

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
New York on November 16, 2023

COMMISSIONERS PRESENT:

Rory M. Christian, Chair
Diane X. Burman, concurring
James S. Alesi
John B. Howard
David J. Valesky
John B. Maggiore

CASE 15-E-0302 - Proceeding on Motion of the Commission to
Implement a Large-Scale Renewable Program and a
Clean Energy Standard.

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

ORDER ADDRESSING CAPACITY ACCREDITATION RULES

(Issued and Effective November 20, 2023)

BY THE COMMISSION:

INTRODUCTION

On May 10, 2022, the Federal Energy Regulatory
Commission (FERC) accepted the New York Independent System
Operator, Inc.'s (NYISO) proposed changes to the Installed
Capacity (ICAP) market design to incorporate marginal capacity
accreditation rules (NYISO Capacity Accreditation Rules).¹ The
NYISO Capacity Accreditation Rules, which take effect in May
2024, are designed to better reflect the capacity value of

¹ Docket No. ER22-772-001, NYISO, Order Accepting Tariff
Revisions Subject To Condition (issued May 10, 2022), 179 FERC
¶61,102 available at:
https://elibrary.ferc.gov/eLibrary/docinfo?accession_number=20220510-3099 (FERC Tariff Order).

resources, particularly renewable intermittent generators such as solar and on-shore/offshore wind, based on their marginal contribution to resource adequacy. These changes are expected to result in a move from a more predictable measure of capacity that can be sold in the ICAP market to one that is uncertain and will change over time due to various factors. Moreover, it is anticipated that the NYISO Capacity Accreditation Rules will result in reduced long-term capacity revenue for intermittent renewable generators, impacting existing and future Clean Energy Standard (CES) Tier 1 Renewable Energy Certificate (REC) and Offshore Wind Renewable Energy Certificate (OREC) contracts (collectively referred to as (O)REC throughout).

On June 29, 2023, the New York State Energy Research and Development Authority (NYSERDA) filed a petition requesting revisions to Index (O)REC Purchase and Sale Agreement formulas to account for anticipated reductions in long-term capacity revenue associated with existing and future NYSERDA contracts (Petition). NYSERDA requests that the Commission authorize revisions to the manner in which these existing and future (O)REC Purchase and Sale Agreements that utilize the Index (O)REC pricing mechanisms calculate the Reference Capacity Price (RCP).

As discussed in further detail below, this Order authorizes revisions to the RCP by removing the obligation that resources include a set production factor in their bids. This will ensure that future CES solicitations can accommodate the new NYISO Capacity Accreditation Rules. The Commission declines to adopt modifications to CES Tier 1 and Offshore Wind (OSW) procurements prior to 2022 given existing contract provisions that NYSERDA may utilize to reflect these new NYISO rules. With respect to the 2022 procurements, the Commission finds modifications to be unnecessary given that the bidders in those

solicitations were aware of the NYISO's Capacity Accreditation Rules framework at the time of those solicitations and were able to reflect such rules in their bids. Finally, while modifications may be necessary to address the unique circumstances involving Clean Path New York's (CPNY) existing CES Tier 4 contract, the Commission reserves making a determination on such contract until after a detailed proposal is filed for consideration.

BACKGROUND

In compliance with prior Commission orders related to Index (O)REC procurement programs, NYSERDA currently determines the monthly price to be paid to a renewable generator by subtracting the Reference Energy Price and the RCP from the Index Strike Price contained in the contract. For procurements prior to 2022, NYSERDA determines the RCP using Formula 1 below:

Formula 1:

$$\text{RCP} = (\text{RUP} \times \text{UPF} \times \text{IC} \times 1,000) / \text{Total (O)RECs}$$

Where:

RUP = Reference UCAP Price in dollars per kilowatt-month (\$/kW-month).

UPF = UCAP Production Factor (decimal fraction), which is the percentage of the generator's Installed Capacity that can contribute during peak hours.

IC = Installed Capacity of the generator in megawatts (MWs).
1,000 = kilowatt (kW) to MW conversion factor.

Total (O)RECs = Total amount of Tier 1 RECs or ORECs produced by the project in the subject month.

The Commission has required participants in these Index (O)REC procurements to provide fixed UPFs (any value between 0 and 1), which are used in NYSERDA's price evaluation of proposed bids, as well as in the final contracts awarded, to

determine monthly settlements of the indexed contracts over the contract term.² Bidders in the OREC procurements were authorized to bid seasonal UPFs, one for winter and one for summer, each of which remain fixed for the term of the contract.³ The same is true for a supplier whose fixed-REC contract was modified as part of NYSERDA's Voluntary Conversion Option to incorporate the Index REC formula.⁴ Of note, this approach allowed bid proposals to include UPFs that reflect the proposer's expected risk tolerance to future NYISO capacity market revenues.

Under the current NYISO market rules, applicable through April 30, 2024, the quantity of capacity eligible for capacity market revenue, known as Unforced Capacity (UCAP), for wind and solar resources is calculated based on an available ICAP value, which is the lesser of the nameplate capacity or maximum MWs allowed under the unit's Capacity Resource Interconnection Service (CRIS).⁵ Specifically, available ICAP is then multiplied by a Duration Adjustment Factor to calculate the Adjusted ICAP.⁶ The Duration Adjustment Factor for Intermittent Power Resources is 100% (a non-factor) because these resources cannot have a duration limitation. For all resources, UCAP is

² Case 15-E-0302, Order Modifying Tier 1 Renewable Procurements (issued January 16, 2020) (Index REC Order).

³ Case 18-E-0071, Order Authorizing Offshore Wind Solicitation in 2020 (issued April 23, 2020) (Offshore Wind 2020 Order).

