

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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

ORDER EXTENDING
ZERO-EMISSIONS CREDIT PROGRAM

Issued and Effective: January 22, 2026

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on January 22, 2026

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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(Issued and Effective January 22, 2026)

BY THE COMMISSION:

INTRODUCTION

Through legislative action and forward-looking policymaking, New York State has adopted strong, proactive goals to combat climate change, reduce greenhouse gas (GHG) emissions associated with the electric generation sector, and shift towards a greater penetration of renewable energy statewide. Critical to all of these goals is the retention of the State's operating nuclear facilities, which serve as a significant source of zero-emissions electric generation. Since 2016, the Zero-Emissions Credit (ZEC) program has served as a cornerstone of the Commission's clean energy and climate policy by providing the operators of these facilities with fair and adequate compensation for the environmental attributes associated with

their carbon-free nuclear generation, while simultaneously ensuring that the facilities receive adequate revenues to remain financially viable and prevent their closures, which would negatively impact New Yorkers. As the first iteration of the ZEC program (ZEC 1.0 Program) nears its expiration in April 2029 and with important decisions looming related to the federal Atomic Energy Act relicensing process to allow the State's nuclear generators to continue operating into the future, the Commission believes that this is an appropriate time for the Commission to consider the continued need for emissions-free energy as provided by these facilities, particularly in light of the conditions impacting renewable energy development in the State.

For those reasons, in an order issued on May 15, 2025, the Commission, among other things, directed Department of Public Service Staff (Staff) to prepare a white paper evaluating how any continued ZEC program should be structured, and to file such white paper for public comment.¹ In response to that directive, on July 31, 2025, Staff filed a proposal outlining the continued need for emissions-free energy as provided by the State's existing nuclear powered electric generation resources, and proposing to continue and extend the ZEC 1.0 Program, with certain modifications and updates, to continue supporting the extended operation of these resources through 2049 (ZEC 2.0 Program).²

¹ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting Clean Energy Standard Biennial Review as Final and Making Other Findings (issued May 15, 2025).

² Case 15-E-0302, supra, Department of Public Service Staff Zero-Emissions Credit Program Extension Proposal (filed July 31, 2025) (ZEC 2.0 Proposal or Staff Proposal).

Based on the facts and evidence on the record, and based on numerous comments received from interested stakeholders, the Commission finds it reasonable and appropriate at this time to extend the ZEC 1.0 Program to ensure that the existing nuclear facilities continue to contribute to the State's clean energy goals and reliability needs. As such, and as discussed below, the Commission approves, with modifications, the recommendations set forth in the Staff Proposal to implement the ZEC 2.0 Program.

BACKGROUND

A. Current Nuclear Generation in New York

Four nuclear power generators currently operate in the State of New York: (1) Nine Mile Point Nuclear Generating Station (Nine Mile Point) Unit 1 in Scriba, New York; (2) Nine Mile Point Unit 2 in Scriba, New York; (3) James A. FitzPatrick Nuclear Power Plant (FitzPatrick) in Scriba, New York; and (4) R.E. Ginna Nuclear Power Plant (Ginna) in Ontario, New York. All four of these facilities are located in Upstate New York on the shore of Lake Ontario. As of 2024, nuclear generation comprised approximately 20.6 percent of energy production statewide.³ Table 1 below provides additional information on the operating characteristics of each of the Upstate nuclear generating facilities:

³ New York Independent System Operator (NYISO), 2025 Load & Capacity Data (issued April 2025), available at <https://www.nyiso.com/documents/20142/2226333/2025Gold-Book-Public.pdf> (2025 Gold Book).

Table 1: Operating Nuclear Power Plants in New York State as of July 1, 2025

Plant	Operator	Location	Size/ Capacity Factor ⁴	Operating License Expiration	License Renewal Application Deadline
FitzPatrick	Constellation Energy Generation, LLC	Town of Scriba, Oswego County	831 MWe 96.4%	Oct. 2034	Oct. 2029
Ginna	Ginna Nuclear Power Plant LLC (Constellation)	Town of Ontario, Wayne County	580 MWe 94.5%	Sept. 2029	Sept. 2026
Nine Mile Point Unit 1	Nine Mile Point Nuclear Station, LLC (Constellation)	Town of Scriba, Oswego County	621 MWe 91.9%	Aug. 2029	Aug. 2026
Nine Mile Point Unit 2	Nine Mile Point Nuclear Station, LLC (Constellation)	Town of Scriba, Oswego County	1,272 MWe 98.1%	Oct. 2046	Oct. 2041

Prior to 2021, three reactors also operated at the Indian Point Station in Buchanan, Westchester County, New York. Indian Point Unit 1 operated from 1962 until 1974, when it permanently shut down. Indian Point Units 2 and 3 operated until 2020 and 2021, respectively.

B. Clean Energy Policy in New York

In 2002, the New York Energy Planning Board (Planning Board) developed a new Energy Plan recommending that the State “lead the nation in taking actions to reduce greenhouse gas emissions, stressing the aggressive implementation of existing, and development of new technologies and strategies to

⁴ Capacity factor refers to how effectively a power plant can maximize its potential to generate electricity.

significantly reduce emissions.”⁵ The Planning Board specifically recommended that New York consider implementing a Renewable Portfolio Standard (RPS) to support the development of renewable energy generation facilities in order to help reduce emissions from the energy sector.⁶ Pursuant to the Planning Board’s recommendation, in February 2003, the Commission instituted a proceeding pursuant to Sections 5(2) and 66(2) of the Public Service Law (PSL) to develop an RPS program.⁷ Thereafter, on September 4, 2004, the Commission issued an order adopting an RPS program, specifically expressing the goal to promote the development of enough renewable energy generation capacity to ensure that such capacity supplied 25 percent of the electricity used in the State by the end of 2013.⁸

In 2008, Governor David Paterson signed an executive order calling for the creation of a new Energy Plan by June 2009.⁹ In 2009, Governor Paterson signed another executive order adopting a statewide goal of reducing GHG emissions from all sources in the State to 80 percent below 1990 levels by the year

⁵ New York State Energy Planning Board, 2002 State Energy Plan (issued June 2002), pp. 1-42, available at: <https://energy.plan.ny.gov/Plans/2002-Energy-Plan> (2002 State Energy Plan).

⁶ 2002 State Energy Plan, pp. 1-39.

⁷ Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Portfolio Standard, Order Instituting Proceeding (issued February 19, 2003), p. 1 (“We are increasingly concerned with the effects on our climate of fossil-fired generation and the security implications of importing much of the fuel needed to supply our electricity needs.”).

⁸ Case 03-E-0188, supra, Order Regarding Retail Renewable Portfolio Standard (issued September 4, 2004), pp. 24-27.

⁹ N.Y. Exec. Order No. 2 (Apr. 8, 2008), available at: <https://www.law.cornell.edu/regulations/new-york/9-NYCRR-7.2>.

2050.¹⁰ This executive order also created a New York Climate Action Council responsible for drafting a Climate Action Plan for achieving the goal.¹¹

Following Governor Paterson's 2008 executive order, in 2009, the Planning Board released a new Energy Plan establishing several long-range policy objectives ultimately aimed at reducing State GHG emissions.¹² Regarding the role of nuclear power in helping to achieve those policy objectives, the 2009 Energy Plan specifically stated:

Nuclear power plays a significant role in meeting New York's energy needs. Nuclear capacity – sited, built, and operated appropriately – supports key State interests. The [2009 State Energy Plan's] modeling results demonstrate that increasing the State's nuclear capacity will benefit the State by lowering both wholesale prices and GHG and other emissions, and it therefore may play an integral role in the State's efforts to address climate change.¹³

In 2010, the New York Climate Action Council released the Climate Action Plan Interim Report. This Interim Report concluded that the State's existing nuclear capacity "must be re-licensed or replaced" to achieve the emissions reductions goals adopted by Governor Paterson.¹⁴ The Interim Report also recommended that New York implement a low-carbon portfolio

¹⁰ N.Y. Exec. Order No. 24 (Aug. 9, 2009), available at: <https://www.law.cornell.edu/regulations/new-york/9-NYCRR-7.24>.

¹¹ Id.

¹² New York State Energy Planning Board, 2009 State Energy Plan (issued December 2009), available at: <https://energyplan.ny.gov/Plans/2009-Energy-Plan> (2009 State Energy Plan).

¹³ 2009 State Energy Plan, p. 63.

¹⁴ New York State Climate Action Council, Climate Action Plan Interim Report (Nov. 2010), pp. 4-7 (Interim Report).

standard that would build on the RPS by requiring regulated utilities to procure low-carbon energy generated by “appropriately sited nuclear,” among other sources.¹⁵

C. Clean Energy Standard

In 2014, R.E. Ginna Nuclear Power Plant, LLC (GNPP), the then-owner/operator of the Ginna nuclear power plant, filed a petition seeking, among other things, that the Commission issue: (1) a finding that continued operation of the Ginna facility is necessary for electric service reliability; and (2) an order directing Rochester Gas and Electric Corporation (RG&E) to negotiate and file a Reliability Support Services Agreement (RSSA) for the continued operation of the facility in support of electric system reliability on the bulk transmission system, and in RG&E’s service territory.¹⁶

The petition specifically represented that the expected revenues from the sale of capacity and energy into the NYISO markets would not be sufficient to cover the costs of the facility’s continued operations, including new capital investments. On November 14, 2014, the Commission issued an order finding that the Ginna facility was needed to preserve electric system reliability, and directing GNPP and RG&E to begin negotiations of an RSSA.¹⁷ GNPP and RG&E subsequently entered into such an RSSA, and GNPP began receiving reliability payments from RG&E pursuant to that agreement.¹⁸ Around the same

¹⁵ Id. at 8-10.

¹⁶ Case 14-E-0270, Petition Requesting Initiation of a Proceeding to Examine a Proposal for Continued Operation of the R.E. Ginna Nuclear Power Plant, LLC (filed July 11, 2014).

¹⁷ Case 14-E-0270, supra, Order Directing Negotiation of a Reliability Support Service Agreement and making Related Findings (issued November 14, 2014).

¹⁸ Case 14-E-0270, supra, Reliability Support Services Agreement (filed February 13, 2015).

time, Entergy Corporation, the then-owner of the FitzPatrick nuclear power plant, also announced that it planned to close the Fitzpatrick facility due to low electricity prices resulting from a decline in the price of natural gas.¹⁹

Thereafter, in 2015, Governor Andrew Cuomo adopted a new Statewide goal that 50 percent of electric generation come from renewable energy sources by 2030.²⁰ In a letter dated December 2, 2015, Governor Cuomo directed Staff to develop a Clean Energy Standard (CES) to replace the RPS and reflect the new goal.²¹ Governor Cuomo specifically recognized the need to preserve New York's existing Upstate nuclear generating facilities and directed Staff to include measures in the CES that would support such facilities, stating that the "elimination of [such] facilities, operating under valid federal licenses, would eviscerate the emissions reductions achieved through the State's renewable energy programs, diminish fuel diversity, increase price volatility, and financially harm host communities."²²

Pursuant to Governor Cuomo's directive, on January 25, 2016, Staff issued a CES White Paper proposing a comprehensive

¹⁹ Entergy to Close James A. FitzPatrick Nuclear Power Plant in Central New York, PR NEWswire (Nov. 2, 2015), <https://www.prnewswire.com/news-releases/entergy-to-close-james-a-fitzpatrick-nuclear-power-plant-in-central-new-york-300170100.html>.

²⁰ New York State Energy Planning Board, 2015 State Energy Plan, Volume 1: The Energy to Lead (2015), p. 112, available at: <https://energyplan.ny.gov/Plans/2015-Energy-Plan>.

²¹ Office of the Governor of New York, Renewable Energy Letter (December 2, 2015), available at: https://www.governor.ny.gov/sites/default/files/atoms/files/Renewable_Energy_Letter.pdf.

²² Id.

CES program.²³ The proposed CES program included credits for various technologies to recognize their environmental benefits: (1) "Tier 1" Renewable Energy Credits (RECs), a component of the Renewable Energy Standard, would be granted to generators using renewable energy resources that began commercial operation after January 1, 2015; and (2) "Tier 2" (Maintenance Tier) credits would provide financial support to generators that might have suspended service otherwise. Also in the CES White Paper, Staff, among other things, cited to a 2015 report prepared by The Brattle Group, which found that the closure of the Upstate nuclear plants would have multiple negative near-term effects, including, but not limited to, higher emissions resulting from the need to procure more energy from plants powered by fossil fuels, and the potential loss of jobs.²⁴ Based in part on those concerns, the CES White Paper proposed introducing a ZEC program to facilitate a market for "Tier 3" credits reflecting the benefits of New York's Upstate nuclear capacity.²⁵ The CES White Paper proposed that, in order to participate in the program, a facility must: (1) have an in-service date of January 1, 2015, or earlier; (2) be facing financial difficulty as determined by a Staff examination of the books and records of the facility; (3) be operating pursuant to a fully renewed operating license by the U.S. Nuclear Regulatory Commission (NRC) until 2029 or beyond; and (4) be consistent with any other federal and state

²³ Case 15-E-0302, supra, Staff White Paper on Clean Energy Standard (issued January 25, 2016) (CES White Paper).

²⁴ CES White Paper, p. 29; see The Brattle Group, New York's Upstate Nuclear Power Plants' Contribution to the State Economy (issued December 2015), available at: <https://www.brattle.com/insights-events/publications/new-yorks-upstate-nuclear-power-plants-contribution-to-the-state-economy/> (2015 Brattle Report).

²⁵ CES White Paper, pp. 30-31.

authorizations.²⁶ FitzPatrick, Ginna, and Nine Mile Point nuclear plants met the criteria.²⁷ The two remaining Indian Point nuclear reactors did not satisfy those criteria because they were beyond their initial 40-year operating periods (in 2013 and 2015, respectively) and had not yet secured renewed federal and state licenses to operate for additional 20-year terms.²⁸

Following a public comment process, on July 8, 2016, Staff issued a Responsive Proposal to address various public comments received on the CES White Paper.²⁹ In the Responsive Proposal, Staff provided additional details on the proposed calculation methodology for the ZEC program, whereby among other things, the State would provide a subsidy to eligible facilities based on the social cost of carbon (SCC) and account for the State's participation in the Regional Greenhouse Gas Initiative (RGGI) program.³⁰

On August 1, 2016, the Commission issued the CES Order that formally created the CES program, including the original ZEC 1.0 Program.³¹ In the CES Order, the Commission specifically identified that the retention of the environmental attributes of the carbon-free electric generation provided by New York's

²⁶ CES White Paper, pp. 31-32.

²⁷ Id.

²⁸ See generally Atomic Energy Act of 1954, §103(c), 42 U.S.C. §2133(c) (license period); 10 C.F.R. §54.31 (issuance of renewed license).

²⁹ Case 15-E-0302, supra, Staff's Responsive Proposal for Preserving Zero-Emissions Attributes (issued July 8, 2016) (Responsive Proposal).

³⁰ Responsive Proposal, p. 5.

³¹ Case 15-E-0302, supra, Order Adopting a Clean Energy Standard (issued August 1, 2016) (CES Order).

Upstate nuclear plants would avoid approximately 15 million tons of carbon emissions per year.³²

D. ZEC 1.0 Program

In the CES Order, the Commission concluded, based on the information on the record, that the benefits of preserving the zero-emissions attributes of New York State's existing Upstate nuclear facilities outweighed the costs. Specifically, the Commission found Staff's Responsive Proposal, in which it recommended paying ZEC payments to zero-emissions facilities based upon the social cost of carbon, to be consistent with the Commission's approach in setting guidelines for Benefit-Cost Analysis.³³

As approved by the CES Order, the ZEC 1.0 Program provides a ZEC payment to an eligible nuclear generating facility where there is a public necessity to preserve the zero-emissions environmental attributes of the facility. At its discretion, the Commission determines the public necessity on a plant-specific basis using criteria deemed reasonable by the Commission, on the basis of: (a) the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State regardless of the location of the facility; (b) the degree to which energy, capacity and ancillary services revenues projected to be received by the facility are at a level that is insufficient to provide adequate compensation to preserve the zero-emissions environmental values or attributes historically provided by the facility; (c) the costs and benefits of such a payment for zero-emissions attributes for the facility in relation to other clean energy alternatives for the benefit of the electric system, its

³² CES Order, p. 19, 20.

³³ CES Order, p. 150, 152.

customers, and the environment; (d) the impacts of such costs on ratepayers; and (e) the public interest.³⁴

Based on the above criteria, the Commission found that all three facilities in Upstate New York (FitzPatrick, Ginna, and Nine Mile Point) provided a significant verifiable contribution to New York State's clean energy resource mix.³⁵ Based on financial information received, the Commission also found that the projected revenues for these facilities fell short of anticipated costs, which jeopardized the preservation of the zero-emissions attributes of these facilities. The Commission also determined that the environmental attributes of the three Upstate facilities were at risk.³⁶ The Commission further determined that the benefits related to the zero-emissions power of the nuclear facilities outweighed the costs, and the potential customer bill impacts of providing ZEC payments to them were reasonable, particularly given the historically low commodity costs in 2016. As to the public interest, the Commission determined that there was a public necessity to provide ZEC payments to the FitzPatrick, Ginna, and Nine Mile Point facilities for the purpose of maintaining their emissions-free attributes because there were insufficient zero-emissions alternatives available as a replacement any time soon.³⁷

³⁴ CES Order, pp. 124-128.

³⁵ For purposes of the ZEC 1.0 Program, the Commission considered Nine Mile Point Unit 1 and Unit 2 as qualifying jointly as a single facility. Specifically, if either unit permanently ceased producing zero-emissions credits, the entire qualified Nine Mile Point facility would be treated as having permanently ceased producing zero-emissions credits.

³⁶ CES Order, pp. 125-126.

³⁷ CES Order, pp. 128-129.

The Commission adopted Staff's proposal for ZEC contracts to be administered in six Tranches of two years each, with the ZEC price being updated for each Tranche pursuant to a set formula to provide certainty as to how prices would be set. For the first Tranche, the Commission based the ZEC price on the average April 2017 through March 2019 projected SCC as published by the U.S. Interagency Working Group (USIWG) in July 2015 (nominal \$42.87/short ton), less a fixed baseline portion of that cost that is already captured in the market revenues received by the eligible facilities due to the RGGI program. The Commission calculated the RGGI baseline impact based upon the average of the April 2017 through March 2019 forecast RGGI prices embedded in the Congestion Assessment and Resource Integration Study (CARIS) Phase 1 report (nominal \$10.41/short ton), which yielded a Tranche 1 net social cost of carbon of \$32.47 (nominal \$/short ton), and a ZEC price of \$17.48 per megawatt-hour (MWh).

The Commission adopted the following ZEC price calculation methodology for the Tranche 2 through Tranche 6 contract periods:

Social Cost of Carbon	-	Baseline RGGI Effect	-	Amount that Zone A Forecast Energy Price and ROS Forecast Capacity Price combined exceeds \$39/MWh	=	ZEC Price (\$/MWh)
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The Commission also adopted Staff's proposal to fix the SCC component (nominal dollars per short ton of carbon dioxide, or CO₂) by Tranche based on SCC estimates published in July 2015 by the USIWG, as follows: Tranche 2 (\$46.79), Tranche 3 (\$50.11), Tranche 4 (\$54.66), Tranche 5 (\$59.54), and Tranche 6 (\$64.54). The Commission also adopted Staff's proposal to

subtract the RGGI baseline effect from the SCC at the same fixed amount for all Tranches, at a nominal \$10.41/short ton. The Commission noted that the energy price forecast part of the adjustment in the methodology would capture forward-going changes due to RGGI.

The Commission further adopted the use of a fixed 0.53846 conversion factor to convert the SCC figures from \$/short ton to \$/MWh for all Tranches, based on the emissions rates of the mix of resources that would be avoided by the preservation of zero-emissions attributes.³⁸ For Tranches 2 through 6, the Commission also directed a downward-only adjustment to the ZEC price based on changes in independently published forecasts of going-forward energy and capacity prices. Specifically, the Commission directed that ZEC prices be adjusted downwards by the amount that the NYISO Zone A energy prices combined with the Rest of State (ROS) capacity price forecast exceeds \$39/MWh. The Commission specifically noted that the Upstate nuclear units are located in NYISO Zones B and C and do not receive market energy revenues at the Zone A Locational Based Marginal Price, but Zone A was chosen as a reference price solely for the mechanics of the adjustment mechanism based on the availability and quality of forecasts for Zone A as compared to forecasts from Zones B and C.³⁹ The Commission expressly noted that the reference price forecast does not act within the formula to establish a quantity of energy and capacity revenues, and, as a deliberate intention, no part of the formula establishes energy or capacity prices or

³⁸ The carbon emissions rate was fixed for the first three Tranches, with a one-time adjustment in the event a certain level of renewables is added in New York. That level of renewables was not achieved, so no adjustments to the conversion factor were made.

³⁹ CES Order, p. 139.

revenues; rather, the Zone A forecasts are used in the calculation to measure only the change in independent forecasts over time.⁴⁰

The Commission directed that each of the Upstate nuclear facilities contract with the New York State Energy Research and Development Authority (NYSERDA) to produce ZECs and sell them to NYSERDA through March 31, 2029, except during periods when the calculated ZEC price pursuant to the contract is \$0. To that end, the Commission directed that the amount of ZECs to be purchased on an annual basis be capped at a MWh amount that represents the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State. The Commission found it reasonable to use the sum of the then-most recent four quarters of production (i.e., July 2015 through June 2016) as a measure of the facilities' output and capped the amount of ZECs to be purchased on an annual basis at that amount, which totaled 27,618,000 MWh.⁴¹ In order to ensure performance, the Commission established various financial consequences for failure to produce the requisite ZECs. Recognizing that plant closures could impact the production of ZECs, the Commission ordered that, if any of the three Upstate nuclear facilities permanently stopped producing zero-emissions attributes for any reason, the overall cap of 27,618,000 MWh would be reduced by one-third. The Commission noted that this requirement would incentivize the

⁴⁰ Id.

⁴¹ CES Order, p. 145.

facility owners to keep all three plants operating and to maintain the balance between ratepayer and generator interests.⁴²

The CES Order directed each of the State's Load Serving Entities (LSEs) to support the preservation of the environmental values or attributes of qualified zero-emissions nuclear-powered electric generating facilities by purchasing a proportion of the ZECs purchased annually by NYSERDA.⁴³ Specifically, the CES Order directed each LSE to purchase ZECs from NYSERDA based on the proportion of the statewide electric energy load served by the LSE in relation to the total electric energy load served by all LSEs in the New York Control Area (NYCA). This ZEC obligation is separate from any LSE obligation encouraging utilizing generation from renewable resources. The Commission also directed the LSEs to make ZEC purchases through contracts with NYSERDA and recover costs from ratepayers through commodity charges on customer bills.

STAFF PROPOSAL

A. ZEC 2.0 Program Considerations

In analyzing the need to extend ZEC 1.0 beyond its March 31, 2029 expiration date, the ZEC 2.0 Proposal considered a number of inherent costs and risks associated with such an extension, as well as the potential impacts of declining to extend the program.

⁴² The ZEC contracts expressly provide that ZEC payments would be adjusted for a change in law that materially changes the original economic benefits of the contract, such as a federal tax credit aimed at nuclear production.

⁴³ The CES Order noted that both the New York Power Authority and the Long Island Power Authority expressed support for DPS Staff's Responsive Proposal, and that both entities intended to enter into the necessary agreements to procure their shares of zero-emissions credits. CES Order, p. 148.

