STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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

ORDER ADOPTING CLEAN ENERGY STANDARD BIENNIAL REVIEW AS FINAL AND MAKING OTHER FINDINGS

Issued and Effective: May 15, 2025

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At a session of the Public Service Commission held in the City of Albany on May 15, 2025

COMMISSIONERS PRESENT:

Rory M. Christian, Chair
James S. Alesi
David J. Valesky
John B. Maggiore
Uchenna S. Bright
Denise M. Sheehan, recusing
Radina R. Valova

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BY THE COMMISSION:

INTRODUCTION

The Climate Leadership and Community Protection Act (CLCPA) requires the Public Service Commission (Commission) to issue, for public comment, a comprehensive review of the Clean Energy Standard (CES) every two years. Upon review, the Commission "shall determine, among other matters: (a) progress in meeting the overall targets for deployment of renewable energy systems and zero emission sources, including factors that will or are likely to frustrate progress toward the targets; (b) distribution of systems by size and load zone; and (c) annual funding commitments and expenditures."[1]

[1] These provisions of the CLCPA are codified in Public Service Law (PSL) §66-p(3).

On July 1, 2024, Department of Public Service (DPS) Staff and the New York State Energy Research and Development Authority (NYSERDA) filed the Draft Clean Energy Standard Biennial Review (Biennial Review).[2] The Biennial Review summarizes the progress made toward the renewable energy and zero emission goals set by the CLCPA since the establishment of the CES.[3] It further assesses what remains to be done to achieve those goals and presents policy options and proposals to facilitate such achievement. By this Order, the Commission: (1) adopts the Biennial Review as final; (2) adopts, with modifications, certain recommendations made in the Biennial Review; and (3) declines to adopt other recommendations made in the Biennial Review, as discussed further below.

BACKGROUND

The Commission's 2016 CES Order established the CES to increase the State's renewable energy supply and to preserve New York's existing zero-emissions generation. The CES is comprised of two components, a Renewable Energy Standard (RES) and a Zero-Emissions Credit (ZEC) requirement. The RES includes a Tier 1 component that obligates each load-serving entity (LSE) to serve its retail customers by supporting the procurement of new renewable resources, evidenced by the procurement of qualifying Tier 1 Renewable Energy Certificates (RECs) from NYSERDA or other sources, or by making Alternative Compliance Payments (ACPs). The RES also includes a Tier 2 Maintenance program to provide financial support for existing baseline eligible renewable facilities that are at risk of ceasing

[2] Case 15-E-0302, Draft Clean Energy Standard Biennial Review (filed July 1, 2024).

[3] Case 15-E-0302 et al., Order Adopting a Clean Energy Standard (issued August 1, 2016) (2016 CES Order).

operations. Under the ZEC program (also known as Tier 3), each LSE that serves end-use customers in New York must purchase ZECs from NYSERDA in proportion to the load they serve relative to the total statewide load. NYSERDA administers this program by purchasing ZECs from qualifying nuclear generators during each compliance year and duly billing LSEs for their share, with the value of ZECs established by DPS Staff through administrative mechanisms through 2030.

In July 2018, the Commission established the offshore wind (OSW) program and accompanying standard by requiring LSEs to support the procurement of 2,400 megawatts (MW) of OSW resources by 2030.[4] As with Tier 1, the OSW standard obligates each LSE to serve its retail customers by supporting the procurement of new OSW resources, evidenced by the procurement of OSW Renewable Energy Certificates (ORECs) from NYSERDA. On April 23, 2020, the Commission authorized NYSERDA to issue an additional OSW solicitation for up to 2,500 MW.[5]

In March 2018, the Commission further refined the requirements of the Maintenance Tier program.[6] The 2018 Maintenance Tier Order provided a streamlined review process, while maintaining a more detailed review process to suit the various needs of individual facilities. The 2018 Maintenance Tier Order revised the eligibility date to include all eligible run-of-the-river hydroelectric facilities, wind facilities, and direct combustion biomass facilities that were in operation

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[4] 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) (OSW Framework Order).

[5] Case 18-E-0071, supra, Order Authorizing Offshore Wind Solicitation in 2020 (issued April 23, 2020).

[6] Case 15-E-0302, Order Adopting Measures for the Retention of Existing Renewable Baseline Resources (issued March 16, 2018) (2018 Maintenance Tier Order).

prior to January 1, 2015. Additionally, the 2018 Maintenance Tier Order changed the threshold eligibility size for run-of-river hydroelectric facilities from five MW to 10 MW. The Commission also maintained the use of the to-go-cost analysis[7] used in prior Maintenance Tier reviews but provided a return on capital for future capital expenditures and a five percent risk contingency on forecasted Operation and Maintenance expenses. Finally, the Commission adopted a standard three-year contract term. Facilities are permitted to apply for renewal of an existing Maintenance Tier contract; such application may be made in the final year of a contract, to become effective upon expiration of the existing contract.

On January 16, 2020, the Commission further incorporated the use of index-based contracts into the CES by directing NYSERDA to offer bidders an Index REC price option in future RES Tier 1 solicitations beginning in 2020.[8] In the Index REC Order, the Commission concluded that providing an Index-REC price option would (1) give developers more flexibility to adapt their bidding behavior to their financing and operational needs, (2) reduce the risk premiums that developers account for in their bids to accommodate for uncertainty in power market revenues, and (3) lower ratepayer costs on a per-REC basis. The Commission also noted that the Index REC approach would prevent the double payment for renewable attributes in the event that carbon pricing is implemented in the New York Independent System Operator, Inc.'s (NYISO) wholesale energy market. Subsequently,

[7] To-go-costs refer to the adequate level of support to cover the facility's future operating costs and any necessary future capital costs, but not sunk costs. The Commission uses the to-go-cost standard to determine economic need for maintenance support.

[8] Case 15-E-0302 et al., Order Modifying Tier 1 Renewable Procurements (issued January 16, 2020).

on November 20, 2020, the Commission authorized NYSERDA to offer eligible Tier 1 projects the one-time option to convert the Fixed-Price REC price term in their existing contract to an Index REC price approach.[9]

On May 14, 2020, the Commission approved implementation of the CLCPA's 6 gigawatt (GW) distributed solar goal and the extension of the program through 2025.[10] Subsequently, on April 14, 2022, the Commission expanded the installation goal for the NY-Sun program to 10 GW by 2030.[11]

On October 15, 2020, the Commission issued the CES Modification Order, which adopted the clean energy deployment targets found within the CLCPA, including a goal to serve at least 70% of statewide load with renewable energy resources by 2030 (2030 Target), and that 9,000 MW of OSW be procured by 2035.[12] The CES Modification Order also created two new programs to facilitate achievement of these goals. The first was the Competitive Tier 2 program designed to support non-state-owned wind and run-of-river hydroelectric generating facilities that commenced operation prior to January 2015. The second was the Tier 4 program designed to support renewable energy delivered into New York City.

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

[10] Case 19-E-0735, Proceeding on Motion of New York State Energy Research and Development Authority Requesting Additional NY-Sun Program Funding and Extension of Program Through 2025, Order Extending and Expanding Distributed Solar Incentives (issued May 14, 2020).

[11] Case 19-E-0735, supra, Order Expanding NY-Sun Program (issued April 14, 2022).

[12] Case 15-E-0302, Order Adopting Modifications to the Clean Energy Standard (issued October 15, 2020) (CES Modification Order).

On October 15, 2020, the Commission also issued its Order Approving the Build-Ready Program.[13] The Build-Ready Program is designed to advance clean energy development by preparing sites that are not otherwise attractive for private development to become available for large scale renewables development. The properties developed under the program will ultimately be made available to private developers through competitive auctions, after which the private developers will construct and operate renewable energy systems on the properties.

On November 20, 2023, in response to changes to the NYISO Capacity Accreditation Rules, the Commission issued its Order Addressing Capacity Accreditation Rules, removing the obligation that resources include a set production factor in their bids to ensure that future CES solicitations can accommodate these new rules.[14]

On April 20, 2023, the Commission issued the Tier 1 Transition Order, which approved modifications to the methodology for assigning costs to LSEs under Tier 1 of the CES.[15] In particular, the Commission authorized a transition from the prior compliance method that places requirements on LSEs using predetermined percentages to an approach that is based on load share obligations, similar to other existing LSE obligations under the CES. Further, the Tier 1 Transition Order made the administration and reconciliation of the Tier 1 program

[13] Case 15-E-0302, Order Approving Build Ready Program (issued October 15, 2020).

[14] Case 15-E-0302, Order Addressing Capacity Accreditation Rules (issued November 20, 2023).

[15] Case 15-E-0302 et al., Order Modifying Clean Energy Standard Tier 1 Obligations (issued April 20, 2023) (Tier 1 Transition Order).

consistent with the other CES Tiers, while discontinuing the purchase of ACPs by LSEs.

In June 2023, the Commission received three petitions from renewable energy developers representing 90 projects seeking to amend their contracts with NYSERDA for the purchase of RECs/ORECs due to unprecedented global and regional supply chain bottlenecks, high inflation, and increases in the cost of capital, driven by rising interest rates. On October 12, 2023, the Commission issued its Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects on the grounds that competitive solicitations remain the best mechanism by which to meet the Commission's obligation to establish just and reasonable rates for renewable generation on the path to meeting the renewable energy goals of the CLCPA.[16]

THE DRAFT CES BIENNIAL REVIEW

Operational Renewables and Zero-Emission Resources

The Biennial Review presents the results to date of efforts to reduce emissions from the New York electricity system, as evidenced by the composition of the State's electricity supply portfolio. The Biennial Review notes that in 2022, renewable energy resources supplied 25.1% of the State's electric load, reflecting total renewable generation of 38,061 gigawatt-hours (GWh) and statewide electric load of 151,836 GWh. Further, combined with nuclear generation of 31,865 GWh, total renewable and zero emission generation in 2022 amounted to 70,053 GWh, or 46.1% of statewide load. As explained in the Biennial Review, hydroelectric generation is by far the largest source of renewable generation in the State. In terms of

[16] Case 15-E-0302, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects (issued October 12, 2023) (October 2023 Order).

progress through 2022, several Tier 1 renewable energy projects under contract to NYSERDA, as well the South Fork offshore wind project, have begun operation. The annual estimated generation of these resources between January 1, 2023, and June 1, 2024, is 2,245 GWh.

Factors Affecting Progress

Seven factors were identified in the Biennial Review that have affected progress in meeting the State's CLCPA goals: (1) global interest rates, inflation, and supply chain pressures; (2) inadequacies in the transmission system; (3) interconnection delays; (4) changes in capacity accreditation instituted by the NYISO; (5) federal initiatives including the Inflation Reduction Act (IRA); (6) time and complexity of siting including permitting delays; and (7) expected increase in the statewide electric load.

1. Global Factors and Pressures

The Biennial Review notes New York's progress has been and will continue to be affected by conditions in the larger global markets. The supply chain is a global network of materials procurement, processing, production, material recovery, infrastructure and logistics operations. The Biennial Review points out that as the United States and other nations raise their goals for emission reductions, the supply chains will continue to be stressed. Additionally, the Biennial Review explains that high interest rates and inflation played a role in raising the baseline for renewable energy input prices. The Biennial Review further highlights that interest rates are forecasted to remain high, with developers thus continuing to experience raised cost of capital to finance projects. The Biennial Review stresses that the domestic supply of skilled workers will be constrained as New York and other states ramp up their renewable energy programs, something NYSERDA has sought to

address through the development of training programs to strengthen the skilled workforce.

2. Transmission

The Biennial Review states that as the energy portfolio changes and as electrification proceeds, New York's grid will need to be expanded to ensure energy reliability. According to the Biennial Review, there are two ways that the inadequacies in the existing system affected the renewable energy development: (1) reduction in the amount of energy a project can inject to the grid; and (2) increases in the cost of interconnection. The Biennial Review discusses the transmission projects and investments approved by the Commission in an effort to increase capacity, enable the flow of renewable energy, and enhance grid reliability and resiliency. The Biennial Review also highlights the efforts the Commission has taken to ensure interconnection for up to 9 GW of offshore wind generation capacity, including infrastructure projects such as Propel New York, the New York city Public Policy Transmission Need (PPTN), and the Brooklyn Clean Energy Hub. Additionally, the Biennial Review explains that the Commission and the utilities have developed the Coordinated Grid Planning Process (CGPP) that focuses in identifying the transmission investments needed to meet the CLCPA goals.

3. Interconnection

The Biennial Review indicates that the increased numbers of renewable energy projects entering the interconnection process in recent years, spurred by the CES and CLCPA goals, has put stress on the system. The Biennial Review explains that the time to complete each NYISO Class Year has increased with recent trends of 18 months or longer, and that, generally, many projects experience a three-to-four-year timeline or longer in some cases to complete the interconnection

process. The Biennial Review highlights efforts to streamline the interconnection process, including those in 2022 made to expedite the grid process such as removing duplicative and unnecessary processes in the System Reliability Study. The Biennial Review notes that in July 2023, the Federal Energy Regulatory Commission (FERC) issued an order which mandated the elimination of separate feasibility and system impact studies, integrating them into a single comprehensive cluster study process. While these changes are intended to standardize interconnection study completion timelines, the Biennial Review cautions that interconnection will remain a lengthy and costly process.

4. Capacity Accreditation

The Biennial Review states that the wholesale market design also impacts renewable resource development, and highlights changes to the capacity market approved by FERC in May 2022 for Capacity Accreditation. This change will automatically eliminate offer floors for wind, solar, storage, hydroelectric, geothermal, fuel cells that do not use fossil fuel, demand response, and other qualifying resources under the CLCPA. Additionally, the Biennial Review continues, the NYISO will adopt a new, marginal capacity accreditation design that values installed capacity (ICAP) suppliers based on their marginal contribution to system reliability, instead of average contribution. The Biennial Review explains that, starting in 2024, Capacity Accreditation Factors (CAFs) will reflect the marginal reliability contribution of the ICAP Suppliers within each Capacity Accreditation Resource Class (CARC) toward meeting New York Reliability Council LLC resource adequacy requirements for upcoming Capability Year. The Biennial Review notes that the Commission has authorized revision to the Reference Capacity

Price in NYSERDA solicitations by removing the obligation that resources include a set of production factor in their bids.

5. Federal Initiatives Including the IRA

The Biennial Review notes that NYSERDA established a Memorandum of Understanding with the Department of Energy for access to low-cost financing for large-scale renewable projects, advocating for updated guidance on clean energy tax credits, and Federal-State revenue sharing program. The IRA extended and expanded the production tax credit, clean energy tax credit and Modified Accelerated Cost Recovery System (MACRS) to provide further economic incentives for renewable energy supply chain and deployment. The IRA also offers additional tax credits for the projects that meet specific criteria related to: (1) low-income communities and tribal lands; (2) energy communities; (3) prevailing wage and apprenticeship; and (4) domestic content.

The Biennial Review explains that, in 2018, the federal government imposed safeguard tariffs on imported solar cells and modules, based on investigations, findings, and recommendations of the US Trade Commission. Then, in 2024, the federal government directed expansion that included additional tariffs on solar cells, semiconductors, and steel and aluminum products, while establishing an exclusion process for machinery used in domestic manufacturing of certain solar manufacturing equipment. The Biennial Review further states that, in 2023, the US Department of Commerce announced its determination of its circumvention inquiries, finding that certain Chinese producers were shipping their solar products through Cambodia, Malaysia, Thailand, and/or Vietnam to avoid paying antidumping and countervailing duties. Therefore, the Biennial Review continues, tariffs were imposed on imports of solar cells and modules from these four countries beginning June 6, 2024.

6. Siting

The Biennial Review explains that prior to 2021, major renewable electric generating facilities equal to or larger than 25 MW were sited pursuant to the to the Public Service Law Article 10 process. Currently, these projects are required to seek permits through the New York State Office of Renewable Energy Siting and Electric Transmission (ORES). The Biennial Review explains that the ORES process is designed to streamline the siting process, and through the adoption of the Renewable Action Through Project Interconnection and Deployment (RAPID) Act, its role was expanded to include environmental review and permitting of electric transmission facilities. ORES is obligated to make a final decision on a siting permit within one year from the date of the application, compared to the average of 3.5 years, under Article 10 previously.

The Biennial Review notes that the generation siting process is, from a development perspective, likely to increase in difficulty over time as "good" sites are exhausted and resource protection laws become more stringent. Further, the scarcity of feasible sites will tend to drive development costs up and slow the pace of development. According to the Biennial Review, another issue that may constrain siting is protection of agricultural lands and forests as they provide economical value and natural resources. The Biennial Review explains that NYSERDA has introduced a number of measures that incorporate agricultural and forest protection policies in the procurement process, and that the Agricultural Technical Working Group, Regional Agronomic Impact From Solar Energy committee is working to identify drivers of agricultural land conversion to better understand tradeoffs of solar development to identify feasible approaches for assessing solar development impacts on regional agricultural productivity and economics. The Biennial Review

asserts that in order to meet the 70% goal, New York must balance renewable energy project development with protection and enhancement of its agricultural lands and forests, and underscores the need to maximize the co-benefits and synergies from integrating land uses. However, the Biennial Review cautions that adding restrictions to the procurement process may limit the land use area available for some types of development and add complexity and cost to a project.

The Biennial Review also highlights the importance of the transmission siting procedures, including how they impact the pace renewable resources can be interconnected and their level of contribution to the energy supply. To support transmission development, the Biennial Review explains, the Commission has required the utilities to develop plans for transmission investment needed to meet the CLCPA goals resulting in over $5 billion in local transmission investments in advanced development or under construction. The Biennial Review further asserts that offshore wind generation will depend largely on the efficiency of the federal permitting processes which involves years of data collection and stakeholder engagement to produce detailed permit applications. Where federal agency approvals are needed, the Biennial Review continues, most significant renewable energy projects necessitate a National Environmental Policy Act review.

7. State Electric Load

The Biennial Review notes that the progress towards and achievement of the 70% goal depends significantly on both the projected future statewide electric load and the electric load in the year of goal achievement. New York faces similar challenges as the rest of the country, as large load such as data centers are expected to come online due to economic development and electrification efforts. As a result, the

Biennial Review provides a pathway towards achieving the 70% goal based on the recent expected increase in the amount of renewable generation. The Biennial Review states that the IRA has supported the announcement of over 300 new clean economy projects and created over 100,000 jobs, with the majority of these jobs in clean energy tech manufacturing supporting solar, storage, EV and hydrogen initiatives. The Biennial Review also notes that the Mid-Atlantic states are forecasted to increase overall demand and summer peak in the PJM Interconnection, LLC territory due to clean tech manufacturing, data centers, and electrification efforts.

Progress on Contracted Renewables

The Biennial Review notes that NYSERDA's pipeline of contracted renewables from previous Tier 1 and offshore wind solicitations has undergone significant changes since the 2022 CES Annual Report, primarily as a result of the supply chain and related challenges. Since the outset of the CES and the passage of the CLCPA, the Biennial Review explains, NYS has awarded more than 170 large-scale renewable projects as of October 2023, representing nearly 20,000 MW, which if built would reflect more than $55 billion in project investment and add thousands of jobs to 171,000 jobs already represented in New York's clean energy sector in 2022. However, the Biennial Review states that in June 2023, the Alliance for Clean Energy New York, Sunrise Wind, and Empire Offshore Wind/Beacon Wind filed separate petitions asking the Commission to amend existing contracts for 86 land-based projects and four offshore wind projects due to unprecedented global and regional factors. The Commission ultimately denied the petitions on the grounds that competitive solicitations remain the best mechanism by which to meet the renewable goals of the CLCPA. As a result, the Biennial Review continues, eighty-eight projects canceled their contracts with

NYSERDA, and NYSERDA launched expedited solicitations for Tier 1 and Offshore Wind programs.

1. Tier 1

The Biennial Review presents the status of awarded and contracted facilities from each solicitation as of June 1, 2024, representing projects which NYSERDA has awarded, approved, or are pending approval of NYSERDA agreements. Focusing on the most recent solicitations, in November 2023, the Biennial Review explains, NYSERDA issued the seventh RES request for proposals (RFP), which required participants in the solicitation that held a NYSERDA contract or award to terminate their contracts or rescind their award prior to participation. As a result, the Biennial Review continues, NYSERDA awarded 24 solar and wind projects, amounting to more than 2.4 GW of new renewable energy capacity. In June 2024, NYSERDA launched its eighth RES RFP, with award announcements pending at the time of the publication of the Biennial Review.

2. Offshore Wind Standard

The Biennial Review also presents the status of awarded facilities from each OSW solicitation. NYSERDA's first OSW solicitation in 2018 (ORECRFP18-1) resulted in two projects being selected, Empire Wind 1 and Sunrise Wind. This was followed by its second OSW solicitation in 2020 (ORECRFP20-1) that resulted in Empire Wind 2 and Beacon Wind 1 being selected. Following its third OSW solicitation (ORECRFP22-1), the Biennial Review states that three provisional awards were announced to Attentive Energy One, Community Offshore Wind, and Excelsior Wind. Subsequent to the award announcement, the Biennial Review explains material modifications to projects caused the awardees and their partners unable to come to terms, and further explains that General Electric's Vernova's pivot away from the initially proposed 18 MW Haliade-X turbine platform to a 15.5/16.5 MW

platform caused material changes to a proposed project. As a result, no awards were made under this solicitation. In 2023, NYSERDA issued its fourth OSW solicitation (ORECRFP23-1) on an accelerated timeline. Following the release of the solicitation, mutual termination agreements were reached between NYSERDA and the Empire Wind 2 and Beacon Wind 1 projects, which were selected under NYSERDA's second OSW solicitation. The two projects selected in the first solicitation, Empire Wind 1 and Sunrise Wind, both re-bid their projects into the fourth solicitation due to inflationary pressures from supply chain shortages and high-interest rates affecting offshore projects. Following the expedited OSW solicitation, Empire Wind 1 and Sunrise Wind projects were selected, totaling over 1,700 MW of capacity.

3. Tier 4 – New York City Renewable Energy

The CES Biennial Review explains that, in 2020, the Commission established a new Tier 4 program within the CES aimed at increasing the penetration of renewable energy in New York City to reduce reliance on fossil fuel generation. Under the tier 4 program, eligible resources must be either located in New York City, or their energy must be delivered through a new transmission interconnection to the City. The CES Biennial Review states that NYSERDA issued an RFP in January 2021, and in September 2021, two projects were selected – Clean Path NY (CPNY) and Champlain Hudson Power Express (CHPE). The CES Biennial Review asserts that the two projects will add 2,550 MW to the State's grid, and that the CHPE project began

construction in late 2022 and is expected to be operational in 2026.[17]

The Path to the 2030 Target

This section of the Biennial Review offers recommendations on renewable procurement quantities going forward. The Biennial Review updates the statewide electric load projections from the CES Modification Order from 151,678 GWh in 2030 to a base case forecasted load of 164,910 GWh in 2030. The Biennial Review explains that there are two key assumptions of the revised forecast: (1) the Biennial Review's forecasts include significantly higher estimate of load growth associated with large industrial loads, totaling 10,030 GWh by 2030, and (2) the revised forecast includes 3,105 GWh of new demand from air-and-ground- source heat pumps by 2030 and an additional 8,895 GWh from electric vehicle load. Included in the Biennial Review's analysis is a low growth forecasted load of 154,880 GWh, in 2030 and a high growth forecasted load of 174,876 megawatt hours (MWh) in 2030, and the Biennial Review discusses the factors impacting potential higher and lower load growth outcomes.