⁴ Case 15-E-0302, Order Authorizing Voluntary Modification of Certain Tier 1 Agreements (issued November 20, 2020).

⁵ New York Independent System Operator, Inc. Open Access Transmission Tariff Section 25.7.4. (July 31, 2023), available at:
<https://nyisoviewer.etariff.biz/ViewerDocLibrary/MasterTariffs/9FullTariffNYISOATT.pdf> (OATT).

⁶ Unless otherwise defined in this Order, capitalized terms used herein have the same meanings given to them under the NYISO OATT or MST.

calculated by multiplying the Adjusted ICAP by a resource-specific derating factor. For Intermittent Power Resources, the resource-specific derating factor is based on the resource's actual output performance over a specified peak period as a percentage of nameplate capacity, to account for the historic availability of the resource.

The new NYISO Capacity Accreditation Rules are designed to improve the validity and accuracy of capacity values from a resource adequacy perspective.⁷ These rules recognize that the capacity value of renewable intermittent generators, namely solar and on-shore/offshore wind, will change over time due to a variety of factors, including changes in the penetration of each specific resource type, changes in the overall system mix, and shifts in the system peak.⁸ To better reflect these changes, the NYISO Capacity Accreditation Rules revised the calculations used to measure the expected resource adequacy contributions from intermittent resources.

Under the new NYISO Capacity Accreditation Rules, which take effect with the next NYISO capability Year beginning May 1, 2024, each resource/generator will have its ICAP adjusted based on its Capacity Accreditation Resource Class (CARC), according to technology type and location, and its Capacity Accreditation Factor (CAF) which adjusts ICAP for each resource within that particular CARC. Under the current NYISO market rules and the soon to be effective NYISO Capacity Accreditation Rules, the adjusted ICAP is then converted to UCAP using a

⁷ FERC Tariff Order.

⁸ New York Independent System Operator, Inc. Market Administration and Control Area Services Tariff Section 5.12 (July 31, 2023), available at: <https://nyisoviewer.etariff.biz/ViewerDocLibrary/MasterTariffs/9FullTariffNYISOMST.pdf> (MST).

resource-specific derating factor. However, the NYISO Capacity Accreditation Rules revise the resource-specific derating factor to reflect a ratio of the Average Peak Load Window Capacity Factor of the Resource to the Average Peak Load Window Capacity Factor of the Representative Unit, which determines the UCAP quantity eligible for ICAP market revenue.

To address the new NYISO Capacity Accreditation Rules, NYSERDA released two requests for information (RFIs) in 2022 and 2023 to collect market feedback regarding potential changes to estimating capacity revenue, and subsequently put forth a straw proposal to incorporate a new RCP formula for future solicitations. NYSERDA described the approach to modifying existing contracts, in addition to revising the RCP for future RFPs and default UPFs, for stakeholder review.⁹ Based on responses to the RFI in 2022, NYSERDA revised the RCP formula in the 2022 solicitations to reflect the NYISO CAF and the revised resource-specific derating factor, as shown in Formula 2 below.

Formula 2:

$$\text{RCP} = ((\text{RUP} \times \text{UPF} \times \text{IC} \times 1,000) / \text{Total (O)RECs}) \times (\text{CAF} / \text{Average Peak Load Window Capacity Factor of Representative Unit})$$

Where:

RUP = Reference UCAP Price (\$/kW-month).

UPF = UCAP Production Factor (decimal fraction), which is the percentage of the generator's Installed Capacity that can contribute during peak hours.

IC = Installed Capacity of the generator (MW).

⁹ UCAP Production Factor (UPF) is a decimal fraction representing the bidder's expected capacity revenue, for the purpose of both, price evaluation by NYSERDA, and settlement and payments over the term of the agreement.

Total (O)RECs = Total amount of Tier 1 RECs or ORECs produced by the project in the subject month.

CAF = Capacity Accreditation Factor for the resource's CARC
1,000 = kW to MW conversion factor.

Average Peak Load Window Capacity Factor of Representative Unit = Capacity Factor during Capability Period Peak Load Window hours of the Representative Unit for the resource's CARC.

For purposes of Formula 2, NYSERDA assumed that the UPF represents a mathematical proxy for the Average Peak Load Window Capacity Factor of the Resource.

NYSERDA reviewed all responses received through the two RFI processes and incorporated them, as appropriate, into the Petition, as summarized below, to consider formulaic changes related to the NYISO Capacity Accreditation Rules.

THE PETITION

In response to the NYISO Capacity Accreditation Rules, NYSERDA filed the Petition, which includes three proposals for Commission consideration: (1) a proposed revision to the RCP formula to be applied to future solicitation contracts; (2) a uniform approach to revising existing contracts to use the new RCP formula; and (3) a uniform approach to revising contracts for those projects awarded under the 2022 solicitations (RESRFP22-1 and ORECRFP22-1) to use the new RCP formula.

Proposed RCP Formula for Future Solicitations

NYSERDA describes that there is a potential for the specified peak period used to calculate a project's resource-specific derating factor to change over time resulting in a misalignment between a project's fixed UPF value, based on capacity revenue expectations at the time of bid, and the capacity revenue that the project would actually receive during

future settlement periods. For this reason, NYSEDA proposes to revise the RCP formula to remove the Commission requirement that proposers must include a unique UPF in their bids and to instead use either a set fixed relative UPF (rUPF), as shown in Formula 3 below or allow a different ratio to be specified by bidders. The rUPF is the ratio of the Average Peak Load Window Capacity Factor of a Resource to the Average Peak Load Window Capacity Factor of the Representative Unit.