1. Timing and Aging Management

As explained in the ZEC 2.0 Proposal, nuclear plants must receive an initial license from the NRC to operate for 40 years and are eligible to apply for extensions in 20-year increments, with license renewal beyond year 60 known as "subsequent license renewals."⁴⁴ The ZEC 2.0 Proposal further noted that all of the operating nuclear plants in New York are currently in their first 20-year extension (i.e., the 40-to-60-year range of licensed operations), with an opportunity to pursue subsequent license renewals to 80 years.

As part of the license renewal process, the NRC reviews safety and technical requirements for an extended license term and assesses the plant's operational safety, including environmental protection, being assured during the 20-year extension period. The ZEC 2.0 Proposal specifically identified several challenges to plant operations beyond 60 years. These challenges include the possible onset of known age-related degradation mechanisms that have not yet been observed, the acceleration of degradation already observed and accounted for, and the emergence of new degradation mechanisms related to the plant's operation beyond 60 years.

NRC application timelines require license renewal applications to be submitted five years prior to a plant's license expiration date, unless an exemption is granted. For Nine Mile Unit 1 and Ginna, the NRC granted an exemption to the license renewal application timelines, shortening the application period to three years. Constellation indicated to the NRC that it intends to submit its subsequent license renewal application between January and March 2026 for Nine Mile Point Unit 1, and between April and June 2026 for Ginna. New York's

⁴⁴ 10 C.F.R. Part 54 (requirements for renewal of operating licenses for nuclear power plants).

nuclear fleet is one of the oldest in the United States, with an average age of approximately 50 years (compared to the nationwide average age of 42.7 years). The ZEC 2.0 Proposal expressed that continued safe and reliable operation will require rigorous and constant monitoring and inspections, as well as timely and preventative operations and maintenance and capital project investments.

2. Emissions

The ZEC 2.0 Proposal stated that nuclear reactors have the lowest lifecycle emissions of any generation technology when considering capital expenditure embodied emissions. Moreover, retiring a nuclear plant would most likely result in an increase in natural gas-fired generation. As an example, in the years during and following the retirement of the two nuclear reactors at Indian Point, the proportion of electricity generated by burning fossil fuels increased and air emissions from the New York electric grid increased by approximately 26 percent, from 22.12 million metric tons of CO₂ equivalent (mmt CO₂e GWP20) to 27.79 mmt CO₂e GWP20.⁴⁵ The ZEC 2.0 Proposal also noted that two large natural gas fired electric generation plants, Cricket Valley Energy Center and CPV Valley Energy Center, came online to replace the Indian Point generation and maintain reliability.

The ZEC 2.0 Proposal explained that the 2015 Brattle Report projected that average annual carbon emissions would be almost 16 million tons higher absent the generation from the Upstate nuclear plants.⁴⁶ The 2015 Brattle Report also identified that the Upstate nuclear plants prevent the emission of 13,000 tons of nitrogen oxides, 3,000 tons of sulfur dioxide,

⁴⁵ New York State Department of Environmental Conservation (NYSDEC), 2024 NYS Greenhouse Gas Emissions Report: Sectoral Report #1 (issued December 2024), p. 5.

⁴⁶ See 2015 Brattle Report, p. 1.

and 2,000 tons of particulate matter each year.⁴⁷ The ZEC 2.0 Proposal also cited the 2025 State Energy Plan's Pathways Analysis and highlighted that the cessation of nuclear operations at the end of each facility's 60-year license period would result in a decrease in nuclear generation capacity by 1,201 megawatts (MW) in 2030 and 2,033 MW in 2040, which would contribute to more natural gas-fired generation.

3. Market Dynamics and Economic Impacts

The ZEC 2.0 Proposal considered the impacts of closing New York's Upstate nuclear plants on energy price volatility and energy security concerns. According to the proposal, nuclear energy generation has high fixed operating costs but very low marginal costs, while fossil fuel generators have low fixed operating costs and high marginal costs due to the cost of fuel, which can vary significantly on a day-to-day basis. The ZEC 2.0 Proposal noted that New York currently has a diverse electric generation mix (including nuclear generation), which benefits the State by mitigating price volatility and reducing the State's reliability on any one fuel source. In contrast, the ZEC 2.0 Proposal asserted that any decrease in nuclear energy generation is likely to be accompanied by an equally sizeable increase in fossil fuel energy generation and GHG emissions and a greater dependency on fossil fuels, which also raises reliability concerns particularly during extreme cold weather events.

The ZEC 2.0 Proposal also considered the potential local economic impacts of closing the Upstate nuclear generators. Based on the 2015 Brattle Report analysis, the ZEC 2.0 Proposal stated that closure of the plants could threaten thousands of direct and indirect jobs attributed to the plants

⁴⁷ See 2015 Brattle Report, p. 11.

and could adversely impact annual state taxes paid by the nuclear plant.⁴⁸ The ZEC 2.0 Proposal stated that availability of reliable electricity is critical to attracting new economic development in New York State (e.g., semiconductor manufacturing), and such development could be negatively impacted by the loss of reliable nuclear generation.

4. "Clean Firm" Technology

According to the ZEC 2.0 Proposal, while the Commission is pursuing programs and policies to develop renewable energy and battery storage to meet the State's renewable energy target, these resources are unlikely to replace a significant loss of zero-emission nuclear generation. Nuclear energy is uniquely able to provide services to the grid that renewables cannot easily replicate, particularly during times of low wind and sun supply.⁴⁹

According to the Staff Proposal, retiring the existing nuclear facilities at the end of their current 60-year licenses could increase power sector decarbonization costs by \$7.6 billion.⁵⁰ Furthermore, in the CES Draft Biennial Review,⁵¹ Staff and NYSERDA noted that the State was not on track to meet the target provided in PSL §66-p that a minimum of 70 percent of

⁴⁸ See 2015 Brattle Report.

⁴⁹ NYISO, 2023-2042 System & Resource Outlook (The Outlook) (issued July 23, 2024), Appendix E, available at: <https://www.nyiso.com/documents/20142/46037414/2023-2042-System-Resource-Outlook.pdf> (NYISO Resource Outlook).

⁵⁰ New York State Climate Action Council, Scoping Plan (issued December 2022), Appendix G, pp. 83-84, available at: <https://climate.ny.gov/resources/scoping-plan> (Scoping Plan).

⁵¹ Case 15-E-0302, supra, Draft Clean Energy Standard Biennial Review (filed July 1, 2024), pp. 11-18 (CES Draft Biennial Review).

electric generation be generated by renewable energy systems by 2030 due to a confluence of factors.⁵²

The ZEC 2.0 Proposal asserted that opportunities to replace lost firm nuclear capacity with other low- or zero-carbon alternatives will require the deployment of novel technologies. However, some of these technologies are not yet commercially feasible. For example, with respect to Dispatchable Emissions Free Resources (DEFER), the ZEC 2.0 Proposal cited the NYISO Resource Outlook, which states that DEFERs "are not commercially viable today at the necessary scale," significant work remains to economically justify transitioning the dispatchable fleet to some combination of new technologies in the next 15 years, and research, development, and construction lead times necessary for these technologies "may extend beyond the policy mandate timeline, in which case other existing generation technologies may be required to remain in operation to continue to maintain a reliable system."⁵³

That notwithstanding, the ZEC 2.0 Proposal stated that there may be opportunities to support additional DEFERs with the existing nuclear fleet. As an example, the ZEC 2.0 Proposal noted that the Nine Mile Point nuclear plant in Oswego, New York hosts a first-of-its-kind facility in the United States to generate clean hydrogen via nuclear power. According to the ZEC 2.0 Proposal, this project highlights how nuclear power plants may help lower costs and scale-up the production of clean hydrogen for both operational uses and for use as a potential DEFER in the future.

⁵² PSL §66-p(2).

⁵³ NYISO Resource Outlook, p. 9.

5. Land Use

The ZEC 2.0 Proposal stated that nuclear is the most efficient source of energy in terms of the Land Use Intensity of Energy (LUIE) metric when compared to natural gas, wind, solar, geothermal, hydroelectric, and biomass generation.⁵⁴ For nuclear generation, a majority of land impacts comes from the siting of the nuclear plant itself, which has a comparatively small footprint, with indirect land use from uranium mining accounting for only about ten percent of the total LUIE. In contrast, the ZEC 2.0 Proposal noted that developing additional renewable energy generation resources will require substantial amounts of land to site such resources. Utilizing information from NYSERDA's Large-Scale Renewables Supply Curve and the NYISO's 2024 Gold Book, Staff performed an analysis to estimate the amount of land that would be used by solar and wind resources in New York State by 2040. Using outputs from the capacity expansion modeling carried out for Cycle 1 of the Coordinated Grid Planning Process (CGPP), Staff estimated that more than four percent of New York State land would be needed for wind and solar resources by 2040 to meet the Climate Leadership and Community Protection Act (CLCPA).⁵⁵ The ZEC 2.0 Proposal further noted that the retirement of any existing nuclear capacity would have additional land use impacts if its generation had to be replaced by additional solar or wind resources Upstate, where land availability is already expected to be constrained.

⁵⁴ LUIE is a metric that measures the amount of land needed to produce one terawatt-hour of electricity per year.

⁵⁵ Information on the CGPP and capacity expansion modeling outputs can be found at: <https://dps.ny.gov/eppac-supporting-documents>.

6. Federal Tax Credits

The ZEC 2.0 Proposal noted that the federal zero-emission nuclear power production credit (Nuclear PTC), which was created through the 2022 Inflation Reduction Act to incentivize the production of electricity from qualified nuclear power facilities between December 31, 2023, and December 31, 2032, has been retained through federal legislation with new Foreign Entity of Concern restrictions. The ZEC 2.0 Proposal stated that it expects Constellation, as the current owner, to realize significant savings for New York ratepayers through the Nuclear PTC that will offset ZEC 2.0 program costs, while improving the cost-benefit balance of maintaining the existing nuclear fleet as compared to the alternatives. Accordingly, Staff requested that Constellation file into the record a report on the actual savings from the Nuclear PTC after completing its 2024 tax filing.

7. Activity in Other States

The ZEC 2.0 Proposal stated that interest in nuclear power has increased since 2024, with several technology companies securing power purchase agreements (PPA) with existing nuclear plants in states outside of New York.⁵⁶ Noting that these types of transactions may provide an opportunity to reduce

⁵⁶ See, e.g., NextEra Energy and Google Announce New Collaboration to Accelerate Nuclear Energy Deployment in the U.S. (October 27, 2025), available at: <https://www.investor.nexteraenergy.com/news-and-events/news-releases/2025/10-27-2025-203948689>; Talen Energy Expands Nuclear Energy Relationship with Amazon, June 11, 2025, available at: <https://ir.talenenergy.com/news-releases/news-release-details/talen-energy-expands-nuclear-energy-relationship-amazon>; Constellation and Meta Sign 20-Year Deal for Clean, Reliable Nuclear Energy, available at: <https://investors.constellationenergy.com/news-releases/news-release-details/constellation-meta-sign-20-year-deal-clean-reliable-nuclear>.

ratepayer costs of the ZEC 2.0 program, Staff invited comments in the ZEC 2.0 Proposal on how any proposal can accommodate such potential opportunities.

B. ZEC 2.0 Proposal

Based on the considerations discussed above, the ZEC 2.0 Proposal stated that maintaining the existing nuclear fleet is a cost effective and viable solution to maintain system reliability while helping to meet the State's growing electric load with zero-emissions resources and advancing progress towards the State's GHG reduction goals. As such, the ZEC 2.0 Proposal recommended continuing the ZEC program through 2049. According to the ZEC 2.0 Proposal, extending the ZEC program will enable the existing nuclear fleet to operate through the full subsequent relicensing period.⁵⁷

Consistent with the ZEC 1.0 Program, the ZEC 2.0 Proposal recommended that the ZEC 2.0 Program be designed such that it can be modified or eliminated by the Commission if a national, NYISO, or other program is instituted that pays for or internalizes the value of the zero-emissions attributes. This would have to be in a manner that adequately replicates the economics of the program, and the Commission would have to be satisfied that the zero-emissions attributes are no longer at risk to ensure fairness to both the facility owners and ratepayers.

⁵⁷ Staff notes that, while the 40-60 year licenses for FitzPatrick and Nine Mile Point Unit 2 do not expire until October 2034 and October 2046, respectively (and Constellation has not yet indicated if it intends to pursue subsequent license renewals from 60-80 years for these facilities), in the event Constellation opts to pursue license renewals for those facilities, the ZEC 2.0 Program would cover their renewed license period until 2049.

1. Eligibility

The ZEC 2.0 Proposal recommended that, in order for a nuclear facility to qualify to sell Tier 3 ZECs under the ZEC 2.0 Program, it must: (1) have an in-service date of January 1, 2015, or earlier; (2) be operating pursuant to an NRC operating license as of April 1, 2029; (3) have demonstrated the need for financial assistance to operate the facility beyond 2029; and (4) be in compliance with any other federal and state authorizations. The proposed eligibility criteria are modeled after the eligibility criteria that Staff previously proposed for the ZEC 1.0 program.⁵⁸ According to the ZEC 2.0 Proposal, these eligibility criteria reflect the State's interest in targeting ratepayer support for ZECs to only those facilities that are contributing to the State's goal of a zero-emissions statewide electrical demand system by 2040 (Zero by 40 Target) and emissions reduction goals and are providing economic and other reliability benefits to the State.

2. ZEC 2.0 Pricing Formula

The ZEC 2.0 Proposal recommends continuing to use the ZEC 1.0 pricing formula as described in the Final ZEC Implementation Plan filed on October 21, 2019, with certain updated inputs.⁵⁹ Specifically, the ZEC price would continue to be calculated as follows:

Social Cost of Carbon (SCC)	-	Baseline RGGI Effect	-	Amount that Zone A Forecast Energy Price and ROS Forecast Capacity Price combined exceeds \$39/MWh	=	ZEC Price (\$/MWh)
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⁵⁸ See CES White Paper, pp. 31-32.

⁵⁹ Case 15-E-0302, supra, Final ZEC Implementation Plan (filed October 21, 2019) (Final ZEC Implementation Plan).

Social Cost of Carbon: the ZEC 2.0 Proposal recommended updating the SCC using NYSDEC's 2023 SCC values, with the same discount rate of three percent that was used for the SCC in the ZEC 1.0 Program. The ZEC 2.0 Proposal noted that, while NYSDEC has developed guidance for the use of the SCC by state agencies, its most recent 2025 guidance document specifically notes that "in some decision-making contexts, particularly those that have a history of valuing carbon such as the New York electric industry, alternative approaches may be more appropriate for both resource valuation and benefit-cost analyses."⁶⁰ According to the ZEC 2.0 Proposal, using 2023 SCC values with a three percent discount rate is more appropriate for both resource valuation and benefit-cost analyses related to the ZEC 2.0 program. Under this approach, Staff estimated that the beginning SCC for 2029 would be \$62.34 (in 2020 dollars) per metric ton of CO₂.

The ZEC 2.0 Proposal also proposed converting the NYSDEC SCC amounts from 2020 dollars to the relevant years of the calculation, using the latest inflation forecast for the 2029-2049 period from Blue Chip Economic Indicators.⁶¹ The ZEC 2.0 Proposal noted that the ZEC 1.0 Program utilizes a fixed conversion factor of 0.53846, based on a 2015 estimate, to adjust dollars per short ton to dollars per MWh, to reflect an estimate of the emissions rates of the mix of resources that would be avoided by the preservation of zero-emissions

⁶⁰ NYSDEC, Establishing a Value of Carbon: Guidelines for Use by State Agencies (updated August 2023), p. 4, available at: <https://dec.ny.gov/sites/default/files/2025-04/vocguide2023.pdf> (2023 Value of Carbon Guidelines).

⁶¹ The ZEC 2.0 Proposal notes that forecasts for GDP Price Indices for 2027-2036 and beyond are based on the latest long-term forecasts from the March 2025 Blue Chip Economic Indicators.

attributes. For the ZEC 2.0 Program, the ZEC 2.0 Proposal recommended a conversion factor of 0.553, which is consistent with the conversion factor that the Commission has used in recent energy efficiency calculations.⁶² The ZEC 2.0 Proposal expressly acknowledged that this number may not be static over the proposed period of the ZEC 2.0 Program.

Baseline RGGI Effect: In the ZEC 1.0 Program formula, the price of the ZEC was based upon the SCC less a fixed baseline portion of costs that are already captured in the market revenues received by eligible facilities under RGGI. According to the ZEC 2.0 Proposal, this adjustment was put in place to recognize that, while the SCC identifies the financial impact that carbon will have on the environment, it does not recognize that a portion of such damage would be offset by RGGI funds. By using the "SCC less RGGI" approach, the calculation quantifies the net impact of an additional MWh's cost of carbon. For the ZEC 2.0 Program, Staff proposed maintaining the same forecast of RGGI proceeds per short ton (i.e., \$10.41) used in the ZEC 1.0 formula, but update the amount per MWh to be consistent with the revised conversion factor being proposed.⁶³ Using the updated conversion factor of 0.553, the RGGI adjustment would increase from \$5.61 per MWh to \$5.76 per MWh.

Forecast Energy and Capacity Price: The ZEC 2.0 Proposal recommended maintaining the same reference price for energy and capacity, at \$39 per MWh in total. The ZEC 2.0

⁶² See Case 14-M-0094, Clean Energy Fund, CE-10: Data Dictionary and Scorecard Guidance (issued December 16, 2021), p. 23 (CE-10 Guidance).

⁶³ As explained in the CES Order, increases in RGGI prices are expected to be reflected in the Forecast Energy & Capacity Price, and therefore inflating the RGGI offset in future tranches would constitute a double count. CES Order, pp. 135-136.

Proposal stated that this level of market revenue, combined with the calculated ZEC price, should provide sufficient revenues to cover current and expected costs of the Upstate nuclear facilities during years 60 to 80 of operations, and ensure that customers receive the benefit of the zero-emissions generation at a cost no greater than the projected impact of additional carbon from fossil generation.⁶⁴

The ZEC 2.0 Proposal noted that the ZEC 1.0 Program recognized that the nuclear plants would be receiving less revenue than the \$39/MWh forecast, because the nuclear plants do not receive revenues from NYISO Zone A but instead receive amounts based on the location of their individual "busses". The ZEC 2.0 Proposal further noted that, in order to account for the fact that this amount would likely change over time, the Commission included, a one-time update to the basis differential prior to Tranche 4, in the event the basis differential changed by more than \$1/MWh in either direction.⁶⁵ The ZEC 2.0 Proposal recommended implementing a similar update mechanism, either on a one-time or recurring basis, during the ZEC 2.0 Program.

⁶⁴ The CES Order dictated that forecasts of the NYISO Zone A energy prices should be calculated based on data from the Intercontinental Exchange, with the data collected during the calendar year proceeding each tranche price reset. The ZEC 2.0 Proposal notes that the Intercontinental Change price forecasts have since ceased to be available for NYISO Zone A, and the calculation now uses an alternative data source. Accordingly, the ZEC 2.0 Proposal proposes that the current, or similar, data source be used to calculate the forecast energy price for ZEC 2.0. Further, the data collection period will have to be modified if the Commission adopts the proposal to change the tranche periods to calendar years, as discussed in more detail below.

⁶⁵ CES Order, p. 141.

3. ZEC Tranches

The ZEC 2.0 Proposal recommended that ZEC 2.0 contracts be administered in 11 Tranches of two years each, with the exception that Tranche 7 (*i.e.*, the first tranche in the ZEC 2.0 Program) should be shortened to nine months to accommodate a stub period of April 2029 to December 2029. According to the ZEC 2.0 Proposal, this would align the Tranches with calendar years and thus lower NYSERDA's administrative burden to manage the program. While the maximum ZEC price for each Tranche would be calculated utilizing the methodology described above, the ZEC 2.0 Proposal notes that possible adjustments to the basis differential and conversion factor could impact the final ZEC price for any Tranche.

Based on the formula described above, Staff estimated the maximum ZEC prices for each Tranche of ZEC 2.0 as follows:

Table 2: Maximum ZEC Price by Tranche

Tranche	Schedule	Maximum ZEC Price (\$/MWh)	Combined Market and ZEC Revenue (\$/MWh) ⁶⁶
7	2029 (Stub Period)	\$36.27	\$69.27
8	2030-2031	\$39.01	\$72.01
9	2032-2033	\$42.85	\$75.85
10	2034-2035	\$46.94	\$79.94
11	2036-2037	\$51.31	\$84.31
12	2038-2039	\$55.95	\$88.95
13	2040-2041	\$60.90	\$93.90
14	2042-2043	\$65.02	\$98.02
15	2044-2045	\$70.57	\$103.57
16	2046-2047	\$76.48	\$109.48
17	2048-2049	\$82.75	\$115.75

⁶⁶ Assuming combined energy and capacity market revenues of \$39/MWh through the life of the program.

Based on current forecasts of energy and capacity revenues, however, the ZEC 2.0 Proposal noted that the actual ZEC prices could be less than half of the maximum ZEC prices over the full period.

4. Contract Performance Requirements

The ZEC 2.0 Proposal proposed continuing contract performance and facility closing requirements that the Commission adopted for the ZEC 1.0 Program.⁶⁷ Specifically, the ZEC 2.0 Proposal recommended capping the amount of ZECs to be purchased on an annual basis based on the verifiable historic contribution, in MWh, that a facility has made to the clean energy resource mix consumed by retail consumers in New York State.⁶⁸ The ZEC 2.0 Proposal recommended that, if any of the three Upstate nuclear facilities permanently ceases producing zero-emissions attributes, the overall MWh cap that represents the verifiable historic contributions of the facilities would be reduced by one-third for each such closed facility.⁶⁹ The ZEC 2.0 Proposal asserted that this type of mechanism would act as an incentive to the facility owners to keep all of the plants operating, and to ensure that the ZEC 2.0 program maintains the original balance between ratepayer and generator interests.

5. Cost Recovery Methodology

The ZEC 2.0 Proposal proposed continuing to use the ZEC 1.0 cost recovery methodology described in the Final ZEC Implementation Plan. Under that cost recovery methodology,

⁶⁷ CES Order, pp. 144-147.

⁶⁸ CES Order, p. 145.

⁶⁹ For purposes of this mechanism, the ZEC 2.0 Proposal proposes that Nine Mile Point Unit 1 and Unit 2 qualify jointly as a single facility. That is, if either Nine Mile Point unit permanently ceases producing zero-emission credits, the entire qualified Nine Mile Point facility would be treated as having permanently ceased producing zero-emissions credits.

NYSERDA would assess each LSE a uniform wholesale per-MWh charge that is applied to the LSE's actual wholesale load, to calculate their monthly ZEC obligation payments beginning April 1, 2029. Each year thereafter, NYSERDA would determine, in collaboration with Staff, the dollar per MWh charge (LSE ZEC Rate) owed by each LSE for the next compliance year of the ZEC 1.0 Program. According to the ZEC 2.0 Proposal, by continuing to use this methodology, the Commission can maintain an appropriate and fair value for the environmental attributes generated by the existing nuclear facilities that is independent of the actual wholesale prices for energy and capacity in the NYISO market, while ensuring that the facilities earn enough revenue to continue operating.

NOTICE AND COMMENT

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking (Notice) was also published in the State Register on August 20, 2025 [SAPA No. 15-E-0302SP69]. The time for submission of comments pursuant to the Notice expired on October 20, 2025. Comments received are discussed below, as relevant, and summarized in Appendix B.

