

October 20th, 2025

VIA ELECTRONIC MAIL

The Honorable Michelle L. Phillips

Secretary

New York State Public Service Commission

Empire State Plaza, Agency Bldg. 3

Albany, NY 12223-1350

RE: Case 15-E-0302 – Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Energy Program and a Clean Energy Standard

Comments from Eight Organizations regarding the Department of Public Service Staff Zero-Emissions Credit Program Extension Proposal

On behalf of Alliance for a Green Economy, the Nuclear Information and Resource Service, NY Renewables, Neighbors of the Onondaga Nation, Network for a Sustainable Tomorrow, Energy Justice Law and Policy Center, Green Education and Legal Fund, and Third Act Upstate New York, we respectfully submit these comments regarding the New York State Department of Public Service Staff's Zero-Emissions Credit Program Extension Proposal, which was published for public comment in the State Register on August 20, 2025. As we detail in our comments below, DPS Staff's proposal falls woefully short of demonstrating these reactors are a public benefit, that no other viable alternatives exist, or that these reactors are in need of such vast amounts of public money. It also fails to address the ongoing settler-colonial violence of the upstate reactors against the Haudenosaunee Nations. We call the Commission's attention to their comments, recently submitted to the State Energy Plan, regarding the health and mortality impacts of the upstate nuclear reactors on their Nation members.

We urge the Commission to consider our recommendations to:

- 1) Follow the Climate Action Council's Final Scoping plan recommendations to analyze more cost-effective and environmentally-friendly alternatives;
- 2) Review the role of storage, energy efficiency, demand response, electric rate design, and individual households as grid assets in decommissioning these aging reactors, and develop a comprehensive plan that incorporates energy-saving measures;
- 3) Consider pathways to discontinuing the program at its 2029 expiration date or phasing out the program on a planned schedule;
- 4) Build contract modification opportunities and frequent, periodic re-applications for subsidies into the ZEC 2.0 proposal to demonstrate financial need; and
- 5) Ensure the ZEC tier is competitive, and allow other technologies like long-duration storage to compete for incentives.

We also urge DPS to do everything in its power to ensure a rigorous, fair, transparent, and accountable process that invites the participation of bill-burdened, pollution-impacted, climate disaster impacted communities. As the State heard during the Cuomo administration's nuclear bailout in 2017, New Yorkers are not interested in paying on average, \$1.3 million per day in subsidies to Exelon Corporation to prop up four upstate nuclear plants. At the upper limit allowed to the nuclear operators, this could be pushed as high as \$4.5 million per day. Staff must prioritize the impact on our electricity bills, impacts to air, soil, and water quality, and compliance with our landmark climate law, the Climate Leadership and Community Protection Act ("CLCPA"). We cannot afford to expend such a vast amount of monetary resources on aging facilities that may soon be inoperable, while green jobs, healthier air, water, and soil, and an affordable, sustainable future are put on hold.

I. The process should be far more open and transparent, with higher standards for public participation

DPS Staff's proposal to extend the nuclear subsidies is a far-reaching policy proposal with impacts on every single ratepayer across the state. There are pollution impacts on the communities and Indigenous Nations that are forced to host these nuclear reactors on unceded territory. For such an impactful proposal, there has been little to no conversation with organizations, communities, and Nations about how this would impact lives, futures, and quality of life. There was little notice at all of a proceeding on the matter until the proposal was filed July 31, 2025. Perhaps most egregiously, there was no notice in the docket (which is standard practice) of an opportunity to comment.

Instead, the comment notice was buried in the State Register, published August 20th, 2025, offering a 60-day comment period, despite the fact that a 90-day comment period is the standard for issues as controversial as nuclear power. Thousands of people across the state commented during the writing of the State Energy Plan to warn of the problems inherent to nuclear power - this topic is important to people, and it's important that the state gets it right.