The Biennial Review states that under the base case forecast assumption of 164,910 GWh by 2030, the 70% goal equates to 115,437 GWh of renewable generation. The Biennial Review applies a more conservative assumption of 30% attrition of contracted and yet-to-be-procured projects, compared to the 20% attrition assumed in the CES Modification Order. The Biennial Review also takes a more conservative approach in projecting the amount of imported baseline renewables, assuming a reduction of

[17] The Commission notes that, since the filing of the Biennial Review, on November 27, 2024, NYSERDA mutually terminated the Tier 4 contract with the CPNY. Case 15-E-0302, NYSERDA Notice of CPNY Mutual Termination (filed November 27, 2024).

30%. The Biennial Review expects the amount of renewable generation from operational and awarded/contracted sources in 2030 to total 73,292 GWh, with a renewable energy deficit of 42,145 GWh under the base case load forecast. The Biennial Review explains that there are three Tier 1 solicitations - 2024, 2025, and 2026 – which are currently scheduled to fill this expected gap, and that NYSERDA would have to procure approximately 14,048 GWh per solicitation, assuming no attrition, or, with a 30% attrition rate, an amount of 20,068 GWh per solicitation. These amounts are significantly higher than the current annual procurement quantity of approximately 4,500 GWh per solicitation. The Biennial Review asserts that the amount of Tier 1 project deployment that would be needed to achieve the 70% goal in 2030 may far exceed what the renewables industry could be expected to develop in this timeframe.

The Biennial Review highlights the importance of load forecasts in determining the trajectory towards achieving the 2030 Target, and that as the statewide load increases, the renewable energy needed to achieve the 2030 Target also increases. The Biennial Review notes much of the load growth is driven by the beneficial electrification of transportation and buildings, which contribute to achieving the State's emission reduction goals, but increase the amount of renewable needed on the grid. When factoring in load growth, as well as incremental contributions from offshore wind and distributed generation, the Biennial Review asserts that approximately 23,486 GWh will need to be procured to achieve the 2030 Target in 2033. The Biennial Review proposed to procure these needed resources through six Tier 1 solicitations between 2024 and 2029. This includes the three solicitations already scheduled for 2024, 2025, and 2026, as well as three additional solicitations proposed by the Biennial Review to occur in 2027, 2028, and 2029. The biennial

Review thus concludes that approximately 3,900 GWh of onshore large-scale renewables resources would need to be procured per year, or approximately 5,600 GWh per year when accounting for attrition, in order to maintain trajectory towards the 2030 Target. The Biennial Review also highlights the important contribution of offshore wind projects towards reaching the increased renewables level needed to achieve 70% renewables as swiftly as possible after 2030 as the load forecast continues to increase.

1. Proposals

The Biennial Review recommends that the average annual Tier 1 procurement amount should be increased from 4,500 GWh per year to 5,600 GWH per year, and neither applied as a minimum or maximum amount consistent with current practice. Also, the Biennial Review recommends that increased generation solicitations should align with known plans and schedules for transmission investment, both in terms of quantities solicited and delivery expectations. It further recommends that NYSERDA's Tier 1 procurement authority be extended by at least three years to 2029.

With respect to OSW, the Biennial Review recommends that the Commission approve procurement flexibility such that NYSERDA and DPS Staff be given the authority to seek more than 9 GW of offshore wind if it is deemed necessary and cost-effective. With respect to distributed generation, the Biennial Review recommends that NYSERDA be instructed to carry out further analysis and develop proposals for an increase in the goal and authorization levels for distributed solar beyond the current goal of 10 GW by 2030.

CES Reform Options

1. Tier 1 Program

a. Project Selection

The Biennial Review identifies trends experienced in Tier 1 solicitations and proposes changes to the weighting of the various factors considered in project evaluations, which currently requires that 70% of the scoring criteria relate to the bid price of the project, while 30% is related to non-price factors (20% Project Viability, Operational Flexibility and Peak Coincidence; and 10% Economic Benefits to New York State). With the goal of contracting with the most viable projects, the Biennial Review suggests several options to adjust the relative weight of the scoring categories: (1) reduce the 70% Price scoring component and re-allocate those points into Project Viability, Operational Flexibility and Peak Coincidence; (2) expand definition of "cost component" beyond the bid price; and (3) re-allocate points within the 20% component of Project Viability, Operation Flexibility and Peak Coincidence, such that greater weighting within this non-price score would be given to attributes that reflect more mature projects.

With respect to onshore wind projects, the Biennial Review asserts that recent solicitations have experienced decreasing competition from onshore wind projects which is concerning because onshore wind typically has a higher capacity factor than solar and produces energy at times when solar does not, and has a high co-usability of land, particularly with agriculture. The Biennial Review presents three options as possible enhancements to RES Tier 1 procurements that could support onshore wind generations: (1) provide for an onshore wind-specific carve-out whereby a certain quantity of MWh per solicitation could be set aside for onshore wind; (2) conduct onshore wind-specific solicitations; and (3) provide a bonus to

onshore wind generation projects in the cost category that better reflects the incremental value to the system such projects offer.

b. Strike Price Adjustment

The Biennial Review states that recent history has shown that the length of time required for large-scale generation to progress through interconnection and permitting to commercial operation creates a significant risk due to changes in the market and supply chain which can alter project economics. Recent solicitations have implemented contract terms providing a formulaic strike price adjustment specific to inflation that may occur between when a project is awarded and when it enters commercial operation. The Biennial Review explains that, while these adjusters provide a more finely tuned level of cost-containment, they only address specific known risks. To address the risk associated with unforeseen, high impact events outside the control of project developers, the Biennial Review proposes an option to authorize NYSERDA and DPS Staff to offer a strike price adjustment to awarded but not yet constructed projects if such an event were to occur. It further proposes that determination regarding whether an unforeseen, high impact event has occurred would be jointly made by DPS Staff and NYSERDA. The Biennial Review notes that such an adjustment mechanism would be part of the competitive process, with mitigated risk included in the strike prices bid into the solicitation, as thus is distinguished from the October 2023 Order which denied petitions seeking inflation adjustments to already awarded projects on the grounds that competitive solicitations remain the best mechanism by which to meet the Commission's obligation to establish just and reasonable rates for renewable generation on the path to meeting the renewable energy goals of the CLCPA.

c. Strike Price Escalation

The Biennial Review notes that NYSERDA has already implemented and may continue to expand the use of pre-commercial operation adjusters as a way to provide flexibility and more finely tune cost containment for factors affecting project economics. The Biennial Review proposes consideration of a similar inflation adjustment over the contract tenor to account for unpredictable changes. Such a post-commercial operation inflation adjuster, according to the Biennial Review, should reduce the strike prices project developers bid into the solicitation, while better aligning the REC purchase price to actual costs incurred by the project. The Biennial Review offers that this concept could be implemented in a variety of ways and proposed that the Commission consider: (1) whether adjustments should be pre-determined at the time of proposal to the solicitation; (2) whether adjustments could be formulaic and reference an external indicator or market price index; and (3) whether this type of adjuster should be employed symmetrically and increase or decrease the strike price in each adjustment period depending on inflation trends.

d. REC Purchase Contract Tenor

The Biennial Review states that the maximum 20-year Tier 1 contract tenor was established to optimize the benefit ratepayers received from such contracts, and ensure ratepayers received REC benefits from Tier projects throughout a project's assumed useful life. The Biennial Review asserts that recent evidence demonstrates that wind facilities have extended production years up to 30 years now due to technology advancements. Similarly, utility-scale solar systems are now typically warranted from 25 to 30 years, according to the Biennial Review. The Biennial Review thus suggests increasing the maximum Tier 1 REC contract tenor to 25 years and to allow

NYSERDA, in consultation with DPS Staff, to determine on a case-by-case basis whether to offer 25-year contracts in future Tier 1 solicitations.

e. COMD Deadline and Extensions

The Biennial Review explains that since the CES implementation plans were approved, the Commercial Operation Milestone Date (COMD) established in those plans has not consistently aligned with observed project development timelines. The Biennial Review suggests the option to allow for adjustments to the nature and consequences of COMD deadlines as it may be sensible to authorize NYSERDA solicitations and contracts to clarify in a more nuanced manner the nature of and consequences of missing COMD deadlines and the extent to which delays are within developer control. According to the Biennial Review, this more tailored approach could allow NYSERDA to preferentially evaluate proposed Tier 1 projects with development schedules that will bring the project into operation sooner.

f. Index REC Methodology

Given practical experience gained in modeling Index REC pricing and in settling Index REC contracts, the Biennial Review proposes the option to authorize NYSERDA to further improve and optimize the Index REC settlement structure. As an example, the Biennial Review discusses moving away from a monthly average formulation if doing so can demonstrate that reduced costs to ratepayers would result without interfering in NYISO markets.

2. Offshore Wind Program

The Biennial Review notes that potential program design adjustments and improvements can be made to the offshore wind program similar to some of the concepts discussed above with respect to Tier 1. Those considerations include evolving

the procurement evaluation criteria from the current 70% price-based and 30% non-price factors, and the evolution of the strike price adjustment mechanisms in a matter specific to the offshore wind industry.

Regarding OREC contract tenor, the Biennial Review suggests that a longer contract tenor can reduce the per-month ratepayer burden by spreading costs over more months. The Biennial Review proposes to extend the maximum OREC contract tenor to 30 years, asserting that offshore wind systems have evolved and now offer the potential of longer equipment useful lives, and 30-year contracts could better match anticipated future equipment useful lives.

Regulated Utility Role in Renewable Energy Procurement

The Biennial Review explains that the NYISO acknowledges in the 2023-2032 Comprehensive Reliability Plan that there is uncertainty regarding the pace at which renewable energy projects will proceed and the electric demand that will be required to serve new loads. Additionally, the Biennial Review reiterates that New York may be realizing considerable large commercial and industrial loads related to economic development in coming years and asserts that the apparent divergence between the pace of renewable development and the State's decarbonization goals suggest that new approaches should be explored. The Biennial Review suggests that allowing the State's investor-owned electric utilities to develop and own small, medium, and large-scale renewables projects could be a potential solution. The Biennial Review recognizes the Commission's previous reluctance to allowing utility ownership of generation assets due to anti-competitive consequences but asserts that there is potential for better coordinated project planning and execution with favorable access to capital that could potentially accelerate renewables deployment and make this

an acceptable option. The Biennial Review offers the option of again allowing regulated electric utilities in New York to develop and own renewable energy projects.

Renewable Energy Zones

The Biennial Review suggests that the creation of Renewable Energy Zones (hereinafter referred to as Clean Energy Zones or CEZs) to align the State's generation and transmission development activities to meet our needs from electrification and the large loads associated with economic development growth. According to the Biennial Review, Clean Energy Zones could build on various efforts such as the Coordinated Grid Planning Process (CGPP), ongoing economic development initiatives, and several other power sector initiatives.

Baseline Hydro Generation

The Biennial Review asserts that baseline resources – that is renewable energy resources that commenced operation prior to January 1, 2015 – play a small but important role in contributing to the State's clean energy goals. In light of ongoing trends demonstrating that baseline resources are increasingly exporting their energy to neighboring states, combined with the economic challenges associated with large investments needed at aging facilities, the Biennial Review offers several options to address baseline resources in order to secure these resources' continued operation and deliverability into New York at the least cost to ratepayers. First, the Biennial Review proposes consideration be given to a developing a capital grants program that would provide a simplified registration process for hydro facilities to demonstrate a financial need for needed maintenance, repairs, and/or upgrades. Second, the Biennial Review proposed consideration of providing small hydro generators the Environmental Value or "E-Value" under the Value of Distributed Energy resource (VDER) Value

Stack in order to better compensate these resources for the environmental benefits they provide. Third, the Biennial Review proposes that the Commission consider increasing the duration of Maintenance Tier contracts to at least ten years to accommodate additional and extraordinary repair and maintenance capital costs experienced by baseline resources in order to maintain operations and derive income from the generation.

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 July 24, 2024 [SAPA No. 15-E-0302SP65]. The time for submission of comments pursuant to the SAPA notice expired on September 23, 2024. Pursuant to a notice issued by the Secretary on July 24, 2024, parties were afforded until October 7, 2024, to file reply comments. The comments received are discussed below and summarized in Appendix A.

LEGAL AUTHORITY

The Commission's authority derives from the 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,[18] environmental stewardship, and the conservation of resources.[19] 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 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.”[20]

The CLCPA amended the PSL by adding PSL §66-p, which directs the Commission to “establish a program to require that: (a) a minimum of seventy percent of the state wide electric

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

[19] 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).

[20] PSL §66(5).

generation secured by jurisdictional load serving entities to meet the electrical energy requirements of all end-use customers in New York state in two thousand thirty shall be generated by renewable energy systems; and (b) that by the year two thousand forty (collectively, the 'targets') the statewide electrical demand system will be zero emissions." In establishing such program, PSL §66-p(2) requires the Commission to "consider and where applicable formulate the program to address impacts of the program on safe and adequate electric service in the state under reasonably foreseeable conditions. The commission may, in designing the program, modify the obligations of jurisdictional load serving entities and/or the targets upon consideration of the factors described in this subdivision."

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 CLCPA establishes an ambitious set of objectives that are necessary to reduce greenhouse gas emissions, combat climate change, and improve the State's public health and welfare. The required biennial review process provides transparency into renewable energy development in New York and the State's progress toward meeting CLCPA targets. As presented in the Biennial Review and discussed further below, numerous factors, including inflation, transmission constraints, shifting federal policies, and interconnection and siting challenges, have adversely impacted renewable development and the State's trajectory towards achieving the 2030 Target. Moreover,

expected increases in statewide electric load will continue to increase the level of operational renewable resources necessary to meet the State's supply objectives. Taking these factors into consideration, the Biennial Review sets forth recommendations to modify CES solicitations to maintain progress towards meeting the CLCPA targets as quickly and cost-effectively as possible.

Since the filing of the Biennial Review, recent changes in federal energy and trade policy have introduced new obstacles to the State's progress. Federal policies slowing or halting the siting and construction of OSW and trade policies impacting supply chains generally are expected to have a negative impact on renewable development in the near term. For example, the Commission is aware that the assumptions and forecasts presented in the Biennial Review assumed a certain level of OSW would be achieved, which is now in doubt. The Commission recognizes that this is an ever-evolving situation and will continue to monitor and attempt to mitigate, where possible, challenges resulting from the uncertainty of federal policy. This issue will be addressed more fully in the next biennial review process, which will report on the time period following the issuance of the Biennial Review in July 2024.

The Commission also recognizes that energy affordability is a preeminent issue for New York ratepayers. While the Commission remains committed to achieving the goals of the CLCPA, it must also uphold its fundamental obligation of ensuring safe and adequate service at just and reasonable rates.[21] As discussed below, the Commission adopts many of the Biennial Review's recommendations to adjust course and maintain progress towards the 2030 Target and establishes additional

[21] See October 2023 Order.

processes to further evaluate some of the recommendations. As discussed further below, the Commission also finds now to be the appropriate time to more holistically review the State's renewable generation procurement practices and to identify potential changes and improvements. To that end, the Commission establishes a process, discussed below, to evaluate its current approach. Additionally, the Commission notes that this represents only the first biennial review and that the next review will be issued in 2026.

The Biennial Review

The Biennial Review can be divided into two parts; the informational reporting required by the PSL, and the recommendations provided by DPS Staff and NYSERDA. Specifically, the PSL requires that:

> [n]o later than July first, two thousand twenty-four and every two years thereafter, the commission shall, after notice and provision for the opportunity to comment, issue a comprehensive review of the program established pursuant to this section. The commission shall determine, among other matters: (a) progress in meeting the overall targets for deployment of renewable energy systems and zero emission sources, including factors that will or are likely to frustrate progress toward the targets; (b) distribution of systems by size and load zone; and (c) annual funding commitments and expenditures.[22]

The Commission finds that the Biennial Review filed on July 1, 2024, includes, among other matters, the three specific categories of information required by the PSL. Sections 1 through 5.2 of the Biennial Review address those specific reporting requirements of the PSL, while the remaining sections present recommendations for Commission consideration. The Biennial Review presents information on both operational resources and those that are not yet operational but have

[22] PSL §66-p(3).

contracted with NYSERDA for the purchase and sale of RECs. The Biennial Review also discusses the various factors affecting progress towards achieving the State's renewable energy goals and specifically analyzed the progress towards the 2030 goal. The Biennial Review further provides information on CES program funding and expenditures.

The Biennial Review includes the information specifically required by PSL §66-p(3) and the Commission hereby adopts the Biennial Review filed on July 1, 2024, as final. In doing so however, it is important to point out that this adoption only applies to the reporting required under the PSL (Biennial Review Sections 1 through 5.2). The Commission addresses the recommendations for changes to CES programs below.

The Commission also recognizes that there have been significant changes in federal energy policy since the Biennial Review was filed, and notes that, to the extent those changes are not addressed here in considering the recommendations provided in the Biennial Review, their impacts will be addressed in the next biennial review process.

Proposed Changes to the Clean Energy Standard

As noted above, the analysis in the Biennial Review concludes that a delay in achieving the 70% goal may be unavoidable. The Biennial Review includes recommendations for modifications to various aspects of the CES to advance progress towards the State's clean energy goals as expeditiously and cost effectively as possible. The Commission considers these recommendations with attention to its multiple and wide-ranging statutory responsibilities, which include the paramount objective of ensuring reliable and affordable electric service and protection of ratepayers, as well as achievement of environmental and decarbonization goals.

1. Changes to Tier 1 Solicitations

NYSERDA, as the central administrator of the CES, conducts competitive solicitations for the purchase of eligible Tier 1 RECs from renewable generation facilities. These solicitations have adapted, where feasible, to address changing market conditions, with annual procurement targets set to achieve the 2030 Target. The Biennial Review proposes several program design adjustments with respect to Tier 1 solicitations that are designed to reduce project attrition, award the highest value projects, and advance the State's renewable energy goals as expeditiously and cost-effectively as possible.

a. Annual Procurement Quantity and Solicitation Frequency

The Biennial Review proposes to increase the average annual Tier 1 solicitation amount from 4,500 GWh per year to 5,600 GWh per year to maintain progress towards the 2030 Target. It further proposes to align generation solicitations with known plans and schedules for transmission investment such that procurement strategies consider the need for transmission infrastructure to be in place in a time frame that supports the interconnection of the resources. Additionally, the Biennial Review proposes that NYSERDA's Tier 1 procurement authority be extended by at least three years to 2029.

The majority of commenters support both the proposal to increase the annual Tier 1 procurement target and the proposal to extend NYSERDA's procurement authority. These commenters stress the need for larger and continued solicitation activities that will be necessary to achieve the State's clean energy goals. Other commenters, such as Multiple Intervenors and the New York Municipal Power Agency (NYMPA), caution against such increases, citing concerns regarding ratepayer costs.

Solar Advocates[23] express concern about increasing procurement targets and support more attention being placed on the New York Power Authority (NYPA) developing renewable energy.

The Commission adopts the Biennial Review's proposals to: (1) increase the average annual Tier 1 solicitation amount to 5,600 GWh per year; and (2) extend NYSERDA's Tier 1 procurement authority to 2029. As a majority of commenters point out, extending NYSERDA's Tier 1 procurement authority is necessary to ensure NYSERDA can continue to conduct solicitations in furtherance of the CLCPA targets beyond the current authorization through 2026. Similarly, increasing the annual procurement target from 4,500 GWh per year to 5,600 GWh per year is prudent to maintain progress towards the 2030 Target. As has been the case for the past several solicitations, this annual procurement target is not adopted as either a mandatory minimum or maximum GWh requirement in each solicitation, but instead is an annual target. NYSERDA shall continue to have the flexibility to procure more or less than the target in any given solicitation based on its review of market data.

As mentioned above, the Commission is cognizant of the fact that uncertainty surrounding future OSW development impacts the timeline and forecasts discussed in the Biennial Review. The proposal to increase the average annual Tier 1 solicitation amount to 5,600 GWh per year was made based on a forecast of renewable deployment that included OSW. With at least some of the OSW development in doubt as the result of changes in federal policy, those forecasts will need to be updated. Because there still exists a great deal of uncertainty regarding OSW development in the near term, this issue will be analyzed and

[23] Solar Advocates include Solar One, Vote Solar, Alliance for a Green Economy (AGREE), and WE ACT for Environmental Justice.

addressed in the next Biennial Review in 2026, and the Commission is not, at this time, adopting further increases to the Tier 1 annual procurement target beyond what was proposed in the Biennial Review to offset potential loses in OSW.

b. Weighting of Price in Solicitation Scoring

If an effort to prioritize more viable projects that reach commercial operation, as well as projects that provide the best value for ratepayers, the Biennial Review proposes that the Commission consider reducing the 70% weighting of Price in the Tier 1 scoring criteria, and to reallocate those points into the non-price factors of Project Viability, Operational Flexibility, and Peak Coincidence, which are currently weighted at 20%. The Biennial Review further proposes that, either in addition to reducing the weighting of the Price component or, in the alternative, the Commission reconsider what constitutes the 70% Price component of the scoring criteria. This recommendation would have the Tier 1 scoring process incorporate other external ratepayer cost factors and indirect benefits rather than examining only the cost of the RECs themselves. Additionally, the Biennial Review proposes that consideration be given to reallocating points within the 20% component of Project Viability, Operation Flexibility, and Peak Coincidence, such that greater weighting within this non-price score would be given to attributes that reflect more mature projects.

The majority of commenters support adjusting the weighting of the price and non-price components in the Tier 1 scoring process. Some commenters, such as the Alliance for Clean Energy New York, Inc. (ACE NY), offer a specific adjusted weighting of 50% Price, 40% Project Viability, and 10% Economic Benefits. Other commenters do not provide a specific recommended adjustment but support reducing the 70% Price component. The City of New York (NYC) suggests that the project

cost components should not be reduced to less than 55% of the overall score. Several commenters such as Multiple Intervenors and New York League of Conservation Voters (NYLCV) oppose lowering the weighting of the Price component as it may increase costs to ratepayers.

Further, most commenters are against incorporating ratepayers' cost factors and indirect benefits in the Price component. Several commenters express concern about the transparency of the process if a change in weighting is implemented. CS Energy DevCo (CS Energy) argues that it would involve additional complexity and calculations introduced to a procurement process that is already complex. EDF Renewables (EDFR) and New York Battery and Energy Storage Technology Consortium (NY-BEST) stress that this change would move away from the relatively high level of transparency of the current bid evaluation, making the evaluation process less transparent. Multiple Intervenors advise that the only factors in addition to bid price that should be considered are "hard" economic benefits and costs, without a subjective element to them. NYLVC, on the other hand, supports expanding the cost component beyond the bid price.

In regard to consolidation and re-allocation of non-price points, ACE NY recommends that the Commission allow NYSERDA flexibility on allocation of these points between RFPs to accommodate evolving needs and concerns. ACE NY also suggests that the peak coincidence metric used in scoring be benchmarked against the peak forecast used by NYISO in the 2024 Gold Book, trending toward a winter peaking grid, rather than the current summer peak. CS Energy and the Long Island Power Authority (LIPA) support the consolidation and re-allocation of non-price points to focus on factors that directly influence the likelihood of project success. EDFR believes that there is

little opportunity to reallocate points within the existing non-price points.