LEGAL AUTHORITY

The Commission has the responsibility and the authority under the PSL to ensure that utilities carry out "their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources."⁷⁰ Furthermore, the CLCPA provides a target for the

⁷⁰ PSL §5(2); see also PSL §66(3).

state wide electric generation system; the PSL §66-p target envisions 70 percent of the statewide electric generation secured by jurisdictional load serving entities to meet the electrical energy requirements of all end-use customers in the state being generated by renewable energy systems by 2030 subject to Commission review.⁷¹

Pursuant to the State Energy Law, the Commission is required to consider actions to effectuate State energy policy and the New York State Energy Plan.⁷² In fulfilling the PSL and State Energy Law goals, the Commission has directed the development and implementation of a number of programs to increase the deployment of clean energy technologies and energy efficiency programs in New York, including the Clean Energy Standard, Clean Energy Fund, the Renewable Portfolio Standard, the Energy Efficiency Portfolio Standard, and the Energy Efficiency Transition Implementation Plans⁷³. The activities directed and authorized in this Order will continue and build upon the progress made through those programs.

⁷¹ PSL §66-p (2), (4).

⁷² State Energy Law §§3-103 and 6-104.

⁷³ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and Clean Energy Standard, Case 14-M-0094, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Case 18-M-0084, In the Matter of a Comprehensive Energy Efficiency Initiative.

DISCUSSION

A. Need for a ZEC Program Extension

Since its inception in 2016, the ZEC 1.0 Program has provided between \$462 million and \$590 million annually to participating facilities, preventing the closure of the Ginna and FitzPatrick electric generating plant, which were facing critical economic difficulties, and supporting Nine Mile Point Units 1 and 2 under similar circumstances. Moreover, the ZEC 1.0 Program has significantly reduced emissions, avoiding over 13.7 million metric tons of CO₂ per year since the enactment of the program and delivering a carbon-alone benefit of over \$9.5 billion through 2029, including the fact that the plants operated above the anticipated levels. The operation of the plants meant that \$1.9 billion was not collected through RGGI due to the continued operation of these clean generation resources, which would have occurred had the plants closed, and resulted in a savings to electric utility ratepayers. The emission reductions of the ZEC 1.0 Program highlight the program's effectiveness and advantages, indicating the need to continue safeguarding upstate nuclear facilities which provide critical baseload electric generation to the statewide grid.

Here, as in 2016, the Commission concludes, based on information in the record, that the benefits of preserving the carbon-free zero-emissions attributes of New York State's existing Upstate nuclear facilities outweigh the costs. Furthermore, the Commission finds that the ZEC 2.0 Proposal is a cost-effective and viable solution to help meet the State's growing electric load with zero-emissions resources, while

maintaining system reliability and making progress toward GHG reduction goals.⁷⁴

While the Commission recognizes that the ZEC 2.0 Program would not begin until 2029, the Commission is persuaded to act now for several reasons. First, the Commission finds that the Upstate nuclear facilities continue to require additional financial support, beyond what they earn in the energy markets and from federal tax credits, to continue operating safely and reliably in the near-term. In response to Staff's request in the ZEC 2.0 Proposal for additional financial information, Constellation submitted data indicating a financial risk associated with operating the Upstate nuclear plants from 2029 through 2032, and that projected revenues fall short of the projected costs to operate the plants during this timeframe.⁷⁵

⁷⁴ The Campaign for Renewable Energy and 24 co-signed commenters (CRE) submitted comments disagreeing with Staff's assertion that nuclear energy is zero-emissions due to associated upstream emissions from mining, plant construction, and waste storage. As the Commission noted in its response to comments on the draft Supplemental Generic Environmental Impact Statement (SGEIS), while an analysis conducted by the National Laboratory of the Rockies of "cradle to grave" lifecycle assessments of energy systems found that there is no technology that is truly zero-emissions when considering the total life cycle GHG emissions (including solar and wind energy), the analysis also found that both renewables and nuclear energy emissions are much lower and less variable than fossil fuels. See Case 15-E-0302, supra, Final Supplemental Generic Environmental Impact Statement (filed December 22, 2025), p. B-3 and B-4 (SGEIS); see also NREL, Life Cycle Greenhouse Gas Emissions from Electricity Generation: Update (September 2021), available at <https://docs.nrel.gov/docs/fy21osti/80580.pdf>.

⁷⁵ Constellation's filing provided near-term projected costs and risks of operating the plants, including but not limited to operations and maintenance costs, fuel and non-fuel capital expenditures, and anticipated major capital projects needed to maintain safe and reliable operations at the sites.

The Commission also recognizes that there is additional embedded financial risk and uncertainty in operating these facilities from 60 to 80 years, which must be accounted for in determining whether continued support through the ZEC 2.0 Program is needed at this time. Constellation further identified in its comments that it will face additional regulatory and operational challenges to preserve these attributes for the ensuing 20-year term. The need for a continued ZEC program was also recognized in Constellation's application for an exemption to the NRC license renewal timeline, in which the company acknowledged that the economic viability of continued operation of Ginna and Nine Mile Point Unit 1 beyond the current expiration dates of their existing NRC operating licenses is uncertain due to the ZEC 1.0 Program possibly expiring. These circumstances, together, indicate a risk that these facilities would retire due to financial hardship in the absence of continued financial support through the ZEC 2.0 Program for their zero-emissions attributes.⁷⁶

Second, the Upstate nuclear facilities' verifiable historic contributions to the clean energy resource mix in the state is undisputed. All four facilities operate at well over a 90 percent capacity factor, typically shutting down only during refueling activities. In addition, the importance of these facilities under current system conditions cannot be overstated.

⁷⁶ Some commenters argue that the Commission must utilize a cost-of-service approach to conduct a full analysis of the Upstate nuclear facilities' exact operational costs, prior to extending the ZEC program. As discussed in more detail below, however, the ZEC price formula currently in effect was specifically designed to ensure compliance with existing legal precedent that prohibits the State from guaranteeing a specific ZEC price based on the exact wholesale energy revenues necessary to operate a facility. See Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1292 (2016).

The NYISO projects load growth of two percent annually under baseline conditions,⁷⁷ but also notes in its 2025 Power Trends Report that there is a potential for significantly more growth from “large load projects.”⁷⁸ In its comments, the NYISO also specifically identified that the electric grid is at an inflection point, driven by an aging generation fleet, rapid growth of large loads, and the increasing difficulty of developing new dispatchable resources, all of which are leading to declining reliability margins statewide. For these reasons, the four existing nuclear power reactors are critical to maintaining electric system reliability. The NYISO further identified that the nuclear generators surrounding the Central East interface transmission path are needed, in part, to provide the dynamic voltage support services to transmit power from Western New York to serve statewide load. The Commission finds the NYISO’s comments especially compelling, as the loss of any of the Upstate nuclear facilities would result in New York State not only losing the zero-emissions electricity generation but critical reliability services necessary to deliver all sources of generation to major load centers in the state.

Moreover, since the ZEC 1.0 Program was established in 2016, New York State is operating in a new paradigm underpinned by the CLCPA’s aggressive power sector targets (e.g., the Zero by 40 Target) and rapid electric load growth. Considering these constraints, the retirement of the existing nuclear facilities

⁷⁷ See NYISO, Gold Book 2025 Baseline Forecast Dataset (April 2025), available at <https://www.nyiso.com/documents/20142/51231901/2025-Gold-BookBaseline-Forecast-Tables.xlsx/29e041cb-52b1-49a0-ac48-010b71a0eea7>.

⁷⁸ NYISO, Power Trends 2025: The New York ISO Annual Grid and Markets Report (April 2025), pp. 6-7, available at <https://www.nyiso.com/documents/20142/2223020/2025-Power-Trends.pdf> (2025 Power Trends Report).

would not only result in significantly increased GHG emissions but would also necessitate greater utilization of existing fossil-fuel plants and potentially create a need for new fossil-fuel plants, to ensure reliability standards are met for growing electric demand.

As it relates to emissions, in establishing the ZEC 1.0 Program, the Commission identified that the retention of the zero-emissions attributes of the Upstate nuclear plants would avoid approximately 15 million tons of carbon emissions per year. With the benefit of recent program reporting data for 2020 to 2024, Staff estimates that the ZEC 1.0 Program has helped avoid over 13 million metric tons of carbon dioxide emissions per year, or over 68 million tons total, during this period with additional emissions reductions between 2016-2020. As the ZEC 2.0 Proposal notes, the permanent cessation of generation at Indian Point also resulted in an increased proportion of electric generation from fossil fuels, as several new natural gas fueled electric generation plants were brought online around the time of Indian Point's retirement to offset lost electric generation capacity and maintain reliability. In 2023, natural gas fired power plants accounted for almost three-fifths of New York's generating capacity and provided 46 percent of the state's electricity net generation, up from 36 percent in 2021 (the year Indian Point's last operating reactor ceased operation).

Many commenters point to the more recent 2025 Brattle Report,⁷⁹ which further substantiates that the continued operation of New York's existing nuclear fleet would result in

⁷⁹ The Brattle Group, Economic and Power System Impacts of New York's Nuclear Units (September 2025), available at <https://www.carbonfreeny.com/nuclear-fleet> (2025 Brattle Report).

lower carbon emissions than if they were to retire at the end of their current licenses.⁸⁰ The 2025 Brattle Report highlights that the continued operation of New York's nuclear fleet beyond 2029 would contribute \$38 billion to the state's economy, support over 14,000 jobs, and preserve \$10 billion in tax revenues. Furthermore, New York's Final 2025 State Energy Plan applies a similar assumption in its Pathways Analysis, stating that without any policy support, it is assumed all nuclear facilities will retire resulting in the loss of approximately 27,000 gigawatt-hours (GWh) of zero-emissions electricity annually.

The ZEC 2.0 Proposal also argues that the closure of the Upstate nuclear facilities and increased reliance on new and existing gas generation would expose the State to greater energy price volatility, reduced fuel diversity, and energy security concerns. The Commission recognizes this concern and agrees that it is in the public interest to have a diverse electric generation mix and that the loss of these facilities would only expose New York ratepayers to greater price fluctuations given the nature of fossil fuels as global commodities and reliability challenges. During a time of rising costs economywide and extreme weather events, further exposure to such risk could undermine the Commission's mandate to provide safe, reliable service at just and reasonable rates.

Third, as the ZEC 2.0 Proposal identifies, Nine Mile Point Unit 1 and Ginna must submit their subsequent license renewal applications to the NRC in 2026. A few commenters raised concerns that Staff has not provided justification for a

⁸⁰ The City of New York (City) expressed concerns in their comments regarding potential bias of the 2025 Brattle Group report. The Commission acknowledges there may be limitations to this report and accordingly relies on several sources of information to inform their recommendations.

program that runs the full 20-year period. The Commission recognizes the interests of the owner and operator of a nuclear facility (Owner) in having financial certainty prior to submitting its subsequent license renewal as these facilities will be among the first in the nation to apply for an operating license that runs from 60 to 80 years and, if renewal is granted, will be the first in the nation to operate beyond 60 years. In order to continue safe and reliable nuclear plant operations, the Owner will need to make significant investments into each facility to proactively address age-related degradation and prepare for the potential emergence of new degradation mechanisms moving into the 60 to 80-year operational period. In addition, aging plant and plant support equipment (some with long lead times) will need to be refurbished or replaced. Therefore, the Commission acknowledges the imperative of acting now so that the Owner can pursue and plan for the subsequent license renewal for these first two facilities.

The ZEC 1.0 Program sought to provide financial certainty during the remaining 12 years of the operating license period for the Nine Mile Point Unit 1 and Ginna facilities. The ZEC 2.0 Program will provide that same stability. The Commission does, however, recognize that circumstances and market dynamics may change over the course of 20 years, and therefore, as explained in more detail below, adopts a periodic review during the ZEC 2.0 Program to ensure the cost-effectiveness of the program over a 20-year period.

Multiple Intervenors (MI) suggests that Staff has not justified the proposal to subsidize all four existing facilities, and that a facility-by-facility analysis is warranted to determine the public necessity of the ZEC 2.0 Proposal. The Commission notes that since the ZEC 2.0 Proposal is primarily a continuation of the existing ZEC program, the

public necessity for all four facilities was already established with the creation of the ZEC 1.0 Program in 2016. This necessity remains true today amidst growing electric demand and rigorous GHG reduction goals as enshrined in the CLCPA.

Alternatives to ZEC 2.0

CRE, and a group of eight organizations including the Alliance for a Green Energy Economy (AGREE), oppose extending the ZEC program and instead encourage the Commission to consider alternatives and develop a nuclear retirement roadmap. These commenters argue that there should be a competitive program to incentivize the development of various technologies to meet New York's emissions reductions goals. As noted elsewhere in this Order, the Commission is continuing to pursue the development of both renewable resources and energy efficiency programs. However, these resources cannot replicate the unique services that nuclear energy provides, including for reliability during "lulls" of wind and solar generation. Further, neither the resources suggested by these commenters, nor any other generating resource, would be able to replace the value that these nuclear plants provide within the timeframes necessary to replace the reactors' lost generation, given the amount of time needed to bring large-scale renewables online, and in light of uncertainty at the federal level that imposes additional costs, delays, and challenges to renewables development. Additionally, the cost of additional increments of renewable energy is expected to be higher than projected ZEC prices. Using the most recent publicly available data, the nominal weighted average strike price from NYSERDA's 2023 Tier 1 renewable energy solicitation is \$94.73 per MWh. The weighted average strike price of Tier 1 RECs and Offshore Wind Renewable Energy Credits for solicitations between 2022 and 2023 is \$94.65 per MWh,

ranging in cost from \$74.87 per MWh to \$155 per MWh.⁸¹ Comparatively, for the Upstate nuclear facilities, the estimated average combined ZEC and market revenues between Tranches 8 and 17 is \$92.18 MWh.⁸² The Commission recognizes these costs are not an apples-to-apples comparison; however, it is clear that the ratepayer impact of replacing the Upstate nuclear facilities with incremental renewable energy is likely greater than the cost of extending the ZEC program. The Commission finds this to be especially likely when considering that the replacement of the Upstate nuclear facility's generation with renewable energy is not a one-for-one substitution of generation due to nuclear generating plants having a much higher capacity factor (see Table 1 above) as compared to renewable energy resources like onshore wind (24.4 percent) and solar (16.9 percent).⁸³ In addition, any incremental renewables will need to be accompanied by significant transmission and distribution and energy storage system investments as well as land use.⁸⁴

In the Draft CES Biennial Review, Staff and NYSERDA also noted that the State is facing significant bottlenecks to the development of new renewable energy. For example, higher global interest rates, inflation, supply chain pressures, permitting uncertainty, federal policy uncertainty, and labor

⁸¹ NYSERDA, Large-scale Renewable Projects Reported by NYSERDA: Beginning 2004 (updated December 22, 2025), available at https://data.ny.gov/Energy-Environment/Large-scale-Renewable-Projects-Reported-by-NYSERDA/dprp-55ye/about_data.

⁸² See Table 3 for the estimated average by Tranche year. This average calculation does not include the Tranche 7 stub year.

⁸³ U.S. Energy Information Administration, State Profile and Energy Estimates, Table F53, 2024, available at https://www.eia.gov/state/seds/data.php?incfile=/state/seds/se_p_fuel/html/fuel_cf.html&sid=NY.

⁸⁴ State Energy Plan, Electricity Chapter, p. 37.

needs are all factors affecting the development and deployment of renewable energy.

Nonetheless, the Commission continues to aggressively pursue programs and policies in the most cost-effective manner possible to support the development of renewable energy and energy storage to meet the States' renewable energy targets under the CLCPA. The Commission has made progress on pursuing alternatives that are readily available, and points to the 2025 State Energy Plan which lays out the existing program and policy development direction through 2040 to meet future energy demands. Among many important recommendations, the 2025 State Energy Plan finds that nuclear remains a critical component to meeting New York's CLCPA targets, and can help create the foundation of New York's clean energy future.

Programs to support other technologies are in effect and outlined in detail in the 2025 State Energy Plan. In October 2025, for example, the Commission approved \$412.3 million for NYSERDA's 2026-2030 Innovation and Research portfolio to promote innovative clean energy solutions that enable system-wide affordability and reliability while driving toward a sustainable and more resilient future. The development of new technologies in the future does not eliminate the need for zero-emissions energy today, and the existing nuclear fleet meets that demand. In addition, the ongoing CGPP and Coordinated Grid Planning Working Group provide a forum for interested stakeholders to participate in the planning for necessary distribution and transmission upgrades and the capital expenditures to facilitate a zero-emissions grid. The Commission also points to the existing CES procurement goals which further the State's renewable energy efforts. In 2022, the Commission issued an order implementing the CLCPA mandates and targets, including procuring at least 70 percent of the

State's electric load from renewable resources by 2030 and installing nine gigawatts (GW) of offshore wind generation by 2035. Currently, there are over 38,000,000 MWh of operating renewables in New York, totaling 23 percent of statewide load, with an equivalent amount in the development pipeline.⁸⁵ In accordance with CLCPA targets, in May 2025 the Commission also authorized \$1 billion per year over the next five years to advance energy efficiency and building electrification programs. These funds increase access to energy efficiency and clean energy solutions across New York's buildings sector, including low-to-moderate income households and affordable multifamily buildings. In April 2024, the Commission instituted the Grid of the Future proceeding to develop a plan to establish targets for the deployment of flexible resources like virtual power plants.⁸⁶ In January 2025, The Brattle Group released a report finding a potential 3 GW of cost-effective flexibility and 8.5 GW potentially available by 2040.⁸⁷ Such efforts will continue to advance zero-emissions sources.

As noted by the New York Power Authority (NYPA) in its comments in support of extending the ZEC 2.0 Program, nuclear energy as a clean firm resource is becoming increasingly important as New York continues to expand its renewable energy portfolio to ensure reliability. NYPA additionally notes that the planned retirements of existing power plants mean that maintaining New York's existing clean, firm generation will be

⁸⁵ See Climate Act Dashboard (updated January 8, 2026), available at <https://climate.ny.gov/dashboard>.

⁸⁶ Case 24-E-0165, Proceeding on Motion of the Commission Regarding the Grid of the Future.

⁸⁷ The Brattle Group, New York's Grid Flexibility Potential - Volume I: Summary Report (January 2025), available at <https://www.brattle.com/wp-content/uploads/2025/02/New-Yorks-Grid-Flexibility-Potential-Volume-I-Summary-Report.pdf>.

critical to avoiding reliability issues in the near term. Further, replacing firm capacity resources like existing nuclear with other zero-emissions alternatives will require the deployment of novel technologies, some of which are not yet commercially feasible. The NYISO Resource Outlook examines such technologies, referred to as DEFRs, and finds that even once they are commercially available, implementation will require significant logistical and economic investment. The Zero by 40 Technoeconomic Assessment also identifies how candidate DEFR technologies will require additional innovation and deployment support to scale to the levels necessary to meet the CLCPA goals.⁸⁸ Thus, until they can be deployed at scale to replicate and replace the capacity and attributes of fossil-fuel fired generation and, in this specific case, existing nuclear, the Upstate nuclear fleet is key to keeping New York's greenhouse gas emissions lower.

B. Additional Considerations

Land Use

As New York pursues a zero-emissions grid in line with CLCPA mandates, the Commission is cognizant of balancing clean energy deployment with the continued use of agricultural land to support farms and other land-based industries. Nuclear New York commented that the small land use footprint of the existing Upstate nuclear facilities helps conserve farmland, wildlife habitats, and natural resources. The Commission also agrees with Staff's assessment that nuclear is the most efficient source of energy in terms of LUIE when compared to natural gas, wind, solar, geothermal, hydroelectric, and biomass generation.⁸⁹

⁸⁸ NYSERDA's Zero by 40 Technoeconomic Assessment is available at www.nyserda.ny.gov/publications.

⁸⁹ See ZEC 2.0 Proposal, p. 22.

The SGEIS prepared for this program also identifies significant land-use and other environmental impacts in the “no-action” scenario. Specifically, the SGEIS concluded that land use impacts would increase if lost nuclear generation must be replaced with either new fossil fuel generation or a combination of new fossil fuel and renewable generation.⁹⁰ Such construction would result in, among other impacts, land clearing, excavation, and the installation of temporary facilities. New construction could also impact offsite land use to the extent new transmission lines and related infrastructure must be installed.

Jobs, Tax Revenue, and Economic Development

Many commenters also pointed to the benefits of maintaining New York’s nuclear facilities beyond the environmental impacts, including maintaining the existing direct and indirect jobs supported by the plants, the tax revenue from these facilities, and the rapid economic development that needs clean energy to operate. IBEW Local Union 97 and New York League of Conservation Voters commented in support of extending the ZEC program to preserve high-quality union jobs in Upstate communities. The 2025 Brattle Report found that the retirements of existing nuclear facilities would result in the net loss of 14,400 jobs, including both the employees at the units as well as the additional jobs that are supported by the plants.⁹¹ The report also finds that there would be a significant impact to local and federal tax revenue if the facilities were to retire, estimating a \$10 billion cumulative loss in tax revenue over 20 years.⁹² Carbon Free New York and the Independent Power Producers of New York commented that the increasing economic

⁹⁰ SGEIS, p. 5-7, 5-8.

⁹¹ 2025 Brattle Report, p. 19.

⁹² 2025 Brattle Report, p. 24.

development and energy-intensive businesses adding large loads would be served well by nuclear energy and are in fact drawn to New York due to this high supply of clean, firm energy.

Federal Tax Credits and Funding

The Inflation Reduction Act of 2022 created a new federal tax credit under section 45U of the tax code (the Nuclear PTC) for electricity produced at existing nuclear facilities.⁹³ The base amount of the credit is 0.3 cents per kilowatt-hour (kWh) (inflation adjusted after 2024) and is increased by up to five times if prevailing wage requirements are met. The credit is reduced based on the amount of the nuclear power facility's gross receipts. This means that the more the facility earns from selling electricity, the smaller the tax credit, which can fall to zero in scale with revenues. The Joint Utilities⁹⁴ commented in support of netting the Nuclear PTC revenues against ZEC obligations. The ZEC program works in concert with the Nuclear PTC to limit costs to New York ratepayers. If revenues are low, a higher ZEC price would be calculated under the ZEC formula, but payments made by ratepayers would be reduced by the amount of the Nuclear PTC (which would also be higher because of the low revenue).

Constellation filed its first report on the savings from the Nuclear PTC on October 16, 2025, and made a subsequent filing on January 7, 2026, confirming that it claimed \$162 million from the Nuclear PTC, savings that will flow directly to

⁹³ 26 U.S.C. §45U.

⁹⁴ The Joint Utilities are Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange & Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

New York ratepayers in 2026.⁹⁵ Further, the Commission strongly encourages the facilities' owners/operators to pursue all available federal funding opportunities to reduce costs to New York customers. Any funding source that becomes available must be pursued, and the Commission directs Staff to ensure owners/operators pursue and secure such funding during Staff's periodic review of the program.

