under the 25-year OREC Agreement, once the Sunrise Wind Project enters into commercial operation,

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[39] *Id*. at ii.

[40] NYSERDA, Fact Sheet: Offshore Wind Contract and Phase One Report (Phase 1 Fact Sheet) at 1, available at https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/osw-phase-1-fact-sheet.pdf (last accessed May 21, 2023); *see also* CES Framework Order at 11 ("Renewable resource generation facilities are long-lived capital assets that will only be financed and constructed if the investor building them can be assured of a reasonable opportunity to recover its costs. Generally, long-term contracts or other durable mechanisms are necessary to provide sufficient certainty for prospective investors to induce them to make the investment.").

[41] OREC Agreement at 6.

[42] OSW Standard Order at 4, 29-31, 62.

[43] Phase 1 Report at S-1.

NYSERDA will purchase ORECs from Sunrise Wind based on a strike price of $110.37 per MWh.[44] The purchase price for the ORECs will be determined on a monthly basis using the Index OREC formula and will be equal to the $110.37/MWh strike price less the sum of non-Project-specific reference prices for energy and capacity, which will result in the purchase price rising or falling inversely to a composite average of New York's energy and capacity market prices.[45] As a result of the Index OREC formula, Sunrise Wind can be expected to receive approximately $110.37/MWh in total revenues from operation of the Project (including energy revenues, capacity revenues, and OREC payments) during the 25-year term of the OREC Agreement.[46]

E. The Sunrise Wind Project Will Contribute Toward Satisfying the CLCPA's Renewable Energy and GHG Emission Reduction Requirements While Providing Significant Environmental and Economic Benefits to New York State Residents, Including in DACs

As noted above, the CLCPA established a statewide requirement of 9 GW of offshore wind capacity by 2035, which the Commission has recognized as "a necessary and important step towards achieving the 70 by 30 goal."[47] As NYSERDA has noted, satisfying the CLCPA's 9 GW offshore wind requirement will require the State "to move expeditiously and strategically on an accelerated track to advance projects towards its achievement."[48]

The 924 MW Sunrise Wind Project will satisfy more than 10% of the CLCPA's offshore wind energy requirement. However, even before the Project begins producing large amounts of carbon-free renewable energy, its development is an important component of the initial effort to

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[44] OREC Agreement at 3, 6, 9-11; *see* Phase 1 Fact Sheet at 1.

[45] OREC Agreement § 4.03; Phase 1 Report at S-3.

[46] In reality, due to differences between the reference energy and capacity prices and the actual energy and capacity prices that Sunrise Wind expects to receive, Sunrise Wind will likely receive less than $110.37/MWh.

[47] CES Modification Order at 45; PSL § 66-j (2, 5).

[48] NYSERDA OSW 2020 Petition at 5.

"spur New York's clean energy industry" by creating "a new offshore industry where no industry had existed before in the State."[49] The Sunrise Wind Project is expected to be the first offshore wind farm completed under the process authorized by the Commission in Case 18-E-0071, and the second overall after Ørsted NA and Eversource's South Fork Wind project. The Sunrise Wind Project will thus help pave the way for establishing statewide and regional supply chains, and thereby reduce development risks for all subsequent offshore wind farms.

By providing 924 MW of renewable energy generating capacity to New York State's electrical grid through interconnection at LIPA's existing Holbrook Substation (Load Zone K), the Sunrise Wind Project will provide enough electricity to power approximately 600,000 New York homes and, in the process, displace electricity currently generated at fossil fuel-fired power plants and eliminate the resulting GHG emissions and other pollution. Every year it operates, the Sunrise Wind Project will eliminate approximately 2.45 million metric tons of carbon dioxide equivalents,[50] which is tantamount to taking approximately 530,000 gasoline-powered cars off the road each year.[51]

The Sunrise Wind Project will also provide environmental, health, and economic benefits to New York State residents, including in DACs. As to DACs in particular, Section 7 (3) of the CLCPA requires all New York State agencies to ensure that their decisions will not "disproportionately burden [DACs]," and to "prioritize reductions in greenhouse gas emissions

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[49] Case 15-E-0302, *supra*, Order Approving 2023 Clean Energy Standard Administrative Funding and Reconciliation of Year 2021 Administrative Costs (issued Dec. 15, 2022), at 18 (CES Administrative Order); *see also* NYSERDA OSW 2020 Petition at 5.

[50] These figures are based on modeling Sunrise Wind performed in its Outer Continental Shelf Air Permit Application to the U.S. Environmental Protection Agency for the Project, assuming 924 MW of generating capacity.

[51] According to the EPA, a typical passenger vehicle emits about 4.6 metric tons of carbon dioxide per year (*see* https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle [last accessed May 22, 2023]).

and co-pollutants in [DACs]." By producing large amounts of clean energy, the Sunrise Wind Project will – consistent with the CLCPA – provide vital environmental benefits to DACs, including (1) achieving GHG emission reductions necessary to stave off the worst impacts of climate change, which disproportionately fall on DACs, and (2) reducing the negative health and socioeconomic impacts on DACs from local fossil fuel-fired power plants (such as peaker plants).

The CLCPA also directs that DACs receive a target of 40% but no less than 35% of the benefits of spending on clean energy programs.[52] In addition to its environmental benefits, the Sunrise Wind Project will provide workforce training, jobs, and economic development in DACs. For example, Sunrise Wind will invest $10 million to establish the National Offshore Wind Training Center in a designated DAC in the hamlet of Brentwood in the Town of Islip, Suffolk County. Sunrise Wind also signed an $86 million supply chain contract with Riggs Distler & Co., Inc. to construct advanced wind turbine foundation components at the Port of Coeymans in Albany County (significant portions of which had been designated as DACs in a prior iteration of New York State's CLCPA guidance). Sunrise Wind has also made a two-year, $300,000 commitment to the Multi-Craft Apprenticeship Program, which trains and places residents of South Albany (a DAC) in union construction careers to use offshore wind investments as vehicles to increase and diversify union membership and economic equity. In addition, construction and operation of Sunrise Wind's onshore regional O&M hub in the Port Jefferson area means that many of the Project's general economic and fiscal benefits discussed below will benefit other DAC communities throughout Long Island.

Overall, the Sunrise Wind Project includes expenditures of more than $408 million in New York State by its third year of commercial operation, as memorialized in the OREC Agreement,

[52] ECL § 75-0117.

including, among other things: (1) a $5 million investment in a research and development partnership with the State University of New York at Stony Brook, (2) a $1 million contribution to the Upper Hudson Workforce Fund, and (3) major Suffolk County operations at the O&M hub in the Port Jefferson area, which will serve as the headquarters for all of Ørsted NA's regional offshore wind projects, including a service operations vessel port.[53] Sunrise Wind expects to spend an additional $340 million on activities, assets, and community benefits in New York State over the 25-year operating term of the OREC Agreement – for total direct Project expenditures of approximately $750 million. These investments include a Host Community Agreement with the Town of Brookhaven under which Sunrise Wind will pay a total of $169.9 million over 25 years, inclusive of a $28 million payment-in-lieu-of-taxes (PILOT) agreement approved by the Brookhaven Industrial Development Agency.[54]

In addition to these environmental, health, and economic/fiscal benefits, the Sunrise Wind Project will also improve overall grid reliability. This is in part because offshore wind is among the most stable sources of renewable energy. Unlike some other types of renewable energy facilities, power from an offshore wind farm like the Project is generated both day and night, and offshore winds are generally stronger and more consistent than onshore winds. As the U.S. Department of Energy recently noted:

> A single offshore wind power plant can deliver a significant amount of energy to coastal load areas, which tend to suffer from transmission congestion and limited siting options for large-scale, land-based renewable energy generation … The potential scale of offshore wind energy's deployment and its access to the nation's highest and most reliable wind speeds makes this generation source a crucial

[53] *See* OREC Agreement at 4 (defining "Expected Total Dollars" as "the total amount, in nominal dollars, of Economic Benefits … expected to accrue to New York State as a result of the development, construction, modification, interconnection, and operation [of the Sunrise Wind Project] … through the end of the first three [3] Contract Years," and stating "the amount of Expected Total Dollars under this Agreement is $408,493,272").

[54] *See* https://sunrisewindny.com/news/2023/03/local-benefits-agreements-to-advance-sunrise-wind-project (last accessed May 31, 2023).