We urge DPS Staff to reconsider this deadline to allow for more commenters to read and understand their proposal, its implications, and to be able to make informed comments on the subject. We also hope that DPS Staff make every effort to invite impacted communities to the table to understand the proposal, speak with Staff, and ensure they have a connection with the agency running this process which will change the future of New York. At the very least, Staff must re-tool the process going forward such that notice of comment opportunities is given in the same docket as their proposal.

II. The Zero-Emissions Credits were originally proposed as a bridge subsidy; when will we get to the other side?

In 2016, DPS Staff asserted in their proposal to create the ZEC subsidies that they would not be eligible for compliance with the renewable energy goals of New York State:

“ZECs are not eligible to demonstrate compliance with the renewable energy mandate, but are rather, as discussed above, a bridge to the State’s renewable energy goals.”¹

Yet, in that proposal, and in Staff’s current proposal, there is no mention of a plan that ensures these expensive credits are phased out in favor of cheaper, cleaner, and more climate-resilient renewable energy. In this section, we will discuss the main reasons that the time has come to either discontinuing the program at its 2029 expiration date, or phase out the program on a planned schedule:

- The Tier 3 ZEC Program has been uneconomical, and this proposal will make Tier 3 even less economical
- The penalty/incentive structure of the ZECs creates a perverse incentive to continue operating reactors past the time when it is rational to retire them.

The Tier 3 ZEC Program Has Proven Uneconomical

According to annual reports NYISO has filed on this docket, ratepayers have paid over \$4 billion (\$4,063,211,000) for Zero-Emissions Credits from the inception of the program in April 2017, through 2024. In 2024, the program supported 27,073,000 MWh of nuclear generation from the eligible reactors, according to NYISO’s 2025 *Load & Capacity Data* report, about 2% less than the Tier 3 program target of 27,618,000 MWh/year. Due to adjustments made to the ZEC price in Tranche 4 to account for higher wholesale prices in prior years, the effective ZEC price was \$18.54/MW6h in 2024.

By contrast, Tiers 1 and 2 supported 34,451,700 MWh of renewable generation in 2024 (up from 33,398,000 in 2023). In total, the RPS program has cost \$337,444,805. By comparison, the RPS has cost approximately 8.3% of the total cost of Tier 3, while providing over 27% more electricity

in 2024. However, most of the cost of Tier 1 has consisted of Alternative Compliance Payments totaling \$200,180,000, for which Load-Serving Entities have charged their customers due to shortfalls in developing new renewable energy sources. When that is accounted for, Tier 1 and Tier 2 have cost ratepayers \$137,264,805 in total, or 3.37% of the cost of Tier 3.

Most of the generation under the RPS remains legacy hydropower generation in Tier 2, accounting for 27,935,800 in 2024, more than the total amount of nuclear generation. Yet Tier 2 RECs have cost only \$1,812,000, merely 0.04% of the cost of Tier 3. Other renewable sources under Tier 1 have cost \$135,452,000 through 2024, or 3.33% of Tier 3’s cost, while producing

¹ Case 15-E-0302, Staff White Paper on Clean Energy Standard (issued January 25, 2016). Page 31

6,515,900 MWh in 2024 (24.1% of Tier 3). Tier 1 RECs are supporting seven times more generation per dollar than Tier 3 is. Taken as a whole, including ACP charges for the RPS shortfalls, Tier 1 is still nearly three times as cost-effective as Tier 3.

Ramping up deployment of Tier 1 resources so that the cost to consumers supports new renewable generation instead of being absorbed by ACPs would achieve much higher levels of cost-effectiveness than Tier 3 possibly can. The PSC must therefore consider alternatives to DPS's Tier 3 extension proposal, including either discontinuing the program on its original termination date or phasing it out on an expedited basis while:

- (1) ramping up deployment of Tier 1 renewables to meet CLCPA's 2040 targets; or
- (2) allowing renewable resources to compete for Tier 3 credits.

Compared to every other form of generation, nuclear energy is the most expensive.² States like Georgia are seeing the result of this on ratepayers' bills, which have increased by 24% since the newly constructed Vogtle 3 and 4 reactors were completed and were added to Georgia Power's rate base.³

The DPS's proposal will make Tier 3 even less cost-effective by untethering the costs of the Tier 3 ZEC program from its alleged benefits.