NYSEDA requests that the Commission allow NYSEDA to make such determination between a set fixed rUPF and a rUPF specified by the bidder for each solicitation, in consultation with Department of Public Service staff (DPS Staff). Furthermore, as the electric system peak load window continues to evolve, NYSEDA requests the ability to make other adjustments to the RCP as necessary, in consultation with DPS Staff, without the need to petition the Commission for approval. NYSEDA states that moving away from a fixed UPF and instead allowing flexibility in the inclusion of the rUPF is necessary to align the RCP with the new NYISO Capacity Accreditation Rules for renewable intermittent generation resources. Given that the expected UCAP that these resources provide will be reduced as more renewables are added to the system and as the peak load shifts, NYSEDA asserts that it will be impractical for bidders to predict a fixed UPF. NYSEDA explains that eliminating this requirement to submit a UPF would reduce the risk associated with future variance between a resource's capacity revenue and the RCP, and reduce the level of risk premium included in their bids. This in turn is expected to result in lower costs to ratepayers.

Formula 3:

$$\text{RCP} = (\text{RUP} \times \text{rUPF} \times \text{IC} \times 1,000 \times \text{CAF}) / \text{Total (O)RECS}$$

Where:

RUP = Reference UCAP Price (\$/kW-month).

rUPF = Relative UCAP Production Factor (decimal fraction), is defined as the ratio of the generator's capacity factor during capability period peak hours to that of the representative unit of the resource class.

IC = Installed Capacity of the generator (MW).

Total (O)RECs = Total amount of Tier 1 RECs or ORECs produced by the project in the subject month.

1,000 = kW to MW conversion factor.

CAF = Capacity Accreditation Factor for the resource's CARC.

Proposed Revision to Existing Contracts to Apply the New RCP Formula

NYSERDA states that each of the 99 existing Index REC contracts (all of which have been executed or are in the negotiation process), and the four Index OREC contracts that have been executed, contain Change in Law provisions that are applicable to the NYISO Capacity Accreditation Rules accepted by FERC because these new rules will materially reduce capacity revenues of these intermittent renewable generators. NYSERDA refers to a solar photovoltaic (PV) example in which the current Peak Load Window capacity factor is 50% and contrasts this with the same size system in which the CAF is 20% and therefore results in a 60% reduction of capacity revenue. NYSERDA goes on to explain that the CAF will be further reduced in the future under the new NYISO Capacity Accreditation Rules as more renewable generation is added to the grid.

NYSERDA proposes to replace the RCP formula in the existing (O)REC contracts with the same formula referenced above for future contracts (Formula 3) with an rUPF value of one for each Index (O)REC contract. To account for the impacts that this change will have on actual ICAP revenue, as compared to expected ICAP market revenue at time of bid or conversion to

index (O)RECs, NYSERDA proposes to adjust the existing strike prices within the Index (O)REC contracts by an amount that would maintain the Index (O)REC Contract's Levelized Net (O)REC Cost (LNOC) under the existing Index (O)REC formula prior to the new NYISO Capacity Accreditation Rules. The amount of this strike price adjustment is calculated as one half the difference between the projected net levelized RCP based on the proposed default UPF, shown in Table 1 below, for the applicable project type and the projected levelized RCP based on the UPF at time of bid or conversion to index (O)RECs. The resulting effect is a 50% weighting of the selected UPF and the default UPF contained in the adjustment Formula 4 shown below.

Formula 4: Strike Price Adjustment for
Existing Index(O)REC Contracts

$$\text{Strike Price}_{\text{Rev}} = \text{Strike Price}_{\text{Bid}} + (0.5 \times (\text{RCP}_{\text{Default}} - \text{RCP}_{\text{Bid}}))$$

Where:

$\text{Strike Price}_{\text{Rev}}$ = Revised Strike Price after adjustment in dollars per megawatt hour (\$/MWh).

$\text{Strike Price}_{\text{Bid}}$ = Strike Price as submitted at the time of bid or as adjusted through Voluntary Conversion Option (\$/MWh).

RCP_{Bid} = Reference Capacity Price calculated using existing formula and as-bid/ Voluntary Conversion Option UPFs (\$/MWh value levelized over full contract term).

$\text{RCP}_{\text{Default}}$ = Reference Capacity Price calculated using existing formula and default UPFs (\$/MWh value levelized for full contract term).

NYSERDA explains that this adjustment will reduce the strike prices of suppliers whose as-bid or Voluntary Conversion Option UPFs are higher than the default UPFs and increase the strike prices of suppliers whose as-bid or Voluntary Conversion Option UPFs are lower than the default UPFs. The strike prices for Index (O)REC Contracts with as-bid or Voluntary Conversion

Option UPFs that are equal to the default UPFs would not change. NYSERDA proposes to use an average of the six- and eight-hour Peak Load Window values to adjust the strike prices except for hydro resources which have a limited number of bid proposals from which to calculate. Therefore, NYSERDA proposes to utilize the five-year North American Electric Reliability Corporation class average Net Capacity Factor for hydro resources under 30 MW from 2015-2019.

TABLE 1: Proposed Default UCAP Production Factors by Technology

Technology	Proposed Default Winter UPF	Proposed Default Summer UPF
Solar	2.1%	51.4%
Solar w/ co-located storage	5.7%	56.7%
Onshore wind	41.6%	17.3%
Onshore wind w/ co-located storage	44.7%	18.9%
Hydroelectric	33.6%	33.6%
Offshore wind	53.2%	34.1%

The resultant strike prices would also be affected by the forecast of the Reference UCAP Price used to calculate the levelized RCP values used in the adjustment. For consistency, NYSERDA proposes to utilize the respective capacity price forecasts used in evaluations for solicitations prior to the 2022 RFPs and the capacity price forecast used to calculate Index REC Strike Prices for Voluntary Conversion Option projects. For each calculation, NYSERDA intends to use the common commercial operation date used for evaluation for each RFP or, where applicable, the common date used for Voluntary Conversion Option conversion.