> infrastructure investment, and one that can help revitalize coastal communities, including ports and manufacturing facilities.[55]

Offshore wind is similarly an essential component of New York State's growing renewable energy portfolio due to its ability to support densely populated coastal areas. In particular, the Commission has noted that "[b]ecause of its proximity and direct access to load centers, offshore wind would provide substantial reliability and diversity benefits to the electric system."[56] And NYSERDA has also pointed out that "[t]he production of zero-emission energy close to the two largest load pockets in New York State – New York City and Long Island – could improve local air quality and public health in these locations."[57]

F. Negative Impacts of Unanticipated, Extraordinary Economic Events on the Offshore Wind Industry and the Project Since Execution of the OREC Agreement

Unfortunately, beginning within months of NYSERDA and Sunrise Wind executing the OREC Agreement in October 2019, a confluence of interrelated global public health, geopolitical, and macroeconomic events significantly increased costs for the offshore wind industry generally and the Project in particular. The industry has been severely impacted by the effects of the COVID-19 pandemic and its resulting profound effects on fiscal and monetary policies, which have contributed to rapid, unprecedented increases in inflation and interest rates. The pandemic also resulted in long-term and ongoing disruptions to critical offshore wind industry supply chains.[58]

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[55] Advancing Offshore Wind Energy in the United States: U.S. Department of Energy Strategic Contributions Toward 30 Gigawatts and Beyond (available at https://www.energy.gov/sites/default/files/2023-03/advancing-offshore-wind-energy-full-report.pdf, at 5 [last accessed May 31, 2023]).

[56] OSW Standard Order at 3.

[57] Offshore Wind Master Plan at 24.

[58] *See* Offshore Wind Market Report: 2022 Edition (U.S. Dept. of Energy – Office of Energy Efficiency & Renewable Energy, Aug. 2022) at ix (US DOE 2022 Offshore Wind Report) (available at: https://www.energy.gov/eere/wind/articles/offshore-wind-market-report-2022-edition [last accessed May 24, 2023] ["**Macroeconomic and geopolitical events have raised the level of market uncertainty in 2022.** The extended impact of monetary policy, the COVID-19 pandemic, and the

In addition, the war between Russia and Ukraine has led to a spike in global demand for renewable energy, higher prices for offshore wind components, and shortages of critical materials and assets, such as specialized offshore wind vessels. Further, U.S. offshore wind energy projects have been subjected to extraordinary, industrywide permitting delays, which have delayed revenues and increased vulnerability to the impacts of inflation, rising interest rates, and supply chain disruptions. As detailed below, the Project in particular has been negatively impacted by these unanticipated, extraordinary economic events.

1. Inflationary Pressures

Before 2022, annual U.S. inflation had not exceeded even 4% since 1991, had not exceeded 8% since 1981, and had only exceeded 8% in five years since 1950 (in 1974, 1975, 1979, 1980, and 1981).[59] In its Q1 2019 report issued shortly after the submission of the original Sunrise Wind Project proposal, the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters predicted that "the long-horizon inflation projections are holding steady. Over the next 10 years, 2019 to 2028, the forecasters expect headline CPI inflation to average 2.20 percent at an annual rate, unchanged from the previous estimate."[60] Consistent with these historical percentages and informed forecasts, NYSERDA's Phase 1 RFP assumed a long-term annual inflation rate of 2% for purposes of evaluating Index OREC strike price proposals.

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ongoing conflict in Ukraine have created macroeconomic volatility, supply chain disruptions, and inflationary pressures. These complex external drivers are having both positive and negative impacts on offshore wind and broader energy industries. Increased fossil-fuel prices have led nations around the world to accelerate the development of renewable energy to mitigate rising consumer electricity costs and strengthen their energy security. On the other hand, increased commodity prices and continued supply chain disruptions threaten to slow offshore wind energy cost declines or potentially increase costs, which could dampen offshore wind deployment in the near term."]).

[59] Federal Reserve Economic Data – St. Louis Federal Reserve (*see* https://fred.stlouisfed.org/series/FPCPITOTLZGUSA [last accessed May 21, 2023]).

[60] Federal Reserve Bank of Philadelphia, Q1 2019 Survey of Professional Forecasters (*see:* spfq419.pdf (philadelphiafed.org [last accessed June 5, 2023]).

U.S. and global inflation rates have been extraordinarily high over the past two and half years. Actual annual U.S. inflation rates since execution of the OREC Agreement have been multiples higher than the 2% assumed in the Phase I RFP, including nearly 4.7% in 2021 and over 8% in 2022 – *i.e.*, the first two full years since the start of the COVID-19 pandemic in the U.S.[61]

Offshore wind energy projects are particularly vulnerable to cost inflation due to the lengthy period between project award (when the contractual or regulatory price for the products generated by a project is typically set) and the completion of construction. In the U.S., this vulnerability has been exacerbated by extraordinary industrywide permitting delays that have further extended the development period, as discussed below.

Recognizing that extraordinary inflation since the start of the pandemic acutely affects offshore wind projects and threatens the viability of New York State's nascent offshore wind industry, NYSERDA's Phase 3 RFP includes an inflation adjustment mechanism that allowed developers to propose a price structure subject to a one-time adjustment based on the weighted average change of five public price indices, a proxy for cost increases.[62] In other words, the inflation adjustment mechanism in the Phase 3 RFP allows for an increase in the Index OREC strike price if macroeconomic inflation results in significant increases to the indexed prices of key commodities and components after contract execution, which is one of the things that happened to the Sunrise Wind Project.

The five price indices used in the inflation adjustment mechanism in the Phase 3 RFP demonstrate the extraordinary cost increases since the Phase 1 RFP proposal for the Project was submitted to NYSERDA in February 2019:

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[61] Federal Reserve Economic Data – St. Louis Federal Reserve (*see* https://fred.stlouisfed.org/series/FPCPITOTLZGUSA [last accessed May 21, 2023]).

[62] Phase 3 RFP § 4.2.2.

Indices Used in Phase 3 RFP Inflation Adjustment Mechanism – Applied to Sunrise Wind Project[63]					
Commodity or Component	**Units, Frequency**	**Weighting[64]**	**Value as of Sunrise Wind Proposal (Feb. 2019)**	**Most Recent Value Available as of June 2023**	**Percentage Increase**
Labor	Unitless index, quarterly	30%	134.7	159.5	18%
Fabrication of Machinery Materials	Unitless index, monthly	25%	132.2	184.0	39%
Steel	Unitless index, monthly	10%	202.8	300.2	48%
NY Harbor Ultra-Low Sulfur No. 2 Diesel Spot Price	$/gallon, daily	10%	2.0	2.3	12%
Copper	Cents per pound, daily	5%	2.7	3.7	36%
Total Weighted Composite Cost Increase					**23%**

As shown in the table above, prices for all components and commodities have increased, resulting in a total (weighted) composite cost increase of approximately 23% pursuant to the Phase 3 RFP's formula. While this formula is a proxy that does not attempt to predict the precise effects of inflation on any one project's budget, the price spikes in the table above are indicative of

[63] Phase 3 RFP § 4.2.2, Table 2. For purposes of this Petition, calculation of the Phase 3 RFP formula estimates the approximate difference between each commodity or component index as of its six-month (or two-quarter) average prior to the proposal submission date and the most recently available value.

[64] The weighting for each commodity/component index is fixed in Section 4.2.2 of the Phase 3 RFP. A constant value is used for the remaining 20% weighting, reducing the value of the adjustment relative to actual index price changes, which increased by an unweighted average of approximately 31% during the same period.

significant cost increases for developers during the period – although such cost increases constitute only one of the challenges the Sunrise Wind Project faces, as detailed below.

Those results are consistent with other analyses demonstrating that nearly all sectors within the offshore wind industry have been significantly impacted by inflation in the past four years. For example, an April 2023 report prepared by WindEurope and Rystad Energy estimated that global service price inflation for some wind industry segments has been as high as nearly 20% since 2019.[65] The WindEurope report also found that, after a period of decreasing prices, 2021 became the turning point after which prices for virtually all offshore wind components began increasing, which coincided with the start of the component procurement period for the Sunrise Wind Project.[66]

2. Supply Chain Disruptions

In addition to inflationary pressures, worldwide demand for offshore wind is increasing faster than the industry has been able to ramp-up equipment supply capacity. According to the 2022 Global Offshore Wind Report published by the Global Wind Energy Council, annual demand for offshore wind capacity (excluding China) will expand by a factor of 10 this decade: from 4.2 GW installed in in 2021 to 42.9 GW installed in 2031 – growth that is equivalent to approximately 42 projects the size of the Sunrise Wind Project coming online in 2031 alone.[67] The current geopolitical situation has further accelerated the worldwide demand for offshore wind as "many European countries – in response to the Russian invasion of Ukraine – have announced plans to

[65] *See* The State of the European Wind Energy Supply Chain (Rystad Energy and WindEurope, Apr. 2023), at 17 (WindEurope Report) (available at: https://windeurope.org/intelligence-platform/product/the-state-of-the-european-wind-energy-supply-chain/ [last accessed May 24, 2023]).