Given the necessary focus on cost containment and affordability, the Commission declines to modify the scoring criteria in a way that would reduce the importance of price in the scoring process. As several commenters point out, reducing the weighting of Price in Tier 1 solicitations will result in the selection of potentially more expensive projects, increasing costs to ratepayers. That said, the Commission supports the proposal's stated goal of prioritizing projects that have a high likelihood of reaching commercial operation within a reasonable time after the award.

The Commission believes that goal can be accomplished without reducing the weighting of Price through the project maturity thresholds that NYSERDA already incorporates into CES solicitations. NYSERDA currently establishes maturity thresholds in its RFPs on a solicitation-by-solicitation basis, with those thresholds varying from one solicitation to the next. Doing so establishes minimum bidding eligibility requirements for each solicitation related to a project's progress in development. Going forward, the Commission will require NYSERDA to impose a minimum maturity threshold in all RFPs. This will ensure that projects bidding into NYSERDA solicitations are far enough advanced in development to have a high likelihood of achieving commercial operation within a relatively short time of executing a REC contract.

Experience over time has shown that one of the most significant hurdles to completing a renewable energy project is the high cost of interconnection. These costs are determined in advance of construction through a lengthy two-part study process conducted by the NYISO. Thus, bids developed before the NYISO has developed interconnection cost estimates are much less

certain (and likely include a higher risk premium) than bids prepared with an understanding of the bidder's interconnection obligations. Therefore, the Commission finds it reasonable to establish a minimum project maturity threshold that ensures participants have a realistic expectation for this critical component of their development costs.

The NYISO's interconnection process, as recently amended, determines a project's interconnection obligations through two studies in which eligible projects are grouped in "clusters."[24] The Phase 1 study produces estimates of project-specific costs, which can be significant in themselves, while the subsequent Phase 2 study develops estimates of a project's potentially larger obligations for upgrades to the transmission system. To ensure bidders are sufficiently advanced in the interconnection process, NYSERDA shall, in future CES solicitations, require prospective bidders to have satisfied the NYISO's requirements for entry into the Phase 2 study following completion of Phase 1, including making any deposit payment that may then be due.[25]

This requirement establishes an eligibility floor for future solicitations. Since this is a minimum standard, projects that have completed the Phase 2 cluster study or any later stage in the interconnection process are also eligible to bid. In addition, projects that have completed the interconnection process under the NYISO's prior rules may bid in future Tier 1 solicitations.

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[24] Docket No. ER24-1915 et al., New York Independent System Operator, Inc., Order on Compliance, 191 FERC ¶ 61,049 P. 90 (issued April 17, 2025) (approving cluster study process); see NYISO OATT, Attachment HH.

[25] See NYISO OATT Attachment HH, section 40.10.8.

NYSERDA may limit the maturity requirement to this one criterion but will also have the flexibility, in consultation with DPS Staff, to require developers to have progressed further in the development process by completing Phase 2 of the NYISO interconnection process or by adding other relevant criteria. NYSERDA may make these determinations on a solicitation-by-solicitation basis but may not relax the maturity requirement to a standard less stringent than what is adopted here.

The Commission recognizes that this eligibility standard does not completely eliminate the risk that high costs will compel a project developer who executes a REC contract to drop out of the interconnection process and potentially cancel its project. It does ensure, however, that bidders in the RFPs have certainty as to their Phase 1-determined costs and that they are committed to determining their full cost obligation through the Phase 2 study.

The Commission also understands that the number of projects participating in the NYISO process will vary from one cycle to the next. The cluster study performed in one year may result in numerous RFP-eligible projects while the group advancing to Phase 2 in a later cycle may be small. Therefore, the Commission directs NYSERDA to review the potential pool of eligible projects prior to each Tier 1 RFP and to consult with DPS Staff to determine whether the number of potential bidders will be sufficiently competitive to justify the solicitation.

c. Land Based Wind in Tier 1 Solicitations

The Biennial Review describes a recent trend in Tier 1 solicitations whereby fewer and fewer onshore wind projects are being awarded. Because onshore wind and solar are complementary generation sources, in that onshore wind typically has a higher capacity factor and produces energy at times when solar does not, the Biennial Review proposes three potential modifications

to Tier 1 solicitations to address the competitiveness of onshore wind. First, the Biennial Review proposes that the Commission consider setting aside a certain quantity of MWh in Tier 1 solicitations for onshore wind generation. Under this approach, onshore wind proposals would be scored and ranked in the bid stack and then awarded first within the carve-out until either all onshore wind proposals were awarded or the carve-out was filled. The Biennial Review proposes that NYSERDA, in consultation with DPS Staff, could re-assess and establish the onshore wind carve-out quantity individually for each solicitation.

Second, the Biennial Review recommends that consideration be given to conducting specific solicitations for onshore wind. Third, in order to better reflect the incremental value onshore wind provides to the system, the Biennial Review recommends that the Commission consider including a price bonus for onshore wind projects in Tier 1 solicitations. Under this approach, a bonus to onshore wind generation projects could be awarded in the cost category of the review process that better reflects the incremental value to the system onshore wind provides.

Commenters are split on whether to support an onshore wind carve-out in a Tier 1 solicitation. ACE NY and the Joint Utilities[26] support an onshore wind carve-out to secure more wind projects. CS Energy supports a carve-out as it would allow for NYSERDA to establish a target for optimal system mix.

Boralex and EDFR oppose onshore wind-specific carve-outs. Multiple Intervenors argue against alternative approaches

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

that would seek to give onshore wind a leg up versus solar and other renewable technologies. NYMPA asserts that a carveout would further increase costs to ratepayers. NYC urges the Commission and NYSERDA to create fair rules for a level playing field for all technologies.

The majority of commenters do not support a wind-specific solicitation. EDFR argue that an onshore wind solicitation does not contain enough cost containment protections to ensure that customers realize value. The Public Utility Law Project (PULP) expresses concern about ratepayer bill impacts.

Commenters also oppose a price bonus for onshore wind generation. ACE NY suggests that rebalancing the scoring matrix could result in wind projects be more competitive with solar projects. CS Energy is concerned that a price bonus could award too much or too little onshore wind. Liberty Renewables suggests alternatives such as establishing a threshold where wind projects scoring within 20% of the lowest scoring non-wind project would receive an award or providing onshore wind projects with bonus points. Multiple Intervenors and National Fuel Gas Distribution Corporation (NFGDC) argue that Tier 1 has always been technology-agnostic.

The Commission acknowledges the benefits of a diverse supply, noting that forecasting from the Climate Action Council has found a need for approximately 12 GW of onshore wind in the State's system mix by 2035. To best achieve these long-term goals in the interest of ratepayers and to optimally support grid reliability, solicitations should be efficiently procuring resources whose generation profiles align with the State's forecasted load profile. While the Commission recognizes the issue that the Biennial Review proposals are directed to address, we decline to adopt the proposed changes to Tier 1

solicitations regarding onshore wind. As several commenters point out, providing beneficial treatment to onshore wind in competitive solicitations risks raising costs and upsetting the competitive process. Instead, the Commission has previously endorsed the use of a portfolio risk factor (PRF) pertaining to diversity of generation for this purpose and encourages the use of this PRF to this end.

The Tier 1 solicitation process currently includes a portfolio risk assessment that is performed after the Technical Evaluation Panel has produced a preliminary ranking of bids. The risk assessment applies limits to the portfolio as a whole, so long as those limits do not increase the generation-weighted average cost of the portfolio by more than 10%. The diversity PRF places an 80% capacity limit on any one technology type in the portfolio. Thus, there already exists a "carve out" for technologies other than solar which can help ensure that technologies with generation profiles different than that of solar resources are procured. This PRF can be utilized to procure technologies with complementary generation profiles, including onshore wind, without creating a specific carve out or financial adder for onshore wind. NYSERDA shall have the flexibility to reduce this 80% limit (i.e. strengthen the cap) in any given solicitation, but shall not increase the cap beyond 80%. Any application of this diversity PRF shall still be constrained by limiting the increase to the generation-weighted average cost of the portfolio by no more than 10%.

With that said, the Commission makes one clarification regarding the application of this diversity PRF. Because solar paired with battery storage can provide a generation profile that differs from stand-alone solar, the Commission will consider solar projects paired with battery storage that provide a different generation profile to be a different technology than

stand-along solar for purposes of applying the diversity PRF. Not counting solar paired with storage towards the 80% cap on any one technology type further addresses the underlying concern regarding the long-term procurement of a single technology (in this case, solar) with a generation profile that does not match forecasted load profiles. Like onshore wind, solar paired with storage can provide a generation profile that is complementary to standalone solar.

2. Changes to REC/OREC Contracting

In addition to the proposed modifications to the Tier 1 solicitation process, the Biennial Review also proposes modifications to the Purchase and Sale Agreements for RECs and ORECs. These modifications include post contracting strike price changes, extensions of contract tenors, commercial operation deadline extensions, and changes to the index REC settlement structure.

a. Strike Price Adjustment

To address project risks that may not be known at the time of contracting or that cannot be addressed through the existing formulaic strike price adjustments, the Biennial Review proposes that the Commission consider authorizing NYSERDA and DPS Staff to offer strike price adjustments to awarded, but not yet constructed, projects if unforeseen events outside the control of project developers occur. If it is determined that such an unforeseeable event had occurred, any changes would be made on a portfolio-wide basis to all contracted projects affected by the event.

Stakeholders generally support some form of a strike price adjustment, but with parameters. ACE NY and NYLCV support strike price adjustments for projects that have not yet begun construction. Boralex suggests using a formulaic approach. CS Energy supports procurements incorporating a nuanced and

technology-specific inflation adjuster that is established prior to bid time. NYC recommends that the adjustments to strike prices occur on a limited basis. Equinor Wind, the Joint Utilities, and the New York Offshore Wind Alliance (NYOWA) support exploring adjusting strike prices, but cautions that the process needs further development. New York Solar Energy Industries Association (NYSEIA) agrees with allowing strike price adjustments, but only with equitable flexibility to distributed solar projects. Rise Light & Power, LLC suggests the strike adjustment criteria must be included in the solicitation and believes that adjustments should not be applied retroactively. Solar Advocates argue that, if price adjustments are necessary, the process should be clear and transparent.

While the Commission supports NYSERDA's continued use of strike price adjusters providing for formulaic strike price adjustments specific to inflation that may occur between the time of an award and the time the project enters commercial operation, the Commission declines to adopt a strike price adjustment for events unknown at the time of project bidding. Including strike price adjustments for known risks, like inflation, at the time the RFP is issued can provide cost mitigation in that it allows the developer to share the risk of future cost increases instead of fully pricing inflation risk into the strike price. While a strike price adjustment aimed to address the impacts of unknown future "black swan" type of events may achieve a similar goal, the approach lacks the certainty to adequately ensure costs remain reasonable. The ambiguity regarding the nature and significance of some future unknown event risks significant changes to originally bid strike prices, negatively impacting the solicitation process. As the Commission pointed out in the October 2023 Order, competitive solicitations remain the best mechanism by which to meet the

Commission's obligation to establish just and reasonable rates for renewable generation on the path to meeting the renewable energy goals of the CLCPA. This is, in part, because the competitive process allocates various project risks to developers. Consistent with that principle, allowing adjustments to strike prices for unknown and unidentified risks outside the solicitation process potentially undermines an important policy objective.

The Commission thus supports addressing risks known at the time of bidding through strike price adjustment provisions included in the RFP and the REC purchase and sale agreements, but does not support addressing potential unknown "black swan" risks with a price adjuster. The risk of increased ratepayer costs associated with undefined and speculative future events urges rejection of this proposal. Developers remain in the best position to anticipate and internalize unknown risks associated with project development.

b. Strike Price Escalation

The Biennial Review further proposes consideration of permitting inflation adjustments in REC contracts to account for unpredictable changes in operations and maintenance costs during the contract tenor. This type of post-commercial operation inflation adjustment is intended to reduce strike prices in a way that will more closely align the contracted REC purchase price with the actual costs incurred by the project, instead of an assumed level of risk at the time of bidding.

ACE NY and EDFR support an escalator to be added to the strike price. CS Energy emphasizes that any adjuster should be simple and determined at the time of bid. Equinor Wind recommends a post-commercial operation inflation adjuster that could mitigate project risks of operational and maintenance costs. The Joint Utilities, LIPA, and NYLCV support a price

escalator, but one that is tied to the market price index. NYOWA suggests reforming the current approach to ensure a successful completion of offshore wind projects. NYSEIA maintains that a price escalator should also be applied to distributed solar projects by applying the same escalation rate to the E-Value. PULP recommends that the strike price escalation be transparent, focused on affordability, and inclusive of guardrails to protect ratepayers. Sierra Club and the Natural Resources Defense Council (NRDC) advocate for authorizing strike price adjustments during the length of a contract based on market indices. On the other hand, Multiple Intervenors claim that price escalations will shift risk to ratepayers, but, if adopted, should be tied to published well-documented cost indices.

For the same reasons that the Commission declines to adopt a strike price adjustment for risks unknown at the time of bidding, the Commission declines to adopt a strike price escalator that would adjust the strike price after the project has reached commercial operation and at any point during the life of the contract. This type of strike price adjustment exposes ratepayers to any increase in costs to the developer, when the purpose of a competitive solicitation among independent power producers is to relieve ratepayers from exposure to exactly those risks. The Commission reaffirms that competitive solicitations remain the best mechanism to establish strike prices, and rejects post-contracting, including post-operation, strike price adjustments for unanticipated events that might occur during project development and operation.

c. REC and OREC Contract Tenor

The Biennial Review proposes changes to the current maximum contract tenors for both REC and OREC Purchase and Sale Agreements to reflect changes in the useful life of the

generating facilities. Regarding Tier 1 projects, the Biennial Review recommends that the Commission consider increasing the maximum Tier 1 REC contract tenor for wind and solar facilities from 20 years to up to 25 years. Under this approach, the decision whether to offer a 20-year or 25-year contact would be made on a solicitation-by-solicitation basis by NYSERDA, in consultation with DPS Staff. Regarding offshore wind projects, the Biennial Review recommends that the Commission consider increasing the maximum OREC contract tenor from 25 years to 30 years. Under this approach, NYSERDA would have the option to offer a 30-year OREC contract in future solicitations. According to the Biennial Review, these changes to contract tenors would reduce monthly ratepayer impacts by spreading costs out over a longer period of time.

Most commenters, including ACE NY, AES Clean Energy, LLC (AES), NYLCV, and Boralex, are supportive of increasing Tier 1 contract tenor to 25 years and offshore wind contracts to 30 years. The Joint Utilities specifically support increasing the maximum Tier 1 contract tenor to 25 years. EDFR suggests flexibility in contract tenor for Tier 1 by supporting bidders' ability to select a contract tenor of up to 25 years, as an important means by which to support responsible reductions in contract pricing. LIPA generally supports increasing the maximum Tier 1 contract tenor to 25 years, but requests further analysis be conducted to better demonstrate the potential for ratepayer savings, before fully supporting the increase.

Commenters in opposition, including NYC, the New York Association of Public Power (NYAPP), and Multiple Intervenors, express concerns regarding increased costs to ratepayers. NYC states more certainty is needed before changes are made.

The Commission adopts the Biennial Review's proposed modifications to REC and OREC purchase and sale agreement

contract tenors. Generally speaking, maximum contract tenors are intended to ensure that ratepayers receive benefits from the renewable project throughout a project's assumed useful life. These extensions are likely to reduce monthly ratepayer costs to develop a project as the REC or OREC payments may be spread out over an additional five years.

Regarding OSW, the maximum contract tenor will be 30 years to better align with anticipated future equipment lifetimes. With respect to Tier 1 projects, technology advances since the adoption of the 20-year Tier 1 REC contract tenor in 2017 warrants extension of the Tier 1 REC contract tenor to 25 years. However, as recommended in the Biennial Review, NYSERDA, in consultation with DPS Staff, shall determine on a case-by-case basis whether to offer 25-year contracts in future Tier 1 solicitations. This will allow NYSERDA the flexibility to evaluate market conditions and establish a Tier 1 REC contract tenor of up to 25 years, but will not require a 25-year contract tenor in every solicitation.

d. Commercial Operation Deadlines

To address a misalignment between established COMD deadlines and observed project development timelines, the Biennial Review recommends authorizing NYSERDA to address COMD timelines in a more nuanced way. Under this approach, instead of the rigid deadline and process for extensions utilized currently, NYSERDA would incorporate the nature of, and consequences of, missing COMD deadlines in solicitations and contracts in a way that will distinguish between types of delays within and outside of developers' control.

Commenters overwhelmingly support allowing NYSERDA to maintain flexibility to adjust COMDs. ACE NY suggests NYSERDA should be able to extend COMDs for projects that can demonstrate continued progress toward significant development milestones.

CS Energy supports granting greater flexibility to extend COMDs to account for nuances of project development. National Grid Ventures (NGV) recommends that flexibility in determining COMDs will reduce risk and result in cancellation of fewer projects. Vineyard Offshore (Vineyard) suggests allowing project delays of up to one year after COMD.

LIPA opposes allowing adjustments of COMD deadlines and instead suggests the use of more defined criteria and equal treatment of transmission and generation projects. PULP is concerned that the proposed changes to COMD deadlines could increase costs and affordability challenges to ratepayers.

The Commission agrees with the Biennial Review and commentors that changes to the current process for extending the COMD are warranted given the experience gained over the last several years. As noted, the approach to setting deadlines for commercial operation established in the Phase 1 and 3 Implementation Plans in 2017 and 2019, respectively, has proven to be too rigid for the dynamic realities of project development that have materialized since 2019, and it should be reformed. The current process established a COMD for awarded facilities approximately two years from the anticipated selection date, with the ability to extend that deadline up to an additional three years, for a total of five years. Some aspects of this approach are helpful, such as the contractual checkpoints where projects need to deposit additional contract security or furnish an executed interconnection agreement in order to show continuous commitment to project development. However, this process focused on the threat of termination, which is not always the best remedy for project delays, especially given that in most cases terminating the contract does not benefit the State.

For these reasons, NYSERDA is authorized to take a more flexible approach to COMD in future Tier 1 solicitations. Specifically, NYSERDA is no longer required to include a termination right for a Tier 1 project failing to come online by a certain date, although it may choose to do so. That said, NYSERDA shall still include reasonable provisions in Tier 1 contracts encouraging and substantiating continuous development, such as requirements to post additional contract security on a regular schedule which, if violated, would give NYSERDA the right to terminate and draw upon contract security.

There are circumstances in which termination should be an acknowledged outcome. For example, it may be appropriate to provide for early termination of a contract when external events suggest the contract is not economic. Examples of situations that may warrant early contract termination include, but are not limited to, failure by the developer to accept its interconnection costs at the conclusion of the NYISO Phase 2 Cluster Study process, or inability to close financing within a reasonable time following the filing of the interconnection agreement and receipt of a siting permit from ORES.[27]

Subject to extensions for events beyond developers' control discussed immediately below, any commercial operation date set in Tier 1 solicitations shall be no later than five years from the award date. However, NYSERDA may extend any deadline and/or outer limit date for a particular project in order to address the occurrence of an unexpected event that is

[27] These examples are intended to capture financial circumstances that are outside an individual developer's control. For example, the final Phase 2 interconnection cost estimate may invalidate the developer's financial projections. Similarly, conditions in the financial markets may put reasonable terms out of reach, again through no fault of the developer. In these cases, termination and a re-bid in a later solicitation may be the best solution for the developer and ratepayers.

beyond the developer's control, as long as the project continues to demonstrate diligent efforts to achieve commercial operation.[28]

The Commission recognizes PULP's concerns with customer costs but believes that changes adopted here will have the effect of reducing costs, not increasing them. It is worth pointing out that NYSERDA does not begin paying developers until their project begins commercial operation; thus, ratepayers do not pay for projects while they are in development and bear no additional costs when development is delayed. Additionally, as other commenters point out, allowing flexibility with respect to COMD may reduce perceived developer risk, which may ultimately reduce strike prices.

The Commission notes that OSW solicitations take a different approach whereby there is no COMD, but rather an outer limit date which causes the contract term to be reduced if the project does not come online within a certain period of time. Additionally, in the OSW context the developer is required to post contract security at certain predetermined contractual intervals, instead at the point of requesting an extension of a commercial operation deadline. If contract security is not posted, NYSERDA can terminate the contract, but there is no imminent threat of termination. This approach could work for Tier 1 solicitations and NYSERDA is therefore authorized to use the outer limit date approach used in OSW for Tier 1. However, understanding the differences in the two programs, NYSERDA is not required to use this approach.

[28] In such a case, NYSERDA shall also require the developer to show it has taken, or will take, all reasonable steps to mitigate the impact of the unexpected event on its project in order to justify the requested extension.

e. Index REC Settlement Structure

Highlighting the practical experience gained over the last several years with respect to modeling Index REC pricing and settling Index REC contracts, the Biennial Review proposes further optimization of the Index REC settlement structure. For example, the Biennial Review states that there are potential benefits to changing the monthly average structure to some other structure. The current Index REC mechanism was established in January 2020 to provide project developers with more flexibility to adapt their bidding behavior to their financing and operation needs.[29] Through this mechanism, the Commission stated that project developers would be able to account for uncertainty in the energy markets and thereby lowering their bids accordingly.

ACE NY is not in favor of revising the Index REC settlement structure and states that while analysis suggests potential savings for ratepayers through hourly settlements instead of monthly averages, and by settling at nodes rather than hubs, the complexity and risk adjustments involved may not justify the savings based on current analysis. AES believes that changing the Index REC settlement structure to a monthly average instead of the simple hourly average over the month formulation used by NYSERDA currently would not necessarily reduce costs for the ratepayers because any reduction realized would have to be made up by NYSERDA in the REC price. Liberty Renewables believes that the existing Index REC Strike Price settlement framework should be maintained and not modified to eliminate basis and congestion risks. NYSEIA states that inadequate public data is available for a non-market participant to provide meaningful feedback on this option. Similarly, LIPA recommends that NYSERDA share additional analysis about proposed

[29] Case 15-E-0302, Order Modifying Tier 1 Renewable Procurements (issued January 16, 2020).

changes to optimize the Index REC settlement structure to ensure that the changes optimize ratepayer costs.

Among the parties that favor changes to the Index REC mechanism, Boralex recommends moving toward a Proxy Revenue Structure based on nodal pricing and resource curves for wind and solar. CS Energy refers to two areas that are currently difficult for developers to evaluate and therefore lead to assumptions that result in unviable projects: the time of day/load weighting risk and the basis/curtailment risk. CS Energy believes that to the extent that NYSERDA and developers can work together to share those risks, the program would likely see reduced attrition and higher investment interest from new market entrants. EDFR recommends NYSERDA consider offering some protection against severe locational-based marginal pricing depression via a new congestion capping mechanism that would make the resource owner whole for extremes of lost revenue caused by factors that are outside its control. NGV recommends reconsideration of "Market OREC" or perfect hedge OREC options and it urges NYSERDA, at minimum, to enhance the hedge quality of the current structure, by considering an energy price index that is at the nodal level and/or production dependent. Orsted Wind Power North America LLC (Orsted) recommends that the Commission replace the current Index OREC pricing mechanism with a true Market OREC, or contract-for-difference model, that eliminates such temporal and zonal basis risk by utilizing the actual energy and capacity market revenues realized by OSW generators to determine the OREC price, net of a strike price. Similar to comments above, Orsted states that an alternative to a Market REC could be a refined Index OREC formula in which the energy price index would be calculated at the nodal level, and thus be closer to actual revenues received compared to a zonal-wide price index, and production-dependent (i.e., measured

during times of OSW energy production, and therefore selecting times more closely correlated to actual revenue generation). Lastly, Orsted recommends that the reference capacity price should be based on the project.