C. Eligibility Requirements

Staff proposed that, in order to qualify to participate in the ZEC 2.0 Program, a nuclear facility must: (1) have an in-service date of January 1, 2015, or earlier; (2) be operating pursuant to an NRC operating license as of April 1, 2029; (3) have demonstrated the need for financial assistance to operate the facility beyond 2029; and (4) be in compliance with any other federal and state authorizations. These eligibility criteria align with the criteria initially proposed by Staff for the ZEC 1.0 Program, and subsequently adopted by the Commission in the CES Order.⁹⁶ Importantly, these eligibility criteria also align with the Commission's reasoning for establishing the ZEC 1.0 Program, specifically, to preserve the clean energy attributes of the existing Upstate nuclear facilities, and to target ratepayer support for ZECs to only those facilities that are currently operating and contributing to the State's Zero by 40 Target and emissions reductions goals and providing economic and other reliability benefits to the State. Accordingly, the Commission finds that these eligibility requirements are

⁹⁵ See Case 15-E-0302, supra, Secretary Letter on Federal Production Tax Credits (filed October 16, 2025); and Secretary Letter on ZEC Program - Federal Direct Payments (filed January 7, 2026).

⁹⁶ CES White Paper, pp. 31-32.

reasonable and appropriate for the ZEC 2.0 Program and are hereby adopted.

A number of stakeholders advocated for further Commission support for advanced nuclear technologies, while other commenters expressly raised concerns about new nuclear facilities in New York. Broader policy decisions regarding new nuclear and advanced nuclear technologies are outside the scope of this Order, which is intended to preserve and extend an existing Commission program that supports the existing Upstate nuclear facilities and does not otherwise address new nuclear in New York.

D. ZEC Price Formula Mechanics

For the ZEC 2.0 Program, Staff proposed to continue using the existing formula for calculating ZEC prices that was established for the ZEC 1.0 Program, with only minor adjustments to specific inputs to account for the latest information available. The Commission generally finds this to be a reasonable and appropriate approach for the ZEC 2.0 Program, which is intended to be an extension of the existing ZEC program. In approving the general ZEC price formula in the CES Order, the Commission found that the formula struck a fair balance between recognizing and appropriately valuing the environmental attribute associated with the generation of electricity, while also ensuring that the facilities earn enough revenue to continue operating. The existing formula also includes several important components designed to mitigate the cost impact to ratepayers and ensure that facilities eligible to produce ZECs receive adequate financial support to cover their operating costs and risks but do not receive a windfall. Specifically, the formula adopted herein retains the existing mechanism whereby the fixed baseline portion of the SCC already captured in the market revenues received by the eligible

facilities due to the RGGI program will be subtracted from the SCC to prevent a double count. Likewise, continuation of the downward-only adjustment to the ZEC price based on the amount that future NYISO Zone A energy and ROS capacity price forecasts exceed \$39/MWh will ensure that the ZEC 2.0 Program does not erroneously over-incentivize the nuclear facilities during periods when electricity and capacity prices are high.⁹⁷

Based on the foregoing, the Commission directs that the existing formula to calculate ZEC prices be continued for the ZEC 2.0 Program, as follows:

Social Cost of Carbon (SCC)	-	Baseline RGGI Effect	-	Amount that Zone A Forecast Energy Price and ROS Forecast Capacity Price combined exceeds \$39/MWh	=	ZEC Price (\$/MWh)
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Staff's proposed adjustments and updates to the various inputs of the above formula are discussed in turn below.

1. Social Cost of Carbon

Staff proposed updating the SCC for the ZEC 2.0 Program using values from the NYSDEC's 2023 Value of Carbon Guidelines, with the same discount rate of three percent that

⁹⁷ As discussed above and in the CES Order, the ZEC pricing methodology is specifically designed to provide a nuclear facility fair value for the environmental attributes of its generation in a manner that is untethered to the generator's wholesale market participation. The Commission specifically noted in the CES Order that the \$39/MWh figure represents neither an estimate of the market revenues that the Upstate nuclear plants are currently receiving, nor a floor price that they would be paid in the future for energy and capacity. See CES Order, p. 139.

was used for the SCC in the ZEC 1.0 Program.⁹⁸ Under Staff's approach, the beginning SCC for 2029 would be \$62.34 (in 2020 dollars) per metric ton of carbon dioxide.⁹⁹ The Commission finds this proposed methodology for setting the SCC for ZEC price calculation purposes to be appropriate and ensures continuity between the existing ZEC 1.0 Program and the ZEC 2.0 Program. Critically, Staff's methodology establishes a reasonable value for the zero-emissions attributes associated with nuclear generation, which is central to the purpose of the ZEC 2.0 Program to provide compensation to the Upstate nuclear facilities' operators for that clean baseload generation. At the same time, using values from the 2023 Value of Carbon Guidelines with the existing three percent discount rate results in per-Tranche maximum ZEC prices that do not significantly deviate from current maximum ZEC prices, and do not result in drastic cost increases for the ZEC 2.0 Program that would be borne by customers. We note that this approach is consistent with our overall approach to extend and continue the ZEC program and, furthermore, we find it reasonable and appropriate.

Some commenters argue that the Commission should utilize values from the NYSDEC's 2025 Value of Carbon Guidelines with a discount rate of two percent for the ZEC 2.0 Program (i.e., a central value of \$193 per ton of carbon, as compared to Staff's proposed \$62.34) because those figures from NYSDEC supposedly align with the best estimates available from any governmental entity. The Commission notes that, for the ZEC 1.0 Program, it established the SCC component of the ZEC price formula based on SCC estimates published in July 2015 by the

⁹⁸ On January 20, 2025, the federal USIWG was disbanded pursuant to Executive Order 14154.

⁹⁹ 2023 Value of Carbon Guidelines, Appendix L.

USIWG.¹⁰⁰ The Commission also acknowledges that, since 2016, the NYSDEC has released additional information and guidance regarding the value of carbon for use by state agencies. Importantly, however, the NYSDEC itself recognizes that its figures are guidelines only, and that “in some decision-making contexts, particularly those that have a history of valuing carbon such as the New York electric industry, alternative approaches may be more appropriate for both resource valuation and benefit-cost analyses.”¹⁰¹

In this case, the Commission must balance the appropriate valuation of the avoided carbon attributes of nuclear generation with the need to maintain cost stability and promote continuity with the ZEC 1.0 Program. The Commission must further ensure that the extended ZEC program is cost-effective and does not create substantial additional financial burdens on customers. Utilizing values from the 2025 Value of Carbon Guidelines at a discount rate of two percent (i.e., \$193 per ton of carbon in 2020) would more than triple the maximum ZEC price when compared to the ZEC 1.0 Program. This would also likely result in substantial overpayments to the nuclear facilities’ operators at the expense of ratepayers.¹⁰² Moreover,

¹⁰⁰ CES Order, p. 134.

¹⁰¹ NYSDEC, Establishing a Value of Carbon: Guidelines for Use by State Agencies (updated April 2025), p. 4, available at <https://dec.ny.gov/sites/default/files/2025-04/vocguide2025.pdf> (2025 Value of Carbon Guidelines).

¹⁰² The Commission notes that Constellation itself expressly supports Staff’s proposal to utilize 2023 values at a three percent discount rate, which Constellation acknowledges would result in an SCC for the ZEC program that is much lower than the value the State has ascribed to other programs. As Constellation states, Staff’s approach would result in environmental benefits from the ZEC 2.0 Program that “will be three to four times greater than its social costs measured by this metric.” Constellation Comments, p. 27.

in the particular context of the ZEC program, relying on the 2025 Value of Carbon Guidelines would not yield greater environmental benefits than would relying on the 2023 values. If the plants remain operational, then the maximum environmental benefit would be achieved. There is no incremental environmental benefit associated with further compensating the plants' owner beyond the point necessary to keep the plants in service. For all these reasons, the Commission declines to impose such substantial additional costs on ratepayers that are not expected to yield additional benefits.

The Commission also finds reasonable, and hereby adopts, Staff's proposal to convert NYSDEC SCC amounts from 2020 dollars to the relevant years of the calculation using the latest forecast for the 2029-2049 period from the Blue Chip Economic Indicators. For purposes of adjusting dollars per short ton to dollars per MWh to reflect an estimate of the emissions rates of the mix of resources that would be avoided by the preservation of zero-emissions attributes, a conversion factor of 0.553 is appropriate. This conversion factor is consistent with the figure that the Commission has used in recent energy efficiency calculations.¹⁰³ As the Commission stated in the CES Order, however, while it does not expect there to be radical swings in resource mix over short time periods, the duration of the ZEC 2.0 Program (i.e., through 2049) means that continuing to use the current conversion factor as cleaner resources enter the mix may overstate carbon value in the future.¹⁰⁴ Therefore, the Commission directs that the conversion

¹⁰³ Taking an electric sector GHG emissions reduction factor of 1,103 lbs CO₂/MWh and converting it into tons (2,000 lbs/ton) yields a figure of 0.55 tons CO₂/MWh. See CE-10 Guidance, p. 23.

¹⁰⁴ CES Order, p. 126.

factor be reviewed and, if necessary, updated downward to account for changes to statewide renewable generation capacity mechanism, as part of the periodic review process discussed below. For the first periodic review in 2033, Staff should include a proposal for how it will calculate this adjustment to the conversion factor for 2033, and for each subsequent periodic review period.

2. RGGI

The Commission agrees with Staff that, for the ZEC 2.0 Program, the fixed baseline portion of costs already captured in market revenues received by eligible facilities through the RGGI program should continue to be subtracted from the SCC. As noted in the Staff Proposal, the "SCC less RGGI" approach was put into place to recognize that, while the SCC identifies the impact that carbon will have on the environment, it does not reflect that a portion of such damage would be offset through the use of RGGI funds.

For the ZEC 1.0 Program, the Commission directed that RGGI prices be held constant in the ZEC price formula, since increases in RGGI prices are expected to be reflected in the Forecast Energy & Capacity Price Change Adjustment, and inflating the RGGI offset in future Tranches would constitute a double count.¹⁰⁵ That mechanism should continue for the ZEC 2.0 Program, and the Commission therefore directs that a fixed RGGI value be subtracted from the SCC in order to calculate the maximum ZEC price for each Tranche. The Commission finds reasonable Staff's proposal to maintain the same forecast of RGGI proceeds per short ton (i.e., \$10.41) that was used in the original ZEC formula. The Commission also agrees that the per-MWh amount should be updated to reflect the new conversion

¹⁰⁵ CES Order, pp. 135-136.

factor being adopted above. Thus, using the updated conversion factor of 0.553, a RGGI adjustment of \$5.76 per MWh should be used to calculate the ZEC price for each Tranche.

3. Forecast Energy and Capacity Prices

In the CES Order, the Commission adopted a downward-only adjustment mechanism whereby the ZEC price would be reduced by the amount that future energy and capacity price forecasts predict that NYISO Zone A energy prices combined with ROS capacity prices would exceed \$39/MWh.¹⁰⁶ The Commission agrees with Staff that it is reasonable and appropriate to maintain this downward-only adjustment mechanism for the ZEC 2.0 Program. The mechanism will ensure that if forecasted energy and capacity prices increase in the future and the Upstate nuclear facilities' operators earn increased revenues, the amount of financial support through the ZEC 2.0 Program will accordingly decrease.

For a historical perspective, during Tranches 4 and 5 of the ZEC 1.0 Program, downward adjustments to the ZEC price occurred because the forecasted market revenues exceeded the reference price. For Tranche 4, which was in effect from April 1, 2023, through March 31, 2025, the adjustment was \$5.56 per ZEC. This adjustment lowered the cost of the ZEC 1.0 program by over \$150 million per year. For Tranche 5, which began on April 1, 2025, and is currently ongoing, the adjustment was \$11.69 per ZEC. This adjustment is expected to lower the annual cost of the ZEC program by over \$320 million. If ZECs are produced up to the MWh cap for the entirety of Tranche 5, this adjustment could save customers nearly \$1 billion through March 31, 2027.

The CES Order notes, and the Commission reiterates here, that the NYISO Zone A and ROS components measure only

¹⁰⁶ CES Order, pp. 138-141.

change in forecasts in time and do not establish energy or capacity prices, and NYISO Zone A and ROS were chosen as relevant proxies for energy and capacity, respectively, because of liquidity and available data.¹⁰⁷ To be clear, as a deliberate intention, no part of the formula establishes energy or capacity prices or revenues, nor does the \$39/MWh represent either an estimate of the market revenues that the Upstate nuclear plants are currently receiving, or a floor price that they would be paid in the future for energy and capacity.¹⁰⁸ Rather, this figure is an administratively-set threshold based on NYISO Zone A energy revenues and the ROS capacity revenues, as well as an estimation of amount of market revenues that, when combined with a ZEC payment, should provide sufficient revenues to cover the Upstate nuclear facilities' current and expected costs during years 60 to 80 of operations, and ensure that customers receive the benefit of the zero-emissions generation at a cost no greater than the projected impact of additional carbon from fossil generation.

Although the CES Order directed forecasts of NYISO Zone A energy prices to be calculated based on data from the Intercontinental Exchange, and ROS capacity prices to be based on data from NYMEX, the Commission acknowledges that the NYMEX

¹⁰⁷ The \$39/MWh baseline figure was selected because it approximated a then-recent period average of the Intercontinental Exchange's forecasts of the NYISO Zone A energy prices projected for the period April 2017 through March 2019, combined with the per MWh equivalent of a then-recent period average of the forecasts of New York Mercantile Exchange (NYMEX) NYISO ROS Capacity Calendar Month Futures projected by NYMEX for the period April 2017 through March 2018. CES Order, pp. 138-139.

¹⁰⁸ See CES Order, p. 139.

data are no longer available.¹⁰⁹ In the Commission's understanding, Staff is currently also utilizing Intercontinental Exchange data for its capacity forecasts. No commenters raised concerns about the data source(s) currently used by Staff. Given these considerations, the Commission directs Staff to continue using the Intercontinental Exchange data sources for the energy and capacity forecasts for the start of the ZEC 2.0 Program. In addition, the Commission directs Staff to continue to monitor and remain aware of options for appropriate data sources to calculate forecast energy and capacity prices for purposes of the ZEC price formula. The Commission further notes that the data collection period will have to be modified to account for the fact that the Tranches of the ZEC 2.0 Program will be aligning with the calendar year period following the initial stub period of Tranche 7. Accordingly, Staff should, as part of its initial periodic review in 2033, include an update on the source(s) of data being utilized for the energy and capacity forecasts, and if they differ from the Intercontinental Exchange data currently being used, provide an explanation for why the change in data source(s) was made.

In the CES Order, the Commission identified a basis differential of approximately \$6/MWh between the NYISO Zone A prices, and the prices within Zones B and C at the individual "busses" where the revenues paid to the nuclear facilities are determined.¹¹⁰ While it noted a low likelihood of radical swings in the differential basis over short time periods, the Commission nonetheless implemented a one-time update prior to

¹⁰⁹ The ZEC 2.0 Proposal erroneously states that Intercontinental Exchange data for NYISO Zone A energy prices are no longer available.

¹¹⁰ CES Order, pp. 139-140.

Tranche 4, to be calculated by determining the historic basis over the 2017-2022 time period and adjusting the \$39/MWh reference price used in the ZEC price formula if the basis differential changed by more than \$1/MWh in either direction (i.e., the historic basis is outside of a range of \$5-\$7/MWh).¹¹¹ Given the expected duration of an extended ZEC program (which will run through 2049), the Commission agrees with Staff that a similar update mechanism should be implemented for the ZEC 2.0 Program. However, unlike with the ZEC 1.0 Program, the basis differential adjustment should be calculated as the actual historic \$/MWh difference between the average Zone A day-ahead energy price and the individual average generator bus day-ahead energy prices for the four nuclear plants (weighted based on their energy output) over the period being used to calculate the basis differential, as opposed to the amount the differential is below \$5/MWh or above \$7/MWh. This approach will ensure that the results will reflect more accurate revenue forecasts for the plants, because the basis differential has already deviated from the approximately \$6/MWh amount from ten years ago.¹¹² Each basis differential calculation should use a four-year period of actual average Zone A day-ahead energy prices and individual generator bus day-ahead energy prices using NYISO data for the four calendar years preceding the year in which the adjustment is being calculated.¹¹³

Regarding the timing of this update mechanism, while the ZEC 1.0 Program provided for a one-time update prior to

¹¹¹ CES Order, p. 140; see also CES Order, Appendix E.

¹¹² Based on Staff's analysis, current differentials are closer to the \$4/MWh range.

¹¹³ For instance, if the basis differential is being determined to adjust Tranche 10, which starts on January 1, 2034, then the period 2029-2022 would be used for the calculation which is being made in 2033.

Tranche 4, the Commission finds it reasonable for the update to occur on a more regular basis for the ZEC 2.0 Program to ensure that such values do not become stale. Accordingly, the Commission directs Staff to conduct a review of the energy and capacity reference price adjustment to the ZEC price formula, as discussed herein, as part of the periodic review process detailed below.

E. ZEC Tranches

Staff proposed that contracts for the extended ZEC program be administered in eleven Tranches of two years each, with the exception of a shortened Tranche 7 to accommodate a stub period (i.e., April 2029 through December 2029) between the ZEC 1.0 and ZEC 2.0 Programs.¹¹⁴ While numerous commenters expressed concerns about the expected duration of the ZEC 2.0 Program, the Commission notes that durability is important to the program's success, and Staff's proposal will provide sufficient revenue certainty to the Upstate nuclear facilities' operators to make long-term capital investment decisions in the plants.

The Commission further reiterates and emphasizes that, as with the ZEC 1.0 Program, the Commission retains the ability to modify design and/or duration of the ZEC 2.0 Program. Specifically, the Commission may modify or eliminate the ZEC 2.0 Program if there is a national, NYISO, or other program instituted that pays for or internalizes the value of the zero-emissions attributes in a manner that adequately replicates the economics of the program, and the Commission in its sole discretion is satisfied that the Upstate nuclear facilities'

¹¹⁴ The initial Tranche of the ZEC 2.0 Program is identified as Tranche 7 for continuity purposes, as the original ZEC 1.0 Program was administered in six Tranches of two years each, with Tranche 6 scheduled to run from April 2027 through March 2029.

zero-emissions attributes are no longer at risk and discontinuing the mechanism can be done in a manner that is fair to both the facility owners and the ratepayers.¹¹⁵

Regarding the initial Tranche 7, this stub period will align the ZEC 2.0 Program with the calendar year, consistent with how NYSERDA currently administers other clean energy programs and will therefore reduce NYSERDA's administrative burden of managing the ZEC 2.0 program. Accordingly, the Commission adopts the shortened Tranche 7.

After Tranche 7 is completed, the Commission directs the remainder of the ZEC 2.0 Program to be administered in two-year Tranches, similarly to how the ZEC 1.0 Program is currently administered. As discussed above, the maximum ZEC price for each Tranche will be calculated utilizing the updated ZEC price formula approved in this Order. Based on that formula, the Commission calculates the maximum ZEC price for each Tranche of the ZEC 2.0 Program as contain in Table 3 below:

¹¹⁵ See CES Order, p. 144; see also *id.*, p. 146-47 (cessation of zero emission attributes).

Table 3 - Maximum ZEC price by Tranche

Tranche	Schedule	Maximum ZEC Price (\$/MWh)	Estimated Combined Market and ZEC Revenue (\$/MWh) ¹¹⁶
Tranche 7	2029 (Stub Period)	\$36.27	\$69.27
Tranche 8	2030-2031	\$39.01	\$72.01
Tranche 9	2032-2033	\$42.85	\$75.85
Tranche 10	2034-2035	\$46.94	\$79.94
Tranche 11	2036-2037	\$51.31	\$84.31
Tranche 12	2038-2039	\$55.95	\$88.95
Tranche 13	2040-2041	\$60.90	\$93.90
Tranche 14	2042-2043	\$65.02	\$98.02
Tranche 15	2044-2045	\$70.57	\$103.57
Tranche 16	2046-2047	\$76.48	\$109.48
Tranche 17	2048-2049	\$82.75	\$115.75

Several commenters take issue with the ZEC 2.0 Proposal's suggestion that actual ZEC prices could be less than half of the maximum ZEC prices over the full ZEC 2.0 Program period (based on Staff's current forecasts of energy and capacity revenues). The Commission acknowledges the difficulty in forecasting energy and capacity prices for the outer years of the program, and the impossibility of anticipating future external factors such as drastic changes to federal governmental policy. These unknowns lend further support for implementing a robust periodic review process to ensure that the ZEC 2.0 Program continues to provide tangible benefits to New York State, including but not limited to clean energy and resource adequacy and reliability benefits, in a cost-effective manner. This periodic review process is detailed later in this Order.

¹¹⁶ This column assumes combined energy and capacity market revenues of \$39/MWh through the life of the program for Zone A energy revenues and ROS capacity prices, less a basis differential of \$6/MWh. As discussed above, to the extent forecast energy and capacity prices exceed \$39/MWh, the per-MWh ZEC price paid to the Upstate nuclear facilities would be reduced by a commensurate amount.

F. Contract Performance and Facility Closure Contingency

The existing contract performance and facility closing requirements currently in place for the ZEC 1.0 Program will continue to be implemented for the ZEC 2.0 Program. First, the amount of ZECs that NYSERDA would purchase from eligible facilities on an annual basis should continue to be capped based on the verifiable historic contribution, in MWh, that a facility has made to the clean energy resource mix consumed by retail consumers in New York State.¹¹⁷ The existing combined cap of 27,618,000 MWh for the FitzPatrick, Ginna, and Nine Mile Point facilities, which was based on the sum of four quarters of production from July 2015 through June 2016, should continue to be used for ZEC 2.0 Program, as it provides a reasonable measure of the Upstate nuclear facilities' output, based on their historic performance.¹¹⁸ Similarly, the Commission directs that, if any of the three Upstate nuclear facilities permanently ceases producing zero-emissions attributes, the overall MWh cap shall be reduced by one-third for each such closed facility.¹¹⁹ For purposes of this mechanism, Nine Mile Point Unit 1 and Unit 2 will continue to be considered a single facility. That is, if either unit permanently ceases producing zero-emissions credits, the entire qualified Nine Mile Point facility would be treated

¹¹⁷ CES Order, pp. 145-146.

¹¹⁸ Id.

¹¹⁹ In the CES Order, the Commission calculated an individual MWh cap and obligation for the FitzPatrick plant because, at the time, it was under different ownership from the other nuclear facilities. The Commission's continuation of the ZEC 1.0 contract performance and facility closure contingency in the ZEC 2.0 program is under the expectation of a common majority ownership of all three Upstate nuclear facilities. In the event Constellation sells any of the facilities to another owner, the Commission reserves the right to recalculate individual MWh caps for each of the nuclear facilities going forward.

as having permanently ceased producing zero-emissions credits. These requirements will act both as an incentive to the facility owner to keep all of the plants operating and ensures balance between ratepayer and generator interests. As with ZEC 1.0, any reduction(s) in the cap resulting from this mechanism will be pro-rated within a Tranche period to the date upon which the facility permanently ceased producing zero-emissions credits.

Likewise, the Commission directs that the mechanism previously adopted in the CES Order, whereby if the facilities as a group performed in any Tranche period at less than 85 percent of their group MWh cap and obligation for the Tranche period, then the cap and obligation for NYSERDA to purchase ZECs would be reduced by 1,000,000 MWh for the next Tranche period, shall continue for ZEC 2.0.¹²⁰ As is currently the case, after the next Tranche in which the facilities as a group perform at or above the new lower cap and obligation, the original cap and obligation will be restored for the subsequent Tranche. This mechanism protects against short-term substandard performance and incentivizes the Upstate nuclear facilities to maximize their output, because any reduction in output from the facilities as a group below the 85 percent threshold will result in a temporary reduction in the maximum amount of annual ZEC payments that the facilities can receive.¹²¹

Third, as previously noted, Constellation is expected to continue realizing significant savings for New York

¹²⁰ CES Order, p. 146. The CES Order also included several other tiered thresholds to reflect that fact that, at the time, FitzPatrick had a different owner than Ginna and Nine Mile Point.