[66] *Id.* at 16-17

[67] Global Offshore Wind Report (Global Wind Energy Council, June 2022), at 84 (GWEC Report) (available at: https://gwec.net/gwecs-global-offshore-wind-report/ [last accessed May 24, 2023]).

accelerate renewable energy development, including offshore wind, to reduce dependence on Russian fossil fuels."[68] The rapid, unanticipated growth in offshore wind globally has created supply chain bottlenecks, resulting in scarcity that drives up prices.

For example, a key part of efficiently constructing large scale offshore wind projects is the use of specialized vessels, including those dedicated to wind turbine installation, foundation installation, and cable laying. This is a global fleet that moves between offshore wind markets based on demand and the best available prices – and the U.S. Department of Energy has recognized the possibility of

> supply chain bottlenecks stemming from a lack of [wind turbine installation vessels (WTIVs)].
>
> . . .
>
> A dependence on foreign-flagged WTIVs may present a risk to U.S. developers as the global pipeline of projects grows, because increasing foreign competition may constrain the availability of these vessels. Global WTIV demand (excluding China) is expected to increase by a factor of 7 between 2021 and 2030.[69]

Further, a recent report that combined annual forecasted capacity to be installed with the available installation vessel supply concluded that the "worldwide shortage of [installation vessels] poses a risk for project execution worldwide."[70] That conclusion is particularly applicable from 2024 and later, which again coincides with construction of the Sunrise Wind Project. Indeed, Ørsted's 2022 Annual Report explained that "[a]n example of a supply chain bottleneck is the limited number of vessels with sufficient lifting capacity due to the increase in wind turbine and foundation size.

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[68] US DOE 2022 Offshore Wind Report at 62.

[69] *Id.* at 37, 39.

[70] Offshore Wind Vessel Availability Until 2030: Baltic Sea and Polish Perspective (WindEurope, June 2022), at 60 (available at https://windeurope.org/intelligence-platform/product/offshore-wind-vessels-availability-until-2030 [last accessed May 24, 2023]).

These technical limitations coupled with an increased demand for offshore wind have increased the market price for installation vessels [by] up to 75%."

The various macroeconomic and geopolitical challenges to the offshore wind global supply chain were summarized in the GWEC Report:

> Continued growth of offshore wind requires a healthy supply chain able to meet the demands of a growing pipeline of projects, as well as supply into new markets across the world. Yet the offshore wind sector's supply chain remains under pressure from rising commodity prices and shrinking margins, which is undermining the offshore wind industry's ability to grow enough to meet rising global demand and address the challenge of decarbonisation.…
>
> Over the last few years, revenue pressure, pandemic-related challenges in logistics and workforce availability, the ongoing US-China trade conflict and a rise in prices for raw materials and commodities have impacted costs and profitability across the offshore wind supply chain.[71]

3. Interest Rate Increases

Central banks, such as the U.S. Federal Reserve, have responded to the extraordinary inflation over the past several years by raising interest rates. Since the proposal for the Project was submitted to NYSERDA in February 2019, interest rates on 10-year U.S. Treasury securities have increased by 40%, from 2.65% to 3.72%.[72] This has generally increased the cost to fund investments, including the Sunrise Wind Project. Higher interest rates also drive up the cost of capital, and thereby increase the required financial return for a project to be investable.

4. Extraordinary Industrywide Permitting Delays

Standard permitting timelines for the emerging U.S. offshore wind industry are longer than in most other countries. But the industry has also been subject to extraordinary permitting delays across projects. Delays to an offshore wind project's schedule are extremely damaging because

[71] GWEC Report at 14.

[72] Federal Reserve Economic Data – St. Louis Federal Reserve (*see* https://fred.stlouisfed.org/series/DGS10 [last accessed May 24, 2023]).

they can lead to higher development costs and delayed revenues, not to mention leaving the project exposed to macroeconomic effects for a longer period.[73]

A significant – and extraordinary – source of permitting delays was the effective moratorium on new offshore wind permitting implemented by the Trump Administration from August 2019 to January 2021. Specifically, the Administration announced a supplemental environmental impact statement for the Vineyard Wind project to examine the cumulative impact of a string of such projects along the East Coast, including Sunrise Wind. At the time, according to E&E News, the "question facing the industry is whether the review represents a genuine attempt to understand the environmental impacts associated with offshore wind or an effort to kill it."[74]

The effects of the moratorium lingered well after it was lifted by the Biden Administration in early 2021. A resulting backlog of projects under review has cascaded into an extraordinary workload for regulatory agencies where reviews are running concurrently, and the overlap is causing slowdowns in the permitting process for all projects in the queue. As a result of the moratorium and consequent backlog, even though Sunrise Wind submitted a COP to BOEM in

[73] Delays increase construction and financing costs by extending a project's duration and requiring the payment of development expenses over a longer time period. Delays postpone the ability of a project to collect revenue until further into the future, which, especially with a non-escalating OREC strike price, mean those cash flows will be more greatly discounted in terms of their net present value. Delays can also create complications that lead to cascading additional delays and cost increases – for example, threatening to push a construction activity into a time of year during which that activity is either prohibited or impractical, such as outside of the period in which a critical vessel or piece of equipment is available. The impact of a delay may not be linear; even a short delay of a few weeks to months can result in the loss of an entire construction season.

[74] *See* www.eenews.net/articles/trump-admin-throws-wrench-into-offshore-wind-plans/ (last accessed May 31, 2023). Even after the Trump Administration released its supplemental environmental impact statement for the Vineyard Wind project in June 2020, the U.S. Bureau of Ocean Energy Management (BOEM) did not issue a Notice of Intent to begin the environmental review process for any other offshore wind project until March 2021. The practical effects of this action were to significantly delay the two projects that were significantly advanced in the federal permitting process at the time (Vineyard Wind and South Fork Wind), and to "slow-walk" the start of that process for any new project (such as Sunrise Wind) that submitted a construction and operations plan (COP) after August 2019.

September 2020 (just as anticipated in the Phase 1 RFP proposal), BOEM did not issue a Notice of Intent under the National Environmental Policy Act for the Project until nearly a year later.[75] More recently, in Q1 and Q2 of 2023, BOEM conducted an overall review of the timetables of active offshore wind projects on the Fast-41 dashboard and significantly delayed schedules by extending out major permitting milestones. As detailed in Section III.G.5, below, Sunrise Wind's federal permitting schedule is currently 18 months delayed from what had been anticipated in the Phase 1 RFP proposal.

The evolving federal environmental review procedures and resulting extraordinary permitting delays and regulatory ambiguity impacting the offshore wind industry have been formally acknowledged by the Federal Permitting Improvement Steering Council, which stated: "The affected agencies and their leadership are aware of the systemic process issues occasioned by novelty and complexity associated with environmental review and authorization of large commercial offshore wind projects … and are committed at the highest levels of administration to resolving those issues as expeditiously as possible."[76]

G. Sunrise Wind's Numerous Actions to Mitigate the Negative Impacts to the Project

In the face of the unanticipated, extraordinary economic events that have negatively affected the offshore wind industry and the Project, Sunrise Wind has continued to develop the Project, including by taking numerous actions to improve the financial outlook for completion. Although those efforts have not been sufficient to offset all the many challenges besetting the

[75] 86 Fed Reg 48763 (Aug. 31, 2021).

[76] Federal Permitting Improvement Steering Council, Executive Director Determination re Extending FAST-41 Final Completion Date by More Than 30 Days – Revolution Wind Farm (May 18, 2022) (available at https://www.permits.performance.gov/fpisc-content/executive-director-determination-re-extending-fast-41-final-completion-date-more-30-1 [last accessed May 31, 2023]).

industry, they have partially mitigated the negative financial impacts to the Project. Sunrise Wind's actions include, but are not limited to, those described below.

1. Shifting from High-Voltage Alternating Current to High-Voltage Direct Current

Sunrise Wind changed from the use of High-Voltage Alternating Current (HVAC) to High-Voltage Direct Current (HVDC) transmission technology in the Project design, allowing for an increase in deliverable capacity from 880 MW to 924 MW (as authorized by the OREC Agreement). This is a significant innovation – the Project will be the first U.S. offshore wind project to use HVDC transmission technology – and will enable Sunrise Wind to generate more renewable energy and revenues, reduce losses from transmitting electricity over long distances, eliminate the need for additional electrical equipment between offshore and onshore converter terminals, and create a more stable transmission system that will ease connections to the New York State electrical grid.

2. Shifting to Larger Turbines

With respect to Project costs, to optimize energy production and mitigate the economic and financial harm from layout restrictions that reduced the efficiency and number of wind turbines to be installed for the Project,[77] Sunrise Wind renegotiated a prior turbine supply agreement with Siemens Gamesa Renewable Energy, S.A. for larger capacity turbines, thus changing the Project design from using 110 8-MW turbines to 84 11-MW turbines.