NYSERDA also describes that the increase in total (O)REC payments associated with the proposed changes to the existing contracts will be offset by a reduction in the overall NYISO capacity market costs due to the NYISO Capacity Accreditation Rules. To support this conclusion, NYSERDA estimated the impact of applying its proposed strike price adjustment to each of the existing Index (O)REC contracts and forecasted that would result in increased 2030 (O)REC costs of \$175 million to \$325 million. It then compares that increase to the NYISO's Capacity Accreditation Consumer Impact Analysis, presented at the December 8, 2022 ICAP Working Group meeting, which indicates that capacity accreditation would result in \$195 million to \$390 million in NYISO capacity market procurement cost savings in 2030.¹⁰

Regarding potential adjustments to Tier 4 REC Purchase and Sale agreements, NYSERDA states that adjustments like those described above would typically be necessary because generators (mainly solar) delivering RECs to the CPNY transmission line for ultimate delivery into Zone J would be affected by these new NYISO Capacity Accreditation Rules. However, because CPNY utilizes Unforced Capacity Delivery Rights instead of UPFs, the adjustment mechanism does not apply. Additionally, CPNY's REC Strike Price includes transmission, which is not affected by the new NYISO Capacity Accreditation Rules, and the RCP formula in the CPNY contract is conditioned on the establishment of NYISO Market Rules that have not yet been finalized pertaining to internal controllable transmission lines. For these reasons,

¹⁰ NYISO, Capacity Accreditation: Consumer Impact Analysis (December 8, 2022), available at: <https://www.nyiso.com/documents/20142/34833356/3%2012-06-22%20ICAPWG%20Capacity%20Accreditation%20-%20Updated%20CIA%20v2%20clean.pdf/5d4a62b8-eac8-5238-65ea-75dd910bb9ba>.

NYSERDA requests authority to apply an adjustment to the CPNY Index REC contract substantially like the one described above, but tailored for the specific contract, to be developed in consultation with DPS Staff. Such modifications would be described in an implementation plan to be filed by NYSERDA and would be subject to stakeholder comment and future Commission determination.

Lastly, regarding existing Fixed REC contracts, since they do not have Change in law provisions and do not include a reference capacity price related to the calculation of the REC price, NYSERDA does not intend to adjust these contracts in response to the NYISO Capacity Accreditation Rules.

Proposed Revisions to Contracts Awarded Under 2022 Solicitations to Apply the New RCP Formula

NYSERDA states that the NYISO Capacity Accreditation Rules do not trigger the Change in Law provisions included in contracts related to the 2022 solicitations because the bidders were aware of the NYISO's Capacity Accreditation Rules being proposed at the time of those solicitations and therefore were able to select a UPF value accordingly. NYSERDA proposes to offer bidders the option of replacing the RCP formula in these associated contracts (Formula 2) with use of a rUPF value of 1 (in Formula 3) in conjunction with a revision to the strike price calculation as shown in Formula 5 below. The strike price calculation in Formula 5 does not include the 50% weighting of the UPF at the time of bid and the default UPF values provided by NYSERDA, because of the bidders' awareness of the anticipated calculation adjustments proposed by NYSERDA.

Formula 5:

$$\text{Strike Price}_{\text{Rev}} = \text{Strike Price}_{\text{Bid}} + (\text{RCP}_{\text{Default},22} - \text{RCP}_{\text{Bid},22})$$

Where:

Strike Price_{Rev} = Revised Strike Price after adjustment (\$/MWh).

Strike Price_{Bid} = Strike Price as submitted at the time of bid.

RCP_{Default,22} = Reference Capacity Price calculated using default UPFs and the agreements as awarded (\$/MWh value levelized over full contract term).

RCP_{Bid,22} = Reference Capacity Price based on as-bid UPFs and the formula in the agreements as awarded (\$/MWh value levelized over full contract term).

NOTICE OF PROPOSED RULE MAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rule Making (Notice) was published in the State Register on August 9, 2023 [SAPA No. 15-E-0302SP61]. The time for submission of comments pursuant to the Notice expired on October 10, 2023. Comments were submitted by Alliance for Clean Energy New York (ACE NY), Atlantic Shores Offshore Wind, LLC, (Atlantic Shores), Equinor Wind US, LLC, (Equinor), Rise Light and Power, LLC, (Rise), and Sunrise Wind, LLC (Sunrise Wind). The Comments received are discussed below and summarized in the Appendix to this Order.

LEGAL AUTHORITY

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

§5(2) requires the Commission to "encourage all persons and corporations subject to its jurisdiction to formulate and carryout long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources." PSL §66(2) provides that the Commission shall "examine or investigate the methods employed by [] persons, corporations and municipalities in manufacturing, distributing and supplying ... electricity ... and have power to order such reasonable improvements as well as promote the public interest, preserve the public health and protect those using such gas or electricity"

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,¹¹ environmental stewardship, and the conservation of resources.¹² Further, PSL §65 provides the Commission with authority to ensure that "every electric corporation and every municipality shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and in all respects just and reasonable." The Commission also has authority to prescribe the "safe, efficient and adequate property, equipment and appliances

¹¹ See International R. Co. v Public Service Com., 264 AD 506, 510 (1942).