¹²¹ As was the case for ZEC 1.0, each facility will have an obligation to produce ZECs and to sell them to NYSERDA through December 31, 2049, except during periods when the calculated ZEC price pursuant to the contract is \$0. See CES Order, p. 144.

ratepayers through the Nuclear PTC. Mechanisms like the federal Nuclear PTC are important tools to help offset ZEC 2.0 Program costs and reduce the program's financial burden on ratepayers, while further improving the cost-benefit analysis of maintaining the existing nuclear fleet as compared to the alternatives. The Commission notes that the ZEC contracts currently in effect expressly provide that ZEC payments will be adjusted for a change in law that materially changes the original economic benefits of the contract, such as a federal tax credit aimed at nuclear production like the Nuclear PTC. Contracts for the ZEC 2.0 Program shall include similar language providing that ZEC payments may be adjusted downwards based on changes in law that materially change the economic benefits of the ZEC contracts.

G. Cost Allocation and Cost Recovery

Staff proposed to continue the existing cost recovery methodology, which is described in more detail the Final Zero-Emissions Credit Implementation Plan, for the ZEC 2.0 Program. Specifically, under this methodology, NYSERDA would provide each LSE a uniform wholesale per-MWh charge that is applied to the LSE's actual wholesale load to calculate their monthly ZEC obligation payments beginning April 1, 2029, and each year thereafter. NYSERDA would work with Staff to determine the LSE ZEC Rate owed by each LSE for the next compliance year of the ZEC 2.0 Program.

The Commission finds that Staff's proposal to continue the existing cost allocation and cost recovery methodology for the ZEC 2.0 Program is both reasonable and appropriate. In initially directing that the costs of the ZEC 1.0 Program be allocated to each LSE (including NYPA and the Long Island Power Authority), the Commission identified a need to encourage the preservation of the environmental values or attributes of qualified zero-emissions nuclear-powered electric generating

facilities for the benefit of the electric system, its customers, and the environment.¹²² The Commission also found that the threat to the preservation of these zero-emissions attributes is a general threat that affects all ratepayers and is of such a scope that the costs of protection should be spread as broadly as possible.

MI argues that, while a portion of ZEC costs should continue to be recovered on an energy basis because the existing Upstate nuclear facilities provide emissions-free energy, the nuclear fleet also provides emissions-free capacity and other non-energy related attributes. Therefore, MI argues that a portion of the costs should be recovered on the basis of demand.¹²³ Similarly, the City asserts that, under the existing cost recovery method (i.e., on a load share basis), more than 50 percent of ZEC costs are borne by downstate consumers based on energy consumption, but based on the plants' locations, those customers do not receive the benefits of their operations (e.g., the Upstate nuclear facilities do not contribute to the forecasted capacity deficits that the City expects to experience over the coming years, existing transmission constraints prevent zero-emissions electricity from reaching the City's grid, and City residents do not benefit from continued or new employment opportunities).

The Commission finds it appropriate to continue applying the obligation on a volumetric basis Statewide. As the

¹²² CES Order, p. 147. The Commission noted that this ZEC obligation is separate from any obligation on LSEs to encourage generation utilizing renewable resources.

¹²³ MI also asserts that the Zero by 40 Target is as much a demand-related target as it is an energy-related target, and that economic impacts, while a relevant consideration for the program in general, provide little to no basis for recovering ZEC costs purely based on energy basis.

Commission stated in the CES Order, a volumetric allocation remains a reasonable way to broadly allocate the costs given the nature of carbon emissions that are a creature of the volume of electric generation and consumption.¹²⁴ Indeed, as discussed above, the ZEC price formula is specifically designed to recognize and value the environmental attribute associated with zero-emissions electricity on a per-MWh basis. To the extent that the ZEC 2.0 Program is intended to prevent widespread damage from carbon emissions that affect New Yorkers statewide (including in Downstate New York), it is fair and appropriate for all consumers to participate. Maintaining the existing cost allocation and cost recovery methodology (which has been administered by NYSERDA since the inception of the ZEC 1.0 Program) will ensure a smooth transition from the current ZEC program to the new, ZEC 2.0 Program.

The Commission directs each LSE to enter into a contractual relationship with NYSERDA that aligns with the duration of the ZEC 2.0 Program to periodically purchase ZECs during a program year based on initial forecasts and a balancing of reconciliation at the end of each program year. After the reconciliation process, each LSE will have purchased the correct proportion of ZECs on an annual basis. ZECs will continue to not be tradable except between NYSERDA and the LSEs during this balancing process.

H. Voluntary ZEC Market and Power Purchase Agreements

Currently, NYSERDA may only sell the ZECs that it purchases from eligible nuclear facilities to the obligated LSEs, and each LSE is required to purchase ZECs from NYSERDA based on its proportionate share of statewide electric load. Various commenters, including New Yorkers for Clean Power and

¹²⁴ CES Order, p. 149.

NYSERDA, support allowing the sale of ZECs into the voluntary market. In its comments, NYSERDA identified an increasing interest in the voluntary market for purchasing the carbon-free environmental attributes associated with nuclear generation. NYSERDA also noted that both the Tier 1 and Tier 4 programs allow NYSERDA to sell RECs to the voluntary markets, which sales help to reduce ratepayer impacts associated with the REC program. NYSERDA recommends that the ZEC 2.0 Program similarly permit NYSERDA to sell ZECs to the voluntary market. NYSERDA proposes to include details of such a voluntary sale process in a new ZEC implementation plan to be submitted for approval by the Commission.

The Commission agrees that there may potentially be merit in allowing ZECs to be sold into the voluntary market, which could further reduce costs to ratepayers. For that reason, the Commission directs NYSERDA to, simultaneously with the filing of a new ZEC implementation plan for the ZEC 2.0 Program (discussed below), submit a proposal detailing how a potential voluntary ZEC sale mechanism would work. The proposal should, at a minimum, identify the mechanism(s) through which NYSERDA would administer such a voluntary market (e.g., an open market process, or via solicitations), and describe how the proceeds from such sales into the voluntary market would then be utilized to reduce the amounts allocated to and collected from the obligated LSEs and their customers. Such a proposal will be subject to future Commission review.

Staff's ZEC 2.0 Proposal also identified that several technology companies have secured PPAs with existing nuclear plants in states outside of New York, and highlighted that interest in nuclear power has increased over the past year. Some commenters recommend that the ZEC 2.0 Program identify how ratepayer savings could occur if some or all of the Upstate

nuclear facilities secure PPAs with third parties that either supplement or supplant some of the existing facilities' revenues. The Commission agrees in concept that third-party PPAs could have a potential to provide an opportunity to reduce ratepayer costs of the ZEC 2.0 Program. However, in the Commission's understanding, no such PPAs currently are in effect between the Upstate nuclear facilities and third parties, and it is unknown at this time how the structure of such PPAs might impact the ZEC 2.0 Program. In the event that any of the Upstate nuclear facilities might in the future seek to enter into a PPA for the zero-emissions attributes of its electricity production, the existing combined cap of 27,618,000 MWh will be adjusted downward to avoid duplicative payment for the zero-emissions attributes. NYSERDA is directed to incorporate this directive into its contracts with each of the Upstate nuclear facilities; NYSERDA shall also address the concept in the Implementation Plan.

I. Implementation and Periodic Review

The Commission directs NYSERDA to, in consultation with Staff, develop and file an updated ZEC Implementation Plan to reflect the ZEC 2.0 Program as adopted in this Order. The Implementation Plan should, at a minimum, update the information already included in the Final ZEC Implementation Plan filed on October 21, 2019, including but not limited to the formula to calculate the LSE Rate, the methodology to determine each LSE's ZEC obligation, and the payment and reconciliation process. The updated Implementation Plan should also detail how any savings from federal tax credits received by the Upstate nuclear facilities will be reflected in the amounts collected from ratepayers for the ZEC 2.0 Program. NYSERDA shall file such ZEC Implementation Plan within 60 days of the issuance of this Order. Updates to the ZEC Implementation Plan, following

consultation with Staff, shall be submitted to the Secretary by March 31st of each subsequent year, or more frequently if necessary. The Commission shall review the submitted ZEC Implementation Plan (and its subsequent updates) and take action as appropriate.

The Commission is persuaded by numerous comments received that, given the expected duration of the ZEC 2.0 Program (i.e., through 2049), some form of periodic review is both reasonable and prudent to ensure that the program remains cost-effective in the future, and that the Commission appropriately balances ratepayer interests with the need to retain these existing zero-emissions generating facilities for environmental and reliability purposes. Indeed, as many commenters noted, the Upstate nuclear facilities are already some of the oldest operating nuclear generators in the world, and there are significant unknowns associated with operating them beyond 60 years (as the ZEC 2.0 Program anticipates), including but not limited to incremental capital costs. Similarly, the mechanics of the ZEC 2.0 Program are based partly on Staff's estimation of future market revenues for these facilities, and whether the compensation for their zero-emissions attributes will provide the facilities with adequate revenues to continue operating. However, it is difficult at this time to fully and accurately project market revenues a decade or two from now, and it is also impossible to anticipate whether and to what extent future external factors (e.g., changes to federal and/or State nuclear policies, the emergence of new technologies, etc.) could impact the ZEC 2.0 Program and the need for the Upstate nuclear facilities to continue receiving ratepayer support.

MI proposes periodic checks in five- or seven-year intervals, while AGREE calls for a review every three to five

years. Similarly, the Joint Utilities emphasize the importance of demonstrating financial need as a condition of receiving ZEC payments and recommend that NYSERDA regularly review and confirm a recipient's continued eligibility for receiving ZEC payments. The Commission finds that a periodic review by Staff, in consultation with NYSERDA, beginning on January 31, 2033 (i.e., prior to Tranche 10) and occurring thereafter in four-year intervals, with corresponding reviews beginning in January 2037, 2041, and 2045, respectively, is reasonable and appropriate to ensure the cost-effectiveness of the program over the 20-year period. The review process should include, at a minimum: (1) an analysis of the ongoing costs and revenues of each facility eligible to participate in the ZEC 2.0 Program, including anticipated capital expenditures needed to continue safely and reliably operating the facilities through to Staff's next periodic review, or in the case of the last periodic review through the end of the ZEC 2.0 program; (2) the availability of federal and/or other tax credits, grants, or financing to offset some of the costs associated with operating the plants; (3) whether and to what extent third-party PPAs provided additional compensation for the zero-emissions attributes of facilities' electricity production; (4) a review of the amounts and actual ZEC prices paid to eligible facilities, as compared to the maximum ZEC prices calculated for each Tranche; and (5) other relevant considerations such as changes to federal or State policy and regulations. This periodic review should also include the basis differential adjustment. Additionally, the conversion factor adjustments discussed above should occur as necessary.

J. ZEC 2.0 Program Estimated Monthly Bill Component

In classifying maximum ZEC prices in each Tranche during the tenure of the ZEC 2.0 Proposal, Staff identified a

maximum cost of the program to ratepayers of \$33.4 billion, or just over \$1.6 billion per year. However, several commenters incorrectly characterized this amount as the estimated cost of the program. As Staff explained in the ZEC 2.0 Proposal, actual ZEC prices will likely be significantly lower, as forecasted market revenues are almost certain to exceed \$39/MWh over the 2029-2049 period. In fact, such downward adjustments occurred within the current ZEC program as discussed above. Furthermore, if market revenues stay below \$39/MWh through 2049, which would be an unprecedented period of low energy costs, and the maximum ZEC price is paid to the Upstate nuclear facilities, this would be an overall positive outcome for ratepayers as it means lower customer bills relative to the forecasts.

Staff estimates that the actual cost of the ZECs will be approximately half the maximum amounts, on average, because forecasted energy and capacity revenues lead to downward ZEC price adjustments. However, assuming usage levels contained in the 2025 Gold Book Baseline Retail Sales estimate, ZEC 2.0 Program costs for Tranche 7 (April 2029 - December 2029) would be 0.658 cents per kWh, or \$3.95/month for the typical residential customer. The forecasted cost to the typical residential customer over the entire ZEC 2.0 Program period is \$2.80/month. Table 4 below contains estimated monthly recoveries for Tranche 7 ZECs and for the entire ZEC 2.0 program for four customer types.

Table 4 - Estimated ZEC 2.0 Recoveries by Customer Type

Customer Type	Monthly Energy Consumption kWh	Tranche 7 \$/month	ZEC 2.0 Program \$/month
Residential	600	\$3.95	\$2.80
Commercial	1,200	\$82.92	\$58.82
Industrial	720,000	\$4,738.18	\$3,361.39
Industrial - High Load Factor	1,296,000	\$8,528.73	\$6,050.50

Assumes Tranche 7 assumed to be recovered starting April 2029. NYSEDA bills the LSEs on a monthly basis and subsequently remits payments to the nuclear generators quarterly. Program average assumes nine months of Tranche 7 and 24 months of Tranches 8 through 17 recoveries.

K. Additional Procedural Matters

Several commenters, including AGREE and CRE, asserted that the public comment period was too short. AGREE specifically argued that a 90-day comment period represents "the standard for issues as controversial as nuclear power." As discussed above, however, the Commission fully complied with SAPA by accepting public comments for 60 days following publication of the Notice of Proposed Rulemaking in the State Register. Moreover, the Staff Proposal was published 20 days before the Notice of Proposed Rulemaking appeared in the State Register. Commenters were thus afforded a total of 81 days to review the ZEC 2.0 Proposal in advance of the comment deadline. This period both complies with the Commission's statutory obligations under SAPA and is otherwise reasonable for a proposal to continue a long-standing existing program with only minor modifications.

The City contends that the proposal should be remanded back to Staff for further development of the record, including gathering additional data on projected plant revenues and costs.

The Commission notes that neither the initial ZEC program nor the extension contemplated by this Order employ the sort of cost-of-service methodology that might necessitate a detailed finding of the exact costs to operate the affected nuclear plants.¹²⁵ Rather, the Commission, in 2016, made a more general determination that, absent a program to compensate the plants for their zero-emissions attributes, the plants (and those attributes) were at risk. Having already made that initial determination, the Commission must now consider whether circumstances have changed such that that initial determination is no longer supported. For the reasons above, the Commission finds that the circumstances have not so changed, and the record in this proceeding supports that finding.

CRE and AGREE contend that the ZEC 2.0 Proposal must be rejected because, in their view, it is not based on an analysis called for under the Climate Action Council's December 2022 Scoping Plan.¹²⁶ The Scoping Plan states that:

"analysis should occur prior to the end of the Zero-Emissions Credit program in 2029 to determine whether subsidizing any of the State's remaining nuclear reactors will be necessary for meeting the 100x40 requirement and/or whether more cost-effective and environmentally friendly alternatives are available. The analysis should consider the ability of nuclear power to contribute to baseload and to meet reliability

¹²⁵ Such an approach could, among other things, risk running afoul of federal law. See Hughes v. Talen Energy Mktg., LLC, 578 U.S. at 163.

¹²⁶ Some of these commenters also reference language in the Scoping Plan that applies only to advanced nuclear technologies, rather than to the State's existing nuclear resources. Those portions of the Scoping Plan are not relevant to an extension of the ZEC program, as the ZEC program relates only to the State's existing nuclear generation facilities.

requirements, as well as cost, health, safety, community impact, and environmental concerns of nuclear power generation.¹²⁷

The State has performed multiple analyses of these issues in the years since 2022. The 2025 State Energy Plan, for example, devotes an entire chapter to nuclear energy and performs a "Pathways Analysis" that models how the State's energy sector and resource mix may evolve to meet electricity demand and achieve CLCPA targets. The plan finds that closure of the upstate nuclear facilities would make the state more dependent on natural gas¹²⁸ and create near-term reliability challenges.¹²⁹ These findings, according to the plan, "illustrate the importance of ensuring the continued operation of the existing nuclear fleet to help meet the State's zero emission by 2040 target."¹³⁰

Similarly, the NYISO's 2025-2034 Comprehensive Reliability Plan assesses risks associated with the upstate nuclear facilities not being relicensed after their current operational licenses expire. The NYISO concluded that, under such a scenario, "[m]argin deficiencies are observed within one year" and that these "deficiencies would be greater and occur earlier if all four nuclear units are removed following the March 31, 2029 expiration of the current ZEC program."¹³¹

Additionally, both the ZEC 2.0 Proposal and SGEIS evaluate these issues. The ZEC 2.0 Proposal outlines a

¹²⁷ Scoping Plan, p. 254.

¹²⁸ 2025 State Energy Plan, Volume II, Chapter 2, page 12.

¹²⁹ 2025 State Energy Plan, Volume II, Chapter 16, page 26.

¹³⁰ 2025 State Energy Plan, Volume II, Chapter 2, page 12.

¹³¹ NYISO, 2025-2034 Comprehensive Reliability Plan (issued November 21, 2025), p. 43, available at <https://www.nyiso.com/documents/d/guest/2025-2034-comprehensive-reliability-plan>.

potential structure for an extended ZEC program and evaluates the program's costs and benefits considering the availability and reliability of non-nuclear energy resources. The SGEIS evaluates the potential environmental and socioeconomic impacts of the continued operation and maintenance of New York's existing nuclear facilities through an extended ZEC program from 2029 to 2049. This analysis considers the health, safety, community, and environmental factors associated with continued operation of the upstate nuclear facilities. In sum, the State has extensively analyzed the issues identified in the Scoping Plan, and those analyses support the Commission's determination to extend the ZEC program.

L. Climate Leadership and Community Protection Act

CLCPA §7(2) requires all State agencies, including the Commission, to consider whether certain specified final agency actions are inconsistent with or will interfere with the attainment of the statewide GHG emission limits established by the DEC pursuant to Environmental Conservation Law (ECL) Article 75. Section 7(2) further states that if a decision is deemed to be inconsistent with or interferes with the attainment of the statewide GHG emissions limits, the agency must provide a detailed statement of justification as to why such limits may not be met and identify alternatives or GHG mitigation measures to be required where such project is located. CLCPA §7(3) prohibits State agencies from issuing decisions that "disproportionately burden disadvantaged communities as identified pursuant to [ECL §75-0101(5)]" and requires prioritizing reductions of GHG emissions and co-pollutants in such Disadvantaged Communities.¹³² These requirements must be

¹³² Chapter 106 of the laws of 2019.

considered along with the Commission's mandate to ensure safe and adequate service at just and reasonable rates.

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in minimal impacts to air quality and climate. During normal operations, nuclear generation does not emit GHGs, and air pollutant emissions are limited to minor, intermittent sources such as emergency generators, auxiliary boilers, and maintenance activities, which are regulated and represent a small fraction of countywide emissions.¹³³ By contrast, under the "no action" alternatives posited by the SGEIS, replacement of nuclear generation with fossil fuel-fired resources would substantially increase emissions of GHGs and criteria air pollutants, including CO₂, nitrogen oxides, sulfur dioxide, and fine particulate matter (PM_{2.5}).¹³⁴ These emissions would degrade local and regional air quality and materially increase statewide GHG emissions, hindering progress toward statutory climate targets. Although Alternative 2 would include a greater share of renewable generation and therefore result in lower emissions than Alternative 1, continued reliance on fossil fuel resources to maintain grid reliability would still produce higher emissions than under ZEC 2.0.¹³⁵ As a result, the continued operation of the Upstate nuclear reactors with their carbon-free emission attributes would support attainment of State and federal air quality standards and advance the State's GHG reduction goals under the CLCPA.

Additionally, none of the Upstate nuclear facilities is located in a disadvantaged community, although both Oswego

¹³³ See SGEIS, p. 5-11.

¹³⁴ See SGEIS, pp. 5-11, 5-12.

¹³⁵ See SGEIS, pp. 5-12.

and Wayne counties are home to communities designated as disadvantaged.¹³⁶ By helping to maintain existing nuclear generation, the ZEC 2.0 Program is expected to prevent additional GHG and air pollutant emissions associated with fossil fuel combustion. Both "No Action" scenarios, by contrast, would likely result in substantial adverse health impacts in disadvantaged communities due to higher pollutant exposures from increased fossil fuel generation, especially if additional generation comes from existing peaker plants that are disproportionately located within disadvantaged communities.¹³⁷ These impacts would add to existing environmental and health burdens in already-overburdened communities.¹³⁸ Continued nuclear generation thus helps reduce air quality-related health burdens that disproportionately affect disadvantaged communities across the State, and the Commission finds that the ZEC 2.0 Program does not disproportionately burden disadvantaged communities.

M. State Environmental Quality Review Act

On September 19, 2025, in compliance with the State Environmental Quality Review Act (SEQRA), the Commission accepted the Draft SGEIS as complete. The public comment period began on September 24, 2025, when the 2025 Draft SGEIS was published on the Commission's website. Separately, on October 1, 2025, the Commission published a Notice of Acceptance of Draft SGEIS and Public Comment Period in the New York State Department of Environmental Conservation's Environmental Notice

¹³⁶ See SGEIS, pp. 9-7, 9-8.

¹³⁷ Emissions from fossil fuel-based electric generation are known to cause adverse health effects, including aggravated asthma, irregular heartbeat, decreased lung function, heart attacks, and premature mortality in those with heart or lung disease. See SGEIS, pp. 5-27, 5-28.

¹³⁸ See SGEIS, p. 9-9.

Bulletin. The Commission received several comments on the Draft SGEIS before the comment period closed on October 31, 2025.

Following the close of the comment period, a Final SGEIS was prepared. The Final SGEIS was supplemented in response to certain comments and updated to reflect information not available at the time the Draft SGEIS was published. The Final SGEIS also includes responses to all substantive comments received. The Commission accordingly accepted it as complete on December 22, 2025.¹³⁹ A Notice of Completion of Final Supplemental Generic Environmental Impact Statement was published in the Environmental Notice Bulletin on December 31, 2025.

The Commission has considered the information in the Final SGEIS with respect to the determinations made in this Order, and hereby adopts the SEQRA Findings Statement, attached to this Order as Appendix C, prepared in accordance with Article 8 of the Environmental Conservation Law and 6 NYCRR Part 617. As is further discussed in the Findings Statement, the Commission finds that the requirements of the State Environmental Quality Review Act, as implemented by 6 NYCRR 617, have been met; that, consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the ZEC 2.0 Program yields overall positive environmental impacts and avoids or minimizes adverse environmental impacts to the maximum extent practicable; and that the ZEC 2.0 program is consistent with that applicable policies set forth in 19 NYCRR §600.5.

¹³⁹ On November 14, 2025, the Commission extended the last date to prepare and file the final SGEIS to December 24, 2025, pursuant to 6 NYCRR §617.9(a)(5)(ii)(a).

CONCLUSION

Based on the foregoing, the Commission approves the recommendations included in the ZEC 2.0 Proposal, with modifications, as discussed above. This Order ensures that, going forward, existing zero-emissions generating facilities that are critical to the State's reliability and clean energy needs will continue to safely operate to the benefit of all New Yorkers. At the same time, this Order includes appropriate mechanisms to ensure that the ZEC 2.0 Program will remain cost-effective and provide tangible benefits to all New Yorkers in the future, and provides for active monitoring by Staff. Accordingly, the Commission finds that extending the existing ZEC program, as approved here, is in the public interest.