PULP believes that affordability considerations should be incorporated into changes to the Index REC settlement structure. While Shell Energy North America (US), L.P., Shell New Energies US, LLC, and Savion, LLC (collectively, Shell) supports NYSERDA's current procurement of RECs and ORECs under separate Tier 1 solicitations, it believes the Commission should implement a more comprehensive secondary REC market framework that encourages LSEs to manage costs by procuring RECs through liquid REC markets. Lastly, Vineyard suggests that the index OREC contracting structure be replaced with a true Contract-for-Difference structure where monthly REC payments are calculated using strike price and actual energy and capacity market revenues.

The commentors raise several issues for consideration and the Commission believe there is value in further exploring some of the concepts presented. The general issue presented in the Biennial Review, and the specific comments received from stakeholders, focus on two types of risk associated with renewable development: basis risk and shape risk. The Biennial Review did not propose specific changes to the REC settlement structure and the comments received demonstrate significant interest in addressing these risks, but also little consensus on how that should be done. For these reasons, the Commission finds that more analysis is needed before making changes to the REC settlement structure and directs DPS Staff and NYSERDA to more specifically address these issues either through the next biennial review process, or through a separate proposal filed prior to the next biennial review process.

3. Offshore Wind Target and Procurements

Regarding offshore wind, the Biennial Review recommends providing NYSERDA with the flexibility to solicit more than 9 GW of offshore wind if necessary to achieve the 9 GW goal in a timely and cost-effective manner.

ACE NY and NY-BEST support going beyond the 9 GW offshore wind target. NYLCV and Vineyard recommend increasing the State's offshore wind procurement goals to at least 20 GW by 2050. NGV suggests that entering into additional effective procurement processes for as much offshore wind as possible, sooner rather than later, will maximize New York State's ability to serve demand for clean energy as cost-effectively as possible.

The Commission declines to adopt the proposal to authorize OSW procurements above the current goal at this time. The Commission notes that procurement of more than 9 GW offshore wind may necessitate additional environmental review as the prior Supplemental Generic Environmental Impact Statement envaulted the impacts of procuring up to 9 GW of offshore wind generation. Any potential modifications to this target will be addressed in the context of the next biennial review process.

The Biennial Report describes the OSW solicitations that have occurred to-date as well as the resulting projects that are contracted and under construction. Given the current state of the federal policies slowing or halting the siting and construction of OSW projects, the Commission directs NYSERDA and DPS Staff to determine if the current cadence of solicitations should be revised to maintain a robust competitive process going forward.

4. Distributed Solar Generation

With respect to distributed solar, the Biennial Review recommended that NYSERDA be instructed to carry out further

analysis and develop proposals for an increase in the 10 GW by 2030 goal, including authorization levels for distributed solar beyond that goal. NYSERDA filed the NY-Sun Program: Impacts of the Inflation Reduction Act and the Potential for Incremental Distributed Solar Capacity Beyond the 10 GW Goal on January 5, 2024, in accordance with the Commission's Mid-Point Review Order.[30] NYSEIA subsequently filed comments in response to the Biennial Review requesting the Commission raise the distributed solar goal to 20 GW by 2035.

On April 24, 2025, the Commission issued the Order Approving NY-Sun Program Modifications, which directed that surplus NY-Sun program funds be utilized to procure an estimated additional 500 MW beyond this 10 GW goal for the benefit of low-income customers.[31] In addition to addressing the use of surplus funds, the Commission also recognized the NY-Sun Program's success in establishing a mature and self-sustaining distributed solar market and adopted the phase-out of the ratepayer-funded up-front incentives currently provided by NY-Sun following achievement of the 10 GW goal.

Given that this issue has been addressed in another order, and recognizing the maturity of the distributed solar market, the Commission will not address the issue of an increase to the 10 GW by 2030 distributed solar goal in this Order. The Commission notes that the 10 GW by 2030 goal is not a cap to distributed solar development and that there are other market

[30] Case 21-E-0629, In the Matter of the Advancement of Distributed Solar, Order Adopting NY-Sun Mid-Program Modifications (issued June 23, 2023); Case 21-E-0629, supra, NY-Sun Program: Impacts of the Inflation Reduction Act and the Potential for Incremental Distributed Solar Capacity Beyond the 10 GW Goal (filed January 1, 2024).

[31] Case 21-E-0629, supra, Order Approving NY-Sun Program Modifications (issued April 24, 2025).

mechanisms that remain to incentivize and support further distributed solar development, including the VDER Value Stack compensation incentives and the Statewide Solar for All program, in addition to state, local, and federal tax credits.

5. Baseline Hydroelectric Generation

New York State has long valued its hydroelectric resources as important clean energy and community resources that are a critical component of the renewable baseline that the State relies on during the entire year. The Biennial Review notes that contributions from baseline hydroelectric resources declined 8.2% between 2017 and 2020. In order to address economic challenges expressed by hydroelectric resources, including the need for capital to make investments in the facilities, the Biennial Review lists three options for consideration: (1) the creation of a capital grants program; (2) revising the Maintenance Tier Program to extend the length of contracts; and (3) providing compensation through the Environmental Value of the VDER Value Stack.

As pointed out in comments, baseline hydroelectric resources are facing economic challenges with needed capital for reinvestment in plant assets. Without financial support, these resources may opt to export energy to nearby states that offer more attractive prices. Independent Power Producers of New York, Inc. (IPPNY) raises the concern that those generators without NYSERDA REC contracts face constraints for sustaining the operation of their facilities. New York Energy and Climate Advocates (NYECA) believes that establishing support systems for small-scale hydroelectric plants would help maintain reliable renewable energy sources and add variety to carbon-free options. NYMPA recommends that baseline hydroelectric facilities be fully compensated for their attributes, either through the creation of a new REC product or through modification of the re-powering

guidelines. In sum, most commenters agreed on the importance of baseline hydroelectric resources in achieving New York State's renewable energy goals and that more must be done to maintain these resources.

Regarding a capital grants program, NYPA supports a capital grants program, while encouraging the Commission to increase the 5 MW limit to 10 MW to capture more of its hydroelectric generating units. NYSEIA supports a capital grants program as a last resort to maintain operation of these stations or bring them back into service. ACE NY supports such a program with the caveat that any financial need documentation should be based on the individual generating station's economic outlook and not that of the parent company. LIPA encourages NYSERDA to develop and provide specific guidelines on eligibility for a capital grants program including the economic parameters of the program.

The Commission notes that the creation of a capital grants program would necessitate the development of a program which would need to be supported administratively, operated, maintained, and then evaluated, utilizing the resources of DPS Staff and small hydroelectric facility owners. Regarding federal Department of Energy (DOE) grants for hydroelectric generating facilities, in its comments, Brookfield Renewables confirms that the application process for the DOE programs was tedious, and that a simplified registration process would be useful. The Commission agrees with the Joint Utilities' recommendation to hold off on creation of a capital grants program at this time, and instead seeks to provide support to hydroelectric generating resources through the measures discussed below.

Regarding the potential for hydroelectric generators to receive the E-Value, the Biennial Review considers providing

these baseline resources with the E-Value to recognize the importance of their renewable generation. IPPNY, NYSEIA, Northern Power & Light, and Azure Mountain Power Company recommend that the full E-Value be provided to small baseline hydroelectric generators, with IPPNY further stating that requiring demonstration of financial need should not be necessary because it is not required for other resources eligible for the E-Value. NYSEIA further contends that the E-Value is the only option that provides a meaningful long-term revenue stream that make these facilities economically viable and therefore result in the owner making significant investments that extend the life of the facility.

The Commission emphasizes that the E-Value was established as a critical component of the VDER mechanism in 2017 to provide a consistent income stream to renewable energy systems interconnected after January 1, 2015. Under the VDER Value Stack compensation mechanism, the E-Value recognizes the environmental attributes of incremental generation, which provides compensation for a fixed, 20-year period. The issue of extending the E-Value to baseline hydroelectric resources in operation prior to January 1, 2015, was first presented to the Commission in a petition filed on May 26, 2022, by the Interested Hydroelectric Parties.[32] Between the filing of the Biennial Review and this Order, the Commission addressed that

[32] The Interested Hydroelectric Parties are Albany Engineering, Azure Mountain Power, Black Brook Hydro, Boralex, Brookfield Renewable, Central Rivers Power LLC, Dichotomy Power LLC, Eagle Creek Renewable Energy, ECOsponsible, Energy Ottawa NY, Gravity Renewables, Kruger Energy, MCM Development, Natural Power Group, Northern Power & Light, Inc., and Sandy Hollow Power Company.

petition in its October 17, 2024 H-Value Order.[33] There, the Commission determined that instead of providing baseline hydroelectric facilities with the same E-Value as new incremental generation, such resources would have the opportunity to receive a modified form of the E-Value, referred to as the "H-Value," set at 75 percent of the current E-Value. The Commission directed that the H-Value would be available to hydroelectric generation facilities in service before January 1, 2015, sized up to and including 5 megawatts (MWs) in capacity, and that operate, and register with the local utility as a Community Distributed Generation (CDG) project. Regarding the H-Value price determination, the Commission explained that the E-Value was designed to support the economics of developing new renewable resources to meet New York's climate goals. Existing hydroelectric resources do not have the same kind of costs such as financing, permitting, land payments, and interconnection costs associated with developing a new resource that warrant a larger value. The requirement that these facilities participate in a CDG program underscores these smaller scale hydroelectric generators as community resources and permits members of the community to become subscribers to the CDG projects and reap financial benefits from them. The H-Value income streams begin for hydroelectric generators which qualify, beginning in 2026. Given that the Commission has already addressed this issue in the H-Value Order, the Commission takes no further action on this issue in this Order.

Turning to the Tier 2 Maintenance program, the streamlined processes adopted by the Commission in the 2018 Maintenance Tier Order resulted in a prescriptive process that

[33] Case 15-E-0751 et al., Order Approving Compensation for Hydroelectric Baseline Generating Facilities (issue October 17, 2024) (H-Value Order).

establishes a set of predetermined assumptions allowing for expeditious review of a maintenance request. The current three-year contract provides funding to permit the hydroelectric generator to continue operation, without which it would cease to operate. However, as referenced above, many small hydroelectric facilities still require up front capital for maintenance and repairs, and consideration of a modification to the Maintenance Tier program to address some of these capital needs is warranted. A number of commenters provided input and insight into its operation and potential improvement. The Joint Utilities, ACE NY, and NYLCV support reforming the Maintenance Tier program, including extending the duration of its contracts from three years out to ten years. Brookfield views a 10-year Maintenance contract as an approach to increase revenue certainty for developers. A number of commenters including Brookfield and ACE NY also point out that an extension of the term of Maintenance contracts to ten years could better accommodate the additional repair and maintenance costs confronting many of these small hydroelectric generators and increase revenue certainty. NYLCV similarly supports reforming the Maintenance Tier program by extending the duration of the contracts from three to ten years. PULP generally agrees that small hydroelectric resources play an important role in contributing to the State's clean energy goals, but expresses concern that the capital investments needed to improve and increase hydroelectric generation infrastructure in New York may render smaller resources less economically viable and make it necessary to achieve scale efficiencies through consolidation of the sector.

The Commission agrees with these statements in addition to DPS Staff's assertion that a longer ten-year term would offer the facilities better financing options needed to

address the additional and often extraordinary repair expenses of hydroelectric generation facilities. The income certainty of a ten-year contract with NYSERDA would also ensure the RECs would not be exported and need replacement with more expensive Tier 1 projects. For these reasons, the Commission supports increasing the term of Maintenance Tier and directs that future Maintenance Tier awards shall utilize a ten-year contract term.

Though not proposed in the Biennial Review, several commenters raised the issue of repowering for baseline hydroelectric resources. Repowering of baseline hydroelectric resources is a process which can result in creation of incremental renewable generation that qualifies for Tier l solicitations. As adopted in the CES Modification Order, the three requirements to achieve successful repowering and qualify for Tier 1 solicitations are: (1) replacement of the prime mover; (2) a 15% increase in production; and (3) capital expenditure for the repowering must be in excess of 80% of the net book value (facility's original cost less accumulate depreciation) of the plant. However, the Commission determined that the prime mover replacement criterion is inappropriate as applied to hydropower resources because hydropower re-powerings can involve substantial required investment in physical plant infrastructure other than the turbine, or refurbishing rather than replacing the turbine. Therefore, the Commission ruled that hydroelectric resources should be required to meet all of the repowering eligibility criteria except replacement of the prime mover.

Brookfield contends that long-term revenue certainty through re-powering is one of the best approaches for supporting existing hydroelectric generators. NYAPP does not believe that hydroelectric generators should be required to increase generation by 15 percent due to technological limitations of the

facilities that make it virtually impossible for most facilities to achieve that increase in generation.

Considering these complex factors which are involved in repowering of baseline hydroelectric resources, we direct DPS Staff to develop separate criteria for hydroelectric resources that capture the significant costs and considerations necessary for repowering. Among those revised criteria, DPS Staff should consider removal of the 15 percent increase in generation for hydroelectric facilities. DPS Staff is directed to revisit these repowering requirements and provide a recommendation within 180 days of the effective date of this Order.

6. Utility Ownership of Renewable Generation

In 1996, the Commission began the process to deregulate the State's electric industry following the "Competitive Opportunities Case."[34] At the time, deregulation presented several opportunities and advantages for New York, including increased competition, greater reliability, and more consumer choice.[35] Deregulation also allayed concerns about utilities exercising vertical market power by ensuring a fair and competitive marketplace in both the generation and transmission of electricity.[36] The issues of competition and vertical market power are still relevant today, and the Commission must continue to ensure that generation is procured in the most cost-effective manner while protecting the interests of ratepayers.

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[34] Case 94-E-0952 et al., In the Matter of Competitive Opportunities Regarding Electric Service, Opinion and Order Regarding Competitive Opportunities for Electric Service (issued May 20, 1996).

[35] Id., p. 27.

[36] Id., p. 29.

The Commission recognizes, however, that a lot has changed in the energy market since deregulation; new technologies have developed, markets have evolved, and the State has established ambitious clean energy and environmental goals. The Commission also acknowledges that its pursuit of renewable generation has lagged expectations, despite the tremendous efforts of industry, NYSERDA, communities, and stakeholders. Given our climate objectives, the matter of utility-ownership of clean energy generation must be considered in the context of what can best accelerate the market and be consistent with the public interest as it stands today.

The Biennial Review proposes that utility owned generation has the potential to accelerate renewables deployment and better coordinate planning and construction efforts. Given the various factors affecting progress towards the State's clean energy goals discussed in the Biennial Review, it recommends that the Commission consider allowing utility owned generation. The Biennial Review also identifies several related issues that would need to be considered including: (1) the Utilities' capabilities in developing and owning renewable energy projects; (2) prior utility experience with DER and with developing renewable projects outside New York; (3) the potential impacts of this model on the State's CES solicitations; (4) the types of ownership structures that would best suit utility participation in renewable energy development; (5) understanding whether and how utility ownership and procurement of renewable energy resources would reduce costs and deliver benefits to ratepayers, particularly low-income ratepayers; (6) vertical market power and competitive pressures, and (7) the role of State support and facilitation of utility development and ownership of behind-the-meter renewable generation serving large loads.

Largely, commenters that are, or represent, independent power producers oppose utility-owned generation. ACE NY states that deregulation has increased competition, reduced market power risk, decreased ratepayer risk, and introduced cleaner, more affordability suppliers. Equinor Wind and NYSEIA assert that utility-owned generation could result in non-competitive outcomes and increased costs to ratepayers. IPPNY does not oppose a model where regulated utilities offer independent power producer-developed renewable generation projects with a bundled power purchase agreement. Shell raises other considerations, such as the potential adverse consequences that a sudden policy shift would have on the renewable development market. Solar Advocates argue that enabling utilities to develop generation would not be helpful in achieving CLCPA compliance.

Other commenters raised concerns that utility ownership programs may distract from the utilities' primary business of delivering electricity or the State's efforts to advance this public policy goal through other means. NYC commented that allowing utilities to invest in generation could detract from their core business need and that no basis exists for shifting current Commission policy. Public Power NY suggests focusing on utilizing NYPA's new authority and capabilities as it is more aligned with the State's clean energy goals. PULP suggests ratepayer protections must be included in any utility-owned generation program.

The Joint Utilities support utility-owned generation, arguing that it can bring value to customers and complement existing procurement by adding more resources to meet the renewable goal. NYECA believes that allowing utilities to invest in renewable energy projects could lead to better

coordination between power generation and transmission, improve efficiency, and reduce costs.

The Commission acknowledges the sound rationales behind the establishment of the policy disfavoring utility-owned generation that has been in place since the 1990s. However, there is value in continuing to explore this option further as another potential avenue to achieving the State's ambitious clean energy goals. Therefore, while this Order does not rescind Commission policy on utility ownership of generation assets, the Commission seeks comment on the following questions to help better inform the Commission's assessment as to whether changes to that policy might serve the interests of ratepayers:

- What, if any, additional regulatory requirements would be needed to ensure effective and fair oversight of utility-owned generation, vertical market power concerns, and information asymmetry?
- What does an ownership model look like if the clean energy project is owned by and located outside of the utilities service territory?
- Would projects be selected through a request for proposal process or other competitive mechanism?
    - What is the proposed role of the Commission for oversight of this process?
    - Would projects be developed by the utilities or purchased through build transfer agreements or other mechanisms?
- How would the Renewable Energy Certificates (RECs) that utility owned projects generate be utilized?
    - Will the utility keep the RECs on behalf of their customers, sold to NYSERDA, sold to other entities such as large volume customers, or some sort of prescribed blend?
    - How will value of such RECs be determined?
- How would utility-owned projects be financed?
    - If ratepayer funded, how and at what point in the process? Are costs allocated to the utilities rate base, or statewide through the load-share ratio or similar mechanism?

  - If ratepayer funded, how would financial net benefits accrue to ratepayers/customers? Would they go to the customers of record at the time any benefits are realized via a credit (or similar) or remitted to the State for overall clean energy compliance obligations?
- Who bears the project development risk?
  - What, if any, impact to ratepayers will unsuccessful projects have? How can the utility minimize ratepayer exposure to project development risk?
- Are there additional performance, measurement, and reporting requirements a utility-owned generation project should be subject to?
- Are there other considerations relevant to this inquiry?

7. Clean Energy Zones

The Biennial Review recommends that the Commission consider designating CEZs to align generation development with planned transmission expansion and economic development. Along those lines, the Biennial Review proposes consideration be given to: (1) how to designate a CEZ and what identifiable locations would qualify; (2) if efficiencies within a CEZ model can be gained by allowing utilities to take a role in developing the generation; (3) how a State entity may advance the pre-development of land acquisition and permitting in a way that is additive to the transmission pre-build work; and (4) how to best align CEZ identification and economic development growth.

Commenters are split on designating CEZs. Earthjustice and Joint Utilities support CEZs. NGV suggests that CEZs should be coordinated with the existing planning processes but should also preserve opportunities for competitive transmission projects. NYPA recommends that the Commission consider Priority Transmission projects within the CEZs model. NYSEIA recommends the Commission consider the role that distributed energy resources can play in CEZs. PULP suggests CEZs should provide a verifiable benefit.

ACE NY believes this approach inherently picks winners. Boralex does not think this process is necessary. Eight Organizations recommend focusing efforts on additional NYPA transmission projects.[37] LIPA supports further exploration in the existing Coordinated Grid Planning Process (CGPP) process.

The Commission recognizes that New York will need to develop very large amounts of renewable energy and zero-emission resources to meet the State's electrification, reliability, and economic development goals. The Commission notes that, in addition to the findings in the Biennial Review, the supply curve modeling informing the CGPP suggests that large-scale renewable energy development will be concentrated in particular locations across the State. The Commission also recognizes there may be benefits to aligning generation and transmission development activities in those areas, and that such an alignment might be achieved through leveraging the work already underway in the CGPP.

In consideration of the above, the Commission supports the recommendation in the Biennial Review to explore how CEZs may offer cost and risk reduction benefits in deploying large-scale clean energy resources. The Commission is particularly interested in how a CEZ designation can foster greater community engagement and economic development growth in the expansion of our clean energy system. However, as identified in many of the stakeholder comments, the State first needs to show how CEZs fit within our generation and transmission planning activities. Therefore, the Commission directs DPS Staff to create a process

[37] Eight Organizations are a group of education, construction, and environmental entities including Cornell University, Environmental Advocates New York, ACE NY, NYLCV, Environmental Defense Fund, NYSEIA, Sierra Club, and LiUNA NY.

for defining and identifying a CEZ for incorporation into the Commission's existing planning processes and renewable procurements. DPS Staff shall hold at least one technical conference, with a specific focus on engaging interested stakeholders, and is directed to provide a recommendation to the Commission regarding the identification and potential uses of CEZs within one year of the effective date of this Order.

ZEC Program

The Commission notes the continued need for the emissions-free energy provided by the resources currently supported by the ZEC program. Particularly under the conditions discussed in the Biennial Review, efforts to retain the State's existing fleet of zero-emission assets warrants careful consideration. For this reason, the Commission directs DPS Staff to prepare a white paper to evaluate how any continued ZEC program should be structured, and to file such white paper for public comment within 120 days of the effective date of this Order.

Review of Solicitation Practices

As mentioned above, the Commission will be reevaluating the CES solicitation process. While the improvements adopted in this Order are steps in the right direction, given the pace of development to date, the Commission finds that it is reasonable and timely to reevaluate the current process at a fundamental level to identify improvements or necessary revisions and ensure that New York is able to achieve its clean energy goals in an efficient and cost-effective manner. At a minimum, the revaluation shall include the following topics:

1. Value Proposition for Customers

The review shall examine how the renewable procurement program could hedge electricity price volatility for customers

and reduce overall costs. This shall include evaluation of contracting for energy and capacity in addition to the renewable attributes. Also, tied to value, the review shall examine how competitive forces can be harnessed to enable the most efficient investments.

2. System Benefits

The review shall examine how renewable generation can be strategically deployed to provide meaningful benefits. This shall include how the procurement structure can ensure projects are sited to optimize these system benefits, including in coordination with the build out of the transmission and distribution system.

3. Procurement Mechanism

The review shall examine the benefits of alternate procurement mechanisms other than the central procurement structure currently administered by NYSERDA. This shall include leveraging NYPA's authority under the Build Ready Renewables Act and the consideration of utility-by-utility procurement obligations, including the recent directive to NYPA to evaluate procuring renewable energy to supply State agencies.[38]

4. Voluntary Market Participation

The review shall examine how the renewable procurement program can best promote the voluntary market in New York and mitigate exports of RECs to markets outside of New York. This shall also include how to encourage and account for large loads satisfying their renewable generation obligations through contracting and/or direct development.

[38] Governor Hochul 2025 State of the State Book, pp. 121-122, available at: https://www.governor.ny.gov/programs/2025-state-state.