[77] These restrictions included – but were not limited to – moving to a one nautical mile by one nautical mile gridded layout, as originally proposed by developers (including Ørsted NA) in response to requests by the commercial fishing industry and other stakeholders. This layout was ultimately recommended by the U.S Coast Guard in its 2020 "The Areas Offshore of Massachusetts and Rhode Island Port Access Route Study." *See* 85 Fed Reg 31792 (May 27, 2020).

3. Investing to Enable a U.S.-Built WTIV

In response to the supply chain bottlenecks associated with a shortage of WTIVs, Sunrise Wind and its sister project, Revolution Wind, are chartering the first U.S.-built, Jones Act-qualified, purpose-made WTIV: the Charybdis. Their commitment to use the Charybdis enabled its construction. In addition to increasing the global vessel supply, building a Jones Act-qualified WTIV enables a faster, more efficient installation process than if a foreign-flagged vessel is used because such a vessel can go directly into the marshalling harbor to load the wind turbine components and then install them offshore.[78]

4. Advocating for Federal Assistance

In part because of the consistent advocacy of Ørsted NA, Eversource, and others for increases in federal support to the offshore wind industry, the U.S. Consolidated Appropriations Act of 2021 included revisions to Section 48 of the Internal Revenue Code that increased the Federal Investment Tax Credit (ITC) for offshore wind projects from 18% to 30%.[79]

5. Engaging with Governments to Resolve Permitting and Technical Issues

Sunrise Wind and its owners have also closely engaged with state and federal agencies and other stakeholders to minimize the impacts of permitting delays. For example, Sunrise Wind has been highly engaged with all involved permitting agencies, many of which are still in the process of promulgating regulations, hiring staff, and developing operational procedures for the nascent

[78] *See* www.us.orsted.com/news-archive/2021/06/contract-to-charter-offshore-wind-turbine-installation-vessel (last accessed May 31, 2023).

[79] The passage of the Inflation Reduction Act of 2022 also created additional bonus tax credits for projects that meet certain energy community and domestic content requirements. [redacted]

U.S. offshore wind industry.[80] Despite this vigorous engagement, although Sunrise Wind's original proposal to NYSERDA assumed that the Project's Record of Decision (ROD) would be issued in Q2 2022, the most recent schedule BOEM provided indicates that the ROD will not be issued until December 2023 – a total delay of approximately 18 months compared to the proposal assumptions.

6. Foreign Exchange Rate Improvements

A strengthening of the U.S. dollar relative to the euro has occurred since the proposal for the Project was submitted in 2019. This is favorable for the Project budget since most of the components and vessel contracts are quoted in euros whereas the Project's revenues are anticipated to be collected in dollars. In total, the strengthening of the U.S. dollar offset the substantial cost increases detailed below in Section III.H by [redacted].

H. The Sunrise Wind Project's Financial Outlook Has Deteriorated Significantly as a Result of the Extraordinary Macroeconomic, Geopolitical, and Other Events

Notwithstanding Sunrise Wind's numerous mitigation efforts, the increased costs resulting from the extraordinary macroeconomic, geopolitical, and other events affecting the offshore wind industry have significantly damaged the Project's financial outlook. Overall, the Project's total capital budget has increased by [redacted], from approximately [redacted] billion at the time of the Phase 1 RFP proposal in 2019 to [redacted] billion today (a [redacted] increase).[81]

[80] Sunrise Wind has participated in numerous New York State working and industry groups to help formulate relevant policies, including: the NYSERDA Fisheries Technical Working Group, Environmental Technical Working Group, Maritime Technical Working Group, and Jobs and Supply Chain Technical Working Group; the New York Offshore Wind Alliance; the Alliance for Clean Energy New York; and the American Clean Power Association.

[81] The cost, budget, and other monetary figures throughout this Petition, including, but not limited to, the figures in Sections III.H and III.I, have been reviewed and confirmed by Peter Allen, Chief Financial Officer, Americas for Ørsted NA. The Petition includes a sworn verification by Mr. Allen.

The [redacted] billion total budget at the time of the Phase 1 RFP proposal in 2019 was informed by Ørsted's extensive experience in developing, building, and operating offshore wind projects globally – albeit factoring in significant contingencies attributable to being in a new market lacking an offshore wind supply chain – as well as by Eversource Energy's extensive experience building and maintaining transmission and distribution networks in the Northeast U.S. (as detailed above in Section III.A). The joint venture's board of directors reviewed and accepted that budget as part of the overall joint financial model review process that Ørsted NA and Eversource use. The current [redacted] billion budget was accepted by the joint venture's board of directors in March 2023.[82] More than [redacted] is based on contracts with suppliers, so it is a good estimate of the actual cost Sunrise Wind will incur to construct the Project if it moves forward. As indicated in prior sections, the higher-than-anticipated prices of these contracts largely stemmed from the unprecedented macroeconomic factors challenging the offshore wind industry at large and the Project specifically over the past four years.

A summary of specific cost increases follows. As noted above in Section III.G.6, however, these specific cost increases (which total [redacted]) were partially offset by [redacted] million in foreign exchange rate improvements.

1. Increased Nameplate Capacity

As previously noted, the Project nameplate capacity has increased from 880 MW to 924 MW to increase revenues, decrease transmission losses, and improve transmission stability. Project cost increased by [redacted] to enable this change.

[82] For the avoidance of doubt, while the joint venture's board of directors (who are appointed in equal number by Ørsted NA and Eversource, and who constitute "Managers" of the joint venture under the Delaware Limited Liability Company Act) are responsible for adopting budgets, the respective boards of directors of the owners – ultimately, Ørsted and Eversource Energy – must still approve FID for construction of the Project, as detailed below in Section III.I.

2. Increased Component Costs

Project cost increased by [redacted] due to higher component prices resulting from commodity price increases, supply chain disruptions, and Project scope changes, such as the response to layout restrictions discussed above. The most significant increases occurred in three component categories: the cost of foundations increased by [redacted], the cost of turbines increased by [redacted], and the export cable and substation costs increased by [redacted].

3. Increased Transportation and Installation Costs

Project cost increased by [redacted] due to higher costs of transporting and installing components, driven by the global shortage of specialized installation vessels. The most significant increases occurred in three vessel categories: the cost to install foundations increased by [redacted], the cost to install array cables increased by [redacted], and the cost to install the onshore and offshore export cables increased by [redacted].

4. Loss of Developmental Synergies of Scale

The extraordinary federal permitting delays that have postponed the Project from its original August 2024 commercial operation date have also prevented Ørsted NA and Eversource from realizing the synergies of scale that would have resulted from constructing the Project sequentially with their South Fork Wind and Revolution Wind projects as a 1.7 GW program (with the other two projects having originally assumed commercial operation dates in 2022 and 2023, respectively). This disaggregation increased the cost of the Sunrise Wind Project by [redacted].

5. Increased Interconnection Costs

The cost to interconnect offshore wind resources to the electrical grid can vary dramatically based on the number and size of projects in the interconnection queue in any given year and the percentages of projects that continue through the process or are abandoned. The Phase 1 RFP proposal submitted to NYSERDA in February 2019 relied on an assessment from a third-party engineering firm that interconnection and transmission upgrade costs for the Project would total approximately $22 million. However, the New York Independent System Operator, Inc. (NYISO) now estimates that the cost to interconnect the Project will be approximately $115 million, an increase of approximately $93 million.[83]

As with inflation, NYSERDA recognized the unpredictability of interconnection costs as another significant risk factor for offshore wind developers in its recent Phase 3 RFP, and thus included an interconnection cost adjustment mechanism.[84] Under that mechanism, developers may propose a price structure that includes an interconnection cost sharing approach whereby a project's incremental interconnection costs above a specified level will be shared between the developer and NYSERDA – with NYSERDA's share being added to the OREC price.[85]

6. Increased Survey Costs and Insurance Premiums

Other Project cost increased [redacted], net, due to various peripheral changes.

[83] Interconnection cost allocations are available here: www.nyiso.com/documents/20142/1396587/Class-Year-2021-Notice-of-Completion.pdf/ and www.nyiso.com/documents/20142/1396587/CY2021-Notice-of-ASDU-Completion.pdf/ (last accessed May 31, 2023). Queue position Q766 and Q987 concern Sunrise Wind. In addition, $3.3 million will be added for Connecting Transmission Owner's Attachment Facilities.

[84] Phase 3 RFP § 4.2.1.