The Commission orders:

1. The Commission adopts the ZEC 2.0 Program as described in the Zero-Emissions Credit Program Extension Proposal filed by Department of Public Service Staff on July 31, 2025, with modifications, as discussed in the body of this Order.

2. Every Load Serving Entity (LSE) in New York State shall purchase through contract with the New York State Energy Research and Development Authority (NYSERDA), at a price and by the terms described in this Order, an amount of zero-emissions credits (ZECs) representing that LSE's proportional share of ZECs purchased annually by NYSERDA pursuant to the Zero-Emissions Credit Requirement. The LSE's proportional share is determined based on the proportion of electric energy load served by the LSE in relation to the total electric energy load served by all LSEs in the New York Control Area. The LSE/NYSERDA contractual relationship will require LSEs to periodically purchase ZECs during a program year based on

initial forecasts of load and a balancing reconciliation at the end of each program year.

3. The compliance period for Tranche 7 shall commence on April 1, 2029, and will continue until December 31, 2029. The compliance periods for Tranches 8 through 17 shall be two-year periods that will commence on January 1, 2030, and will continue until December 31, 2049.

4. There being a public necessity to preserve the zero-emissions environmental attributes of certain Zero-Carbon Electric Generating Facilities, the New York State Energy Research and Development Authority shall offer long-term contracts for the purchase of ZECs from the FitzPatrick, Ginna, and Nine Mile Point generating facilities in accordance with the price, contract period and other terms specified in this Order. The contract terms shall conform to the requirements specified in this Order.

5. The New York State Energy Research and Development Authority shall file an updated Zero-Emissions Credit program implementation plan for Commission review within 60 days of issuance of this Order, and shall thereafter, in consultation with Department of Public Service Staff, file with the Secretary to the Commission updates to the implementation plan by March 31 of each subsequent year, or more frequently if necessary, as discussed in the body of this Order.

6. Department of Public Service Staff, in consultation with the New York State Energy Research and Development Authority, shall file for Commission review its Periodic Review and Recommendations beginning on January 31, 2033, and every four years thereafter, for the duration of the ZEC 2.0 Program, as discussed in the body of this Order.

7. 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.

8. This proceeding is continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS
Secretary

Estimated ZEC 2.0 Unit Rates and Monthly Recoveries by Customer Type by Tranche					
Tranche	Unit Rate \$/kWh	Residential \$/Month	Commercial \$/Month	Industrial \$/Month	Industrial High Load Factor \$/Month
7	0.05923	\$ 3.95	\$ 82.92	\$ 4,738.18	\$ 8,528.73
8	0.15665	\$ 3.92	\$ 82.24	\$ 4,699.63	\$ 8,459.34
9	0.14908	\$ 3.73	\$ 78.27	\$ 4,472.47	\$ 8,050.44
10	0.14322	\$ 3.58	\$ 75.19	\$ 4,296.56	\$ 7,733.81
11	0.12787	\$ 3.20	\$ 67.13	\$ 3,836.24	\$ 6,905.23
12	0.11016	\$ 2.75	\$ 57.84	\$ 3,304.92	\$ 5,948.86
13	0.09184	\$ 2.30	\$ 48.21	\$ 2,755.10	\$ 4,959.18
14	0.07168	\$ 1.79	\$ 37.63	\$ 2,150.36	\$ 3,870.64
15	0.07778	\$ 1.94	\$ 40.83	\$ 2,333.29	\$ 4,199.91
16	0.08412	\$ 2.10	\$ 44.16	\$ 2,523.58	\$ 4,542.44
17	0.09085	\$ 2.27	\$ 47.70	\$ 2,725.48	\$ 4,905.86
Program Average	0.00467	\$ 2.80	\$ 58.82	\$ 3,361.39	\$ 6,050.50

Monthly Customer Usage Assumptions:
Residential - 600 kWh/Month
Commercial - 1,200 kWh/Month
Industrial - 720,000 kWh/Month
Industrial High Load Factor - 1,296,000 kWh/Month

Tranche 7 assumed to be recovered starting April 2029.
Program Average assumes nine months of Tranche 7 and 24 months of Tranches 8 through 17 recoveries.

SUMMARY OF COMMENTS

Alliance for a Green Economy, Energy Justice Law and Policy Center, Green Education and Legal Fund, NY Renews, Network for a Sustainable Tomorrow, Nuclear Information and Resource Service (together, AGREE)

AGREE takes issue with the notice and comment process for Staff's proposal, arguing that a 90-day comment period should have been provided. AGREE asserts that the initial ZEC program was intended to be a bridge to the State's renewable energy goals, and the time has come to either discontinue the existing ZEC program at its 2029 expiration date or phase out the program on a planned schedule. AGREE asserts that the current ZEC program has proven uneconomical, especially when compared to the amount of clean energy supported by the Tier 1 and Tier 2 Renewable Energy Credit programs relative to their costs. AGREE raises concerns about the proposed program extension's increasing cost impact on consumers even as the alleged environmental benefits of the reactors decrease and argues that the program creates a perverse incentive to continue operating reactors past the time when it is rational to retire them. AGREE also raises concerns about the facilities' impacts to indigenous populations.

AGREE notes that the Climate Action Council's Final Scoping Plan specifically calls for an analysis, prior to the end of the ZEC program in 2029, to determine whether the nuclear reactors could be phased out in favor of more cost-effective and environmentally friendly alternatives. AGREE also advocates for a process to re-evaluate the ZEC program every three to five years. AGREE further argues that, given the lack of competition for the nuclear plants, their operators should either be required to submit a rate case to obtain subsidies, or there

should be a competitive solicitation for subsidies based on resource need (e.g., generation, storage, or energy efficiency) and attributes (e.g., dispatchable and reliable), and eligibility for ZECs should be extended to energy efficiency, renewables, demand response, and storage resources.

The Breakthrough Institute (BTI)

BTI supports Staff's proposal to extend the ZEC program through 2049. BTI asserts that the ZEC program has proven indispensable to New York's clean energy transition. BTI notes that since its inception in 2016, the ZEC program has prevented the premature closure of New York's upstate nuclear plants, which generate more than 20 percent of the State's electricity. BTI contends that extending the ZEC program is the most cost-effective way to preserve these zero-emissions resources.

Boilermakers Local 5

Boilermakers Local 5 strongly supports extending the ZEC program, emphasizing that its members build and maintain energy infrastructure. Boilermakers Local 5 states that nuclear facilities provide carbon-free electricity and union jobs with good wages and benefits and the ZEC program is critical for plant operation, preventing job loss and maintaining energy affordability and grid reliability. Boilermakers Local 5 cites the 2025 Brattle Group analysis (2025 Brattle Report) that the continued operation of nuclear fleets would contribute \$38 billion to the state's economy, support 14,400 jobs, and preserve \$10 billion in tax revenues. The plants avoided 16.4 million tons of carbon emissions in 2024. Boilermakers Local 5 urges swift action to extend the ZEC program, stating that failure to do so could result in plant closures and job losses.

Campaign for Renewable Energy, Alliance for Nuclear-Free New York, and other signatories (CRE)

CRE strongly opposes the current ZEC program and any effort to extend it. CRE contends that the Staff Proposal will result in major utility bill increases, generate tons of highly radioactive waste, and represents "massive government welfare" for nuclear facility owners. CRE questions the process by which the Commission is considering the Staff Proposal and argues that the public comment periods for both the Staff Proposal and the DSGEIS are too short. CRE contend that nuclear plants are not "zero emission" resources because they generate greenhouse gas (GHG) emissions via uranium mining, plant construction, and waste storage. CRE also submits that nuclear facilities release cancer-causing radionuclides into the air and water. CRE argues that there is no analysis showing that the state cannot meet its 2030 CLCPA target without the current nuclear fleet. CRE asserts that the Staff Proposal is contrary to the 2022 Climate Action Council Scoping Plan, which (according to CRE) requires the state to rigorously scrutinize nuclear energy because its potential has not yet been demonstrated. CRE also claims that the proposal ignores certain state reports that assessed nuclear energy's financial impacts. Accordingly, CRE urges the Commission to rescind the Staff Proposal and employ an independent expert to review future uses of nuclear energy in New York State.

Carbon Free New York (CFNY)

CFNY supports a 20-year extension to the ZEC program. CFNY contends that continued operation of the nuclear fleet is imperative for grid reliability, will advance the state's clean energy goals, and will lower costs for ratepayers. CFNY recommends extending the ZEC program by the end of 2025.

Center for Instruction, Technology, and Innovation (CiTi)

CiTi expresses strong support for continuing and extending New York's ZEC program. CiTi states that maintaining carbon-free electricity sources is essential for achieving the CLCPA targets, and nuclear energy provides nearly half of New York's emissions-free power. CiTi asserts that the ZEC program has played a critical role in preventing premature nuclear facility closures, avoiding increases in fossil fuel generation, preserving jobs, and supporting emissions-reduction goals. CiTi cites the 2025 Brattle Report, noting the continued operation of the nuclear fleet would contribute \$38 billion to the state's economy, support 14,400 jobs, and preserve \$10 billion in tax revenues. CiTi agrees that extending the ZEC program will protect a major source of clean energy, ensure energy affordability, support union jobs, stabilize energy supply, and help meet Climate Act mandates.

City of New York (City)

The City recognizes the importance of the Upstate nuclear fleet in maintaining grid reliability and carbon emissions reductions and is open to renewal of a rational ZEC program to preserve the State's nuclear fleet beyond 2029. However, the City also notes that affordability is a critical concern, and electricity prices must be considered when evaluating Staff's proposal. The City states that Staff's proposal does not analyze the needs of the fleet on a plant-specific basis, and does not examine bill impacts of requiring customers to make the proposed ZEC payments through 2049. The City also notes that Staff's proposal does not address how ZEC costs would interact with other CLCPA-driven rate pressures, including investments in transmission, energy efficiency, and

storage. The City further raises concern that Staff provided no forecasting data or calculations to support its statement that actual ZEC prices could be less than half of the maximum ZEC prices over the full program period. Therefore, the City argues, Staff has not sufficiently explained the need for the full 20-year term.

Regarding costs, the City argues that the ZEC program is intended to cover the operating and other costs that the plants' owner cannot obtain from the wholesale markets, but should not provide a means to give windfall profits to the nuclear plants' owners. Noting a lack of evidence on the record regarding costs and revenue streams, the City urges the Commission to require an independent assessment of the capital, operating, and management investments needed for the safe operation of each plant, including an explanation for how costs would be apportioned between owners and ratepayers. The City also urges the Commission to require Staff to include a forecast of expected annual Production Tax Credit (PTC) values through the 20-year term and produce an analysis showing how the net ZEC obligation of ratepayers would change with different PTC realization rates. The City also argues that Staff should make clear what are the specific pass-through rules that would ensure that ratepayers are not paying ZECs that compensate the plants' owner for costs it realizes from other sources. The City calls for Staff to update its proposal to explain how ratepayer savings could occur if third-party power purchase agreements (PPA) could supplement or supplant some of the existing facilities' revenue.

The City argues that the ZEC program's existing allocation methodology results in more than 50 percent of ZEC costs being borne by downstate customers. However, given their locations and existing transmission constraints, the plants'

operations do not benefit the City's residents and businesses, provide employment opportunities to City residents, contribute to the expected capacity deficits that the City expects to experience over the coming years, or bring zero-emissions electricity to the City's grid. Unless and until the Commission directs and authorizes the construction of new transmission to eliminate the existing bulk power system constraints and provide sufficient capacity to transmit upstate carbon-free and renewable power to downstate areas, the Commission should reconsider how ZEC costs are allocated to the City's customers.

The City cautions against the Commission relying on the 2025 Brattle Report, which it states was paid for by Constellation, and exhibits methodological and informational weaknesses that undermine its usefulness. The City notes that the 2025 Brattle Report only contrasts two extreme outcomes (i.e., either the continued operation or early retirement of all four nuclear facilities) without alternatives. The City also asserts that the 2025 Brattle Report does not appropriately quantify affordability impacts for New York ratepayers, because it presents cumulative ratepayer costs in undiscounted nominal dollars which overstate future costs in real terms, does not disaggregate costs by customer class or income-level, or present household-level bill impacts over time. The 2025 Brattle Report also does not show how the ZEC program's continuation would impact short-term ratepayer bill trajectories, which are important given that ZEC costs are recovered through utility surcharges paid by ratepayers. The City raises similar concerns about the 2025 Brattle Report's presentation of supposed long-term economic impacts and benefits of maintaining the nuclear facilities. Finally, the City argues that the 2025 Brattle Report does not address the evidentiary gaps in Staff's proposal, including the lack of customer bill impact analyses,

missing data on the plants' projected costs and market revenues, and outstanding questions about potential PTC and PPA ratepayer savings.

City of Oswego (Oswego)

Oswego strongly supports extending New York's ZEC program, emphasizing the importance of clean energy and economic stability. Oswego hosts nuclear facilities that power homes and support the local economy. Oswego states that nuclear energy provides nearly half of New York's emissions-free power and is reliable, and notes that the ZEC program has been instrumental in keeping nuclear facilities online, preventing job losses and avoiding a return to fossil fuels. Oswego cites the 2025 Brattle Report, underscoring that the continued operation of New York's nuclear fleet contributes \$38 billion to the state's economy, supports over 14,000 jobs, and preserves \$10 billion in tax revenues. Oswego also contends that letting the ZEC program expire would mean higher emissions, higher energy costs, and fewer jobs.

Constellation Energy Generation, LLC (Constellation)

Constellation urges the Commission to take into account the following when considering Staff's proposal to extend the ZEC program: (1) narrowing supply levels due to retirements outpacing new generation development, and unforeseeable circumstances that have materially stymied renewable development levels; (2) increasing load levels due to State electrification mandates and economic development efforts; (3) the consistent clean energy contributions of the New York nuclear fleet; (4) the impact of federal Production Tax Credits on reducing costs to New York customers; and (5) federal nuclear license renewal requirements. Based on those considerations,

Constellation supports Staff's proposal to replicate the core ZEC program structure, with adjustments for the operational needs of the New York nuclear fleet through 2049.

Constellation argues that both Staff's proposal, and the findings of the 2025 Brattle Report, conclusively demonstrate that ongoing operation of the New York nuclear fleet throughout the proposed ZEC 2.0 program will continue to provide New Yorkers with substantial benefits like carbon emissions avoidance, local economic benefits, and system reliability. Constellation also argues that losing the baseload generation provided by the Upstate nuclear generators could result in significant electricity price increases. Constellation asserts that these benefits far outweigh the costs of the ZEC program, particularly when factoring in safeguards such as adjusting payments down when wholesale market prices exceed target levels. Constellation further argues that Staff's proposal to continue the ZEC program with minor adjustments reasonably balances consumer interests with the need for revenue certainty. Constellation notes that it will have to bear substantial costs to initiate and successfully complete the NRC license renewal process for its plants starting in 2026. Constellation projects that it will need to make significant capital investments to replace or augment equipment functionality beyond that previously required and will also require increased operations and maintenance budgets to meet contractual performance requirements throughout the ZEC 2.0 Program. Constellation further notes that neither it nor any other nuclear facility owner can reasonably foresee all additional plant operating circumstances that will surface in the industry during the next 20-year license period.

Regarding the programmatic elements of Staff's proposal, Constellation supports Staff's proposal to utilize an

updated ZEC formula to reset ZEC prices, including a stub period to align the program with the calendar year, and two-year tranches thereafter. Constellation also agrees with Staff's proposed ZEC price formula, including the Social Cost of Carbon value utilizing a three percent discount rate, conversion factor and Regional Greenhouse Gas Initiative (RGGI) baseline approaches, and indices for projected energy and capacity forecasts. Constellation recommends that the Commission authorize provisions for ZEC 2.0 program contracts that provide for adequate flexibility to reduce the quantity of ZECs sold to NYSERDA if the environmental attributes are sold directly to a New York consumer. Constellation also agrees with the proposed maximum ZEC prices for each Tranche but asserts that because of elements like the federal PTC and the reduction in ZEC price if wholesale energy and capacity indices exceed \$39/MWh, customers can expect to make payments below the maximum ZEC price.

Institute for Policy Integrity at NYU School of Law (NYU)

NYU argues that the Commission should calculate the SCC component of the ZEC price utilizing the New York State Department of Environmental Conservation's (NYSDEC) April 2025 value of carbon guidelines using a discount rate of two percent, which NYU claims is based on the most robust and comprehensive government climate damage estimates available. Conversely, adopting Staff's proposal to utilize NYSDEC's value of carbon guidance from 2023, with a discount rate of three percent, will erode the ZEC program's sound economic and scientific foundation and undermine New York's ability to lead other jurisdictions seeking to promulgate sound climate policies. NYU argues that neither NYSDEC nor Staff has provided any justification for any New York agency to deviate from the best science and economics. Regardless of whether the Commission decides to adopt Staff's

proposal or develop a new formula to calculate ZEC payments, NYU urges the Commission to consider a true-up mechanism to account for revenues actually earned by nuclear generators or available to them based on actual wholesale market clearing prices (rather than relying only on forecasted energy and capacity prices), which NYU argues would improve the ZEC program's efficiency.

Joint Utilities¹⁴⁰

The Joint Utilities support extending the ZEC program through 2049, In order to help protect customers from overpaying to maintain nuclear facilities, the Joint Utilities recommend that eligible facilities be required to demonstrate their financial need for ZEC payments, and that NYSERDA be directed to regularly review and confirm a recipient's continued eligibility for receiving ZEC payments. The Joint Utilities also support netting Production Tax Credit revenues against ZEC obligations, and agree that the Commission should retain flexibility to adjust the ZEC framework if future revenue streams from policy changes, or other programs emerge that compensate zero-emissions generation in ways that adequately replicate the economics of the of the existing ZEC program. The Joint Utilities further note the importance of NYPA and the Long Island Power Authority continuing to purchase ZECs for the duration of the program.

¹⁴⁰ The Joint Utilities are Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc. (Con Edison), New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange & Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

IBEW Local Union 97

IBEW Local Union 97, which represents 4,400 active union workers, strongly supports extending the ZEC Program, which has been critical in keeping the Upstate nuclear facilities in operation, preventing job loss in Upstate communities, and preserving energy affordability for its members. Failing to extend the ZEC Program could result in plant closures, the loss of high-quality union jobs, and a serious setback for the State's clean energy and climate goals.

IBEW Local Union 97 Individual Commenters

IBEW Local 97 members also commented expressing strong support for extending New York's ZEC program. Local 97 members note that trade workers build and maintain infrastructure, and nuclear facilities provide carbon-free electricity and union jobs. Local 97 members assert that the ZEC program has been critical in keeping plants in operation and preventing job losses and has helped maintain grid reliability and failure to extend the program could result in plant closures and job losses.

Independent Power Producers of New York, Inc. (IPPNY)

IPPNY supports Staff's proposed extension of the ZEC program. IPPNY notes that it has been a proponent of the NYISO's proposed carbon pricing mechanism (Carbon Adder), which would internalize the value of zero-emissions attributes in wholesale market energy prices, since 2017. IPPNY supports Staff's recommendation that the Commission modify or eliminate the ZEC 2.0 program in the future if a national, NYISO, or other program is instituted that pays for or internalizes the value of zero-emissions attributes in a manner that adequately replicates the economics of the ZEC program. However, in the absence of

state support for carbon pricing, programs like ZEC 2.0 are needed to meet the States's public policy goals. IPPNY also warns that loss of existing nuclear units would cause major reliability problems in New York. IPPNY urges the Commission to establish a program to retain needed (and incent the development of new) zero-emissions capable energy systems, including gas turbines that could be converted to run on hydrogen, and support a market mechanism at the NYISO that fairly and efficiently values low and zero-emissions resources (e.g., the Carbon Adder).

LEAF of Hudson Valley, Indivisible Scarsdale, Rockland Coalition to End the New Jim Crow Environmental Committee, Ramapo-Munsee Nation Attorney General SD Smith (together, LEAF)

LEAF objects to the subsidization of nuclear energy through the ZEC program, arguing that nuclear energy does not produce zero-emissions electricity. LEAF asserts that there has been no determination made based on publicly available studies by authorized state agencies that nuclear energy is economical and beneficial to New York State. LEAF claims that the term "Zero-Emissions-Credit" is misleading and New York State agencies allocate a disproportionate amount of ZECs to nuclear reactors compared to renewables. LEAF argues that renewable energy systems should be the sole recipients of ZECs and contend that funding nuclear energy diverts resources from renewable energy. LEAF also raises concerns about the costs of nuclear waste management and potential nuclear accidents. LEAF suggests the creation of a funding mechanism to support rolling stewardship of nuclear waste. LEAF argues that nuclear energy is unreliable, prevents New York from transitioning off fossil fuels, and that nuclear emissions contaminate resources. LEAF

also suggest that exposure to nuclear radiation imperils health and increases healthcare costs.

The Manufacturers Association of New York (MACNY)

MACNY expresses strong support for the continuation and extension of New York State's ZEC program. MACNY states that maintaining carbon-free electricity sources is essential for achieving the CLCPA targets, and nuclear energy provides nearly half of New York's emissions-free power. MACNY asserts that the ZEC program has played a critical role in preventing the premature closure of nuclear facilities, helping to avoid increases in fossil fuel generation, preserving jobs, and supporting emissions-reduction goals. MACNY contends that the continued operation of the nuclear fleet would contribute \$38 billion to the state's economy, support 14,400 jobs, and preserve \$10 billion in tax revenues.

Multiple Intervenors (MI)

Recognizing that at least a portion of the State's existing nuclear fleet will need to remain operational for some period of time for reliability purposes, and that current conditions and New York's energy policies leave the State with little practical choice but to extend the ZEC program, MI does not oppose a limited, rational extension of the ZEC program beyond March 31, 2029. That notwithstanding, however, MI asserts that Staff has failed to justify extending the program through 2049 and argues that a periodic reassessment of the need for continued subsidies/incentives should be implemented. Second, MI asserts that Staff failed to justify subsidizing all four existing Upstate nuclear facilities for the entirety of the proposed term of the ZEC 2.0 Program (i.e., whether the capacity from all four facilities will be needed through the end of

2049). MI asserts that Staff's proposal provides no information as to either the projected costs or projected wholesale market revenues associated with continuing to operate any or all of the facilities, and leaves parties in the dark as to whether certain facilities would be far more expensive to continue subsidizing/incentivizing than others.

Third, MI states that Staff's proposal did not include any information about projected or maximum customer impacts, which is particularly troublesome given the ZEC program's significant costs on customers, and the continued upward pressure on electric rates from numerous sources. MI also notes that Staff's proposal fails to provide any supporting information as to its energy and capacity revenue forecasts. MI argues that, prior to ruling on the proposal, the Commission should direct that customer impact analyses be conducted for different customer types based on the maximum potential ZEC costs, as well as Staff's projections of actual ZEC costs that would be paid by customers.

Fourth, MI argues that the allocation and cost recovery for ZECs must be modified. MI argues that ZEC costs are currently allocated to and recovered from LSEs entirely on an energy basis and, commensurately, allocated to and recovered from end-use customers in a similar manner. While such an approach may be administratively convenient, it ignores that the primary motivation for potentially continuing the ZEC program is the growing need for the capacity provided by the existing nuclear generating facilities, as well as other considerations unrelated to energy consumption. Accordingly, MI argues that basic cost allocation principles justify allocating and recovering future ZEC costs partly on an energy basis and partly on a demand basis.