5. Market Design Changes

The review shall include an evaluation of how existing wholesale capacity and energy market designs may need to be modified to better align with the existing or proposed clean energy procurement mechanisms. The Commission thus directs DPS Staff to evaluate the existing solicitation process utilized in the CES and provide a white paper for public comment and Commission consideration within one year of the effective date of this Order.

CONCLUSION

The biennial review process established in the PSL provides transparency into renewable energy development in New York as well as the progress toward meeting CLCPA targets. The Commission adopts, as final, the Biennial Review filed on July 1, 2024, and further makes changes to the CES to improve solicitation processes, and make course-correcting changes to the program to maintain a trajectory towards achieving the State's clean energy goals as quickly and cost-effectively as possible. The Commission recognizes that there remain various factors affecting progress towards meeting those goals and will continue to evaluate the CES program though the biennial review process, the next of which will be filed in 2026.

The Commission orders:

1. The Draft Clean Energy Standard Biennial Review filed by Department of Public Service Staff and the New York State Energy Research and Development Authority is adopted as final, as discussed in the body of this Order.

2. The New York State Energy Research and Development Authority is authorized to conduct annual Tier 1 solicitations aimed at procuring 5,600 gigawatt hours per year on average, as

discussed in the body of this Order. The New York State Energy Research and Development Authority is further authorized to conduct annual Tier 1 solicitations through 2029.

3. The New York State Energy Research and Development Authority shall, in future Clean Energy Standard Tier 1 solicitations, require prospective bidders to have satisfied the New York Independent System Operator, Inc.'s requirements for entry into the Phase 2 of interconnection cluster study following completion of Phase 1, as discussed in the body of this Order.

4. The New York State Energy Research and Development Authority is authorized to offer Tier 1 Renewable Energy Certificate Purchase and Sale Agreements with a maximum contract tenor of 25 years, and Offshore Wind Renewable Energy Certificate Purchase and Sale Agreements with a maximum contract tenor of 30 years, as discussed in the body of this Order.

5. The New York State Energy Research and Development Authority shall establish in future Tier 1 Renewable Energy Certificate Purchase and Sale Agreements a commercial operation milestone date of no later than five years from the award date, with extensions of the commercial operation milestone date permitted for events beyond developers' reasonable control, as discussed in the body of this Order.

6. The New York State Energy Research and Development Authority shall offer future Tier 2 Maintenance award agreements with a contract tenor of ten years, as discussed in the body of this Order.

7. Department of Public Service Staff and the New York State Energy Research and Development Authority shall, on or before on July 1, 2026, file a proposal to modify the Renewable Energy Certificate settlement structure, as discussed in the body of this Order. This proposal can be included either as

part of the next biennial review process, or through a separate proposal filed prior to the next biennial review process.

8. Department of Public Service Staff shall, within 180 days of the effective date of this Order, file a proposal for modified repowering requirements specific to hydroelectric resources, as discussed in the body of this Order.

9. Department of Public Service Staff shall, within one year of the effective date of this Order, file a proposal for identification and use of Clean Energy Zones, as discussed in the body of this Order.

10. Department of Public Service Staff shall file, within 120 days of the effective date of this Order, a white paper evaluating how any continued Zero Emissions Credit program should be structured, as discussed in the body of this Order.

11. Department of Public Service Staff shall file, within one year of the effective date of this Order, a white paper that evaluates the existing solicitation process utilized in the Clean Energy Standard and provides recommendations for improvements, as discussed in the body of this Order.

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

13. This proceeding is continued.

By the Commission,

(SIGNED) MICHELLE L. PHILLIPS
Secretary

APPENDIX A

LIST OF COMMENTERS

60 Organizations[1] (60 Organizations)
8 Organizations[2]
AES Clean Energy, LLC (AES)
Alliance for a Green Economy (AGREE)
Alliance for Clean Energy New York, Inc. (ACE NY)
Bloom Energy Corporation (Bloom Energy)
Boilermakers Local 5 (Boilermakers)
Boralex (Boralex)
Brian Manktelow, New York State Assemblyman, 130th District (Assemblymember Manktelow)
Brookfield Renewable Energy Group (Brookfield)
Carbon Free New York (CFNY)
CenterState Corporation for Economic Opportunity (CenterState)
City of New York (NYC)
City of Oswego (Oswego)
Coalition for Community Solar Access (CCSA)
Constellation Energy Generation, LLC (Constellation)
Council on Intelligent Energy & Conservation Policy (CIECP)
CS Energy DevCo (CS Energy)
Curtis Palmer Hydroelectric Company (Curtis Palmer)
Earthjustice (Earthjustice)
EDF Renewables (EDFR)
Elevate Renewables F7 (Elevate Renewables)
Equinor Wind (Equinor)
Form Letter Commenters[3]
Gary Abraham and Ginger Schroder (Abraham & Schroder)
Greater Rochester Chamber of Commerce (Rochester CoC)
Hydro-Québec US Energy Services (U.S.) Inc. (HQUS)
Independent Power Producers of New York, Inc. (IPPNY)

[1] 60 Organizations are a group of environmental advocates.

[2] 8 Organizations are a group of education, construction, and environmental entities including Cornell University, Environmental Advocates New York, ACE NY, NYLCV, Environmental Defense Fund, NYSEIA, Sierra Club, and LiUNA NY.

[3] 384 members of the public who submitted a form letter.

Joint Utilities[4]
Liberty Renewables
Long Island Power Authority (LIPA)
Multiple Intervenors
National Fuel Cell Research Center (NFCRC)
National Fuel Gas Distribution Corporation (NFGDC)
National Grid Ventures (NGV)
New York Association of Public Power (NYAPP)
New York Battery and Energy Storage Technology Consortium (NY-BEST)
New York City Environmental Justice Alliance (NYC-EJA)
New York Energy and Climate Advocates (NYECA)
New York Energy Consumers Council (NYECC)
New York League of Conservation Voters (NYLCV)
New York Municipal Power Agency (NYMPA)
New York Offshore Wind Alliance (NYOWA)
New York Power Authority (NYPA)
New York Solar Energy Industries Association (NYSEIA)
NineDot Energy (NineDot)
Northern Power & Light and Azure Mountain Power Company (NP&L and AMP)
Nucor Steel Auburn (Nucor)
NY Pipe Trades (NYPT)
Orsted Wind Power North America LLC (Orsted)
Oswego City School District (Oswego Schools)
Pamela A. Helming, New York State Senator, 54th District (Senator Helming)
Promoting Health and Sustainable Energy (PHASE)
Plug Power, Inc. (Plug Power)
Public Power NY
Public Utility Law Project (PULP)
ConnectGen East LLC (ConnectGen)
RIC Energy (RIC)
Rise Light & Power, LLC (Rise)
John W. Mannion, New York State Senator, 50th District (Senator Mannion)
Shell Energy North America (US), L.P., Shell New Energies US, LLC, and Savion, LLC (Shell)

[4] The Joint Utilities are Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc. (Consolidated Edison), New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities (O&R), Inc., and Rochester Gas and Electric Corporation.

Sierra Club and Natural Resources Defense Council (Sierra Club and NRDC)
Solar Advocates[5]
Thorndike Energy (Thorndike)
Town of Ontario (Ontario)
Town of Scriba (Scriba)
Upstate Energy Jobs (UEJ)
Vineyard Offshore (Vineyard)
Wayne Central School District (Wayne Schools)
Wayne County (Wayne County)
William Magnarelli, New York State Assemblyman, 120th District (Assemblymember Magnarelli)
Zimmerman and Associates (Zimmerman)

SUMMARY OF COMMENTS

This summary of comments is compiled for the benefit of the reader and is not intended to be a comprehensive source of all comments submitted in this proceeding or to reflect any weight given particular comments by the Commission or DPS Staff. The Commission received over 450 public comments relating to the Draft Clean Energy Standard Biennial Review (Biennial Review) filed July 1, 2024, including 71 comments submitted by intervenors and 13 reply comments across a wide cross-section of stakeholders. In addition to organizations, firms, legislators, non-for-profit organizations, utilities and private individuals. Most of the comments received were supportive of the Biennial Review and many of its proposed recommendations.

I. 70 by 30 Target

60 Organizations

60 Organizations urge the Commission to reject the Biennial Review's determination that the State will miss the 2030 Target deadline. They argue that missing the target could

[5] Solar Advocates are Solar One, Vote Solar, Alliance for a Green Economy (AGREE), and WE ACT for Environmental Justice.

signal to renewable energy developers that the State is not serious about expanding the industry. The group asserts that the 2030 Target deadline is foundational to meeting future climate targets, including the 2040 Target, and encourages the State to think creatively to address demand growth. Further, the group encourages the Commission to advance creative demand management strategies, especially as EV charging ramps up, including vehicle to grid integration that can support grid reliability.

Boralex

Boralex recommends the State should remain committed to the 2030 Target mandate by aggressively procuring new renewables over the next two to three years. They believe the conditions for the target delay have not been met.

CIECP & PHASE

The CIECP and PHASE suggest that the State vigorously step up its efforts to support renewable projects already in the pipeline and incentivize the acceleration of renewable energy development and expansion, instead of accepting failure. They believe such efforts include increasing near-term procurement targets, prioritizing efficiency, reducing red tape, increasing access to energy storage, and continuing distribution system improvements.

8 Organizations

The organizations oppose delaying the 2030 Target. They argue that the CES has two more reviews scheduled in 2026 and 2028, and that those reviews would be the appropriate times to consider any adjustments to the 2030 Target. However, they recommend expanding the options (including both personnel and time-related options) to escort wind blade, turbine, and tower deliveries, and geothermal drilling equipment; to stabilize

renewable energy taxation appraisal methodology to ensure consistent and predictable tax payments and encourage innovations like agrivoltaics; and to direct all state agencies to integrate climate as a priority in their actions and permitting processes to facilitate and expedite Climate Act implementation.

CS Energy

CS Energy strongly opposes a 2030 Target delay and suggests the Commission authorize NYSERDA to take dramatic action to build a renewable energy economic ecosystem.

Earthjustice

Earthjustice opposes the inclusion of any conclusion that the Commission is likely to miss the 2030 Target in the final Biennial Review. They believe that weakening or extending the 2030 Target puts climate targets at risk and dampens motivation to bring more clean energy and storage online. Furthermore, Earthjustice argues that there is no reason to think that renewable energy will develop at the same slow pace.

Form Letter Commenters

Form Letter Commenters stress that the clean energy and climate goals of the CLCPA are mandatory and non-negotiable, driven by the urgent demands of the climate crisis and aligned with the recommendations of global climate experts.

Mulitple Intervenors

Multiple Intervenors recommend the Commission consider gradual, smart development of renewables, instead of the aggressive pursuit of unrealistic and unfunded goals at exorbitant cost to customers.

NFCRC

NFCRC recommends that the Commission fully support and incentivize fuel cells powered by green hydrogen and biogas.

They believe these technologies are key to achieving the 2030 Target rapidly and cost-effectively.

NY-BEST

NY-BEST is deeply concerned that the State has not laid out a pathway to stay on track to achieving the 2030 Target and instead proposes meeting it by 2033. They also recommend a discussion of how energy storage will be incorporated into the State's plan.

NYC-EJA

NYC-EJA is concerned by the Commission and NYSERDA's findings that New York State will not meet the 2030 Target and that the agencies are suggesting shifting the 2030 deadline to 2033 or beyond. They believe that the assumption that the total renewable generation from operational and awarded/contracted sources will reach 73,292 GWh by 2030 is conservative and does not absolve the State of its obligation to meet CLCPA mandates.

NYC-EJA recommends that the State intensify its efforts to achieve the 2030 Target by increasing investments, implementing load reforms, and prioritizing resources. Specifically, NYC-EJA suggests the State: (1) increase funding for future solicitations to ensure realistic and adequate financial support for generation sources capable of coming online by 2030; (2) empower NYPA through the 2023-2024 New York State Budget to develop and operate renewable energy generation projects; (3) expand solar development goals by advancing a 20 GW Distributed Solar Roadmap with a 2035 target; (4) regulate energy consumption in data centers, artificial intelligence operations, cryptocurrency mining, and other energy-intensive industries, particularly those operated by multinational corporations with minimal contributions to New York State's local economy. Furthermore, NYC-EJA suggests the State (1)

enhance demand response programs by having regulated utilities create new initiatives or scale up existing ones, ensuring broader participation and minimizing barriers; (2) improve regulations to support utilities' non-wires solutions and targeted transmission investments; (3) prioritize project viability over lowest-cost bids when awarding large-scale renewable energy projects; (4) repurpose existing fossil fuel-powered generation sites by leveraging existing infrastructure for interconnecting energy storage and long-range transmission lines carrying renewable electricity; and (5) exclude costly and ineffective solutions, such as hydrogen combustion, from the State's energy transition strategy.

NYECA

NYECA is concerned that the Biennial Review fails to present a realistic pathway for achieving the 2030 Target amid rising demand and lacks a strategy for progressing beyond this target to fully decarbonize the grid. NYECA believes that supply chain and workforce limitations are inherent in the current approach of renewable resource reliance and is dissatisfied that the Biennial Review identifies these reasons for not meeting the 2030 Target but provides little evidence that they will subside.

NYLCV

NYLCV does not believe that it is an appropriate time to concede defeat on the 2030 Target and modify it to a 70 x 2033 goal, as the Biennial Review suggests. They believe that with appropriate resources and attention from State agencies and the necessary reforms to permitting processes, the 2030 Target can still be achieved.

NYSEIA

NYSEIA urges the Commission to work with legislators and agency leaders to develop and advance an aggressive new strategy to achieve the 2030 Target.

NineDot

NineDot is concerned that the State is opting for a slower, less ambitious pathway. They believe that many viable pathways still exist to achieve the goals, including those set for 2030. NineDot urges the State to accelerate climate action and reaffirm its ambitious targets by continuing to collaborate closely with industry, focusing on implementation, and pursuing innovative solutions, rather than shifting the goalposts.

NP&L and AMP

NP&L and AMP notes that the primary reason progress on the 2030 Target has stalled is the loss of generation from hydroelectric resources.

Public Power NY

Public Power NY argues that adjusting the 2030 Target undermines the State's credibility and could further harm disadvantaged communities. Public Power NY recommends expanding the options considered to meet the renewable energy goals to include the role of public authorities, and believes reducing demand-side consumption should be prioritized.

RIC

Rather than delaying the 2030 Target, RIC recommends NYSERDA and the Commission develop a new approach to get renewable energy deployment back on track.

Rise

Rise supports many of the recommendations and options proposed by Staff and NYSERDA, as they would add flexibility to solicitations. They recommend the State reexamine and, as

necessary, modify its renewable resource procurement processes to ensure they achieve the intended effect including attracting, awarding, and ensuring completion of cost-effective projects that can reach commercial operations on a timeline that will benefit New Yorkers. Rise says that the recommendations put forth in the Biennial Review are an important first step in that process.

Sierra Club and NRDC

Sierra Club and NRDC indicate New York State must continue to work towards achieving the 2030 Target because with more than six years until the deadline, and the scale and timing of load growth remaining uncertain, it is too early to consider modifying that deadline. They state the Commission should decline to make any modifications to long-term renewable energy goals in this initial Biennial Review.

Solar Advocates

Solar Advocates oppose delaying the 2030 Target arguing taking such action undermines the State's credibility, weakens its position as a clean energy leader, exacerbates existing inequities, and undermines the core principles of environmental justice that New York State has committed to uphold. Instead, Solar Advocates urge the Commission to reaffirm its commitment to the 2030 Target using all available tools and doubling down on investments in proven strategies such as distributed generation and energy efficiency.

II. Tier 1 Annual procurement target

ACE NY

ACE NY supports increasing NYSERDA procurements from the current target of approximately 3.6 terra-watt hours (TWh)

to 5.6 TWh, and having annual procurements through 2029 and possibly beyond.

AES

AES requests that NYSERDA provide certainty for the minimum thresholds in upcoming solicitations, including additional solicitations beyond 2030.

8 Organizations

8 Organizations support increasing the number of MWs procured annually through the onshore and offshore wind LSR programs.

Earthjustice

Earthjustice supports increasing renewable energy procurement targets and capacity.

Form Letter Commenters

Form Letter Commenters advocate for more ambitious annual procurement targets and contract modifications that minimize risk for developers and lower costs for consumers.

Abraham & Schroder

In response to comments from Earthjustice, Sierra Club, and NRDC stressing the need for the State to exhaust all avenues to achieve the 2030 Target with wind and solar, Abraham & Schroder submit that NYSERDA should no longer support development of large-scale wind and solar.

LIPA

LIPA expresses concern regarding short-term impacts on customer bills due to the continued need for fossil generation and associated capacity payments to maintain grid reliability during the clean energy transition.

Multiple Intervenors

Multiple Intervenors argue against increasing renewable energy procurement targets and capacity without conducting detailed cost analyses justifying such an approach.

Multiple Intervenors also recommend such actions be deferred until it is determined if CLCPA's mandates are modified by the State Legislature.

NY-BEST

NY-BEST supports extending Large-Scale Renewable procurements beyond 2026.

NYLCV

NYLCV urges the Commission and, where necessary, the State Legislature and the Governor to act on wind, solar, and battery storage to update the State's renewable energy procurement goals and cut red tape that slows down the permitting process.

NYLCV supports the Biennial Review's recommendations that NYSERDA's Tier 1 procurement authorization be extended from 2026 to 2029 and that the average annual Tier 1 solicitation amount be increased to 5,600 GWh per year. They recommend NYSERDA work with the renewable energy industry, NYISO, and the State's electric utilities, including NYPA and LIPA, to ensure that procurement of renewable energy each year makes maximum use of industry capacity to develop renewable energy and the grid's capacity to interconnect new generation. They also recommend the State consider how to expand its role in spurring domestic manufacturing of needed components for renewable energy projects and investing in workforce development.

NYMPA

NYMPA argues against increasing NYSERDA procurements and having annual procurements through 2029 recommendations as they would further increase costs to ratepayers.

NYSEIA

NYSEIA supports the proposed extension and expansion of NYSERDA's Tier 1 solicitations.

Public Power NY

Public Power NY supports conducting further analysis and developing proposals to increase the distributed generation goal.

PULP

PULP agrees with the recommendation to increase the average annual Tier 1 solicitation amount and extend Tier 1 procurement authority to provide flexibility, increase project cost-effectiveness, and aid in the pace of renewable development. PULP agrees that further analysis should be conducted and proposals developed to increase the distributed generation goal.

Rise

Rise supports the recommendations in the Biennial Review to increase the average annual Tier 1 solicitation to 5,600 giga-watt hours (GWh) per year and to extend NYSERDA's Tier 1 procurement authority from 2026 to 2029.

Sierra Club and NRDC

Sierra Club and NRDC support increasing the annual procurement target to at least 5,600 GWh per year and ideally 6,500 GWh per year. NYSERDA should have increased flexibility to exceed its procurement targets if sufficient competitive projects are available, according to these commenters.

Solar Advocates

Solar Advocates express concern with increasing annual procurement targets. They suggest rather than relying solely on NYSERDA Tier 1 procurements, demand management and energy efficiency should be prioritized in the State’s energy transition. They argue demand management and energy efficiency may also help avoid more expensive investments, like transmission and new generation, which risk overbuilding the

grid instead of smartly building the grid. Solar Advocates also suggest more attention be placed on the role of public authorities such as NYPA in developing renewable energy, as provisioned in the Build Public Renewables Act.

III. Tier 1 Option i: Reduce 70% price component

AES

In either the 70-30 or 50-50 scenario, AES suggests that NYSERDA have clear minimum thresholds in advance of the solicitation.

ACE NY

ACE NY strongly supports this option and suggests a 50-40-10 structure.

NYC

NYC states it may be appropriate to shift weight to project viability, but project cost components should not be reduced to less than 55% of the overall score.

CS Energy

CS Energy strongly supports reducing the price component of a project's scoring to 50% of the total evaluation of a project. CS Energy believes that the scoring should shift to focus on project viability factors that specifically relate to increased likelihood of project success by prioritizing projects that are more advanced and de-risked.

CS Energy argues that many developers are approaching the State with optimistic or unrealistic expectations of construction costs, which has the potential to cause further significant delays and project attrition as procured projects face higher-than-expected costs when it comes time to build.

EDFR

EDFR recommends a scoring weighting of 50% price, 40% project viability, operational flexibility and peak coincidence, and 10% economic benefits be used and encourages NYSERDA to ensure that the RFP evaluation framework provides greater transparency regarding the weight assigned to these evaluation criteria.

Equinor

Equinor believes that reducing the price scoring component can be used to place greater value on a project's viability and that scoring criteria should consider stage of permitting and interconnection.

Joint Utilities

The Joint Utilities support reducing the price scoring weight but believe the majority of scoring should focus on cost impacts to customers.

Liberty Renewables

Liberty Renewables supports reallocating points if the objective is to increase the likelihood that projects are built and the benefits that they offer are delivered to customers.

LIPA

LIPA concurs the 70/30 scoring structure favors large-scale solar projects over onshore wind projects due to the lower costs of large-scale solar, as well as tending to favor less mature projects. They suggest that NYSERDA should develop all feasible approaches to reduce the underlying costs of these projects at the same time as increasing the weighting of non-price bid components.

Multiple Intervenors

Multiple Intervenors is concerned that lowering the weighting accorded to bid price would cause the cost of CLCPA

compliance to increase, result in higher costs to customers, and add increased subjectivity to the bid evaluation process.

NFGDC

NFGDC argues against the reduction of the bid price component. They believe that the costs associated with the transition to renewable energy makes it difficult to support the dilution of price protections associated with highly expensive projects.

NGV

NGV supports reducing the 70% accorded to price, as it will most likely improve the selection of viable projects. It is also a simpler and more transparent approach than Option ii and a more effective choice than Option iii provided in the Biennial Review on this topic.

NYAPP

NYAPP argues against the shift away from 70% of the scoring criteria being tied to cost containment. They state that this could result in outcomes that are difficult to evaluate due to subjective criteria. In addition, they argue that increasing the emphasis on non-cost factors could exacerbate the damage to customer affordability.

NY-BEST

NY-BEST believes this is the most viable option, as bids with low strike prices may be more speculative and may carry higher risks due to uncertainties in execution and delivery.

NYLCV

NYLCV supports reducing the 70% price scoring component, expanding the definition of cost component beyond bid price, or some combination of the two.

NYMPA

NYMPA opposes this recommendation as it would further increase costs to ratepayers.

Orsted

Orsted recommends modifying the evaluation criteria in OREC procurements to be 40% price, 40% viability, and 20% New York State economic benefits.

PULP

PULP believes that the proposal to reconsider the 70% price component could address project delays and attrition but maintains that customers should be protected from high upfront costs and unforeseen expenses.

Rise

Rise supports the proposal to revisit RES solicitation scoring criteria weight and encourages the Commission to direct NYSERDA to revise the criteria to value project viability more heavily than project cost. They respectfully urge the Commission to direct NYSERDA to revise project scoring to weight project viability more heavily than project cost.

Shell

Shell supports the recommendation to authorize NYSERDA to make changes to program scoring parameters but urges the Commission to give NYSERDA the flexibility to engage with stakeholders and tailor revisions to best meet program needs on a solicitation-by-solicitation basis.