[85] *Id.*

I. Current Status of the Sunrise Wind Project

1. Federal and State Permitting/Authorizations and Anticipated Project Completion

In addition to the efforts mentioned in Section III.G, above, in the nearly four years since the OREC Agreement was executed, Sunrise Wind has achieved several significant state and federal development milestones. For example, on December 9, 2020, Sunrise Wind filed a PSL Article VII application with the Commission for a Certificate of Environmental Compatibility and Public Need (CECPN) for Sunrise Wind to construct, operate, and maintain a submarine and onshore electrical transmission line and related facilities within New York State's jurisdiction from the Project to LIPA's existing Holbrook Substation in Brookhaven, Suffolk County.[86] On November 17, 2022, the Commission adopted the terms of a joint proposal (unopposed by any party) and issued the CECPN to Sunrise Wind for the Project.[87] On November 22, 2022 (just five days after receiving its CECPN), Sunrise Wind filed a PSL Section 68 petition with the Commission for a Certificate of Public Convenience and Necessity (CPCN) to allow Sunrise Wind to exercise the rights and privileges granted under certain municipal license, easement, and road use agreements to develop the Project.[88] On May 18, 2023, the Commission issued the CPCN to Sunrise Wind for the Project.[89]

Currently, the Project is projected to be completed in the next two and a half years – or by the end of 2025 (though this timeframe could be extended by unforeseen permitting and supply

[86] Case 20-T-0617, *Sunrise Wind LLC – Certificate of Environmental Compatibility and Public Need*, Order Adopting Terms of Joint Proposal (issued Nov. 17, 2022), at 2-3 (Sunrise Wind Article VII Order).

[87] Sunrise Wind Article VII Order at 1-2.

[88] Case 22-E-0658, *Sunrise Wind LLC – CPCN*, Order Granting CPCN and Providing for Lightened Regulation (issued May 18, 2023), at 1-2 (Sunrise Wind CPCN Order).

[89] *Id.* at 2, 19.

chain delays, as well as any significant unanticipated complications encountered during construction).

2. Significant Deterioration of the Project's Return on Investment

Through the end of May 2023, Sunrise Wind has spent [redacted] of the total anticipated cost to build the Project of [redacted] billion. The amount spent on an offshore wind project typically increases gradually as construction approaches and accelerates when offshore installation commences. Consequently, [redacted] – well in advance of the anticipated start of offshore installation activities – Sunrise Wind will seek FID from Ørsted's and Eversource Energy's respective boards of directors. If Sunrise Wind obtains an FID, the Project will receive authorization to spend its remaining budget to complete construction. If, however, Sunrise Wind does not obtain an FID, it will be forced to cease spending on the Project and unwind its existing contracts and commitments.[90] Further, the lease area would likely be re-purposed for another project, which, if configured for a New York State project, would not only be more expensive than the Sunrise Wind Project (for the reasons explained above) but would also not enter commercial operation until several years after the Sunrise Wind Project is currently anticipated to do so – which would mean delay in progress toward CLCPA requirements.

Given the Project's financial condition under the present circumstances, it is unlikely that Sunrise Wind would be able to obtain an FID because the Project's estimated return on investment has deteriorated significantly since the Phase 1 RFP proposal was submitted to NYSERDA in early 2019. At that time, Sunrise Wind estimated that the Project would have an internal rate of return (IRR) [redacted] above Ørsted's weighted average cost of capital

[90] In the event the owners do not make a positive FID, [redacted].

(WACC) for U.S. offshore wind projects. The IRR estimated for the Project in 2019 is [redacted] the normal investment threshold that Ørsted publicly announced in 2021, when it informed investors that, for an offshore wind project's "lifecycle spread to WACC," Ørsted has a "targeted range of 150-300 bps."[91]

Today, however, Sunrise Wind estimates that the Project's IRR will be [redacted] Ørsted's WACC, assuming that [redacted]. If the Project were also [redacted], and the IRR would [redacted] Ørsted's WACC. Thus, in either case, the Project's IRR would be [redacted] below the level that Sunrise Wind believes would be necessary for it to obtain a positive FID from the owners allowing Sunrise Wind to fully construct the Project.

If, however, the OREC Agreement were amended to incorporate the inflation and interconnection cost adjustment mechanisms from the Phase 3 RFP, based on today's information regarding commodity prices and interconnection costs (and assuming a [redacted]), the Project's estimated IRR would increase, and be [redacted] Ørsted's WACC. (With [redacted] Ørsted's WACC.) Although this lifecycle IRR [redacted], Sunrise

[91] *See* "Ørsted accelerates growth to realise its full potential as a global green energy major" (Feb. 6, 2021) (available at https://orsted.com/en/company-announcement-list/2021/06/2240135 [last accessed June 2, 2023]). The Commission has recognized that energy companies "employ the WACC when evaluating investment decisions" (Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Establishing the Benefit Cost Analysis Framework [issued Jan. 21, 2016], at 25).

Wind believes that [redacted] – when also taking into account additional considerations such as those described below – to make it likely that Sunrise Wind would be able to obtain a positive FID for the Project from the owners (absent additional, significant disruptions to the Project's schedule or constructability materializing prior to the time of the owners' decisions).

At least three other considerations would weigh in favor of a positive FID by Ørsted if the OREC Agreement were amended so as to improve the Project's IRR as contemplated in this Petition. First, as NYSERDA has recognized, Sunrise Wind has made commitments that recognize "New York's strategic role as the market center for the region,"[93] such as the O&M hub in the Port Jefferson area that will serve as the headquarters for all of Ørsted NA's regional offshore wind projects. If the Sunrise Wind Project were not constructed, other Ørsted NA projects relying on the O&M hub would bear increased costs, and its utilization may be suboptimal. Second, fully constructing the Sunrise Wind Project would add to Ørsted's U.S. expertise (an important consideration in "a new offshore industry where no industry had existed before"[94]): for example, the Sunrise Wind Project would be the first U.S. offshore wind project to use HVDC transmission technology, yielding valuable knowledge for future Ørsted NA projects. Third, as the world's leading offshore wind developer, Ørsted necessarily benefits from rapid industry growth in new markets, be those benefits from workforce development, supply chain localization, or basic economies of scale. A delay in New York State's achievement of its ambitious offshore wind goals is therefore not in Ørsted's interests, in North America or globally.

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92 [redacted]

93 Phase 1 Report at 21.

94 CES Administrative Order at 18.

IV. THE COMMISSION SHOULD AUTHORIZE NYSERDA TO AMEND THE OREC AGREEMENT TO INCORPORATE INFLATION AND INTERCONNECTION COST ADJUSTMENT MECHANISMS COMPARABLE TO THOSE INCLUDED IN NYSERDA'S PHASE 3 RFP (ORECRFP22-1)

In order to improve the Project's financial condition and enable Sunrise Wind to obtain the positive FID authorizations from Ørsted and Eversource Energy to proceed with full construction, Sunrise Wind requests that the Commission authorize NYSERDA to amend the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in the Phase 3 RFP.

The inflation adjustment mechanism in the Phase 3 RFP allows for a one-time adjustment of the OREC strike price to account for inflation between submission of a project proposal and the date BOEM approves the project's COP.[95] As set forth above in Section III.F, the composite weighted average of the five indices used in the Phase 3 RFP inflation adjustment mechanism demonstrates a 23% increase since execution of the OREC Agreement (although that 23% increase is well below the actual cost increases for the Project, as explained in Section III.H, above). By way of illustration, applying the Phase 3 RFP's inflation adjustment mechanism today, based on these data, would increase the OREC Agreement's strike price by an estimated $26 per MWh.

Similarly, the interconnection cost adjustment mechanism included in the Phase 3 RFP allows for a portion of a project's incremental interconnection costs to be added to the OREC strike price.[96] As discussed above in Section III.F, although at the time of the Phase 1 RFP proposal it was projected that the Project's interconnection and transmission upgrade costs would be approximately $22 million, because of circumstances beyond Sunrise Wind's control, the NYISO now estimates the Project's interconnection costs will be approximately $115 million. If the

[95] Phase 3 RFP § 4.2.2.

[96] *Id.* § 4.2.1.

interconnection cost adjustment mechanism in the Phase 3 RFP were incorporated into the OREC Agreement, it would increase the strike price by an estimated $1.50 per MWh.[97]

Notably, since NYSERDA's Phase 3 RFP was issued in July 2022, it has been referenced by the Commission without any objection to the included inflation and interconnection cost adjustment mechanisms.[98]

A. NYSERDA Has the Contractual Right to Amend the OREC Agreement to Incorporate Inflation and Interconnection Cost Adjustment Mechanisms

As a general matter, "[t]here is no question that a contract may be modified if the contract provides for its modification."[99] Indeed, here, the OREC Agreement expressly provides that it "may be amended" or "changed … by an instrument in writing, signed by the Party [*i.e.*, either NYSERDA or Sunrise Wind] against which enforcement" of the "amendments [or] modification … is sought."[100]

Further, when the Commission established the Offshore Wind Standard, it stated that "any measure necessary to the efficient administration of this program, not specifically addressed in this order, is within the discretion of NYSERDA."[101] The Commission has also provided NYSERDA with the "flexibility to take a long-term view" when administering Offshore Wind Standard programs.[102]

Accordingly, NYSERDA has the contractual right to amend the OREC Agreement to add inflation and interconnection cost adjustment mechanisms comparable to the Phase 3 RFP.