New York State Association of Counties (NYSAC)

NYSAC voices strong support for the ZEC program, representing all 57 counties across the state and the City of New York. NYSAC states that affordability, reliability, and sustainability are top concerns. NYSAC urges the Commission to extend the ZEC program to ensure New York continues to benefit from reliable, carbon-free power generated by its nuclear fleet. NYSAC notes nuclear plants produce nearly half of the state's zero-emissions electricity and serve as anchors for county economies by sustaining jobs, generating tax revenue, and providing around-the-clock carbon-free energy. NYSAC also cites the 2025 Brattle Report, which projects that continuation of the ZEC program will save ratepayers \$50 billion through 2050, sustain over 14,000 jobs, deliver \$38 billion in statewide economic value, and preserve \$10 billion in tax revenue.

New York Energy and Climate Advocates (NYECA)

NYECA urges the Commission to adopt a Zero-Emission Credit program through 2049. NYCEA recommends that this program include procurement caps and ensure long-term price stability, as these features will protect ratepayers, attract investment, and preserve vital clean energy assets. NYCEA also encourages the Commission to consider a program to incentivize advanced nuclear.

Nuclear Energy Institute (NEI)

NEI strongly supports Staff's proposal to extend New York's ZEC program, citing Staff's finding that keeping the upstate nuclear fleet is a cost-effective way to meet growing electric demand with zero emissions energy while ensuring reliability. NEI asserts that extending the ZEC program represents a practical, low-risk, and cost-effective solution

for ensuring long-term revenue certainty for New York's existing nuclear facilities. NEI notes that since 2016, ZECs have preserved approximately 27.6 TWhs per year of zero-emissions generation, avoiding 68 million metric tons of CO₂ cumulatively through 2024. NEI also cites the 2025 Brattle Report for the premise that the retirement of the existing nuclear fleet would lead to significant increases in fossil fuel generation and a "large net increase in emissions across the NYISO system."

New York Independent System Operator (NYISO)

The NYISO strongly agrees with Staff's proposal and contends that the existing fleet of four nuclear generation resources must remain operational to avoid resource adequacy shortfalls and other electric system reliability issues. The NYISO notes that the electric grid is at an inflection point, driven by the convergence of three structural trends: the aging of the existing generation fleet, the rapid growth of large loads, and the increasing difficulty of developing new dispatchable resources. The NYISO notes that issue is not simply one of quantity of capacity, but also of quality, timing, and location of those resources' ability to serve load. The NYISO asserts that existing nuclear generation resources provide reliable, continuous, and predictable electricity.

The NYISO highlights the importance of maintaining the existing fleet of nuclear generation resources as contemplated in Staff's proposal and as discussed in the Draft New York State Energy Plan. The NYISO notes that nuclear resources are a critical component of fuel diversity and fuel security in New York as nuclear generation provides more than one-fifth of the annual electricity produced in New York.

The NYISO also states that reliability margins are eroding as traditional fossil-fuel-based generation deactivates

in response to decarbonization goals and tighter emissions regulations, without comparable replacement resources coming online. Large energy-intensive economic development projects are driving up demand for electricity. The NYISO asserts that the critical step to maintaining electric system reliability is to retain the four existing nuclear power reactors currently operating in Upstate New York. The NYISO asserts that nuclear generators provide reliable, continuous, predictable, emissions-free supply and must remain online to maintain electric system reliability. The four nuclear generators in Upstate New York account for nine percent of total statewide installed capacity with a combined nameplate capability of over 3,500 MW and supplied 21 percent of the energy produced in the state in 2024. The NYISO contends that in the event that licenses are not renewed for these nuclear resources, reliability margin deficiencies would be expected within one year of the loss of these resources.

New York League of Conservation Voters (NYLCV)

NYLCV strongly supports extending the ZEC program. Doing so, according to NYLCV, will protect a major source of clean, carbon-free energy; ensure energy affordability; support good-paying union jobs across the state; stabilize energy supply as more renewables come online; and help keep New York on track to meet its CLCPA goals.

New Yorkers for Clean Power (NYCP)

NYCP supports Staff's proposal to extend the ZEC program. NYCP notes that the avoided societal cost carbon is a substantial benefit of non-pipes alternatives (NPAs) used to decarbonize buildings, but the amount of this benefit declines with the carbon intensity of electricity supply, and any loss of

the state's nuclear fleet could render some otherwise viable NPA proposals unviable from a benefit-cost perspective and impact building decarbonization efforts. NYCP also recommends permitting ZEC sales into voluntary markets to further reduce the cost of the ZEC program.

New York Power Authority (NYPA)

NYPA supports Staff's proposal to extend the ZEC program to ensure the continued operation of existing nuclear resources. NYPA argues that, as New York continues to expand its renewable energy portfolio, maintaining a mix that includes clean firm generation like nuclear is crucial for achieving a resilient and sustainable energy future. NYPA also supports Staff's finding that preserving existing nuclear power plants in New York State is a cost-effective strategy for maintaining energy reliability. As the State continues to advance the CLCPA, NYPA recommends that the Commission consider what support additional zero-emissions resources may require, and that any support for additional resources should balance cost considerations with the attributes clean firm generation can provide, including grid reliability, emissions reduction, and dispatchability.

Nuclear New York

Nuclear New York strongly supports extending the ZEC program, arguing that absent such a program, the industry operator faces significant uncertainty in weighing multimillion-dollar investments required for relicensing. Nuclear New York also notes the economic and community benefits of New York's nuclear fleet, the crucial role that nuclear plays in maintaining the stability of an increasingly renewable grid, and the ZEC program's role in securing cost-effective, carbon-free

electricity. Nuclear New York urges the Commission to adopt a robust, long-term ZEC program extending through 2049 and aligned with federal relicensing schedules, ensure stable price signals for generation, protect ratepayers through procurement caps, and coordinate program design with NYSERDA, the NYISO, and DPS.

New York State Senate and Assembly Members

Members of the New York State Assembly Republican Conference, three Democratic members of the New York State Assembly, and a bipartisan group of members of the New York State Senate express strong support for extending New York's ZEC program, prioritizing energy reliability, affordability, job preservation, and economic strength. The members assert that the ZEC program is critical to maintaining energy grid reliability, preserving jobs, and ensuring New York's long-term economic stability. The members state that the premature closure of nuclear facilities would risk losing jobs, imposing higher electricity costs, and forcing costly investments in replacement generation. The New York State Senate and Assembly Members note that the recent Brattle Group study confirms the value of preserving New York's nuclear fleet, revealing a \$38 billion economic contribution to the state GDP, support for 14,400 jobs, and \$10 billion in total tax revenue.

New York State Energy Research and Development Authority
(NYSERDA)

NYSERDA supports Staff's proposal to extend the ZEC program. NYSERDA specifically supports a stub period to align the ZEC 2.0 program's compliance year with the calendar year, arguing it will reduce the administrative burden on Load Serving Entities (LSEs), DPS Staff, NYSERDA, and the New York Generation

Attribute Tracking System Administrator. NYSERDA also supports enabling ZEC sales to the voluntary market in the program extension and proposes including details of the voluntary sale process in a new ZEC implementation plan for Commission approval. NYSERDA details analyses conducted on the statewide benefits, the need for continued zero-emissions generation, and projected costs associated with the ZEC 2.0 program. Their analysis projects that continued operation of New York State's nuclear fleet will reduce total system cost by \$15 billion on a net present value basis over the 2025-2050 forecast period. NYSERDA notes that New York's existing nuclear power plants generate firm, zero-carbon electricity, contribute to grid stability, and provide fuel diversity and security. To ensure that ZEC 2.0 prices reflect the value of the zero-emissions attributes, NYSERDA recommends updating the emission conversion factor throughout the ZEC 2.0 program.

New York State Pipe Trades Labor-Management Partnership

New York State Pipe Trades Labor-Management Partnership strongly supports Staff's proposal extending the ZEC program, stating that the continued operation of New York's nuclear power stations is needed to ensure a reliable, affordable, carbon-free power supply. The Pipe Trades assert that the termination of the ZEC program would create significant risks to the economic viability of New York's existing nuclear plants, likely forcing plant closures, harming workers and communities, disrupting the electrical market, and increasing GHG emissions. The Pipe Trades note that nuclear energy is emerging as a leading source of clean power essential for meeting growing future demand and that New York's nuclear facilities currently produce 20 percent of the state's

electricity and approximately 75 percent of New York's in-state zero-emissions output.

Power for Economic Prosperity (PEP)

PEP strongly agrees with the comments and concerns of Multiple Intervenors regarding continuation of the ZEC program, including but not limited to the need for further analysis and careful evaluation to ensure any program extension is implemented in a prudent manner to protect all customers from unnecessary costs. PEP also raises concerns about the implementation of the CLCPA, which has already led to delivery rate increases and the imposition of various surcharges to support CLCPA-related programs and investments. PEP asserts that, as CLCPA-related costs collected from ratepayers continue to multiply, they also erode the intended benefits of NYPA's low-cost hydropower to Western New York. PEP argues that, moving forward, any extension of the ZEC program or other new or ongoing ratepayer-funded program, should not further degrade New York's cost-competitiveness or otherwise dilute the benefits of NYPA's clean, reliable and low-cost hydropower to existing Western New York business customers. PEP urges the Commission to direct Staff to provide additional analysis to help determine the scope, magnitude, and duration of investments needed with respect to each nuclear facility before committing New York customers to funding the billions of dollars required to implement Staff's ZEC 2.0 proposal.

Onondaga Nation, Haudenosaunee Environmental Task Force, And American Indian Law Alliance

Onondaga Nation, Haudenosaunee Environmental Task Force, and American Indian Law Alliance argue that claims of clean nuclear energy are false and state that the negative

impacts of the nuclear power industry on Indigenous nations and peoples have not been thoroughly included in the discussion. They raise concerns about the effect of the nuclear power industry on Indigenous nations and peoples, including uranium mining, milling, transportation, and storage. They also discuss the dangers of the three aging nuclear power reactors in Scriba, New York, and the harm that would result to the Onondaga people, and Nation lands and waters from the continued operations of these aging nuclear reactors and from any accidental release of radiation. They contend that these reactors interfere with the stewardship responsibilities of the Nation leaders to protect the natural world and express concern regarding the dangers to the Onondaga Nation, its waters and its people from the current transport of nuclear wastes down Interstate Route 81. They argue that the current state plan to subsidize the Lake Ontario reactors is more expensive and releases more CO₂ than shutting them down and replacing them with renewables.

Onondaga County

Onondaga County expresses strong support for extending New York's ZEC program, stating that nuclear energy is critical to meeting the challenge of providing a stable, affordable, and clean energy supply that can meet the needs of advanced manufacturing. The County notes that nuclear facilities in neighboring Oswego County already provide reliable, carbon-free power that supports economic development and state climate goals. Onondaga Country asserts that extending the ZEC program will help make that possible.

The City of Oswego, the County of Oswego Industrial Development Agency (IDA), Operation Oswego County, Inc., Oswego County

Workforce Development Board, Oswego Harbor Festivals, and Oswego Health

The above commenters all strongly support the extension of the ZEC program. These comments emphasize that nuclear energy provides nearly half of New York's emissions-free power and remains a reliable and consistent source of clean electricity, which is essential for achieving the targets set forth in the CLCPA. The City of Oswego notes that the ZEC program has been instrumental in keeping nuclear facilities online, preventing the premature loss of thousands of jobs, and avoiding a backslide into fossil fuel dependence. The IDA, Operation Oswego County, and the Workforce Development Board highlight that the ZEC program has played a critical role in preventing the premature closure of nuclear facilities, helping to avoid increases in fossil fuel generation, preserving thousands of high-quality jobs, and supporting the state's emissions-reduction goals. All groups cite the 2025 Brattle Report, which indicates that continued operation of the nuclear fleet would contribute \$38 billion to the state's economy, support 14,400 jobs, and preserve \$10 billion in tax revenues. Oswego contends that extending the ZEC program will protect a major source of clean, carbon-free energy; ensure energy affordability; support jobs; stabilize energy supply as more renewables come online; and help New York meet its Climate Act mandates. Oswego Health also notes the importance of reliable, clean energy for hospital operations and public health, emphasizing the role of nuclear facilities in reducing harmful emissions that contribute to respiratory and cardiovascular disease and sustaining the local economy.

Towns of Ontario, Scriba, Oswego

The Towns of Ontario, Scriba, and Oswego express strong support for the continuation and extension of New York State's ZEC program. The Towns note that maintaining carbon-free electricity sources is essential for achieving the CLCPA targets, and nuclear energy provides nearly half of New York's emissions-free power, and the ZEC program has played a critical role in preventing the premature closure of nuclear facilities, helping to avoid increases in fossil fuel generation, preserving union jobs, and supporting emissions-reduction goals. The Towns also contend that the continued operation of the nuclear fleet would contribute \$38 billion to the state's economy, support 14,400 jobs, and preserve \$10 billion in tax revenues.

Upstate Energy Jobs Coalition (UEJ)

UEJ, a coalition advocating for the continuation and extension of New York State's ZEC program, emphasizes that nuclear energy provides nearly half of New York's emissions-free power and is a reliable source of clean electricity. UEJ highlights the ZEC program's critical role in preventing premature nuclear facility closures, avoiding increased fossil fuel generation, preserving jobs, and supporting emissions-reduction goals. The coalition warns that allowing the program to expire could lead to higher emissions, increased energy costs, and diminished reliability. UEJ also cites the 2025 Brattle Report's conclusion that the continued operation of the nuclear fleet would contribute significantly to the state's economy, support thousands of jobs, and preserve billions in tax revenues. UEJ notes that, in 2024, these plants avoided millions of tons of carbon emissions and asserts that extending the ZEC program will protect a major source of clean energy,

ensure energy affordability, support union jobs, stabilize energy supply, and help New York meet its Climate Act mandates.

Zero Waste Ithaca

Zero Waste Ithaca opposes Staff's proposal, asserting that nuclear power generates toxic waste and burdens communities. Zero Waste Ithaca argues that extending the ZEC program is misguided, diverting resources from renewables, storage, and efficiency. Zero Waste Ithaca also contends that the ZEC program forces ratepayers to subsidize Constellation Energy's nuclear fleet. Zero Waste Ithaca states that extending subsidies would lock New Yorkers into bailing out aging reactors and argues that claims of nuclear being "zero-emission" obscures the realities of nuclear waste and aging risks. Zero Waste Ithaca contend that corporate power purchase agreements do not justify ratepayer subsidies and suggests that renewables plus storage can be built faster and cheaper without radioactive waste. Zero Waste Ithaca also raises concerns that communities already bear the toxic legacy of waste storage and states that the Commission should scrutinize pro-nuclear advocacy. Zero Waste Ithaca advocates for investing in renewable generation, efficiency, and storage.

Other Commenters

Many other commenters strongly support New York's ZEC program renewal, stating it ensures access to zero-carbon energy, supports communities with jobs, and provides reliable power. These commenters cite climate change as a severe threat to New York and assert that the ZEC program supports a clean energy future as the state transitions from fossil fuels. These commenters also assert that failure to renew the ZEC program could be devastating, potentially leading to nuclear plant

shutdowns and reliance on fossil fuels. Other commenters emphasize the importance of maintaining carbon-free electricity sources to meet the CLCPA targets and highlight nuclear energy's role in providing nearly half of New York's emissions-free power. They credit the ZEC program with preventing premature nuclear facility closures, helping avoid increases in fossil fuel generation, preserving jobs, and supporting the state's emission-reduction goals.

Some commenters oppose extending the ZEC program on the basis of providing ratepayer subsidies to the Upstate nuclear power plants. Commenters also assert that Staff's proposal lacked any analysis showing whether the State can meet its climate goals without some or all of the nuclear reactors.

Many commenters cite the 2025 Brattle Report, which states that the continued operation of the nuclear fleet would contribute \$38 billion to the state's economy, support 14,400 jobs, and preserve \$10 billion in tax revenues. Commenters working in New York's nuclear industry express strong support for extending the ZEC program, noting the direct impact of nuclear energy on the community through clean power and stable union jobs. These commenters note that the jobs support local businesses and fund public services and assert that allowing the ZEC program to expire would jeopardize the local economy and the livelihoods of workers, and supporting the ZEC program means supporting workers who power New York with emissions-free electricity. Commenters assert that ensuring that New York's nuclear fleet remains online will protect a major source of clean, carbon-free energy; ensure energy affordability; support good-paying union jobs across the state; stabilize energy supply as more renewables come online; and help keep New York on track to meet its Climate Act mandates.

State Environmental Quality Review Act

FINDINGS STATEMENT

January 22, 2026

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

Action: Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Energy Program and a Clean Energy Standard (Case 15-E-0302); Department of Public Service Staff Zero-Emissions Credit Program Extension Proposal

SEQRA

Classification: Unlisted

Location: New York State

Date Final
Supplemental
Generic
Environmental
Impact
Statement

(SGEIS) Filed: December 22, 2025

Final SGEIS Available at: <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=15-E-0302>

PURPOSE AND DESCRIPTION OF THE ACTION

The Commission adopted the Clean Energy Standard (CES) in 2016 and expanded it in 2020 to meet the requirements of New York's Climate Leadership and Community Protection Act (CLCPA, or Climate Act). The Climate Act requires New York State (the State) to achieve 70 percent renewably sourced electricity by 2030 and a zero-emissions electric grid by 2040 (the Zero by 40

Target). New York State enacted the CLCPA in 2019 with the objective of addressing climate change and minimizing its adverse impacts on the economic well-being, public health, natural resources, and environment of the State. In addition to the renewable electricity and zero-emissions targets, the CLCPA requires the State to reduce economy-wide GHG emissions to below 40 percent of 1990 levels by 2030 and below 85 percent of 1990 levels by 2050. The CES implemented two programs: a Renewable Energy Standard (RES) and a Zero-Emissions Credit (ZEC) requirement for load serving entities. The Commission adopted the ZEC program (ZEC 1.0) in 2016 to preserve the environmental attributes of the State's nuclear fleet by compensating eligible nuclear power plants for the carbon-free electricity they produce. The CES Order directed the New York State Energy Research and Development Authority (NYSERDA) to establish long-term contracts for the monthly purchase of ZECs with the State's nuclear fleet, including the James A. FitzPatrick Nuclear Power Plant (FitzPatrick), Robert Emmett Ginna Nuclear Power Plant (Ginna), and Nine Mile Point Nuclear Station (Nine Mile Point). Collectively, the SGEIS refers to the plants as the "Upstate nuclear facilities". The current ZEC program ends on March 31, 2029. Per Commission directive, DPS Staff prepared the Zero-Emissions Credit Program Extension Proposal (ZEC 2.0 White Paper) to evaluate how an extension of the ZEC program may be structured.

The proposed action under SEQRA is the extension of the ZEC program for an additional 20 years (2029-2049), with certain modifications as discussed in the ZEC 2.0 White Paper and the body of this Order Extending Zero-Emissions Credit Program. The SGEIS evaluates the environmental impacts of the continued operation and maintenance of the Upstate nuclear facilities. The Commission recognizes that the differences

between the terms proposed in the ZEC 2.0 White Paper and the terms of this Order Extending Zero-Emissions Credit Program do not materially affect the SGEIS analysis.

Consistent with SEQRA regulations at NYCRR §617.10(a), the SGEIS is broader and more general than a site- or project-specific environmental impact statement (EIS) and identifies potential areas where environmental impacts could result from the continued operation, maintenance, and refurbishment activities at the Upstate nuclear facilities. The SGEIS builds upon and incorporates by reference relevant material from prior SEQRA analyses, including the 2020 SGEIS for the CLCPA implementation order and the 2016 SGEIS for the CES.

FACTS AND CONCLUSIONS RELIED UPON

In developing this findings statement, the Commission has reviewed the Final SGEIS issued on December 22, 2025. The following findings are based on facts and conclusions set forth in the Final SGEIS.

A. Public Need and Benefits

New York's nuclear fleet has provided historic contributions to the clean energy resource mix in New York State. For example, nuclear power generated 27,073 gigawatt-hours (GWh) of energy, or 21 percent of the total amount of the energy generated front-of-meter (i.e., energy that feeds into the electric distribution system) in the NYCA in 2024. The public benefits of ZEC 2.0 should be considered in comparison to the cost of the "business as usual" or "no action" scenario in which the current ZEC program expires in March 2029 and is not otherwise renewed or replaced. If the Upstate nuclear facilities shut down after the ZEC program ends, New York would need to procure more of its electricity from fossil fuel generating plants, likely natural gas plants, which would result in increases in carbon dioxide (CO₂), nitrogen oxide (NO_x), and

other pollutants. Compared to reasonable alternatives to the proposed action (described in Chapter 4 of the SGEIS), ZEC 2.0 is expected to yield public benefits through decreased emissions, more efficient land use, electric system reliability, fuel diversity, and economic development.

Specifically, benefits of the proposed action may include:

Environmental. The benefits of the ZEC program depend on what energy sources (e.g., fossil fuels, renewables) replace nuclear energy in an alternative scenario. Burning fossil fuels emits GHGs and criteria air pollutants which contribute to climate change and degrade air quality, negatively impacting human health and the State's natural resources. DPS estimates that the ZEC program has helped avoid over 13 million metric tons of CO₂ emissions per year, or over 68 million tons in total, between 2020 and 2024. If the Upstate nuclear facilities were to shut down, the closure of the Indian Point nuclear reactors between 2019 and 2022 provides an illuminating example of the impacts of replacing nuclear energy with fossil fuels. Two large natural gas fired electric generation plants came online to replace Indian Point and maintain reliability. Compared to renewables, from a lifecycle perspective, nuclear reactors have demonstrated among the lowest lifecycle emissions of any generation technology when including capital expenditure-embodied emissions.

Land use. Nuclear is the most efficient source of energy in terms of the Land Use Intensity of Energy (LUIE) metric when compared to natural gas, wind, solar, geothermal, hydroelectric, and biomass generation.

Public health. Fossil fuel electric generation is a source of criteria air pollutants. The release of sulfur dioxide (SO₂) and NO_x from fossil fuel-generated power plants

also leads to the formation of fine particulate matter (PM_{2.5}), ozone, and other acidic compounds in the air. Criteria air pollutants adversely impact local and regional air quality, visibility, and public health. For example, exposure to ozone can aggravate lung diseases including asthma, emphysema, and chronic bronchitis, as well as increase the risk of premature mortality from heart or lung disease. Health effects from PM_{2.5} exposure include cardiovascular and respiratory diseases, asthma, and premature mortality. Not only does NO_x lead to formation of PM_{2.5} and ozone, it can increase the risk of respiratory diseases and exacerbate existing respiratory symptoms. Individuals with asthma may experience aggravated symptoms when exposed to NO_x.

Electric system reliability. Once operational, nuclear power plants provide reliable baseload electricity. Greater dependency on fossil fuels raises reliability concerns, particularly during extreme cold weather events. Further, nuclear energy provides unique services to the grid that renewables cannot easily replicate, particularly during "lulls" of wind and solar generation. Chapter 2 of the SGEIS discusses the State's electricity system and forecasted growth in electricity demand. This increasing demand presents an additional challenge in maintaining grid reliability and meeting CLCPA goals. Chapter 4 and Chapter 5 of the SGEIS provide additional detail on the Upstate nuclear facilities' contributions to electric system reliability.

Fuel diversity. The closure of New York's Upstate nuclear plants would expose the State to greater energy price volatility and energy security concerns. New York has a diverse electric generation mix, which benefits the State by mitigating price volatility and reducing the State's reliability on any one fuel source. This diversity, delivered in part by the State's

existing nuclear fleet, provides New York consumers with a resilient baseload electricity supply and ensures greater energy security should one fuel supply source be compromised, particularly at a time of high end-user demand on the electric system.