¹² PSL §5(2); see also Consolidated Edison Co. v. Public Service Commission, 47 N.Y.2d 94 (1979) (overturned on other grounds) (describing the broad delegation of authority to the Commission and the Legislature's unqualified recognition of the importance of environmental stewardship and resource conservation in amending the PSL to include §5).

thereafter to be used, maintained and operated for the security and accommodation of the public" whenever the Commission determines that the utility's existing equipment is "unsafe, inefficient or inadequate."¹³ In addition to the PSL, the New York State Energy Law §6-104(5)(b) requires that "[a]ny energy-related action or decision of a state agency, board, commission or authority shall be reasonably consistent with the forecasts and the policies and long-range energy planning objectives and strategies contained in the plan, including its most recent update."

DISCUSSION

The goal of the new NYISO Capacity Accreditation Rules is to improve the validity and accuracy of the marginal capacity value provided by supply resources. The underlying rationale for these rules is to reflect changes in the system mix of generation resources, shifts in peaks hours, and the increased penetration of intermittent renewables which, according to the NYISO's tariff, have variability that is beyond the control of the facility owner or operator.¹⁴ Due to these factors, the new rules adjust the UCAP for each generation resource to more accurately reflect the associated resource adequacy contribution. Therefore, when the new NYISO Capacity Accreditation Rules take effect during the summer capability period beginning May 1, 2024, each resource's adjusted ICAP value will be a combination of the CAF and ICAP and converted to UCAP, by virtue of using a resource-specific derating factor for each renewable resource, which will be calculated annually based on prior performance during the specified peak period. As

¹³ PSL §66(5).

¹⁴ MST Section 2.9 MST Definitions - I.

described above, these ICAP market rules will have a direct impact on existing and future (O)REC contracts. For these reasons, the Commission addresses the specific aspects of NYSERDA's Petition below.

RCP Formula for Future Solicitations

Regarding specific formulaic changes requested by NYSERDA, it proposes to replace the existing RCP formula with Formula 3 above to address the impact of the new NYISO Capacity Accreditation Rules. NYSERDA's revised RCP does two things: (1) it adapts the formula to align with the new NYISO Capacity Accreditation Rules by including the CAF and the ratio of the Average Peak Load Window Capacity Factor of the Resource and the Average Peak Load Window Capacity Factor of the Representative Unit; and (2) it removes the currently required UCAP production factor or UPF. Aligning the formula with the new NYISO Capacity Accreditation Rules is necessary and appropriate given the realities of the changing market rules and the Commission finds that this aspect of the revision is consistent with prior orders in this proceeding.¹⁵ In fact, NYSERDA reflected similar changes to the RCP calculation in the 2022 solicitations. We also note that in general, the new NYISO Capacity Accreditation rules will result in ratepayers paying more for future (O)REC procurements over time, but these increased (O)REC costs are expected to be offset by reduced ICAP payments embedded in ratepayer commodity charges.

Regarding the request to remove the requirement for bidders to include a UPF in their bids, this modification

¹⁵ See Case 15-E-0302, et al., Order Adopting a Clean Energy Standard (issued August 1, 2016) (CES Framework Order); see also Case 15-E-0302, Order Approving Administrative Cost Recovery, Standardized Agreements and Backstop Principles (issued November 17, 2016) (CES Administrative Order).

requires Commission action given that the Index REC Order and subsequent Offshore Wind 2020 Order specifically required that bidders include UCAP performance factors that are seasonal and are fixed for the term of the contract.¹⁶ Given that the changes in the NYISO ICAP market will likely result in volatile and unpredictable ICAP market revenues for intermittent renewable resources, the Commission concludes that the requirement to submit a fixed UPF is no longer reasonable and therefore discontinues this requirement for future procurements.

NYSERDA also requests authorization to revise the rUPF for each solicitation, in consultation with DPS Staff. While NYSERDA currently anticipates utilizing an rUPF value of one for all Index (O)REC procurements to minimize settlement complexity, reduce uncertainty, and lower the risk of over- or under-compensating resources, NYSERDA explains that there could be circumstances in which allowing proposers to select their own rUPF may benefit ratepayers. As Atlantic Shores notes, OSW generation reliability values are projected to be higher under the new NYISO Capacity Accreditation Rules because offshore wind speeds increase at the same point in the day when the new peak load window is expected to be set in the future. Due to the relatively high capacity factor of OSW resources, capacity market revenues are expected to be a significant component of their project revenues. Therefore, allowing proposers in an OSW solicitation to competitively bid rUPFs, which reflect their risk tolerance to future NYISO market revenues, may accrue benefits to ratepayers. Accordingly, it is reasonable to provide the flexibility necessary to align solicitations with future NYISO market rule changes and impacts by allowing NYSERDA, in consultation with DPS Staff, to revise the rUPF for

¹⁶ Index REC Order, pp. 25-26; Offshore Wind 2020 Order, p. 24.

each solicitation, including whether to specify a fixed rUPF or allow proposers to specify their rUPF values. This approach falls within the framework that has already been established in prior orders on large scale renewable programs.¹⁷ Any changes made in this regard must remain consistent with such existing Commission orders.

NYSERDA also requests, due to other potential rule changes that may unfold over the course of the long-term (O)REC contracts, that they be granted authorization to make other adjustments to the RCP formula, in consultation with DPS Staff, without the need to petition the Commission. As for NYSERDA's request for authorization to make other adjustments to the RCP in consultation with DPS Staff, if such changes are within the bounds of the Commission's prior orders, there is no need for Commission approval. Otherwise, a Commission determination shall be sought.

Revision to Existing Contracts to Apply the New RCP Formula

NYSERDA seeks to adjust the existing 99 Tier 1 REC contracts that have been executed or are in the process of being negotiated, and the four OREC contracts that have been executed. These existing Index (O)REC contracts include Change in Law provisions that are applicable to the implementation of the NYISO Capacity Accreditation Rules because these rules present a new methodology that affect the capacity revenue reasonably expected by intermittent generation developers at the time of bidding.