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[97] This estimate also assumes [redacted].

[98] CES Administrative Order at 9.

[99] *Ward v TheLadders.com, Inc.*, 3 F Supp 3d 151, 158 (SDNY 2014).

[100] OREC Agreement § 19.02.

[101] OSW Standard Order at 64.

[102] CES Modification Order at 46.

B. The Sunrise Wind Project Will Further the CLCPA's GHG Emission Reduction, Renewable Energy, and DAC Requirements

Section 7 (2) of the CLCPA requires every New York State agency to consider whether its decisions "are inconsistent with, or will interfere with, the attainment of the statewide [GHG] emission limits" established in the ECL. Among its numerous measures to combat climate change by reducing GHG emissions, the CLCPA established the aggressive requirement for New York State to procure at least 9 GW of offshore wind energy by 2035.[103] The Commission has recognized that achieving that offshore wind objective is "a necessary and important step" to achieving the CLCPA's overarching 70 by 30 Goal – and NYSERDA has stated that New York State must move "expeditiously and strategically on an accelerated track to advance projects" if the "ambitious goal" of 9 GW of offshore wind by 2035 is to be achieved.[104]

Here, as discussed at length above in Section III.E, the Sunrise Wind Project will further the GHG reduction and renewable energy objectives of the CLCPA in numerous important ways. The 924 MW of carbon-free renewable energy from the Project represents 10.3% of the 9 GW of offshore wind the CLCPA requires New York State to procure by 2035. The Project will also help pave the way for establishing statewide and regional offshore wind supply-chains, a critical step to creating "a new offshore wind industry where no industry had existed before."[105]

As also detailed in Section III.E, the Sunrise Wind Project will result in substantial economic and fiscal benefits throughout New York State – upstate, downstate, and Long Island – for decades to come.

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[103] *See* PSL § 66-p (5).

[104] CES Modification Order at 45; NYSERDA OSW 2020 Petition at 5.

[105] *See* CES Administrative Order at 18; NYSERDA OSW 2020 Petition at 5.

Further, Section 7 (3) of the CLCPA directs New York State agencies to ensure that their decisions will not "disproportionately burden [DACs]," and to "prioritize reductions in greenhouse gas emissions and co-pollutants in [DACs]" – and the CLCPA also directs that at least 35% of the benefits of spending on clean energy programs benefit DACs.[106] By reducing the need for fossil fuel-fired power, the Project will improve the air quality and health of nearby residents in and around DACs. Sunrise Wind will also make millions of dollars of direct Project-related clean energy investments in DACs throughout New York State.

Consequently, consistent with Section 7 (2) and (3), the Sunrise Wind Project will further the CLCPA's GHG emission reduction, renewable energy, and DAC provisions in numerous ways.

C. Amendment of the OREC Agreement for the Project to Incorporate Inflation and Interconnection Cost Adjustment Mechanisms Will Enable Offshore Wind Energy as Required by the CLCPA While Providing Safe and Reliable Service at Just and Reasonable Rates

PSL § 4 (1) "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 service at just and reasonable rates, environmental stewardship, and the conservation of resources."[107] "Further, PSL § 65 provides the Commission with authority to ensure that 'every electric corporation … shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and in all respects just and reasonable.'"[108] Notably, providing "just and reasonable" service includes satisfying policy

[106] ECL § 75-0117.

[107] CES Administrative Order at 15.

[108] *Id.* at 15-16.

objectives, including the requirements of the CLCPA, "at the lowest cost and highest value to the State."[109]

Authorizing NYSERDA to amend the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms will enable the Sunrise Wind Project to contribute to satisfying the CLCPA's GHG reduction and offshore wind energy objectives while providing safe and reliable service that is in all respects just and reasonable in the most cost-efficient manner possible.

Amendment of the OREC Agreement, as contemplated in this Petition, would be beneficial to ratepayers and in the public interest (as codified in the CLCPA) from both an economic and environmental perspective. It would enable the significant environmental, economic, and reliability benefits of creating 924 MW of offshore wind energy at what would likely be the lowest cost and shortest timeline feasible. While extraordinary macroeconomic and geopolitical events beyond Sunrise Wind's control have caused the costs of the Project (and all other offshore wind projects) to increase significantly over the past four years, amendment of the OREC Agreement, as contemplated by this Petition, is likely to remain the least expensive option for New York State to procure 924 MW of offshore wind and all the attendant public benefits. If the Sunrise Wind Project were cancelled, and New York State were to procure a replacement offshore wind project from Sunrise Wind or Ørsted (which may or may not be a reconfiguration in Sunrise Wind's BOEM lease area), that project would necessarily start from scratch, would not start producing energy until years after the Project's estimated 2025 commercial operation date, and would almost

[109] *Id.* at 83; *see also* Case 12-E-0400, *Petition of Cayuga Operating Co., LLC to Mothball Generating Units 1 and 2*, Order Providing Clarification and Denying Petition for Rehearing (issued July 25, 2014), at 4, 7.

certainly need to sell its ORECs for a higher price than under the amended OREC Agreement as proposed in the Petition.

Importantly, Sunrise Wind will not receive any "windfall" as a result of the requested amendment. As explained in detail above, amending the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms comparable to the Phase 3 RFP will merely allow the Project to attain a level of [redacted] financial viability that Sunrise Wind believes is sufficient (when taking into account remaining risk and other considerations) for it to be likely that Sunrise Wind would obtain the necessary FID to fully construct the Project.

Authorizing NYSERDA to amend the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms would be consistent with steps NYSERDA and other states have more recently taken. Similar to NYSERDA's Phase 3 RFP, agencies in other states – including New Jersey, Massachusetts, and Rhode Island – have incorporated inflation and/or interconnection cost adjustment mechanisms into their offshore wind energy solicitation processes to reduce the risk of project failure.[110] NYSERDA and those other state agencies now recognize that such contractual provisions are necessary to ensure the successful development of long lead time projects in the nascent U.S. offshore wind energy industry that are critical to meeting their ambitious climate and economic development objectives in a cost-efficient manner. (Notably, the

[110] *See* Mass. Dept. of Energy Res., *Request for Approval*, Mass. Dept. of Pub. Utilities Docket No. 23-42 (May 2, 2023), Attachment A, § 2.2.1.5, *available at* https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/17396142 (providing for price-indexing mechanism "based on the change in a set of macroeconomic and/or commodity indices"); N.J. Bd. of Pub. Utilities, *Order Opening the Application Window for the Third Offshore Wind Solicitation*, Docket No. QO22080481, Attachment 1, at 5–6, 39–40 (Mar. 6, 2023), *available at* https://www.nj.gov/bpu/pdf/boardorders/2023/20230306/8D%20ORDER%20OSW%20Third%20Solicitation.pdf (incorporating inflation adjustment and interconnection cost-sharing mechanisms); The Narragansett Elec. Co. d/b/a R.I. Energy, *Revised Request for Proposals for Long-Term Contracts for Offshore Wind Energy* 17 (Nov. 17, 2022), *available at* https://ricleanenergyrfp.files.wordpress.com/2022/11/2022-ri-osw-rfp-timeline-edits-11.4.22.pdf (allowing bidders to propose alternative pricing, including based on indices).

State of Maryland has taken steps to improve the economics of *previously awarded* offshore wind energy projects.[111]) This Petition merely seeks to authorize NYSERDA to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in NYSERDA's Phase 3 RFP into the OREC Agreement.

Finally, modification of the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms will help ensure safe and reliable electric service for decades into the future. As discussed above in Section III.E, the Sunrise Wind Project will improve overall grid reliability by providing a new large-scale source of reliable renewable generation. Offshore wind is one of the most reliable sources of renewable energy, with strong and consistent offshore winds generating power throughout each day and night – especially where the Sunrise Wind Project will be located.