The DPS's proposed revisions to the Tier 3 ZEC pricing scheme would impose ever-increasing costs on consumers, even as the alleged environmental benefits of the reactors decrease. Two features, in particular, are responsible: eliminating adjustments to the ZEC price based on reductions in the statewide emissions rate from electricity production; and continual escalation of the ZEC base price without regard to the cost-effectiveness of the program. The latter could be mitigated if not for the former, but together, they assure that Tier 3 will impose increasingly uneconomic and excessive costs on New Yorkers, while becoming more and more of an obstacle to the cost and effectiveness of future system planning.

In the PSC order instituting the CES, the prices of ZECs were based upon the social cost of carbon, a federal government estimate of the global economic cost of the climate impacts that incremental amounts of GHG emissions will cause. The PSC's pricing formula adjusts the SCC by converting its GHG-emissions cost (\$/short ton of CO₂eq emissions) to a unit cost of generation (in \$/MWh), by multiplying the Social Cost of Carbon (SCC) by the statewide average emissions rate for electricity generation (short tons of CO₂eq/MWh). The PSC recognized that the emissions rate of electricity generation in New York should decline as a result of the changing resource mix under the CES. The commission reasoned that, "*... as the system mix changes, it may be appropriate to reduce the marginal emissions rate in the event that a significant amount of incremental renewable resources are built,*" and it concluded that

² Lazard. (2025, June). Levelized Cost of Energy+, Version 18.0. [lazard.com](https://www.lazard.com/media/406044/lazard-levco-plus-june-2025.pdf).
<https://www.lazard.com/media/406044/lazard-levco-plus-june-2025.pdf>

³ Durand, P. (November 6, 2024). Ratepayers First: The Economic Case Against Nuclear's Data Center Dreams. *Power Mag*.
<https://www.powermag.com/blog/ratepayers-first-the-economic-case-against-nuclears-data-center-dreams/>

“when setting the marginal emissions rate the formula must be forward-looking regarding the possible change in the rate that increasing amounts of renewable energy might bring about.”

Therefore, the PSC ordered that the emissions rate factor used in pricing ZECs would be adjusted in Tranches 4 through 6 based on the statewide GHG emissions from electricity generation in the previous year.

Due to the yawning failure to meet the RPS targets under the CES and CLCPA, the emissions rate was not adjusted for Tranche 4, but this is a shortfall in implementing Tier 1 that can and must be remedied. It is not a reason to abandon a core rationale of the CES that is built into Tier 3. In effect, Constellation profits from shortfalls in meeting the RPS targets, while producing no additional environmental or economic benefits. The DPS does not provide a convincing rationale for discontinuing the emissions-rate adjustments to the ZEC price, apparently accepting that one electricity generation company in NY (Constellation) is entitled to ever-growing subsidies from NY ratepayers (eventually more than quadrupling what it could have earned from the current iteration of the CES), even as it produces a smaller and smaller minority of low-emissions generation. The fact that Constellation owns a monopoly on nuclear generation eligible under Tier 3 only makes this feature even more perverse for consumers and the ZEC program’s implications for energy planning.

Additionally, the continued reliance on the SCC as the base price for ZECs will make the cost of Tier 3 increasingly incongruous with the future benefits its aging reactors may provide, and is inconsistent with the state’s future system planning needs. Two of the four reactors in New York (Nine Mile Point 1 and Ginna) are already approaching 60 years of operation, making them the 2nd and 3rd oldest in the world. The operator of the only older reactor, Beznau 1 in Switzerland, plans to retire it in 2033.⁴ The implicit assumptions in DPS’s proposal are that (1) the world’s oldest reactors will continue operating indefinitely as long as New York State shovels more and more money at Constellation to do so; and (2) that no price is too great for New Yorkers to pay to satisfy that unquestioned objective.