Since all existing Index (O)REC contracts contain similar Change in Law provisions and were awarded on a competitive basis, NYSERDA proposes to treat all Index (O)REC contracts in a consistent manner regardless of the specific UPFs

¹⁷ See CES Framework Order and CES Administrative Order.

selected by the proposer at the time of bid/Voluntary Conversion Option. Sunrise Wind's comments explain that some parties to (O)REC contracts intentionally negotiated Change in Law provisions and suggests that NYSERDA should also be authorized to agree to revisions tailored to bespoke Change in Law provisions. Rise's comments state that by aligning the terms of current and future (O)REC agreements with the NYISO's market rules, the State will take an important step toward incenting new resource deployment.

Although it is evident that the new NYISO Capacity Accreditation rules necessitate formulaic adjustments to these existing contracts, consistent with Formula 3, the included Change in Law provisions permit NYSERDA to negotiate such revisions and amend those contracts without Commission intervention, provided those changes remain consistent with Commission orders. We also note that NYSERDA's forecast that the increase in 2030 (O)REC contact costs due to the formulaic adjustments will be offset by the expected decrease in the NYISO capacity market costs for 2030, further supports the conclusion to adjust the existing contracts.

NYSERDA also proposes to revise the CPNY Tier 4 contract by first developing an adjustment tailored for the specific contract, in consultation with DPS Staff. NYSERDA does not propose an exact formulaic adjustment to the Index REC formula in the CPNY contract given additional complexities surrounding the Tier 4 agreement, including that the RCP formula in the CPNY contract is conditioned on the establishment of NYISO Market Rules that have not yet been finalized pertaining to internal controllable transmission lines. Thus, NYSERDA proposes to apply an adjustment to the CPNY contract, developed in consultation with DPS Staff, tailored for that contract. Such modifications would be described in an implementation plan

to be filed by NYSERDA and would be subject to stakeholder comment and a future Commission determination. Given that the necessary change(s) to the CPNY contract are unknown at this time, making the cost impact of such modification(s) uncertain, the Commission finds this approach and requirement to obtain Commission authorization to be appropriate.¹⁸

Revisions to Contracts Awarded Under 2022 Solicitations to Apply the New RCP Formula

NYSERDA proposes to offer awardees under ORECRFP22-1 and RESRFP22-1 the option of adjusting the RCP formula and strike price for the purpose of optimizing and improving the formula. However, the Commission recognizes that the bidders in those solicitations were aware of the NYISO's Capacity Accreditation Rules framework at the time of those solicitations and were able to reflect such rules in their bids. Therefore, the Commission declines NYSERDA's request to offer awardees in the ORECRFP22-1 and RESRFP22-1 solicitations the option to replace the RCP formula in the agreements (Formula 2) with Formula 3, in conjunction with an adjustment to the Strike Price calculated using Formula 5.

CONCLUSION

The NYISO Capacity Accreditation Rules represent a significant change in the ICAP market rules and will clearly

¹⁸ The Tier 4 REC Purchase and Sales Agreement between NYSERDA and H.Q. Energy Services (U.S.) Inc. is not expected to be impacted by the new NYISO Capacity Accreditation Rules because the project will deliver energy to Zone J via an external controllable line that would be awarded, for capacity purposes, Unforced Capacity Deliverability Rights, which are not specifically subject to capacity accreditation deration, rather than UCAP. NYSERDA should nonetheless continue to monitor this situation and the implementation of the new NYISO Capacity Accreditation Rules to ensure this remains the case.

have an impact on the revenues that resources anticipated receiving. For this reason, the changes adopted by the Commission, as discussed above in this Order, are necessary and timely given the 2024 Summer Capability Period effective date. Such changes will allow for the most efficient and effective incorporation of the new capacity market rules in the large-scale renewable energy solicitations.

The Commission orders:

1. The petition of the New York State Energy Research and Development Authority to adjust the Reference Capacity Price formulas in index renewable energy certificate and offshore wind renewable energy certificate purchase and sales agreements is approved in part and denied in part, as discussed in the body of this Order.

2. These proceedings are continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS
Secretary

SUMMARY OF COMMENTSAlliance for Clean Energy New York (ACE NY)

ACE NY agrees with NYSERDA's proposed implementation of Formula 3 of the Petition related to future RFPs. ACE NY supports the flexibility for NYSERDA to be able to make additional modifications to the formula if the relevant rules at the NYISO change again in the future. It also supports NYSERDA's proposal related to the changes in the RCP formula in existing contracts, and also agrees it will be beneficial to have the same RCP formula in all CES contracts. ACE NY recommends, given the rapidly evolving market, the Commission should provide NYSERDA the flexibility to adjust contracts going forward.

ACE NY asserts that changes in the strike price must not undermine the original project underwriting, and too large an adjustment (i.e., a weighting factor of 100%) would threaten to undermine the underwriting to projects with UPFs that are greater than the Default UPF values. ACE NY supports NYSERDA's proposed approach of creating a 50% weighting of the selected UPF and the default UPF in the strike price adjustment formula.

ACE NY advocates for an approach where generators would be given a one-time option to adjust their strike price in such a way that corresponded to the default UPF at the time of contract modification to allow all contracts to receive comparable relief. ACE NY agrees using a 50% weighting factor in Formula 4 is the next best option when it comes to balancing concerns for fairness and the original projects' underwriting.

ACE NY also believes NYSERDA uses an accurate methodology for estimating default UPF values as proposed in Table 1 of the petition. ACE NY states NYSERDA is correct to use the respective capacity price forecasts for each of the projects and requests implementation of this approach be

monitored carefully to ensure it is producing the intended results.