D. Authorizing NYSERDA to Amend the OREC Agreement to Incorporate Inflation and Interconnection Cost Modification Mechanisms Is in the Public Interest Because Unanticipated Extraordinary Economic Events Have Adversely Impacted the Sunrise Wind Project and the Entire Offshore Wind Industry

As discussed above, a combination of unprecedented and unforeseen public health, geopolitical, and macroeconomic events that began only months after NYSERDA and Sunrise Wind executed the OREC Agreement in October 2019 have severely impacted the Project, the offshore wind industry, and society in general. First and foremost, the COVID-19 pandemic has caused at least 766 million worldwide infections and more than 6.9 million deaths and is one of

[111] In April 2023, Maryland enacted the Promoting Offshore Wind Energy Resources Act (POWER Act), which – in addition to establishing a goal of procuring 8.5 GW of offshore wind generating capacity by 2031 – modified the pricing requirements for previously-awarded projects. Specifically, while past Maryland offshore wind solicitations had required successful proposers to pass along to ratepayers 80% of the value of tax credits and other benefits that were not yet available at the time of proposal submission, the POWER Act authorizes the Maryland Public Service Commission to grant exemptions allowing previously awarded projects to retain the entirety of Inflation Reduction Act benefits (*see* 2023 Md. Laws Ch. 95, § 1).

the deadliest events in history.[112] The pandemic also profoundly disrupted the U.S. and global economies and resulted in extraordinarily high levels of inflation that have not been experienced in decades. In turn, this inflation was eventually followed by unexpectedly high interest rates and ongoing disruptions to critical offshore wind industry supply chains. Those impacts to the offshore wind industry were then exacerbated by the Russian invasion of Ukraine, which spiked global demand for renewable energy and offshore wind components and resulted in shortages and price increases for critical materials and assets (*e.g.*, machine components and specialized vessels).

Those unanticipated events upended Sunrise Wind's careful financial and developmental planning for the Project. As a matter of policy, it is neither reasonable nor desirable for developers of a potential offshore wind project (or any large project) to submit proposals that assume potential cost increases from unprecedented events such as worldwide pandemics. Pricing in such risks would unnecessarily increase development costs for all projects notwithstanding that events like the pandemic are (thankfully) exceedingly rare. Instead, it is preferable to allow for tailored modification of existing procurement agreements to address extraordinary economic impacts that could not have been reasonably anticipated at contract execution. Indeed, that approach has now been adopted by the U.S. government.

The U.S. Department of Defense (DOD) enters into hundreds of multi-billion and million dollar fixed-price procurement contracts every year, and contractors typically bear the risk of cost increases during ordinary economic conditions. However, on December 23, 2022, President Joseph R. Biden signed the National Defense Authorization Act for Fiscal Year 2023, which included Section 822, titled "Modification of contracts to provide extraordinary relief due to inflation impacts." Section 822 amended 50 USC § 1431 to authorize modification of otherwise fixed-price

[112] *See* https://covid19.who.int/ (last accessed June 4, 2023).

DOD contracts "when, due solely to economic inflation," the cost of performance exceeds the contract price.[113] In that scenario, DOD may increase the contract price to the "actual cost" of performance.[114] This "extraordinary relief due to inflation impacts" sunsets on December 31, 2023.

> Congress provided the following explanation of Section 822:
>
> > We recognize that higher than anticipated economic inflation continues to challenge the budgeting and execution processes of the Department of Defense and defense industrial base (DIB). The ability of the Department and DIB to adapt to economic conditions is a critical factor in maintaining the health of the DIB, especially when economic conditions are unusually volatile and in regard to firm fixed price contracts where industry bears the predominant financial risk.
> >
> > While it is important for the Department to uphold and enforce contractual terms and conditions, we believe the Department should be provided tailored authority to engage *extraordinary measures to address extraordinary economic impacts*. *The ability to make informed financial plans and decisions lies at the heart of competition. When unanticipated extraordinary economic events disrupt those plans and decisions, the result can be catastrophic for the DIB, including economic hardship, bankruptcy, and consolidation*.[115]

Similarly, utility regulatory agencies in several other states have recently authorized amendments to renewable energy contracts – including increases in price per MWh – because of increased costs resulting from extraordinary economic conditions.[116]

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[113] 50 USC § 1431 (c) (1) (A).

[114] 50 USC § 1431 (d).

[115] Joint Explanatory Statement to Accompany the James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, at 190 (emphasis added) (Joint Explanatory Statement), available at https://rules.house.gov/sites/republicans.rules118.house.gov/files/BILLS-117HR7776EAS-RCP117-70-JES.pdf (last accessed May 26, 2023).

[116] *See e.g.* Docket No. 2021-0026, *Application of Maui Electric Co., Ltd.*, Order No. 38742 Conditionally Approving Maui Electric's Proposed PPA Amendment (Hawaii Public Utilities Commission, Dec. 2, 2022), at 3, 19 (authorizing amendment to power purchase agreement [PPA] for solar/battery energy storage system project to increase price from $81.50/MWh to $135.52/MWh – a 66% increase – to account for increased costs because "unprecedented times," including "the COVID-19 pandemic [and] global supply chain disruptions," "require unprecedented solutions"); Case No. U-20165, *Consumers Energy Co.*, Order (Michigan Public Service Commission, Jan. 19, 2023) (authorizing amendment to solar PPAs to increase prices because developers "experienced challenges that threatened the viability of the projects – namely, supply chain challenges … inflationary impacts, and an interconnection delay"); *Pacific Gas and Electric Co. Amendments to Mid-Term Reliability Contracts*, Resolution E-

The same "unanticipated extraordinary economic events" that disrupted the "plans and decisions" of the DIB contractors also upended Sunrise Wind's careful financial and developmental planning for the Project, which had been informed by Ørsted's 30 years of successful offshore wind development. Consequently, similar to the DOD, NYSERDA should be authorized to amend the OREC Agreement.

Amending the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms comparable to those in the Phase 3 RFP would also be transparent and fair. The resulting increase to the strike price would be based on objective formulas and would only come to pass in the event Sunrise Wind constructs the Project – and, as noted, the resulting strike price increase will likely merely allow Sunrise Wind to ensure that the "unanticipated extraordinary economic events" do not result in the type of "catastrophic" financial outcome for Sunrise Wind contemplated in Congress's Joint Explanatory Statement.

Finally, the Commission has recently recognized that "the OSW program is creating a new offshore industry where no industry had existed before in the State, requiring specialized resources … to support major OSW supply chain investments being made in New York."[117] As a result of the unique circumstances of operating "where no industry had existed before," Sunrise Wind and other offshore wind developers are particularly exposed to risks from post-RFP award cost increases and inflation because their projects have unusually long development timelines. The

5243 (California Public Utilities Commission, Dec. 9, 2022) (authorizing price increases for four capacity contracts because "unprecedented changed market conditions," including "high inflation affecting materials and labor costs," "render the projects uneconomical"); Case No. 20-00182-UT, *Public Service Co. of New Mexico*, Order on PNM's Motion for Approval of Amendments to San Juan Solar PPA and ESA and Pre-Hearing Order (New Mexico Public Regulation Commission, Oct. 19, 2022) (authorizing amendment to PPA for a 200 MW solar project to increase price per MWh by 27.5% where the utility explained that the project "has been subject to delays due to disruptions in the industry associated with COVID-19 [and] worldwide shipping delays").

[117] CES Administrative Order at 18.

current Sunrise Wind OREC Agreement essentially caps Project revenues notwithstanding that Project costs have increased dramatically in the last four years because of extraordinary global and macroeconomic events beyond Sunrise Wind's control.

Sunrise Wind's situation demonstrates how the pandemic and the resulting adverse macroeconomic events pose an existential threat to the survival of the nascent domestic offshore wind industry – and thus justify flexibility by the Commission in its response. Authorizing NYSERDA to amend the Sunrise Wind OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms will send a positive signal to the market regarding New York State's commitment to the success of the offshore wind industry, which will yield greater business confidence, avoid industry disruption, and secure the numerous environmental, economic, and reliability benefits of the Project discussed above.

E. The Commission Has Broad Statutory Authority to Authorize NYSERDA to Amend the OREC Agreement

The Commission's broad authority to implement the OSW Standard and oversee NYSERDA's procurement of offshore wind energy resources such as the Sunrise Wind Project derives from the PSL, through which numerous legislative powers are delegated to the Commission.

For example, 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.[118] "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,

[118] OSW Standard Order at 12.

efficiency, and care for the public safety, the preservation of environmental values, and the conservation of natural resources."[119] "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 service at just and reasonable rates, environmental stewardship, and the conservation of resources."[120]

Consequently, the Commission has broad statutory authority to authorize NYSERDA to amend the OREC Agreement with Sunrise Wind to incorporate inflation and interconnection cost adjustment mechanisms.

V. STATE ENVIRONMENTAL QUALITY REVIEW ACT

On February 22, 2018, in accordance with the State Environmental Quality Review Act (SEQRA),[121] "the Commission accepted a draft Generic Environmental Impact Statement (GEIS) for Procurement of Offshore Wind."[122] "On June 14, 2018, the Commission accepted the findings of a Final GEIS [FGEIS]."[123] In conjunction with the decisions made in the OSW Standard Order, the Commission considered the information in the FGEIS, adopted the SEQRA Findings Statement, and found that "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."[124]

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119 *Id.*

120 *Id.* at 12-13 (citing PSL § 5 [2]; *Consolidated Edison Co. v PSC*, 47 NY2d 94 [1979] [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 enacting PSL § 5]).