Sierra Club and NRDC

Sierra Club and NRDC believe the Commission could reduce project attrition by rebalancing the scoring matrix for bids and increasing the weight of non-price elements of bids. They also support a weighting of bid components that awards points for peak coincidence, particularly in winter.

Vineyard

Vineyard recommends that the scoring criteria be at least 50% price based.

IV. Tier 1 Option ii: Expand definition of cost component beyond bid price

ACE NY

ACE NY believes that this option would be more difficult to implement than Option (i) and would prioritize this solution lower than others presented. They assert that if the subjectivity that is inherent in this approach is poorly implemented, there could be unintended consequences.

NYC

NYC disagrees that non-price factors or indirect benefits and costs should be included in price or cost components. Costs should only capture actual out-of-pocket costs and should not seek to account for non-price factors or indirect benefits.

ConnectGen

ConnectGen agrees with ACE NY and other organizations on the need to improve headroom protection. They urge NYSERDA and the Commission to consider other mechanisms to identify and support projects that have selected interconnection locations with long-term durable energy value and deliverability by separating project interconnection costs, specifically attachment facility costs, out from the broader strike price evaluation during Tier 1 RFP response evaluation.

CS Energy

CS Energy argues against expanding the definition of cost component beyond bid price. They believe it would involve

additional complexity and calculations introduced to a procurement process that is already complex.

EDFR

EDFR argues against the proposed revisions, which would move away from the relatively high level of transparency of the current bid price evaluation. They recommend that the State and NYSERDA reframe the procurement processes to consider not only cost and specific project pricing but also the net societal return on investment as confirmed in the 2020 CES White Paper and reflect the urgency of the Climate Act's desired benefits in project deliverability.

Equinor

Equinor recommends that the expanded definition of cost components be clearly communicated to developers.

Liberty Renewables

Liberty Renewables argue that considering reductions in energy costs realized by customers would make the evaluation process less transparent, but nonetheless warrants further consideration by NYSERDA and Staff because it reflects real value to customers that can vary by technology and project configuration. They recommend this element of the evaluation process not be open for adjustment by experts on the Technical Evaluation Panel because that would reduce the transparency of the evaluation process.

LIPA

LIPA supports this proposal and agrees that NYSERDA should also consider balance of system emission reductions, incorporation of other external ratepayer cost factors, indirect benefits such as unintended transmissions impacts, and congestion in the bid solicitation process.

Multiple Intervenors

Multiple Intervenors perceives some value in the alternate recommendation, but believes it requires further elaboration in terms of how it would be implemented. They recommend that (1) the price component remain at 70% or, preferably, be increased given an expanded scope; (2) the only factors in addition to bid price that should be considered are "hard" economic benefits and costs, without a subjective element to them; and (3) that most of the weighting for evaluating bids continue to be focused on bid price.

NFGDC

NFGDC has concerns regarding the inclusion of indirect benefits in the price component. They believe that characterizing benefits as indirect raises concerns about the applicability of the benefit and its inclusion in the cost component.

NY-BEST

NY-BEST is concerned that this option would be more difficult to calculate and could lead to unintended consequences if the methodology is not appropriately crafted.

NYLCV

NYLCV supports reducing the 70% price scoring component, expanding the definition of cost component beyond bid price, or some combination of the two.

Rise

Rise encourages the Commission to reduce the 70% bid price component to a smaller share of a project's scoring for both Tier 1 and offshore wind projects and to increase the viability score to be weighted more heavily than cost. However, they object to the suggestion to allow NYSERDA to expand the definition of cost component beyond bid price.

V. Tier 1 Option iii: Consolidation and re-allocation of non-price points

ACE NY

ACE NY understands that the intention behind this option is to award more points to mature projects. They recommend that NYSERDA evaluate a project developer's experience and capabilities with similar projects in New York State and believe preference should be given to proposers who have a proven track record.

Within the 40% non-price point category, they recommend that the Commission allow NYSERDA flexibility on allocation of these points from RFP to RFP, to accommodate evolving needs and concerns. They also recommend that the peak coincidence metric used in scoring be benchmarked against the peak forecast by NYISO in the 2024 Gold Book, trending toward a winter peaking grid, rather than the current summer peak. Finally, they recommend greater transparency on non-price scoring and weighting.

NYC

NYC agrees that there should be some flexibility in scoring based on attributes, likelihood of completion, and productivity.

CS Energy

CS Energy strongly supports the consolidation and re-allocation of non-price points to focus on factors that directly influence the likelihood of project success. The organization also recommends that NYSERDA engage with industry and stakeholders to better establish which factors are both reasonable to expect during the procurement process and significant contributors to project viability.

EDFR

EDFR believes there is little opportunity to reallocate points within the existing Project Viability, Operational Flexibility, and Peak Coincidence evaluation criteria to award more mature projects. They suggest a more appropriate strategy would be to reduce the weight given to price and increase the weight given to project viability considerations.

Equinor

Equinor supports re-allocation of points to the project viability category.

Joint Utilities

The Joint Utilities support re-allocating non-price points to increase focus on project viability and deliverability, among other factors.

Liberty Renewables

Liberty Renewables states that there appears to be little opportunity to reallocate points to favor more mature projects and support the development of wind projects.

LIPA

LIPA supports the consolidation and re-allocation of non-price points within the 20% component of project viability, operational flexibility, and peak coincidence to give greater weight to attributes that reflect more mature projects.

NFGDC

NFGDC supports the consolidation and re-allocation of non-price points as they believe it more appropriately addresses operational concerns.

NY-BEST

NY-BEST is concerned the consolidation and re-allocation of non-price points may be difficult to implement and

would reduce the consideration of non-price factors other than maturity, such as community benefits or siting considerations.

VI. Tier 1 Option iv: Onshore wind-specific Tier 1 carve-out

ACE NY

ACE NY supports an onshore wind-specific carveout as one way for NYSERDA to secure more onshore wind.

Boralex

Boralex opposes onshore wind-specific carve-outs.

NYC

NYC urges the Commission and NYSERDA to proceed with caution and suggests that the State should create fair rules and a level playing field for all technologies.

CS Energy

CS Energy would support an onshore wind carve-out as they believe it allows NYSERDA to establish a target for optimal system mix without creating overly burdensome administration or a potentially non-competitive factor.

EDFR

EDFR argues against an onshore wind-specific Tier 1 carve-out, asserting it does not exert enough competitive discipline on acceptable onshore wind pricing and is likely to not maximize the value realized by New York State customers.

Joint Utilities

The Joint Utilities support an onshore wind-specific Tier 1 carve-out.

Liberty Renewables

Liberty Renewables believes an onshore wind-specific Tier 1 carve-out is the most straightforward approach to ensure that additional onshore wind projects are built in the State. Further, they suggest that NYSERDA could limit the LNRC premium

that it is willing to pay, based on the assessment of the additional value that onshore wind offers relative to solar.

Multiple Intervenors

Multiple Intervenors argue against alternative approaches that would seek to give onshore wind a leg up versus solar and other renewable technologies. They assert this constitutes a material change from existing policy and, therefore, should not be adopted merely because onshore wind is struggling to compete economically with solar.

NYMPA

NYMPA asserts an onshore wind-specific Tier 1 carve-out would further increase costs to ratepayers.

VII. Tier 1 Option v: Onshore wind-specific solicitation(s)

ACE NY

ACE NY argues that a separate RFP for onshore wind would not be supported by sufficient project volume to merit instituting the change. Instead, they suggest rebalancing the 40 non-price points to add greater value to projects that reflect peak coincidence.

Boralex

Boralex opposes onshore wind-specific solicitations.

NYC

NYC urges the Commission and NYSERDA to proceed with caution and suggests that the State should create fair rules and a level playing field for all technologies.

CS Energy

CS Energy opposes an additional onshore wind-specific solicitation because it will create additional administrative burden on NYSERDA and on developers who develop both solar and

wind projects by requiring them to manage two different procurement schedules, eligibility requirements, etc.

EDFR

EDFR argues an onshore wind-specific solicitation does not contain sufficient cost containment protections to ensure that customers realize reasonable value.

Liberty Renewables

Liberty Renewables believe that the additional effort associated with developing an onshore wind-specific solicitation is not warranted.

Multiple Intervenors MI

Multiple Intervenors argue against this option by asserting solar is materially less expensive than onshore wind (at this time) and Tier 1 always has attempted to evaluate renewable project bids on a technology-agnostic basis.

PULP

PULP expresses concerns regarding changes to Tier 1 procurement that could increase onshore wind generation. PULP believes it is important to analyze bill impacts of increasing onshore wind procurement, along with external costs, indirect benefits to ratepayers, and REC costs.

VIII. Tier 1 Option vi: Price bonus for onshore wind generation projects

ACE NY

ACE NY opposes this proposal and suggests that by re-balancing the 70-20-10 scoring matrix to favor more mature projects, more experienced developers, and peak coincidence, wind projects would be competitive with solar projects.

NYC

NYC urges the Commission and NYSERDA to proceed with caution and suggests that the State should create fair rules and a level playing field for all technologies.

CS Energy

CS Energy is concerned that creating a price bonus for onshore wind projects would run the risk of awarding either too much or too little wind, as identifying exactly what price factor allows a wind project to be acceptable due to system mix benefits when compared to ratepayer impacts will be nearly impossible to accurately determine.

EDFR

EDFR suggests that NYSERDA could establish a threshold value (e.g., 20%) such that wind projects scoring within 20% of the lowest scoring non-wind project selected would be offered a contract.

Liberty Renewables

Liberty Renewables believe adding a less-than-one fixed multiplier to the LNRC formula for all onshore wind projects implicitly recognizes that the economic value offered by onshore wind is not fully recognized by the LNRC methodology. They suggest alternatives: (1) establishing a threshold where wind projects scoring within 20% of the lowest scoring non-wind project selected would be offered a contract; or (2) providing onshore wind projects with bonus points that could be used to improve their rank order score.

Multiple Intervenors

Multiple Intervenors argue against this option and asserts that solar is less expensive than onshore wind and Tier 1 always has attempted to evaluate renewable project bids on a technology-agnostic basis.

NFGDC

NFGDC supports technological diversity associated with emissions reduction efforts but disagrees with the allocation of a bonus to onshore wind generation projects in the cost category. They believe such an incentive would obscure the true cost impacts of onshore wind generation and perhaps result in higher costs.

IX. Tier 1 Option vii: Strike Price Adjustment (Black swan, pre-commercial operation date (COD) adjustment)

ACE NY

ACE NY strongly supports the proposal and respectfully urges the Commission authorize NYSERDA to amend REC contracts and revamp them in ongoing and future REC solicitations to offer strike price adjustments for proposals and awarded projects that have not yet began construction.

AES

AES does not support a strike price adjustment based on unforeseen events outside the control of the project developer. It is not reasonable that the State and the ratepayers should be responsible for those risks.

Boralex

Boralex supports an adjustment and suggests a formula consistent with the one proposed by industry in the ACE NY July 2023 petition. They disagree with an adjustment formula based off Consumer Price Indexment (CPI) or Producer Price Index (PPI).

CS Energy

CS Energy would broadly support granting NYSERDA and Staff more flexibility to respond to massive unforeseen events such as the COVID-19 pandemic and the follow-on supply chain effects. However, they think it is far more important that

procurements incorporate a nuanced and technology-specific inflation adjuster that is established prior to bid time.

CS Energy referenced the 2023 petition to the Commission related to an inflation adjuster where ACE NY proposed detailed and well-founded formulae for solar and wind projects that track the actual cost of deployment far more closely than broad-spectrum indices like PPI. CS Energy would strongly recommend incorporating the ACE NY or similar formulae into future procurements.

CS Energy stated that NYSERDA's discretion to remove or add projects to the award group is established and should be explicitly expanded to encompass economic factors. In addition, they believe that NYSERDA has the tools necessary to evaluate whether a project's as-bid strike price or fixed price will support realistic cost assumptions. They recommend empowering the use of these tools to disqualify projects that are economically unviable.

NYC

NYC states that adjustments to contractual strike prices should occur on a limited basis—extraordinary circumstances and unforeseen events outside of developers' control.

Earthjustice

Earthjustice recommends reforming the procurement process to minimize project cancelations.

EDFR

EDFR endorses the Commission's backing of NYSERDA's authorization to support project and portfolio adjustments as such complications arise through the life of the contract.

Equinor Wind

Equinor supports the concept of NYSERDA and the Commission having flexibility to adjust strike prices for unforeseen circumstances but suggests the process needs further development.

Joint Utilities

The Joint Utilities support exploring provisions to adjust compensation terms in the event of unanticipated circumstances.

LIPA

LIPA does not generally support the option to authorize NYSERDA and Staff to negotiate a strike price adjustment to awarded, but not yet constructed, projects.

Multiple Intervenors

Multiple Intervenors assert this option will shift risks to ratepayers. However, if adopted, they recommend that any additional adjustments to strike prices be tied to published and well-documented cost indices (so that adjustments are objective, not subjective) and be symmetrical, such that any cost reductions experienced by developers translate automatically to strike price reductions.

NFGDC

NFGDC disagrees with the recommendation that the Commission empower NYSERDA and Staff to jointly authorize portfolio-wide strike price adjustments if unknown, high-impact black swan events outside of project developers' control occur. Referencing Cases 15-E-0302 and 18-E-0071, they state that authorizing such adjustments could reduce market competitiveness, incentivize developers to discount inherent economic and business risks associated with their projects, signal to the market that developers should not price their bids

to reflect the full set of risks that apply to their projects, or disincentivize companies to build projects efficiently.

NGV

NGV supports the Commission authorizing the use of these adjusters, but that flexibility need not be devoid of certain parameters and/or Commission oversight and approval to ensure ratepayers are protected from unreasonable costs.

NYLCV

NYLCV supports allowing strike price adjustments to awarded but not yet constructed projects if events outside the control of project developers occur.

NYOWA

NYOWA recommends the State authorize NYSERDA and the Commission to offer strike price adjustment mechanisms to add price flexibility and preserve project viability. They also recommend that NYSERDA create a clear process for how this adjustment is implemented, which will allow developers to offer even more competitive pricing due to the derisked nature of the projects.

NYSEIA

NYSEIA supports strike price adjustments to manage inflation and interconnection risk, but only to the extent that NYSERDA offers equitable flexibility to distributed solar projects by adjusting the NY-Sun incentive to counteract these risks which equally impact distributed energy resources.

Public Power NY

Public Power NY does not support strike price adjustments to awarded and not yet constructed projects, as the contracts are commitments to fulfill obligations given the price and scope of work.

PULP

PULP reiterated comments submitted in 2023 that urged that ratepayer interest be prioritized along with openness, fairness, and responsible financial handling.

Rise

Rise recognizes that, if adopted, many of the recommendations and options in the Biennial Review could offer marked improvements over the current solicitation processes. While Rise agrees that strike price adjustment opportunities may be helpful in avoiding some of the circumstances that occurred in ORECRFP22-1, they urge the Commission to establish guardrails around these adjustments to the extent it decides to approve them. They recommend (1) critical information about the potential strike price adjustments (including the circumstances under which they may occur and the applicable formula for determining such adjustments) must be included in the solicitation documents, and (2) NYSERDA should not be able to apply such adjustments retroactively to projects with awards where such adjustments were not contemplated in the solicitation documents.

Sierra Club and NRDC

Sierra Club and NRDC support authorizing NYSERDA and the Commission to offer a strike price adjustment for unforeseen events outside the control of project developers.

Solar Advocates

Solar Advocates agree adjustments may be necessary, but they recommend setting a clear limit on how much ratepayers can be affected by changes to contract terms and prices. The process for considering such adjustments must be fully transparent, with a thorough examination of both the financial and environmental implications. Solar Advocates suggest the

State should explore all existing funding opportunities as viable alternatives.

Vineyard

Vineyard recommends authorizing strike price adjustments that provide flexibility to NYSERDA and Staff in events where all contracted projects are affected.

X. Tier 1 Option viii: Strike Price Escalation (during operation adjustment)

ACE NY

ACE NY supports that future RFPs include an escalator to be added to the strike price as a means of driving down bid prices.

AES

AES is cautious about the strike price escalation option.

Boralex

Boralex claims this option would lead to more speculative projects being bid upon.

CS Energy

CS Energy is neutral and notes one point of importance: that any such adjuster should be simple and determined as of the time of bid to reduce complexity and additional required assumptions.

CS Energy emphasized the benefits of introducing a detailed and well-grounded inflation adjustment mechanism that is technology specific for future solicitations. They highlight that one of the main risk factors that developers consider when bidding into a procurement is the degree to which capital expenditures (CAPEX) and interest rates will change between the time of bid and the time of construction. CS Energy argues that by establishing a formulaic adjuster to REC prices or strike

prices that reasonably ties to the fluctuating costs of construction and financing, the band of assumptions could be limited to a far more controllable and tolerable range of risk for developers, which will result in cost-savings to ratepayers as developers place less risk premium on their bids.

Equinor

Equinor supports the post-commercial operation inflation adjuster option and believes the mechanism could mitigate project risks of operational and maintenance costs.

EDFR

EDFR supports NYSERDA being authorized to allow strike price escalators, as an option available to Tier 1 developers, as a means to deliver value to ratepayers by supporting the viability of individual projects.

Joint Utilities

The Joint Utilities support adjustment in awarded strike price based on a market price index.

LIPA

LIPA supports allowing adjustment in awarded strike price based on a market price index during the life of the contract. They recommend bids be allowed to be adjusted within a specific range or variance based on specific pre-determined criteria and measurable consumer indices such as inflation.

Multiple Intervenors

Multiple Intervenors claim this option will shift risks to ratepayers. However, if adopted, they recommend that any additional adjustments to strike prices be tied to published and well-documented cost indices (so that adjustments are objective, not subjective) and symmetrical, such that any cost reductions experienced by developers translate automatically to strike price reductions.

NFGDC

NFGDC is concerned that inflation adjustments to awarded strike price to account for unpredictable changes in operations and maintenance costs during the contract period could lead to material and unanticipated contract cost increases. They suggest using the adjuster symmetrically, if at all, while accounting for supply chain delays, exorbitant costs, workforce deficiencies, and other pressures that are likely to persist.

NGV

NGV supports further exploration of this option.

NYLCV

NYLCV cautiously supports allowing for the adjustment in awarded strike price based on a market price index during the life of the contract.

NYOWA

NYOWA supports reforming the current approach, which is necessary for successful completion of offshore wind projects. They recommend giving solicitation timelines, target commercial operation dates, and outer dates more flexibility to account for permitting delays.

NYSEIA

NYSEIA supports strike price escalation to counteract the impacts of inflation, but only to the extent that the Commission grants equitable protection to distributed solar projects by applying the same escalation rate to the E value.

Orsted

Orsted supports the inclusion of the automatic inflation adjustment specifically, in recent OSW solicitations by NYSERDA that adjust as-bid OREC prices based on a weighted average index of the changes in project component prices (e.g.,

labor, steel, copper, fuel) measured between the time a project is proposed compared to the time a project receives its final permits.

PULP

PULP emphasized the approach to strike price escalation be transparent, focused on affordability, and should include guardrails to protect ratepayers from excessive cost increases.

Sierra Club and NRDC

Sierra Club and NRDC support authorizing automatic strike price adjustments during the life of the contract based on market price indices such as the Consumer Price Index.

Vineyard

Vineyard recommends that the risk of inflation be addressed in the contract delivery term to reduce uncertainty and improve financial viability.

XI. Tier 1 Option ix: Increase maximum Tier 1 contract tenor to 25 years

ACE NY

ACE NY supports the recommendation to extend contract tenor to 25 years. They also suggest providing the option to extend existing 20-year contracts to 25 years.

AES

AES supports the concept of increasing the contract tenor for Tier 1 projects from 20 to 25 years.

Boralex

Boralex supports extending the contract tenor to 25 years.

NYC

NYC is concerned that a longer term could increase costs to customers and suggests that more certainty is needed before changes are made.

CS Energy

CS Energy would support an increase in the maximum contract tenor to 25 years to come in line with technology maturity.

EDFR

EDFR supports bidders' ability to select a contract tenor of up to 25 years, as an important means by which to support responsible reductions in contract pricing.

Joint Utilities

The Joint Utilities support increasing the maximum Tier 1 contract tenor to 25 years.

LIPA

LIPA supports potentially increasing the maximum Tier 1 contract tenor to 25 years, but requests further analysis be conducted to better demonstrate the potential for ratepayer savings.

Multiple Intervenors

Multiple Intervenors opposes this proposal and recommends that it be rejected, as the current terms should be sufficient.

NYAPP

NYAPP opposes the extension of Tier 1 contracts from 20 to 25 years, asserting the proposal would risk imposing additional costs on ratepayers.

NYLCV

NYLCV supports increasing the maximum Tier 1 contract tenor to 25 years.

NYMPA

NYMPA opposes this recommendation claiming it would further increase costs to ratepayers.

NYSEIA

NYSEIA supports increasing the maximum Tier 1 contract tenor to 25 years.

PULP

PULP supports the idea of increasing the maximum Tier 1 contract duration to 25 years.

Rise

Rise supports the technology-neutral options that will benefit all bidders, including increasing the solar and land-based wind contract durations to 25 years and offshore wind renewable energy certificate contract durations to 30 years.

Shell

Shell supports extending the REC contract tenor by five years to more closely align with project life cycles.

Sierra Club and NRDC

Sierra Club and NRDC support increasing maximum contract tenor to at least 25 years for both solar and wind projects.

Solar Advocates

Solar Advocates support allowing NYSERDA, in consultation with Staff, to determine on a case-by-case basis whether to offer 25-year contracts in future Tier 1 solicitations. They support increasing the maximum Tier 1 REC contract tenor to 25 years.

XII. Tier 1 Option x: Allow for commercial operation milestone date (COMD) deadlines and extensions

ACE NY

ACE NY strongly supports maintaining NYSERDA's flexibility in extending COMDs for projects that can demonstrate continued progress of significant development milestones. In addition, they suggest the Commission should authorize NYSERDA to extend COMD deadlines at its discretion and create clear extension guidelines for developers.

AES

AES supports the option to allow NYSERDA to adjust to COMD.

CS Energy

CS Energy supports granting NYSERDA greater flexibility in the approach to COMD deadlines to account for the nuances of project development and delays within and outside of developers' control.

EDFR

EDFR strongly supports the Commission strengthening NYSERDA's authority to monitor project progress, in the context of project-specific and market-wide headwinds, and their ability to adjust COMD deadlines to ensure dates are realistic and consequences for failing to achieve these COMD deadlines are reasonable and do not unnecessarily stress a project's development.

Joint Utilities

The Joint Utilities support additional flexibility for COMD deadlines.

LIPA

LIPA does not support allowing adjustments to the nature and consequences of COMD deadlines and instead suggests the use of more defined criteria and equal treatment of

transmission and generation projects when setting important milestone and in-service dates. If NYSERDA ultimately decides to implement such a policy, then LIPA recommends a transparent process with strict guidelines regarding when such adjustments will be allowed along with an assessment of the potential financial and environmental impacts of taking such actions.

NGV

NGV supports flexibility in determining COMDs as a way to reduce risk, acknowledge the uncertainties impacting project development, and therefore result in the cancellation of fewer projects. They recommend alignment with the milestone dates and timelines used by the NYISO would help project development.