ACE NY asserts that prior to May 1, 2024, project owners will need time to process these contract modification proposals, including obtaining the necessary consents from financing and other parties. ACE NY, therefore, suggests the Commission act soon, so that NYSERDA can roll out proposed modifications to contract holders. ACE NY advocates the Commission should not be delayed by other issues, such as the petitions regarding inflation adjustments.

ACE NY supports the proposed approach and urges the Commission to authorize these proposed changes in time for NYSERDA to effectuate contract modifications, and project owners to be able to accept these, ahead of the commencement of the new NYISO capacity market rules on May 1, 2024, for projects that are in operation, and soon thereafter for not-yet constructed projects and for all future NYSERDA solicitations.

Atlantic Shores Offshore Wind LLC (Atlantic Shores)

Atlantic Shores agrees the Commission should authorize NYSERDA to make the identified changes to its Index (O)REC Formula and should provide NYSERDA with the flexibility to make future adjustments thereto as requested. Atlantic Shores notes that in NYSERDA's OSW solicitations, bidders set fixed seasonal UPFs. Atlantic Shores points out that NYISO's new capacity accreditation rules require CARCs and CAFs to be reset annually. Atlantic Shores reiterates that the change in a resource's resource-specific derating factor over time results in a potential misalignment between a Supplier's expected capacity revenue at the time of bidding, and the capacity revenue captured during a given settlement period.

Atlantic Shores also agrees that a rUPF should be adopted in the Index OREC formula of future OREC contracts. Atlantic Shores notes, per the Commission, the formula to calculate the Index OREC was designed to benefit both the developers by increasing the likelihood that a developer will satisfy its revenue requirement for a program, as well as the ratepayers by reducing the per-REC cost. Atlantic Shores also notes, the new capacity accreditation structure was designed to reflect the marginal reliability of each resource type, assessed locationally and reset annually.

Atlantic Shores states as additional MWs of each form of intermittent resource are added to the system, the marginal reliability value of that resource is generally expected to decline with the exception of OSW generation. Atlantic Shores references the CAF analyses, developed by GE, demonstrating that OSW generation will maintain its significant capacity value over time even after additional OSW facilities and other renewable generation are added to the system. Atlantic Shores believes, because OSW wind speeds increase at the same point in the day when the new peak hour is expected to be set in the future due to the effects of solar generation, OSW generation reliability values are projected to be higher under the new capacity accreditation rules. Atlantic Shores asserts, due to its relatively high capacity factor, capacity market revenues are expected to be a significant component of an OSW generation project's revenues.

Atlantic Shores believes reducing a developer's risk, of revenue under-recovery and the risk premium that the developer must incorporate in its proposal to support the viability of its project over the long term, ultimately lowers consumer costs. Atlantic Shores points out that the level of risk that results from NYSERDA's chosen components for its Index

OREC pricing formula must be a central consideration in proposers' bids in response to future NYSERDA OREC solicitations. Atlantic Shores concurs that NYSERDA must be given the flexibility to make further adjustments to its OREC Contract Structure, as needed, in consultation with DPS Staff. Atlantic Shores notes New York will transform from a summer peaking region to a winter peaking region as soon as the early 2030s. Atlantic Shores references the NYSRC is considering the implications of heightened reliability needs in winter periods and may make changes to the IRM model accordingly. Atlantic Shores adds, since NYSRC's IRM model serves as the starting point to complete the capacity accreditation designations and calculations, these changes would then flow through and affect the CAF calculations. Atlantic Shores notes the NYISO has recently proposed tariff revisions that would establish seasonal ICAP Demand Curve prices in each capacity location for the first time, and, if implemented, additional changes to the Index OREC formula's design may need to be considered.

Atlantic Shores suggests the Commission should authorize NYSERDA to incorporate more broadly structured Change in Law provisions in future OREC contracts. Atlantic Shores asserts the Change in Law contract provisions must be broad enough to address both the implementation of a new capacity market structure and material changes to the underlying rules of an existing capacity market structure in the future to preserve the economic position of the parties.

Atlantic Shores believes, in light of the impending CLCPA deadlines, it has become more pressing over time to effectively structure solicitation parameters and associated OREC contract terms so that these solicitations can be efficiently conducted. Atlantic Shores, therefore, recommends

the Commission should provide NYSERDA with the additional flexibility requested in its Capacity Accreditation Petition.

Equinor Wind US LLC (Equinor)

Equinor recommends the Commission accept the Capacity Accreditation Petition but direct NYSERDA to remove the 50% weighting factor contemplated by the proposed Strike Price Adjustment Mechanism. Equinor believes there is no rationale provided for including a 50% weighting of the selected UPF and the default UPF in the adjustment formula, or why this specific percentage is appropriate.

Equinor also states that the proposed rUPF approach is an imperfect but reasonable approach when combined with the proposed strike price adjustment mechanism modification. Equinor notes, under the current RCP formula, a project is incentivized to propose a realistic and achievable UPF and operate its project accordingly to achieve the proposed capacity factor. Equinor states the current RCP formula approach appropriately allocates risk by allowing the project developer to select its own UCP and then measuring the project's performance against the chosen UCP when conducting the Index OREC calculation. Equinor emphasizes, each of these factors is within the developer's direct control and incentivizes the developer to calibrate its bidding and operation strategies to align with its chosen UCP.

Equinor notes that the proposed RCP formula's use of a rUPF exposes a project to the production performance of the representative unit, which is out of the developer's control. Equinor believes setting the rUPF to 1 exposes projects to risks relative to the actual rUPF factor inherent to a project's capacity revenues from NYISO. Equinor asserts that implementation of a rUPF exposes projects to risks beyond their

control and represents a material shift in the project's risk profile compared to the current approach.