121 ECL Article 8.

122 OSW Standard Order at 61.

123 *Id.*

124 *Id.* at 61-62, Appendix D.

On April 1, 2020, the Commission accepted a Final Supplemental GEIS (SGEIS) analyzing the potential environmental impacts associated with the State's procurement of additional offshore wind energy and issued another SEQRA Findings Statement that reiterated the Commission's prior conclusions regarding the environmental benefits of the procurement of offshore wind.[125]

On June 12, 2020, the Commission issued a Draft SGEIS "that explored the potential environmental impacts associated with the increase in renewable resources needed for implementation of [certain] CLCPA requirements," including "(1) 70% of electricity from renewable energy by 2030; [and] (2) 9 GW of offshore wind electricity by 2035."[126] On September 17, 2020, the Commission finalized and published a Final SGEIS.[127] In conjunction with the decisions made in the CES Modification Order, the Commission considered the information in the FSGEIS, adopted the SEQRA Findings Statement, and found that "several direct benefits could result from this action in the form of reductions in [GHG] emissions, additional economic development, workforce employment, [and] the avoidance of adverse health outcomes."[128] The Commission also noted numerous "secondary benefits," including "indirect jobs associated with construction and operation, purchases of local products and services, and new or increased tax payments by employees and facilities."[129]

Here, an order authorizing NYSERDA to amend the Sunrise Wind OREC Agreement to incorporate inflation and interconnection cost modification mechanisms would be within the scope of the overall offshore wind procurement actions previously subject to a complete SEQRA examination by the Commission in Cases 15-E-0302 and 18-E-0071. Because the contemplated

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125 2020 OSW Solicitation Order at 34, Appendix B.

126 CES Modification Order at 13.

127 *Id.*

128 *Id.*

129 *Id.*

amendments to the OREC Agreement will not result in any different environmental impacts than those already evaluated by the Commission in those cases, the requirements of SEQRA as implemented in 6 NYCRR Part 617 have already been satisfied and no further SEQRA review is necessary.[130]

VI. STATE ADMINISTRATIVE PROCEDURE ACT

Commission authorization of NYSERDA's offshore wind solicitations is a rulemaking activity under Section 202 of the State Administrative Procedure Act (SAPA), which requires publication of notice in the New York *State Register* allowing 60 days for public comment.[131] Accordingly, a draft form of notification suitable for publication in the New York *State Register* pursuant to SAPA is appended hereto as Exhibit A, as required by 16 NYCRR § 3.5 (i).

VII. CONCLUSION

For the foregoing reasons, Sunrise Wind respectfully requests that the Commission issue an order authorizing NYSERDA to amend the OREC Agreement with Sunrise Wind to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in NYSERDA's Phase 3 RFP (ORECRFP22-1).

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[130] *See e.g.* Case 13-M-0412, *Petition of NYSERDA to Provide Capitalization for the New York Green Bank*, Order Establishing New York Green Bank and Providing Initial Capitalization (issued Dec. 19, 2013), at 22 (holding that no further SEQRA review is necessary for an order allocating funds to programs/activities previously subject to completed SEQRA review); Case 08-E-1132, *Petition of NYSERDA for Approval of Energy Efficiency Portfolio Standard*, Order Authorizing the Use of Unencumbered Interest to Fund Payment of the New York State Cost Recovery Fee (issued June 1, 2012), at 4-5 (same).

[131] *See* Case 18-E-0071, *supra*, Order Authorizing Offshore Wind Solicitation in 2020 (issued Apr. 23, 2020), at 11.

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Attorneys for Sunrise Wind LLC

Dated: June 7, 2023
Albany, New York

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard	Case 15-E-0302
In the Matter of Offshore Wind Energy	Case 18-E-0071

VERIFICATION

COMMONWEALTH OF MASSACHUSETTS)
) ss:
COUNTY OF SUFFOLK)

Peter Allen, being duly sworn, deposes and states as follows:

1. I am the Chief Financial Officer, Americas for Orsted North America Inc., which indirectly owns 50% of Sunrise Wind LLC (Sunrise Wind), the petitioner in this proceeding.

2. I am authorized to sign this verification on behalf of Sunrise Wind.

3. I have reviewed the foregoing Verified Petition and the statements of fact contained therein (including, but not limited to, the cost, budget, and monetary figures in the Verified Petition), which are true and correct to the best of my knowledge, information, and belief.

PETER ALLEN

Sworn to and subscribed before me
this 5 day of June 2023.

Notary Public, Commonwealth of Massachusetts

Printed name: AMANDA APPLETON

My commission expires: 4.19.2030

Amanda G Appleton
NOTARY PUBLIC
Commonwealth of
Massachusetts
My Commission Expires
4/19/2030

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard	Case 15-E-0302
In the Matter of Offshore Wind Energy	Case 18-E-0071

VERIFICATION

COMMONWEALTH OF MASSACHUSETTS)
) ss:
COUNTY OF Middlesex)

Ryan Chaytors, being duly sworn, deposes and states as follows:

1. I am the Northeast Program Development Director for Orsted North America, Inc., which indirectly owns 50% of Sunrise Wind LLC (Sunrise Wind), the petitioner in this proceeding.

2. I am authorized to sign this verification on behalf of Sunrise Wind.

3. I have reviewed the foregoing Verified Petition, and the statements of fact contained therein, which are true and correct to the best of my knowledge, information, and belief.

RYAN CHAYTORS

Sworn to and subscribed before me
this 5th day of June 2023.

Notary Public, Commonwealth of Massachusetts

Printed name: JASON ROBERT POLAND

My commission expires: NOTARY PUBLIC
Commonwealth of Massachusetts
My Commission Expires
March 31, 2028

LIST OF EXHIBITS

Exhibit A – Draft State Administrative Procedure Act Notice

Exhibit A

Draft State Administrative Procedure Act Notice

PROPOSED RULEMAKING
NO HEARING (S) SCHEDULED

Authorization of Amendment of Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement for the Sunrise Wind Project

I.D. No. PSC-

PURSUANT TO THE PROVISIONS OF THE State Administrative Procedure Act, NOTICE is hereby given of the following proposed rule:

Proposed action: The New York State Public Service Commission (the Commission) is considering a petition filed by Sunrise Wind LLC (Sunrise Wind) for an order authorizing the New York State Energy Research and Development Authority (NYSERDA) to amend its Offshore Wind Renewable Energy Certificate Purchase and Sale Agreement (the OREC Agreement) with Sunrise Wind to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in NYSERDA's third offshore wind solicitation ORECRFP22-1 (the Phase 3 RFP).

Statutory authority: Public Service Law §§ 4 and 5.

Subject: Petition for an order authorizing amendment of a purchase and sale agreement for offshore wind renewable energy certificates.

Purpose: To consider authorizing NYSERDA to amend the OREC Agreement with Sunrise Wind to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in the Phase 3 RFP.

Substance of proposed rule: The Commission is considering a verified petition filed by Sunrise Wind on June 7, 2023, requesting an order authorizing NYSERDA to amend the October 2019 OREC Agreement with Sunrise Wind to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in the Phase 3 RFP (issued in July 2022). The OREC Agreement relates to the sale of the environmental attributes associated with Sunrise Wind's 924-megawatt offshore wind energy generation facility and associated offshore and onshore transmission infrastructure (collectively, Project), currently in development. The petition states that because unanticipated, extraordinary economic events have resulted in significant increases in Project costs, Sunrise Winds seeks an order authorizing NYSERDA to amend the OREC Agreement to incorporate inflation and interconnection cost adjustment mechanisms comparable to those included in the Phase 3 RFP.

The full text of the verified petition and the full record of the proceeding may be reviewed online at the Department of Public Service web page: www.dps.ny.gov. The Commission may adopt, reject, or modify, in whole or in part, the action proposed and may resolve related matters.

Text of proposed rule and any required statements and analyses may be obtained by filing a Document Request Form (F-96) located on our website http://www.dps.ny.gov/f96dir.htm. For questions, contact: [_____].

Data, views or arguments may be submitted to: Michelle Phillips, Secretary, Public Service Commission, 3 Empire State Plaza, Albany, New York 12223-1350, (518) 474-6517, email: secretary@dps.ny.gov.

Public comment will be received until: 60 days after publication of this notice.

Regulatory Impact Statement, Regulatory Flexibility Analysis, Rural Area Flexibility Analysis and Job Impact Statement

Statements and analyses are not submitted with this notice because the proposed rule is within the definition contained in Section 102 (2) (a) (ii) of the State Administrative Procedure Act. (15-E-0302; 18-E-0071)