Orsted

Orsted recommends that future OREC agreements seek to limit and avoid the imposition of interim milestone requirements such as requiring an application for or receipt of a given permit or interconnection agreement within a set number of days or months after signing an OREC agreement. They also recommend future OREC agreements have greater flexibility in their ability to extend their overall commercial operation date if necessary.

PULP

PULP is concerned that the proposed changes to COMD deadlines could increase costs and affordability challenges for ratepayers.

Rise

Rise supports the options for NYSERDA to relax its approach to commercial operation dates and allow for more nuance for extensions.

Sierra Club and NRDC

Sierra Club and NRDC support granting discretion in authorizing extensions of COMD deadline, allowing NYSERDA to evaluate the cause and circumstances around extension requests.

Vineyard

Vineyard recommends more COMD flexibility and extensions in general, and supports allowing project delays of up to one year after COMD. Vineyard suggests reducing or eliminating the 25% threshold to increase flexibility to address unexpected circumstances, allowing two-year extension to Outer Limit Date, and providing additional flexibility to NYSERDA to allow extensions if delays are beyond the project's control.

XIII. Tier 1 Option xi: Optimize the Index REC settlement structure

ACE NY

ACE NY argues against revising the Index REC settlement structure. They acknowledge that while analysis suggests potential savings for ratepayers through hourly settlements instead of monthly averages, and by settling at nodes rather than hubs, the complexity and risk adjustments involved may not justify the savings based on current analysis.

AES

AES believes that optimizing the Index REC settlement structure to a monthly average formulation would not necessarily reduce costs for the ratepayers. The current concern related to the settlement structure stems from the shape phenomenon (a difference in price between the as-generated monthly price versus the simple hourly average over the month, the value that NYSERDA settles against).

Boralex

Boralex recommends moving away from the current Index or Fixed REC methodology and instead move toward a Proxy Revenue Structure based on nodal pricing and resource curves for wind and solar.

CS Energy

CS Energy would support efforts to improve and optimize the Index REC settlement structure further. According to CS Energy, two areas that are difficult for developers to evaluate and lead to assumptions that result in unviable projects are time of day/load weighting risk and basis/ curtailment risk. CS Energy believes that to the extent that NYSERDA and developers can work together to share those risks, the program would likely see reduced attrition and higher investment interest from new market entrants.

EDFR

EDFR recommends NYSERDA consider offering some protection against severe locational-based marginal pricing depression via a new congestion capping mechanism that would make the resource owner whole for extremes of lost revenue caused by factors that are outside its control.

Liberty Renewables

Liberty Renewables believes that the existing Index REC Strike Price settlement framework should be maintained and should not be modified to eliminate basis and congestion risks.

LIPA

LIPA recommends that NYSERDA share additional analysis about proposed changes to optimize the Index REC settlement structure and ensure that the changes optimize ratepayer costs.

NGV

NGV recommends reconsideration of "Market OREC" or perfect hedge OREC options. They urge NYSERDA, at minimum, to enhance the hedge quality of the current structure, by considering an energy price index that is at the nodal level and/or production dependent.

NYSEIA

NYSEIA states that inadequate public data is available for a non-market participant to provide meaningful feedback on this option.

Orsted

Orsted recommends that the Commission replace the current Index OREC pricing mechanism with a true Market OREC, or contract-for-difference model, that eliminates such temporal and zonal basis risk by utilizing the actual energy and capacity market revenues realized by OSW generators to determine the OREC price, net of a strike price. An alternative to a Market REC could be a refined Index OREC formula, in which the energy price index would be calculated at the nodal level (and thus closer to actual revenues received compared to a zonal-wide price index) and production-dependent (i.e., measured during times of OSW energy production, and therefore selecting times more closely correlated to actual revenue generation). Additionally, Orsted recommends that the reference capacity price should be based on the project-specific capacity factor.

PULP

PULP believes that affordability consideration should be incorporated into changes to the Index REC settlement structure.

Shell

Shell supports NYSERDA's ongoing procurement of RECs and ORECs under separate Tier 1 solicitations but believes the Commission should implement a more comprehensive secondary REC market framework that encourages load-serving entities to manage costs by procuring RECs through liquid REC markets.

Vineyard

Vineyard suggests that the index OREC contracting structure be replaced with a true Contract-for-Difference where monthly REC payments are calculated using strike price and actual energy and capacity market revenues.

XIV. Offshore Wind Option xii: Extend the maximum OREC contract tenor to 30 years

Joint Utilities

The Joint Utilities support extending the maximum OREC contract tenor to 30 years.

LIPA

LIPA supports extending the maximum OREC contract tenor to 30 years, but only if further analysis demonstrates the potential for ratepayer savings.

Multiple Intervenors

Multiple Intervenors oppose these proposals and recommends that they be rejected. They argue the focus should be on how to materially reduce and then eliminate the need for customer-funded subsidies/incentives.

NGV

NGV supports the option to select a longer tenor for OREC purchase contracts. An increase to 30 years would bring New York State into alignment with New Jersey, Connecticut, and Rhode Island, while Massachusetts is considering a similar measure.

NYC

NYC argues that further analysis is needed and evidence of actual benefits to customers of longer contract terms before changes are made.

NYOWA

NYOWA supports extending the OREC purchase contract tenor to 30 years.

NYSEIA

NYSEIA recommends standardizing the maximum REC contract tenor at 25 years across all eligible resources.

Orsted

Orsted supports extending the OREC purchase contract tenor to 30 years.

PULP

PULP supports the idea of increasing the maximum Tier 1 contract tenor to 25 years.

Shell

Shell supports extending the OREC contract tenor by five years, which more closely aligns with project life cycles.

Solar Advocates

Solar Advocates support extending the maximum OREC contract tenor to 30 years.

Vineyard

Vineyard supports extending the maximum OREC contract tenor to 30 years.

XV. Other Option xiii: Allow regulated utilities to develop and own renewable energy projects

ACE NY

ACE NY opposes allowing regulated utilities to develop and/or own electric generation. They assert that separating generation from distribution has led to increased competition,

reduced market power risk, decreased ratepayer risk, and the introduction of newer, cleaner, and more affordable energy suppliers.

NYC

NYC is concerned that if the Commission allows regulated utilities to develop renewable resources, they may favor their own projects and argues that allowing utilities to invest in generation could detract from their core business need.

Elevate Renewables

Elevate Renewables strongly opposes the option to allow regulated utilities to develop and own renewable energy and energy storage projects.

Equinor

Equinor strongly argues against allowing regulated utilities to develop and own renewable energy projects, asserting the provision could result in non-competitive outcomes and increased costs to ratepayers.

IPPNY

IPPNY strongly opposes utility ownership of renewable generation. However, IPPNY does not oppose a model where regulated utilities offer IPP-developed renewable generation projects a bundled power purchase agreement.

Joint Utilities

The Joint Utilities support regulated electric utility ownership of renewable energy generation as regulated large-scale renewables (LSR) can provide value to customers and the State.

In their reply comments, the Joint Utilities said that regulated LSR could complement existing procurement by adding more resources to meet the renewable energy goal without

negatively impacting market competition. The Joint Utilities argued they can contribute to the statewide renewable energy goals with regulated LSR while delivering on their core responsibilities.

NYECA

NYECA believes that allowing utilities to invest in renewable energy projects could lead to better coordination between power generation and transmission, improving efficiency and reducing costs. They suggest considering this approach for non-renewable zero-emission energy sources.

NYOWA

NYOWA opposes this option as they believe the Commission would be unable to uphold its mission to ensure reliable services at just and reasonable rates while stimulating effective competitive markets.

NYSEIA

NYSEIA strongly opposes investor-owned utility participation in renewable energy development and ownership as it increases the likelihood of anti-competitive behavior that could distort the market, harming clean energy developers and electric ratepayers.

Nucor

Nucor urges New York State to identify and commercialize clean, reliable, and dispatchable new energy sources (e.g., long-duration energy storage, advanced nuclear power) that are not addressed through NYSERDA auctions. They believe allowing regulated utilities to invest in and collaborate with other entities, including large energy consumers, could help meet this need without disrupting NYSERDA's renewable energy procurement process. Nucor encourages the Commission to support such initiatives.

Public Power NY

Public Power NY strongly disagrees with allowing regulated utilities to develop and own renewable energy projects, but suggests focusing on utilizing NYPA's new authority and capabilities as it is more aligned with State's clean energy goals.

PULP

PULP would prefer not to allow regulated utilities to develop and own renewable energy projects; however, if regulated utilities are allowed to develop and own projects, ratepayer protection must be included.

RIC

RIC opposes utility ownership of renewable generation, asserting it would not alleviate any of the challenges identified in the Biennial Review and cited as reasons for behind-schedule progress toward the 2030 Target.

Shell

Shell agrees with past rationale to prohibit the investor-owned utilities from owning generation and raises other considerations, including the adverse consequences this sudden policy shift would have for the renewable development market, the absence of utility expertise, and bandwidth given existing transmission development. Shell urges the Commission to remain consistent with its precedent and direct the investor-owned utilities to focus on identifying, designing, and completing the necessary transmission infrastructure to support the State's goals.

Solar Advocates

Solar Advocates strongly disagree with electric utilities being permitted to develop and own small-, medium-, and large-scale renewable projects in New York State. They do

not believe that enabling utilities to build, own, or operate renewable energy assets would be helpful in achieving CLCPA compliance. They suggest instead to utilize NYPA's new authority and capabilities.

XVI. Renewable Energy Zones Option xiv: Designate REZs to align generation development with planned transmission expansion and economic development

ACE NY

ACE NY argues this approach inherently picks winners.

Boralex

Boralex does not think this option is necessary as modifying the Index REC structure would serve largely the same purpose and would be duplicative to the Public Policy Transmission Needs (PPTN process).

8 Organizations

These organizations recommend proposing additional NYPA priority transmission projects to help solve grid congestion.

Earthjustice

Earthjustice supports the establishment of REZs.

Joint Utilities

The Joint Utilities support designation of REZs, as the alignment of generation development with planned transmission expansion and economic development is supported by ongoing efforts in the state.

LIPA

LIPA supports further exploration of the policy option to designate REZs and believes the work to identify such zones should be undertaken in the existing CCGP process.

NGV

NGV supports exploring the usefulness of REZs. They recommend their adoption could and should be coordinated with

existing planning processes, including the CCGP, but also should preserve opportunities for competitive transmission projects.

NYPA

NYPA encourages the Commission to consider Priority Transmission Projects within this REZ model.

NYSEIA

NYSEIA supports this concept and encourages the Commission to consider the significant role that distributed energy resources can play in Renewable Energy Zones. They recommend that the simplest way to induce DER development in a targeted geography is by establishing an overlapping Locational System Relief Value Zone, thereby ensuring that DERs receive differential compensation for being located in the zone and exporting power during times of peak demand.

PULP

PULP generally supports the concept of designating Renewable Energy Zones that provide verifiable benefits to align generation development with planned transmission expansion and economic development.

XVII. Hydro Option xv: Capital grants program

ACE NY

ACE NY supports the outlined proposal with the caveat that any financial need documentation should be based on the underlying facility's economic outlook, not that of any parent company.

Brookfield

Brookfield contends that long-term revenue certainty through a Competitive Tier 2, Tier 1 repowering, and E-value compensation are the best approach to supporting existing hydro.

Joint Utilities

The Joint Utilities do not recommend that a new capital grants program be established at this time. Rather, the expansion of the Maintenance Tier contract tenor to at least ten years would provide added certainty to hydro owners.

LIPA

LIPA encourages NYSERDA to develop and provide more specific guidelines on eligibility for a capital grants program and what the baseline requirements would be, and the economic parameters for such programs.

NYPA

NYPA supports the Capital Grants Program and encourages the Commission to increase the 5 MW cap to 10 MW for eligibility to participate.

NYSEIA

NYSEIA supports capital grants as a last resort to keep small hydro facilities operational or to bring them back online.

PULP

PULP generally supports a state initiative that would reverse the decline in baseline hydroelectric generation as hydroelectric generation contributes to the State's clean energy goals.

XVIII. Hydro Option xvi: E-value

ACE NY

ACE NY strongly supports that the Commission should approve the hydro petition as filed in Case 15-E-0751.

Brookfield

Brookfield contends that long-term revenue certainty through E-value compensation, among other things, is one of the approaches to supporting existing hydro.

Curtis Palmer

Curtis Palmer recommends that NYSERDA consider employing an E-Value that appropriately recognizes the value that hydro resources offer to New York State. However, they believe that the proposed approach to focus on projects that demonstrate a financial need does not appropriately recognize that declining baseline hydro output is not attributable to projects retiring because they are uneconomic. Curtis Palmer asserts that the decline in baseline hydro generation is primarily attributable to increased exports to adjacent markets and jurisdictions which is being driven by REC market fundamentals causing New York State hydro project owners to pursue alternative markets that offer higher revenues.

IPPNY

IPPNY recommends the E-Value be provided to small hydro without demonstration of financial need, which is not required for other resource types eligible for the E-Value.

NYSEIA

NYSEIA supports the expanded availability of VDER compensation, including the E-value, for small hydro facilities that meet the State's definition for a clean distributed energy resource.

NP&L and AMP

NP&L and AMP notes that E-value eligibility for small hydro has already received overwhelming support. NP&L and AMP opposes implementing a requirement that generators prove financial need for compensation as it would be difficult or

impractical to implement. NP&L and AMP recommends the Commission grant eligibility for E-Value to pre-2015 resources participating in VDER, at the full value of E and with no additional criteria beyond those faced by other VDER facilities.

Thorndike

Thorndike strongly encourages the inclusion of a provision to establish a value stack to support resilient microgrids capable of black start, frequency control, and synchronous power generation.

XIX. Hydro Option xvii: Revise Maintenance Tier program

ACE NY

ACE NY recommends 10-year contracts at minimum to attract interest from hydro facilities at the lowest cost to ratepayers.

Brookfield

Brookfield sees a contract extension of 10 years as an approach that increases revenue certainty.

Curtis Palmer

Curtis Palmer supports Brookfield's recommendation of a Competitive Tier 2 program whereby NYSERDA would conduct competitive procurements for the output of existing hydro resources. They believe that the contract tenor should be sufficient to support investment in projects and to secure lower pricing, recognizing that longer tenor contracts enhance investor confidence and can yield lower contract pricing.

Joint Utilities

The Joint Utilities support the expansion of the Maintenance Tier contract tenor to ten years to increase certainty to hydro owners.

LIPA

LIPA believes that baseline resources should also be eligible for Tier 2 maintenance contracts. They encourage NYSERDA to consider conducting a statewide study on renewable sources whose contracts are expiring and how they will transition to a market-based model in lieu of the potential of extending REC/ORECs payments beyond their intended contract life.

NYLCV

NYLCV supports reforming the Maintenance Tier program, including extending the duration of Maintenance Tier contracts from three years to ten years.

NYPA

NYPA believes the E-Value would appropriately compensate these small hydro units for the environmental benefits of their renewable generation.

NYSEIA

NYSEIA recommends the E-value option, as it is the only one that appears to create a meaningful long-term revenue stream that could make the facilities economically viable to the point that the owner might make meaningful investments to extend the life of the facility or increase output.

XX. Hydro Option xviii: Other hydro options

Curtis Palmer

Curtis Palmer believes that NYSERDA and Staff have overstated the role of the retirement of older hydro generating units in contributing to the declining baseline hydro generation. The organization has found little evidence that hydro units have retired in New York State since 2017 when the CES was first implemented.

As an alternative to E-Value, Curtis Palmer recommends a compensation framework similar to the Zero-Emission Credit scheme where the value for existing hydro projects could be based on the social cost of carbon less the current RGGI price. To control costs, Curtis Palmer suggests the E-Value or alternative realized by projects would vary based on the energy and capacity revenues earned by the projects, such that as these market revenues increase, the E-Value or its alternate would be reduced.

HQUS

HQUS agrees with NYPA in supporting the creation of a Flexible REC. They suggest it would benefit from a market-based approach whereby eligible resources are credited for each MWh of delivery during periods where predetermined trigger conditions in New York State are met, and not through long-term contracts with a targeted annual production quantity. If Flex REC is not an option, they support a recommendation by Brookfield for the State to consider implementing an incentive payment for renewable energy physically delivered to New York State, commensurate with similar programs in neighboring regions.

IPPNY

IPPNY expressed concern that while the Biennial Review identifies factors that are slowing new project development and progress toward these targets, it does not recognize that existing renewable resources, particularly those without NYSERDA REC contracts, face the same constraints for sustaining the operations of their facilities.

NYAPP

NYAPP supports NYPA's request that credit should be enhanced for the existing large-scale hydropower represented by the Niagara Power Project and the St. Lawrence Project.

NYAPP supports NYPA's recommendation to allow eligibility for Tier 1 credits for projects achieving capacity gains below the 15% threshold. They note that large existing hydropower facilities face technological limitations in significantly increasing capacity, but efficiency gains have demonstrated the ability to produce incremental capacity additions. NYAPP argues that excluding repowered facilities achieving similar incremental increases, even if below the 15% threshold, is not justified and represents an arbitrary limitation.

NYECA

NYECA believes that setting up a support system for small-scale hydropower plants would help keep reliable renewable energy sources and add variety to carbon-free options. They also recommend that the Commission consider supporting efforts to modernize existing hydropower facilities and increase their capacity where feasible.

NYMPA

NYMPA recommends that baseline hydroelectric facilities should be fully compensated for the attributes they contribute to the State. They support NYPA's proposal that the State's baseline, hydroelectric fleet should be eligible for support through either a revision of the repowering rules under Tier 1, or the creation of a new REC that would compensate generators' ability to produce on demand to help balance the State's intermittent renewables.

NYPA

NYPA suggests it is not appropriate to impose an incremental output requirement for repowering of hydro projects.

XXI. Fuel Cells and Renewable Natural Gas

Bloom Energy

Bloom Energy highlights the important role that biogas fuel cells can play in meeting the State's climate goals and the imbalance in support for intermittent renewables compared to biogas fuel cells. The State should consider ways to encourage renewable on-site power generation at biogas sources before pursuing RNG production for pipeline injection.

LIPA

LIPA recommends that consideration be given to granting an additional extension to the grandfathered period for natural gas fuel cells until the State achieves its 2030 Target, consistent with the original vision of grandfathering these resources until 2030.

NFCRC

NFCRC recommends that the Commission direct NYSERDA to re-establish an expanded Stationary Fuel Cell Program to provide direct State support for the robust development and deployment of green hydrogen and biogas fuel cells. To facilitate this, NFCRC believes that ratepayer funds should be allocated to fuel cell investments to help avoid substantial costs associated with expensive utility transmission and distribution upgrades. They argue that fuel cells can provide zero-emission electricity in areas where expanding transmission capacity is either unfeasible or prohibitively expensive.

NFGDC

NFGDC advocates for an "all of the above approach" to emissions reduction. They believe that there are a number of ways that its existing underground infrastructure can be utilized, including the use of RNG, hybrid-heating systems and, in the future, hydrogen.

NYPA

NYPA recommends that the Commission increase the cap for small hydro projects from 5 MW to 10 MW. NYPA also recommends creating a new tier for flexible dispatchable resources, which would compensate certain resources that are capable of being dispatched to produce electricity on demand to supplement renewable resources and energy storage, without carbon dioxide or other greenhouse gas emissions.

Plug Power

Plug Power strongly urges the Commission to direct NYSERDA to re-establish an expanded Stationary Fuel Cell Program to provide direct State support for the robust development and deployment of hydrogen fuel cells.

XXII. Storage

ACE NY

ACE NY recommends that New York State do more to incorporate energy storage into the 2030 Target strategies. They also recommend the State consider establishing a target for Long-Duration Energy Storage (LDES), to ensure continued support and integration of renewables as electrification accelerates.

CFNY

CFNY states that grid investments such as energy storage will facilitate innovation in the State.

8 Organizations

The organizations recommend enacting a sales tax exemption for commercial storage projects.

Earthjustice

Earthjustice recommends increasing downstate access to renewable energy and storage.

EDFR

EDFR suggests exploring how the CES can support the responsible retirement of the State's aging fossil fleet.

Elevate Renewables

Elevate Renewables believe battery energy storage systems should be a clean energy resource in the CES and that battery storage generation can support decarbonization and reliability and provide non-energy benefits.

Joint Utilities

The Joint Utilities support the State's efforts to deploy energy storage systems by 2030.

NY-BEST

NY-BEST recommends the State consider amending Public Service Law to provide Office of Renewable Energy Siting (ORES) with authority to permit large energy storage projects in localities with populations of one million or less, in order to support safer energy storage deployments, improved regulatory consistency, and accelerated progress toward climate and equity targets. They recommend incorporating energy storage into 2030 Target planning and make distributed storage eligible for the E-Value under the VDER Value Stack. They also recommend the State consider establishing a Dispatchable Emissions-Free Resources (DEFR) target of 10 GW by 2035, which would include Long-Duration Energy Storage (LDES), to ensure continued support and integration of renewables as electrification accelerates in the 2030s. The target should be accompanied by a new procurement program for DEFRs.

NYECA

NYECA comments that the Biennial Review mentions ongoing projects but fails to indicate the total storage required, leaving little confidence in the plan.

NYLCV

NYLCV supports increasing the State's procurement goal for Battery Energy Storage System (BESS) to 6 GW by 2030. They recommend the State strongly consider adding oversight of BESS siting to the ORES and empowering ORES to overrule local BESS moratoria that it finds are undermining progress on the 2030 Target and the CLCPA's broader renewable energy goals.

NineDot

NineDot believes energy storage is key to integrating more renewable energy onto the grid.

XXIII. Nuclear

AGREE

AGREE disagrees with Constellation's comments in support of nuclear power. AGREE cautions the Commission against extending subsidies, granting new subsidies, or creating new tiers without a robust, public process to hear from stakeholders, especially disadvantaged communities, and without a clear demonstration that they will become economically unsustainable. Additionally, AGREE encourages the Commission to conduct analysis to understand the cost of building enough solar, wind, storage, and energy efficiency to meet the State's energy needs.

Boilermakers

Boilermakers strongly support the State exploring clean energy solutions including advanced nuclear technologies.

Boralex

Boralex recommends the State focus on deploying solar, wind, and battery storage projects rather than nuclear technology due to the long lead times and absence of nuclear projects in the NYISO queue.

Assemblymember Manktelow

Assemblymember Manktelow strongly supports the State exploring clean energy solutions, including advanced nuclear technologies.

CFNY

CFNY suggests that modernization of the grid is important to unlocking Dispatchable Emission-Free Resources (DEFRs).

CenterState

CenterState strongly supports the State exploring clean energy solutions including advanced nuclear technologies.

Constellation

Constellation supports preserving the State's existing nuclear infrastructure and recommends the use of new nuclear technologies.

CIECP & PHASE

The CIECP and PHASE opposes further diversion of public money away from renewable, efficiency, and demand-side options to support nuclear power (or natural gas). CIECP and PHASE hold this position because nuclear power is not a "clean" form of energy and there are more sustainable options; generates huge quantities of high-level nuclear waste; continuously releases radiation into the environment as part of routine operation; imposes a heavy burden on river systems making water resources a serious concern; and contributes substantially to global warming.

EDFR

EDFR recommends a stronger focus on the deliverability of the RES program to simultaneously support grid strengthening, resource adequacy, system reliability, and the delivery of economic and climate benefits to New Yorkers.