Equinor, however, acknowledges the administrative efficiency of setting the rUPF factor to 1 and appreciates NYSERDA's recognition of the need for strike price adjustments to reflect the revenue expectations of the relevant projects at the time of bid submission. Equinor emphasizes, without removing the 50% weighting, the proposed adjustments may jeopardize project revenue expectations of the existing contracts.

Equinor agrees for future contracts, that a more tailored rUPF value could be appropriate under certain circumstances, including offshore wind solicitations, and doing so could benefit ratepayers in a way that outweighs the bid evaluation and contract administration simplicity of setting the rUPF factor to 1. Equinor, therefore, supports the Commission granting NYSERDA the authority to: specify fixed rUPF values or allow Proposers to specify their rUPF values, in consultation with the DPS Staff; and implement other necessary adjustments to the RCP formula, subject to the agreement of NYSERDA and DPS Staff, to ensure alignment with potential future changes.

Rise Light and Power, LLC (Rise)

Rise believes marginal capacity accreditation is critical to incentivizing the development of dispatchable, emissions free resources (DEFERs). Rise states DEFERs will be critical to maintaining reliability as the State approaches one hundred percent emissions-free resources. Rise agrees with NYISO that corresponding state-level programmatic changes must be made to ensure that the State is not maintaining artificial barriers to its own goals and that developers are receiving accurate price signals. It supports the Commission granting the

relief requested in NYSERDA's petition. Rise agrees with NYSERDA that the requested relief is likely to result in lower bid prices (and therefore lower costs for ratepayers) than the status quo. Rise believes by aligning the terms of current and future (O)REC agreements with the NYISO's market rules, the State will take an important step toward incenting new resource deployment.

Rise opposes relief for any project currently seeking repricing through a petition before the Commission. Rise advocates the Commission should not consider the cost impacts of each of its actions in a vacuum, but rather reviewing them holistically to capture the cumulate impacts on ratepayers. Rise notes similarity, between the Repricing Petitions and Capacity Accreditation Petition, of requested relief to maintain the economic viability of projects. Rise emphasizes, however, the cost impacts associated with most of the Repricing Petitions and the Capacity Accreditation Petition remain unknown. Rise cites NYSERDA is not able to reasonably predict the associated reduction in ratepayer cost. Rise notes the cumulative ratepayer impacts of granting the Repricing Petitions and the Capacity Accreditation Petition in whole, could be in the tens of billions.

Rise suggests, the Commission should review all the proposed modifications to the (O)REC Agreements, evaluate the costs and benefits of the cumulative requested relief, and grant the appropriate level of relief accordingly. Rise cites NYSERDA's comment on the Repricing Petitions, overall the price adjustment mechanisms proposed by the Petitioners appear to shift risks from developers to ratepayers in a manner that goes beyond, and in some cases does not appear tied to, the extraordinary market circumstances that underly the requests. Rise, therefore, emphasizes the importance that the Commission

remain mindful of the cumulative impacts of the requested relief.

Rise agrees with NYSERDA's approach to ensuring the relief works in concert and does not provide an undue multiplier effect. Rise supports the approach of applying the inflation adjustment first, because it is a function of the initial Index (O)REC Strike Price, and then to apply the capacity accreditation adjustment (so long as the Commission's consideration of the combination of relief is integrated and not step-wise). Rise believes the Capacity Accreditation Petition, and Repricing Petition, together will help to ensure that projects receive only the assistance and modifications they may need - if any - to remain viable without providing an unnecessary windfall to developers at ratepayers' expense.

Rise supports granting the relief requested by NYSERDA in the Capacity Accreditation Petition for those projects that are not also subject to the Repricing Petitions pending before the Commission. Rise requests that the Commission ensure it is evaluating the costs and benefits of the requested relief alongside the relief requested in the Repricing Petitions for those impacted projects.

Sunrise Wind LLC (Sunrise Wind)

Sunrise Wind generally supports the revisions to the existing (O)REC Contracts, starting with those proposed in the NYSERDA Petition because they will improve the alignment between the Index (O)REC formulas and the NYISO capacity market as it will function under the New Capacity Accreditation Rules. Sunrise Wind believes Changes in Law provisions both avoid unnecessary risk premiums in (O)REC project pricing and help prevent legal or market rule changes from rendering renewable energy projects financially infeasible. Sunrise Wind asserts,

by reducing the Project's UPF, NYISO's New Capacity Accreditation Rules will likely materially reduce the Project's expected capacity market revenues in a way that does not apply to all generation facilities.

Sunrise Wind advocates that the Commission should also recognize that some parties to (O)REC Contracts intentionally negotiated Changes in Law provisions that are materially different. Sunrise references Section 4.07 (a) of the Sunrise Wind OREC Agreement, and suggests NYSERDA should be authorized to agree to revisions tailored to bespoke Changes in Law provisions.

Sunrise Wind states it is possible that initial revisions to (O)REC Contracts will not adequately account for reduced capacity revenues, because the actual impacts of the New Capacity Accreditation Rules cannot be definitively assessed until sometime after they go into effect and a project goes into service. Sunrise Wind notes the timing of variables, used to calculate a generation resource's qualified capacity, will vary within a capacity qualification period. Sunrise Wind believes the uncertainty of such variables (i.e. CAF and availability derating factor) exposes developers to the risk that revisions to existing (O)REC Contracts will not align with actual capacity market revenues.

Sunrise Wind emphasizes, given the parties' contractual rights under the Changes in Law provisions, NYSERDA should be authorized to implement further revisions to existing (O)REC Contracts in the future as necessary to ensure two specific points: that the contractual definitions of RCP and related terms provide a representative and valid market-based index of capacity prices; and there is no reduction in the capacity value of offshore wind as a generation resource.