Economic development. The Upstate nuclear facilities employ approximately 1,800 workers and pay over \$50 million in property taxes, further supporting the host communities. In addition to supporting direct jobs and local tax revenues, nuclear energy's contribution to electric system reliability underpins economic growth in the State.

B. Alternatives Considered

The SGEIS adopts a bounding approach to define a range of plausible outcomes following the expiration of the current ZEC program in March 2029. At one bound, the "no action" or baseline scenario assumes that ZEC 1.0 expires in March 2029 and is not otherwise renewed or replaced. Without the support of the ZEC program, the Upstate nuclear fleet retires, and approximately 27,000 GWh of annual zero-emissions generation is lost. At the other bound, the proposed action assumes that ZEC support continues through 2049, preserving the fleet's zero-emissions generation. The SGEIS defines two alternatives within the "no action" scenario. Alternative 1 assumes that fossil fuels replace 100 percent of lost nuclear generation, while Alternative 2 assumes that fossil fuels replace part of lost nuclear generation, supplemented by renewables, imports, and demand-side resources. Together, these alternatives capture the full spectrum of foreseeable environmental outcomes. Any intermediate case - such as closure of only one nuclear facility or replacement by a mixed portfolio - would fall between these bounds and is therefore encompassed within the analysis.

Given current market and infrastructure constraints, the SGEIS does not evaluate a scenario in which renewable sources replace 100 percent of lost nuclear capacity, and its associated firm output and electric service reliability characteristics, for the 2029-2049 time period. Forecasted growth in electricity demand in New York and insufficient renewable energy storage technology present challenges in maintaining grid reliability and meeting CLCPA goals. In recent reports, even while assuming that the State preserves the Upstate nuclear capacity, the New York Independent System Operator (NYISO) has emphasized the unprecedented scale and pace at which renewable generation capacity will need to increase to meet the State's Zero by 40 target while ensuring system reliability. Further, NYISO's 2025-2034 Comprehensive Reliability Plan (issued November 2025) forecasts that the loss of nuclear resources would result in statewide reliability margin deficiencies within one year of each unit's retirement, assuming the plants shut down at the end of their current license terms.

C. Potential Impacts

Chapter 5 of the SGEIS evaluates the environmental impacts that could arise from ZEC 2.0 or the "no action" alternatives. Relative to the "no action" scenario alternatives, the SGEIS evaluates the impacts that may result if the Upstate nuclear facilities continue operating under ZEC 2.0. The proposed action is not expected to result in additional significant adverse environmental impacts at the nuclear plant sites beyond those already resulting from current operation, maintenance, and refurbishment activities (under ZEC 1.0). The SGEIS follows the U.S. Nuclear Regulatory Commission's (NRC's) classification of nuclear operations-related environmental impacts as either "SMALL," "MODERATE," or "LARGE." The NRC used

this classification system in its August 2024 GEIS for License Renewal of Nuclear Plants, Final Report, NUREG-1437, Volume 1, Revision 2 (NRC License Renewal GEIS) and the plant-specific GEISs of the Upstate nuclear facilities. Overall findings suggest that direct adverse impacts of ZEC 2.0 on the State's environmental resources are likely to be SMALL, and that a variety of regulations and mitigation measures exist to minimize potential impacts.

Chapter 5 also analyzes the range of possible environmental effects of constructing, operating, and maintaining various replacement energy alternatives to nuclear power (e.g., natural gas plants, wind and solar farms, and other renewable facilities) as would be expected under the "no action" scenario alternatives. In contrast to ZEC 2.0, the potential direct adverse impacts of Alternative 1 and Alternative 2 range from SMALL to LARGE, depending on the environmental resource. For example, if fossil fuels replace 100 percent of lost nuclear capacity under Alternative 1, expected impacts to climate change, air quality, and public health are LARGE. In addition, renewable generation facilities such as solar or wind farms require more land than fossil fuel or nuclear power plants, resulting in MODERATE-LARGE expected impacts to land use under Alternative 2. In both "no action" alternatives, the construction of new generating facilities, regardless of the power source, would produce distinct environmental impacts when compared to continued operation of the State's existing nuclear facilities. The chapter describes potential environmental impacts to the State's resources and identifies their significance (i.e., SMALL, MODERATE, LARGE) for ZEC 2.0, Alternative 1, and Alternative 2. Table 1 below summarizes the results of this comparative analysis.

Table 1. Significance of Impacts under ZEC 2.0 and "No Action" Alternatives

Affected Environment	ZEC 2.0	Alternative 1	Alternative 2
Physiography, geology, and soil	SMALL	SMALL-MODERATE	SMALL-MODERATE
Land use	SMALL	MODERATE	MODERATE-LARGE
Water resources	SMALL	MODERATE	SMALL-MODERATE
Climate change and air quality	SMALL	LARGE	MODERATE
Plant and animal species and biodiversity	SMALL-MODERATE	MODERATE-LARGE	MODERATE-LARGE
Aesthetic and visual resources	SMALL	MODERATE-LARGE	MODERATE-LARGE
Cultural and historic resources	SMALL	SMALL-MODERATE	SMALL-MODERATE
Waste management	SMALL	SMALL	SMALL
Public health	SMALL	LARGE	MODERATE
Community character	SMALL	MODERATE-LARGE	MODERATE-LARGE
Transportation	SMALL	MODERATE-LARGE	SMALL-MODERATE
Socioeconomics/Environmental Justice	SMALL	LARGE	SMALL-MODERATE

As shown in Table 1, the SGEIS considers potential impacts on resource areas in the State. A summary of the environmental impacts by resource follows.

1. Physiography, Geology and Soil

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in limited, localized impacts on physiography, geology, and soil. Potential effects would be confined to routine maintenance and periodic refurbishment activities at existing, previously developed plant sites, such as minor excavation or grading associated with buildings, roads, parking areas, or utility infrastructure. These activities may result in short-term soil disturbance or

erosion but would not alter regional physiographic or geologic conditions.

By contrast, under the "no action" alternatives, replacement of nuclear generation with fossil fuel and/or renewable resources would require construction of new generation and supporting infrastructure, increasing the potential for soil disturbance, erosion, and alteration of drainage patterns over a broader geographic area. These impacts would vary by technology and location but would generally exceed those associated with continued operation of existing nuclear facilities.

2. Land Use

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in minimal changes to existing land use. Nuclear generation occurs at long-established, previously developed sites, and routine operations and refurbishment activities would not substantially alter onsite or offsite land use patterns. Any temporary land use changes associated with maintenance or waste storage would occur within existing facility boundaries, and transmission right-of-way conditions would remain unchanged.

By contrast, under the "no action" alternatives, replacement of generation with fossil fuel and/or renewable energy sources would require new generation and supporting infrastructure, resulting in land clearing, grading, and permanent conversion of land over a broader geographic area. Fossil fuel facilities, renewable generation such as solar, wind, and hydroelectric resources, and associated transmission infrastructure are generally more land intensive than nuclear generation and could affect agricultural lands, forested areas, and open space.

3. Water Resources

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in limited impacts to surface water and groundwater resources. Nuclear operations rely primarily on withdrawals from Lake Ontario for cooling and discharge under existing regulatory permits, and these water use patterns would remain largely unchanged from current conditions. Potential effects associated with water intake, thermal discharge, and permitted effluent releases are well characterized and subject to ongoing federal and State oversight. Groundwater use is limited, and plant-specific environmental reviews have not identified significant impacts to groundwater quantity or quality from continued operations.

Under the "no action" alternatives, replacement of nuclear generation with fossil fuel and/or renewable resources would introduce new water resource impacts associated with construction and operation of new facilities, including land disturbance, altered drainage patterns, and the potential for spills or contaminant discharges. Fossil fuel generation would require water for cooling and could introduce different pollutant risks, while certain renewable technologies—particularly hydroelectric resources—could affect flow regimes, sediment transport, and water temperature. Although some renewable technologies have relatively low water demands, the overall impacts under Alternatives 1 and 2 would be more variable and geographically dispersed than continued nuclear operations.

The Upstate nuclear facilities are also located in a coastal area for purposes of the State's Coastal Management Program, and the SGEIS considers the policies established under 19 NYCRR 600.5. The facilities have operated in their present locations for decades. ZEC 2.0 is thus not expected to result

in any additional impacts to coastal development, agricultural land, scenic quality, public access, recreation, and flooding and erosion hazards. The continued operation of the Upstate nuclear facilities may have some impacts on water resources and aquatic wildlife. But these impacts are closely regulated, exist currently, and would not change due to the continued operation of the Upstate nuclear facilities under ZEC 2.0.

4. Climate Change and Air Quality

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in minimal adverse impacts to air quality and climate. During normal operations, nuclear generation does not emit GHGs, and air pollutant emissions are limited to minor, intermittent sources such as emergency generators, auxiliary boilers, and maintenance activities, which are regulated and represent a small fraction of countywide emissions. As a result, continued nuclear operations would support attainment of State and federal air quality standards and advance the State's GHG reduction goals under the Climate Leadership and Community Protection Act.

By contrast, under the "no action" alternatives, replacement of nuclear generation with fossil fuel-fired resources would substantially increase emissions of GHGs and criteria air pollutants, including CO₂, NO_x, SO₂, and PM_{2.5}. These emissions would degrade local and regional air quality and materially increase statewide GHG emissions, hindering progress toward statutory climate targets. Although Alternative 2 would include a greater share of renewable generation and therefore result in lower emissions than Alternative 1, continued reliance on fossil fuel resources to maintain grid reliability would still produce higher emissions than under ZEC 2.0.

5. Plant and Animal Species and Biodiversity

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in limited impacts to plant and animal species and biodiversity. Nuclear facilities are long-established industrial sites, and continued operations would not substantially expand the physical footprint or introduce new sources of habitat disturbance. Potential effects to terrestrial and aquatic species—including localized habitat alteration, noise, and limited exposure to thermal effluents or cooling water intake structures—are well understood, subject to existing regulatory controls, and have been found in prior federal and State reviews to pose no significant risk to population-level viability, including for threatened or endangered species.

Under the “no action” alternatives, replacement of nuclear generation would require construction of new fossil fuel and/or renewable energy facilities, resulting in greater habitat conversion, fragmentation, and disturbance over a broader geographic area. Fossil fuel infrastructure would increase land disturbance and introduce additional risks associated with fuel extraction and transport, while certain renewable technologies—such as utility-scale wind, solar, and hydroelectric facilities—could affect terrestrial and aquatic species through habitat loss, collision risks, altered flow regimes, and sediment disturbance. These impacts would be more spatially extensive and variable than those associated with continued nuclear operations.

6. Aesthetic and Visual Resources

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in no material change to existing aesthetic and visual conditions. The facilities are long-established industrial sites, and their

principal visible features—such as containment structures, cooling towers, and associated transmission infrastructure—are already part of the surrounding visual landscape. Continued operations would not introduce new visual elements or alter the appearance of existing structures.

Under the “no action” alternatives, replacement of nuclear generation with fossil fuel and/or renewable energy facilities would introduce new aboveground structures and infrastructure, resulting in more pronounced visual changes. Construction activities and permanent features such as generating facilities, stacks, turbines, panels, dams, and associated transmission lines would alter viewsheds and visual character in host communities. The nature and magnitude of these impacts would vary by technology and location but would generally exceed those associated with continued operation of existing nuclear facilities.

7. Cultural and Historic Resources

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would be unlikely to affect cultural or historic resources. The facilities are long-established sites, and continued operations would not involve ground-disturbing activities beyond routine maintenance and refurbishment within previously developed areas.

Under the “no action” alternatives, replacement of nuclear generation with fossil fuel and/or renewable energy facilities would require new construction and associated ground disturbance, creating the potential to affect previously undisturbed archaeological or historic resources. Such impacts would be site-specific and subject to review and protection requirements under applicable federal and State laws, including Section 106 of the National Historic Preservation Act and review by the State Historic Preservation Office.

8. Waste Management

Nuclear waste streams, including low-level radioactive waste, spent nuclear fuel, mixed waste, and non-radioactive hazardous waste, are subject to comprehensive federal and State regulatory controls governing generation, storage, handling, transportation, and disposal. Prior NRC environmental reviews, including the NRC License Renewal GEIS and the 2014 GEIS for the Continued Storage of Spent Nuclear Fuel, have concluded that waste management impacts associated with continued nuclear operations—including extended onsite storage of spent fuel—are well understood, effectively regulated, and pose minimal environmental risk. For example, the Continued Storage of Spent Nuclear Fuel GEIS considers impacts under normal operating conditions as well as environmental impacts of postulated accidents including severe accidents and potential acts of sabotage or terrorism. The environmental impacts of sustained operations of New York State nuclear facilities would not exceed those anticipated in the Continued Storage of Spent Nuclear Fuel GEIS. Thus, continued operations would result in no additional significant impact to the environment than those previously considered in other environmental reviews. Continued operations would not entail any change in storage location or practices or change in the ultimate disposition of the spent fuel. Other waste management impacts resulting from ZEC 2.0 are not likely to exceed the impacts evaluated in these prior reviews.

Under the “no action” alternatives, construction and operation of fossil fuel and/or renewable energy facilities would generate non-radioactive construction and operational wastes, including solid waste, hazardous materials, and, in the case of renewable resources, end-of-life components such as batteries, solar panels, and wind turbine materials. These

waste streams would also be managed under existing federal and State waste management regulations.

9. Public Health

Nuclear power generation does not emit criteria air pollutants or GHGs during normal operations, and radiological and non-radiological exposures are subject to stringent federal and State regulatory controls. Prior NRC environmental reviews have consistently concluded that radiation doses to workers and the public remain well below regulatory limits and comparable to natural background levels, and that other potential health stressors associated with routine operations are limited and effectively managed. Continued nuclear operations therefore avoid population-level health burdens associated with air pollution from fossil fuel combustion.

Under the "no action" alternatives, replacement of nuclear generation with fossil fuel and/or renewable resources would result in greater public health impacts, primarily due to increased reliance on fossil fuel combustion. Fossil fuel generation emits PM_{2.5}, NO_x, SO₂, and other pollutants that are linked to respiratory and cardiovascular disease, asthma exacerbation, and premature mortality, with disproportionate effects on sensitive and already overburdened populations. While Alternative 2 would include a greater share of renewable resources and therefore reduce emissions relative to Alternative 1, continued reliance on fossil fuels to maintain grid reliability would still result in elevated pollutant exposures compared to ZEC 2.0.

10. Community Character

Continued operation and maintenance of the Upstate nuclear facilities under ZEC 2.0 would result in SMALL impacts to community character. The facilities have operated for decades and are integrated into the existing social, economic,

and physical fabric of Oswego and Wayne counties. Continued operations would not alter established land use patterns, population trends, or the overall character of surrounding communities, and existing relationships between the facilities and host communities would remain unchanged.

Under the "no action" alternatives, closure of the Upstate nuclear facilities and replacement of lost generation could result in more pronounced changes to community character. Plant retirements would reduce employment and local tax revenues in host communities, while construction and operation of replacement generating facilities—whether fossil fuel or renewable—could introduce new land uses, construction-related disruptions, and longer-term shifts in economic activity and population patterns in affected areas. The nature and magnitude of these effects would vary depending on the location and type of replacement facilities but would generally exceed those associated with continued operation of existing nuclear plants. As reflected in the SGEIS, impacts to community character under the "no action" alternatives are expected to be MODERATE to LARGE.

11. Transportation

Routine operations generate traffic levels that are consistent with existing conditions, and periodic increases in workforce during refueling or maintenance outages are temporary and well-accommodated by local and regional road networks. Prior NRC and plant-specific environmental reviews have concluded that transportation impacts associated with continued nuclear operations are minor and comparable to current conditions

Under the "no action" alternatives, replacement of nuclear generation with fossil fuel and/or renewable energy facilities would require construction-related traffic increases,

including delivery of materials and equipment, workforce commuting, and potential temporary modifications to local roadways. These activities could result in short-term congestion, lane closures, and altered traffic patterns in host communities. Fossil fuel facilities would generally require a larger construction and operational workforce than renewable facilities, resulting in greater transportation demands.

12. Socioeconomics and Environmental Justice

The facilities provide stable, high-wage employment, substantial local tax revenues, and secondary economic benefits that support community services, housing stability, and local businesses in Wayne and Oswego counties. Prior NRC and State environmental reviews have concluded that continued nuclear operations are consistent with the capacity of host communities to accommodate these activities without adverse socioeconomic effects. In addition, by avoiding emissions of criteria air pollutants associated with fossil fuel combustion, continued nuclear generation helps reduce air quality-related health burdens that disproportionately affect disadvantaged communities across the State.

Under the "no action" alternatives, closure of the Upstate nuclear facilities and replacement of their generation would result in more adverse socioeconomic and environmental justice outcomes. While construction of replacement fossil fuel and/or renewable facilities could generate short-term employment, these benefits would not fully offset the loss of long-term, high-wage nuclear jobs or associated local tax revenues in host communities. Increased reliance on fossil fuel generation would also elevate emissions of air pollutants that are linked to adverse health outcomes and disproportionately affect disadvantaged communities. Although Alternative 2 would incorporate a greater share of renewable resources and reduce

impacts relative to Alternative 1, continued fossil fuel use and the loss of nuclear-related economic stability may still result in greater impacts than under ZEC 2.0.

D. Cumulative Impacts

The analysis of cumulative impacts in the SGEIS only considers resources and environmental conditions that could be affected by ZEC 2.0, including the effects of continued reactor operations during the 2029-2049 period and any refurbishment activities at the Upstate nuclear facilities. For there to be a cumulative effect, the proposed action (implementation of ZEC 2.0) must have an incremental new, additive, or increased physical effect or impact on the resource or environmental condition beyond what is already occurring. The Upstate nuclear plants have operated for decades. To the extent that operating the plants produces cumulative environmental impacts, many such impacts have likely already materialized. However, the SGEIS does not rule out the possibility that ZEC 2.0 will result in cumulative environmental impacts. An impact to a resource may be SMALL by itself but could result in a MODERATE or LARGE impact when considered with the impacts of other actions or activities on the affected resource. Similarly, if a local resource is imperiled, even a SMALL individual impact could be important if it contributes to or accelerates the overall resource decline.

The NRC License Renewal GEIS evaluated potential cumulative impacts of continued nuclear operations but noted that such impacts are unique to each nuclear power plant. The SGEISs for the Ginna, FitzPatrick, and Nine Mile Point facilities evaluated plant-specific cumulative impacts. None of those three analyses identified potential cumulative impacts that were classified as either MODERATE or LARGE.

E. Mitigation of Potential Adverse Impacts

Consistent with 6 NYCRR §617.9(b)(5)(iv) and §617.11(d)(5), the SGEIS describes the variety of measures available to minimize or avoid, to the maximum extent practicable (incorporating all practicable mitigation measures), potentially adverse environmental impacts that may result from implementation of the proposed action. The SGEIS discusses 1) the key federal laws for nuclear power facilities that establish the minimum requirements for mitigation of risk, in particular the federal Atomic Energy Act (AEA) of 1954 and Nuclear Regulatory Commission regulations; and 2) other potentially applicable federal and State regulations as they relate to environmental protection and public health. The Ginna, FitzPatrick, and Nine Mile Point plants have operated for decades and developed increasingly sophisticated processes to identify, minimize, and mitigate risks to human health and the environment. Similarly, federal and State oversight has evolved and improved over time.

The AEA provides the statutory authority that underpins the NRC's regulatory regime and divides responsibilities between states and the federal government. Central to the statute is the requirement that any commercial use of nuclear energy be carried out under federal license and subject to rigorous, ongoing monitoring, inspection, and enforcement programs to ensure compliance with safety standards. The NRC implements the AEA through a set of federal regulations codified in Title 10 of the Code of Federal Regulations (10 CFR). These regulations establish detailed requirements for facility design, operation, security, and environmental protection. For example, NRC regulations set standards for facility design and maintenance, siting criteria, protection against radiation, waste management and storage of spent nuclear

fuel, security and access control, accident prevention, and other important safety and health measures.

Federal regulations primarily govern facility-level safety, security, and decommissioning, while the State retains responsibility for complementary radiation protection, environmental protection, public health, and public safety functions. In addition to the AEA and NRC regulations, the Upstate nuclear facilities are subject to additional federal and State environmental reviews, including the National Environmental Policy Act and SEQRA. The facilities must also comply with the federal Clean Air Act, Clean Water Act, and Endangered Species Act, and, at the State level, the Environmental Conservation Law, the New York State Coastal Management Program, regulations governing environmental justice and disadvantaged communities, and local zoning laws.

F. Unavoidable Adverse Impacts

The SGEIS identifies unavoidable impacts that are inherent to nuclear plant operations, such as the emission and release of various chemical and radiological constituents into the environment or the generation of spent fuel and nuclear waste. However, unavoidable adverse impacts resulting from ZEC 2.0 would be smaller compared to corresponding impacts that would occur under Alternative 1 and Alternative 2 evaluated in the SGEIS.

G. Irreversible and Irretrievable Commitment of Resources

Continued operation of the State's existing nuclear plants under ZEC 2.0, Alternative 1, and Alternative 2 would all entail the irreversible and irretrievable commitment of resources (e.g., water and fuel). The disposal or storage of wastes, including spent nuclear fuel, represents the most significant irreversible and irretrievable commitment of resources under ZEC 2.0. For the "no action" alternatives,

construction activities would require fuel, energy, and water, regardless of the replacement generating facility. Operational impacts would vary depending on the energy sources that replace nuclear power.

H. Growth-Inducing Aspects and Socioeconomic Impacts

ZEC 2.0 is expected to yield primary impacts through sustaining current economic activity, electric grid capacity, and reliability associated with existing nuclear facilities. A reliable grid will ensure New York businesses and residents continue to receive reliable electric service and will leverage opportunities for economic development. Similarly, extending the ZEC program will maintain employment and economic activity tied to the continued operation of the Upstate nuclear facilities in Oswego and Wayne counties. ZEC 2.0 may also produce indirect effects in the Upstate nuclear facilities' host communities and across the State as described in section 9.3 of the SGEIS.

I. Effects on Energy Consumption

The CLCPA facilitates a transition in the use and conservation of energy in the State. As part of this transition, continued operation of the Upstate nuclear facilities will generate emissions-free electricity and accommodate the forecasted growth in electricity demand in the State over time. The proposed action could support the State's conservation of fossil fuels and other energy resources required to construct, operate, and maintain non-nuclear generating facilities that could replace nuclear capacity under Alternatives 1 and 2. ZEC 2.0 will not impact the demand for energy and will instead support the State's ability to meet such demand. The SGEIS also addresses how the proposed action may contribute to the CLCPA's GHG emissions reduction targets. The results of the SGEIS indicate that extending the ZEC program

through 2049 is not inconsistent with, and will not interfere with, the statewide GHG emission limits set by the CLCPA.

CONCLUSIONS

Based on the discussion set forth in the Final SGEIS, the Commission makes the findings stated above regarding the potential environmental impacts, as well as benefits, of the proposed extension of the ZEC program between 2029 and 2049, and certifies that:

1. The requirements of the State Environmental Quality Review Act, as implemented by 6 NYCRR 617, have been met; and
2. Consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action being undertaken yields overall positive environmental impacts and is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable; and
3. The action is consistent with applicable policies set forth in 19 NYCRR 600.5.