Abraham & Schroder

In response comments, Abraham & Schroder urge support for the CLPCA by pursuing new nuclear and hydropower generating capacity. They believe a technology-neutral energy policy to reduce emissions will result in less renewables and more nuclear.

IPPNY

IPPNY urges the Commission to announce a timeline for the identification of eligibility for zero-emissions sources to meet the 2030 Target reliably and to establish and approve a competitive program to bring DEFRs online as soon as possible.

Oswego

Oswego supports preserving the State's existing nuclear infrastructure, including granting license extensions to facilities to operate an additional 20 years, and exploration of future advanced nuclear technologies.

Rochester CoC

Rochester CoC argues that New York State's electricity demand makes existing upstate nuclear generation stations more necessary than ever. As such, they support the exploration of a variety of solutions to build the State's clean energy future, including the potential for advanced nuclear technologies.

NYPT

NYPT supports the use of nuclear and other clean and alternative renewable sources (including geothermal & thermal energy, bioenergy, and combustible green hydrogen) to augment the substantial wind, solar and hydroelectric capacity that has been developed in recent years. They recommend establishing a new competitive program or tier for DEFR.

Oswego Schools

Oswego Schools strongly support the State exploring a variety of solutions to build New York State's clean energy future, including the potential for advanced nuclear technologies.

Ontario

Ontario supports exploring solutions to meet the State's clean energy goals that include advanced nuclear technologies.

Scriba

Scriba believes nuclear energy should be included in the State's zero-emissions strategy and strongly supports exploring the potential of advanced nuclear technology.

Senator Helming

Senator Helming supports incorporating nuclear energy into New York State's efforts to meet its aggressive energy goals. The Senator mentions the need to issue 20-year license extensions and make long-term commitments to nuclear power, ensuring the upstate nuclear fleet continues to drive environmental sustainability and economic growth. To secure an affordable energy future, the Senator advocates for a balanced approach that includes robust support for upstate nuclear assets and the promotion of clean, reliable power.

Senator Mannion

Senator Mannion recognizes that while preserving the existing nuclear fleet should be of the highest priority, additional consideration should to be given to the creation of advanced nuclear technologies.

UEJ

UEJ believes preserving the existing nuclear fleet should be the highest priority and strongly supports exploring the potential of advanced nuclear technology.

Wayne Schools

Wayne Schools believe existing nuclear facilities can contribute to New York State's clean energy goals and strongly supports the exploration new nuclear technologies.

Wayne County

Wayne County believes existing nuclear facilities can contribute to New York State's clean energy goals and strongly supports the exploration new nuclear technologies.

Assemblymember Magnarelli

Assemblymember Magnarelli believes nuclear power is essential to meeting future electricity demand and strongly supports the State exploring new nuclear technologies.

XXIV. Disadvantaged Communities

Earthjustice

Earthjustice urges the Commission to take urgent steps to ensure that the renewable energy transition does not disproportionately burden disadvantaged communities. More specifically, they recommend innovative rate design and bill assistance. Earthjustice encourages the Commission to establish a stakeholder engagement process and to employ available federal funding to support efforts to scale up renewable energy generation.

NYSEIA

NYSEIA asserts that New York State likely has a disadvantaged community benefit gap that must be addressed and distributed solar can be deployed quickly and equitably. NYSEIA urges the Commission to advance policies to accelerate cost-effective and equitable deployment of LSR, energy efficiency, and distributed solar. NYSEIA advocates for targeted incentives for LMI benefit projects to ensure clean energy investments

benefit disadvantaged communities. NYSEIA also encourages advancement of policies that will drive progress toward CLCPA mandates without affecting New York State's electricity rates, such as the State's Solar Energy System Equipment Tax Credit.

PULP

PULP maintains that the Commission has a statutory obligation to ensure that low-income households and disadvantaged communities are not left behind or disproportionately burdened by rising energy costs associated with the rapid deployment of renewable energy infrastructure and grid upgrades. PULP believes that any Commission actions related to the acceleration of renewable energy development must prioritize programs that directly lower energy costs for low-income households and disadvantaged communities, increase access to affordable clean energy options, and ensure that disadvantaged communities receive a fair share of the economic, health, and environmental benefits.

PULP strongly believes that any federal funds received by the State should be fully utilized before any costs are passed on to ratepayers. PULP also firmly believes that the State should update the Affordability Study annually and strongly advocates for transparency and accountability.

XXV. Other

AES

AES agrees with the Biennial Review's concerns and observations about permitting and siting, and is particularly concerned that the Part 664 wetland regulations introduce additional barriers to meeting the CLCPA. AES believes the regulations place an undue burden on renewable energy developers. AES requests that NYSERDA and the Commission

coordinate with the New York State Department of Environmental Conservation (DEC) to ensure coordination and harmonization of regulations to meet the CLCPA.

AGREE

AGREE differs with IPPNY's request for the Commission to designate technologies as zero-emissions and to create a market-based program to develop dispatchable emissions free resources. AGREE recommends that there be a public engagement process if the Commission is considering new tiers.

ACE NY

ACE NY provided a benchmark analysis comparing New York State bid prices to New Jersey, which indicates the bids received in NYSERDA Tier 1 solicitations are competitive with the nearest state which has published data on the same product.

ACE NY recommends providing headroom protection for renewable energy projects that are operating, at an advanced stage of development and/or have received awards to deliver energy for end use in the State. They also recommend NYSERDA continue to coordinate its awarding of REC contracts with the NYISO to ensure projects awarded minimize the risk of energy curtailment and the severe LBMP depression that accompanies it.

ACE NY notes that the new wetland regulations under Part 664 will deter solar development on lower-quality farmland that includes low-quality wetlands in currently farmed fields.

ACE NY agrees with Shell’s recommendation for the establishment of a liquid REC market in the State.

ACE NY agrees with CS Energy’s comments about the importance of regularity and predictability in the procurement cadence for RECs.

ACE NY supports and agrees with other commenters, including the Joint Utilities and LIPA, in advocating for

increasing the offshore wind targets. They advocate that OSW procurement exceed 9,000 MW.

Boralex

Boralex recommends the State conduct a study on Engineering, Procurement and Contract (EPC) costs in New York tate relative to other jurisdictions.

Boralex recommends increasing transparency of the Tier-1 REC procurement process, including timely posting of contracts and awards, keeping thresholds, processes and programs more consistent through each RFP, and announcing awards within 60 days of bids being due.

Boralex recommends that NYISO have adequate staffing and resources to expedite interconnection studies and prevent delays in renewable energy deployment. Additionally, it is important that the investor-owned utilities are provided the right incentives to ensure timely and cost-conscious interconnection requirements. Further, they encourage the State to reexamine the ongoing Resource Adequacy Proceeding (Case 19-E-0530) and transition to a more efficient Resource Adequacy framework.

CS Energy

CS Energy recommends that NYSERDA's authority related to adjusting the award group to result in "materially lesser risk of project attrition…" be expanded to allow NYSERDA to remove projects from the award group that are not economically viable in NYSERDA's reasonable discretion.

Earthjustice

Earthjustice recommends leveraging federal funding for renewable energy (e.g., Tax Credit Bonuses, USDOE Loan Programs Office, Energy Improvements in Rural or Remote Areas, Transmission Siting and Economic Development Grants, Energy

Efficiency and Conservation Block Grants, Energy Storage and Hydropower initiatives, Rural Energy for America Program, Community Change Grants, Tribal-focused support).

EDFR

EDFR recommends that the CES be reviewed with a focus on achieving the 2040 Target, including the specific targets of 9 GW offshore wind by 2035, 6 GW distributed solar by 2025, and 3 GW storage by 2030 as minima where the State's studies following the enactment repeatedly demonstrate that much more is needed. They state that consistency among state agencies and stakeholders regarding the 2040 Target will be key in maintaining focus on both short-term and long-term coordination and decision-making.

LIPA

LIPA recommends that NYSERDA continue steps to explore the development of an offshore wind mesh network in collaboration with Con Ed, LIPA, and potentially neighboring states.

LIPA recommends that NYSERDA publish updates to its targets and schedules so state entities and transmission owners can incorporate the changes necessary for these additional offshore wind resources within existing planning processes in a timely fashion.

For offshore wind targets greater than 9 GW, LIPA suggests evaluating and right-sizing offshore wind interconnection points through further consideration and potentially proactive development of land-based hubs.

LIPA suggests NYSERDA carefully consider the extent to which the State relies on imports to achieve the 2030 Target and should consider accounting for current and potential future levels of hydro generation and their contributions to emissions

reduction goals. LIPA recommends collaborating with the NYISO to explore the inclusion of out-of-state renewable and storage resources and notes that this approach may require a detailed review by NYISO of its existing capacity market rules.

Multiple Intervenors

Multiple Intervenors note that the Biennial Review contains no economic analysis of the total costs and impacts of offshore wind contracts on customers, nor does it include any projections of future costs. They recommend the Commission and NYSERDA should be able to address the risks of projection attrition and delay through contracts.

NGV

NGV notes the importance of offshore wind to meeting the goals of the Climate Act and encourages the Commission and NYSERDA to take the actions and make the necessary investments to achieve its specific offshore wind goals. They argue that entering into additional effective procurement processes for as much offshore wind as possible sooner rather than later will maximize New York State's ability to serve demand for clean energy in as cost-effective manner as possible.

NY-BEST

NY-BEST supports expanding offshore wind procurements beyond 9 GW by 2035, particularly given project attrition.

NYECA

NYECA is concerned that the draft fails to provide a comprehensive review of progress on both renewable energy and zero-emission resources, focusing almost exclusively on renewables. NYECA believes that this narrow focus departs from the CLCPA and risks long-term failure. NYECA notes that the draft prioritizes the 70% "renewable" target rather than the broader goal of reducing greenhouse gas emissions, and overlooks

the fact that New York State has fallen behind on grid decarbonization and is currently burning more fossil fuels for electricity than it was in 2019, when the CLCPA was enacted.

NYECA agrees with the July 30, 2024 letter from 60 Organizations, which critiques the Biennial Review for its narrow scope and failure to address key issues such as energy capacity, reliability, growing demand, and conflicts between state energy policies and economic development goals. Additionally, NYECA is concerned that the Biennial Review ignores growing opposition to large-scale renewable projects and concerns about local control, economic impact, and job losses.

NYECA expresses concern over the draft's reliance on low-capacity-factor intermittent generation, such as solar and wind, for decarbonization. They question the decision to focus the proposed CES reforms on accelerating the use of underperforming resources that may worsen the situation, rather than exploring more practical grid designs. NYECA believes that while solar and wind can be effective with minimal system upgrades, their large-scale deployment introduces significant challenges, including the need for extensive storage, duplicative backup capacity, and expanded transmission infrastructure.

NYECA recommends a more practical approach by prioritizing high-capacity-factor zero-emission resources. They believe that these resources should be used not just as backup for solar and wind, but also as a reliable source of power to meet steady or fluctuating demand. To achieve a zero-emission grid, NYECA suggests the reform include strategies such as expanding the use of Dispatchable Emission-Free Resources.

NYECA believes the Biennial Review should incorporate the assessment prepared by NYSERDA in Appendix G of the Climate

Action Council's Scoping Plan, information presented on zero-emission technologies during the December 2023 DPS technical conference, insights shared during the Future Energy Economy Summit in Syracuse on advanced nuclear power and other zero-emission technologies, discussions on the draft Blueprint for Consideration of Advanced Nuclear Technologies, and other relevant research conducted by state agencies.

NYLCV

NYLCV supports increasing the State's offshore wind procurement goals to at least 9.9 GW by 2035, at least 15.8 GW by 2040, at least 18 GW by 2045, and at least 20 GW by 2050. They recommend the State address unnecessary red tape that is slowing down the development of both offshore and onshore wind.

NYMPA

NYMPA supports the Comptroller office's recommendation to conduct a detailed analysis of cost estimates to transition to renewable energy sources and meet Climate Act goals and recommend that only after such an analysis is conducted can the prospect of investing additional ratepayer dollars be seriously considered.

NYOWA

NYOWA recommends reforms to the project selection and scoring criteria to increase flexibility and better ensure success of offshore wind projects. They also recommend consideration for developer protections if there is a delay in commercial operation dates and lost revenues caused by a delay in the NYC PPTN process and the subsequent construction of the transmission assets. They also support separating competitive supply chain procurements from the offshore wind generation facility procurements because it derisks solicitations, mitigates supply chain project-on-project risk, and allows

commercial flexibility in the event of a material change in original circumstances. They support expanding NYSERDA's authority to contract for more than 9 GW of OSW capacity. Also, they recommend reducing procurement complexity and enhancing contractual flexibility for projects when designing and implementing the State's OREC solicitations.

NYPA

NYPA recommends the Commission allow direct contracting for select contracts totaling up to a certain MW limit per year. Such direct contracts could be paid at the weighted average strike price from the most recent Tier 1 solicitation process.

NYSEIA

NYSEIA encourages the Commission to grant NYSERDA the requested flexibility for offshore wind.

NineDot

NineDot argues that closing existing peaker plants and replacing them with wind, solar, and storage is essential for reducing costs for ratepayers, improving public health, and enhancing grid reliability. NineDot also recommends that the state allocate more resources, hire additional personnel, and improve coordination to manage the growing pipeline of clean energy projects, avoid bottlenecks and grid strain, and ensure timely project deployment.

Nucor

Nucor emphasizes that costs related to the CES program are already significant and will continue to increase until 2030, placing a heavy financial burden on New York State utility consumers and businesses. Highlighting that funding for extra-market programs through ratepayer contributions is not unlimited, and they suggest renewed focus on maximizing the value of consumer dollars. Additionally, Nucor notes that

transitioning to a stronger domestic supply chain will take time and will not happen unless domestic sourcing is emphasized in all NYSERDA auctions.

Nucor disagrees with the Joint Utilities' suggestion that utilities should have a limited role in owning renewable energy projects with safeguards, as well as with the opposition from other parties who are concerned about the issue of cost overruns being passed onto consumers. They contend that having utilities and private developers compete for project sites, interconnections, and related factors would be inefficient, and establishing separate development pathways for utility-owned and competitively procured renewable energy projects would add unnecessary financial burden on utility ratepayers. Nucor recommends the Commission authorize distinct utility and competitively procured development pathways for the same renewable energy technologies.

Other suggestions to the Commission include exploring innovative ways to foster DEFR technology development in its pending Grid Flexibility docket (Case 24-E-0165) or in a separate matter, and prioritizing enhanced energy-efficient end use and the management of peak load demands that drive the dispatch of fossil-fueled generation.

Orsted

Orsted recommends authorizing NYSERDA to procure up to 20 GW of OSW to be installed by 2050, with interim authorizations to procure and contract for up to 16 GW to be installed by 2040 and up to 12 GW to be installed by 2035.

Orsted supports offering an optional interest rate adjustment, in which an OSW developer would receive a lower or higher price based on changes in interest rates between bid submission and final investment decision (FID).

Orsted recommends avoiding any OSW procurements where an OSW generation project is explicitly or practically dependent on the use of a specific OSW facility being developed, constructed, and readied in time for its use, such as the Port Infrastructure Investment Plans and Supply Chain Investment Plans previously used as the basis of awards in ORECRFP20-1 and ORECRFP22-1.

Plug Power

Plug Power recommends the Commission establish a new tier under the CES to incentivize the deployment of zero-emissions resources. Plug Power also suggests NYSERDA begin conducting annual competitive solicitations as soon as possible to procure zero-emissions credits from eligible zero-emissions resources. They believe hydrogen should play a leading prominent role within the new CES tier and the NYSERDA annual solicitations. Plug strongly encourages the Commission to take an expansive view towards the potential role of hydrogen as a zero-emission resource, and provide robust and flexible support for the full suite of existing and emerging hydrogen applications.

Rise

Rise recommends granting NYSERDA flexibility to procure more than nine GW of offshore wind if it is cost-effective.

They encourage the Commission to carefully consider the interplay between NYSERDA's sixth offshore wind solicitation and the NYISO's Public Policy Transmission Planning Process and direct Staff and NYSERDA to work with the NYISO to maximize the ability of developers to claim these benefits, which will inure to the benefit of all New York State ratepayers.

Sierra Club and NRDC

Sierra Club and NRDC recommend the following to prevent interconnection delays: (1) implementing performance-based rates for utilities to accelerate the interconnection process; (2) using the Coordinated Grid Planning Process (CGPP)to plan grid upgrades in advance to create sufficient capacity; and (3) addressing supply chain challenges.

Sierra Club and NRDC suggest the following revisions to siting processes including coordinated initial reviews and advocate for adequate ORES staffing.

Sierra Club and NRDC also recommend expanding demand-side policies and programs, such as scaling energy efficiency programs and efforts to reduce electricity consumption. They also suggest expanding incentives for energy efficiency upgrades.

Sierra Club and NRDC recommend the Commission identify and implement strategies to reduce the financial burden on electric customers, such as using taxpayer dollars for funding renewable projects.

Thorndike

Thorndike strongly supports a timely interconnection process for microgrids that are capable of resilient, carbon-free black start generation and provide community benefits. They believe transitioning the grid will require modifications in distribution, generation, and storage to address challenges such as load management, undersized transmission lines, high demand charges during peak times, and the need to enhance the resilience of critical governmental services.

Vineyard

Vineyard recommends further decoupling of solicitation and policies that promote flexibility to mitigate project risk

including incentives or minimum in-state spending thresholds for suppliers. Vineyard supports regional collaboration to stabilize the industry and encourage investments to help lower costs.

Distributed Generation

ACE NY

ACE NY agrees with NYSEIA that distributed solar resources should have their deployment targets doubled from the current 10 GW to 20 GW by 2035, while also accelerating large-scale renewables and energy efficiency.

Boralex

Boralex opposes NYSEIA's recommendation to raise the distributed solar goal to 20 GW.

CCSA

CCSA strongly supports the Biennial Review's recommendation to direct NYSERDA to develop a proposal for increasing the distributed solar goal and corresponding funding support beyond the existing 10 GW by the 2030 Target.

8 Organizations

The organizations support raising the distributed solar energy goal to 20 GW by 2035.

LIPA

LIPA agrees with the recommendation that further analysis is needed in consideration of moving the goals and authorization levels for DERs beyond the current goal of 10 GW by 2030.

Multiple Intervenors

Multiple Intervenors argue there is no clear justification for further analysis regarding an increase in the distributed generation goal and authorization levels beyond the current goal, asserting it is outside the scope of the Biennial

Review. However, if such analysis is performed, they recommend: (1) detailed information on the costs and customer impacts of existing programs subsidizing/incentivizing distributed generation (including incremental customer-funding of transmission projects to facilitate such generation); (2) the range of costs and customer impacts associated with potentially expanding those programs; and (3) the cost and customer impacts of distributed generation programs as compared to large-scale renewable and offshore wind generation programs on a per MWh basis.

NY-BEST

NY-BEST supports the increase in the goal and authorization levels for distributed generation beyond the current goal of 10 GW by 2030, particularly as these resources can serve as a critical load modifier as demand increases.

NYECC

NYECC recommends including the forward-looking cost estimates for the CES and other costs related to the State's CLCPA goals be included in the Biennial Review. NYECC argues that these costs are critical to determining just and reasonable rates for ratepayers and should not be treated as secondary or hidden.

NYLCV

NYLCV supports further increasing the goal of 10 GW of distributed solar by 2030 to 20 GW by 2035. They recommend standardizing and automating code-compliant solar permitting statewide to boost distributed solar installations and decrease costs.

Sierra Club and NRDC

Sierra Club and NRDC encourage the Commission to evaluate whether the goals of NY-Sun can be further increased.

Zimmerman

Zimmerman believes anaerobic digesters that generate electricity can support the renewable energy and decarbonization goals through capture of GHG and production of renewable energy. However, the environmental attributes need to be properly valued based on the US EPA Social Cost of Carbon and not the current REC value.

NYSEIA

NYSEIA recommends distributed and community solar deployment be a central pillar in New York State's new and improved CLCPA compliance strategy. They also recommend the State raise its distributed solar goal from 10 GW by 2030 to 20 GW by 2035. They recommend automating residential solar + storage permitting through platforms such as Symbium and SolarAPP+.

RIC

RIC suggests statewide siting reform will be necessary to ensure enough viable sites to maintain the current rate of distributed generation deployment. They also strongly urge the Commission to consider relevant proposals to increase the distributed generation goal and analyses of the actions needed to enable continued distributed generation deployment.

Solar Advocates

Solar Advocates strongly support the Biennial Review's recommendation that NYSERDA be instructed to carry out further analysis and develop proposals for an increase in the goal for distributed generation beyond the current goal of 10 GW by 2030. They also suggest holding the NYPA to its legal requirement to construct 15 GW of renewable generation by 2030.

Transmission

Boralex

Boralex supports the Commission to continue to advocate for the adoption of Grid Enhancing Technologies.

Earthjustice

Earthjustice recommends working with the NYISO to engage in holistic transmission planning.

CFNY

CFNY states that transmission expansion and other grid investments will facilitate innovation in the State.

Equinor

Equinor requests details on allocation of risk between transmission and offshore wind developers to improve offer prices.

HQUS

HQUS supports efforts to coordinate related power sector initiatives in New York State to align generation development with transmission expansion plans. They suggest facilitating greater two-way trading of electricity between Québec and New York State through additional interregional transmission. They believe interregional transmission can enable and inform more efficient system planning and influence future clean energy policies in the State, such as designating Renewable Energy Zones.

Joint Utilities

The Joint Utilities support the coordinated effort across the state to plan transmission expansion and suggest streamlining processes to accelerate transmission project development. The Joint Utilities also recommend abbreviating the approach to transmission rebuilds.

LIPA

LIPA supports continued and strengthened collaboration with Transmission Operators and NYISO, as well as continued development of the Coordinated Grid Planning Process, which is essential to the determination of the most economic and feasible locations for renewable siting and the most optimal transmission planning.

NGV

NGV believes the most cost-effective projects, and therefore the best approach to meeting the State's goals, are dependent on continued investment in transmission.

NY-BEST

NY-BEST recommends the State launch a Grid-Forming task force as part of the Grid of the Future proceeding to assess regulatory challenges and opportunities for Storage as Transmission (SAT) with Grid-Forming (GFM) capability.

Orsted

Orsted recommends the Commission consider additional reforms pending the New York City PPTN process. They recommend NYSERDA OSW solicitations include provisions to: (1) make OSW developers whole financially for any unanticipated cost increases or losses of revenues due to the NYC PPTN; and (2) allow OSW developers the option to modify their proposed interconnection approach and/or terminate their OREC agreement in such scenarios without penalty.

Rise

Rise supports the recommendation to align generation solicitations with transmission investment plans, which has the potential to reduce project costs (and therefore minimize ratepayer impacts) by helping developers site projects where

additional transmission headroom is anticipated, reducing significant interconnection costs.

Shell

Shell agrees more transmission infrastructure is needed to ensure the energy generated by renewable resources will be delivered, particularly in the downstate areas, and encourages the Commission to focus on the necessary build out of required NYC transmission infrastructure.

Shell urges the Commission to reaffirm that the NYC PPTN must be completed and to commit to determine whether additional PPRs should be designated to support the implementation of CLCPA mandates in the NYISO 2024 PPP proceeding.

Vineyard

Vineyard recommends the State authorize procurement of more than 9 GW of offshore wind to strengthen market signals and supports a goal to procure 20 GW of offshore wind by 2050.