In reality, the state can and must plan for the eventual retirement of these aging nuclear reactors. Recognizing that the proposed Tier 3 extension would end before the CLCPA’s 2050 emissions target and that Nine Mile Point 1 and Ginna would run out a possible 80-year limit on their operating licenses in 2049, the incremental alleged benefit of their continued operation versus their replacement is already declining. What is more, given the poor cost-effectiveness of Tier 3 relative to Tier 1 as detailed above, increasing the cost of ZECs will make the program even more of an irrational burden. Furthermore, FitzPatrick is not far behind Nine Mile Point 1 and Ginna on this trajectory, currently at 50 years old. Even as the eventual (though yet-unknown) retirement dates of these generation sources loom closer, ratepayers will be forced to pay more and more for them. Instead of enabling the unfettered growth of ZEC costs through an ill-considered application of the SCC, the PSC must consider alternatives, for instance:

⁴ “Beznau to operate beyond 60 years,” *World Nuclear News*, December 6, 2024, see <https://www.world-nuclear-news.org/articles/beznau-to-operate-beyond-60-year>, accessed October 16, 2025.

- i. Discontinuing the program at its 2029 expiration date;
- ii. Phasing out the program on a planned schedule;
- iii. Allowing renewable generation sources to compete for Tier 3, thereby reducing ZEC costs while preventing emissions increases when reactors retire; or
- iv. Discounting the ZEC price through a kind of amortization of reactors' emissions benefits and increasing the Tier 1 targets as nuclear reactors retire, thereby providing a pathway for incrementally replacing generation from aging reactors without increasing emissions.

In 2023, the legislature and Governor Hochul enacted the Save the Hudson Act, prohibiting discharges of radioactive waste from the now-retired Indian Point Nuclear Power Plant into the Hudson River, out of concern for the impacts of further radioactive pollution on the economy. The four New York reactors receiving Tier 3 subsidies have similar impacts on Lake Ontario, the drinking water source for 9 million people, but DPS fails to consider any of the environmental impacts of the continued operation of the reactors at FitzPatrick, Ginna, and Nine Mile Point, which could be significantly mitigated by their retirement. The reactors discharge radioactive pollution through gaseous and liquid effluents, which, according to annual Radioactive Effluent Release Reports submitted to the U.S. Nuclear Regulatory Commission, have totaled 4.5 million curies since 1970. Three of the four reactors utilize once-through cooling systems, which together withdraw up to 1.47 billion gallons of water per day from Lake Ontario, destroying untold amounts of aquatic organisms every year. They also discharge that water as thermal pollution back into the lake, reducing oxygen levels, inducing thermal shock conditions for fish, and contributing to conditions that foster large algal blooms. These impacts will continue unabated as long as the reactors continue to operate. In addition, as of the end of 2022, the Tier 3 reactors had already generated over 3,000 metric tons of irradiated fuel, all of which will remain stored near the Lake Ontario shoreline indefinitely. The waste contains approximately 625 million curies of cesium-137, more than 100 times the amount released in the Chernobyl nuclear disaster. If the reactors continue to operate out to 80 years through license extensions the DPS proposal is intended to promote, they will generate another 1,350 metric tons of irradiated fuel, for which there is still no long-term management solution. The reactors have also shipped over 900,000 curies of other radioactive wastes to landfills in primarily Black and Hispanic communities in other states, principally Barnwell, SC, and Andrews County, TX.

The Penalty/Incentive Structure for Continuing Reactors' Operations is Irrational and Inconsistent with the Tier 3 Program's Justification

The DPS proposes continuing a feature of Tier 3 which would not be justified in an extension of the program. Namely, the reductions in the capped volume of ZECs if reactors retire both creates a perverse incentive to continue operating reactors past the time when it is rational to retire them; and it could lead to a cascading sequence of retirements, counter to the program's justification. DPS proposes reducing the maximum amount of ZECs that can be sold by one-third if a reactor ceases operation before the program expires. That is more than the share of nuclear generation that three of the four eligible reactors provides:

- Ginna: 582 MW (17.4%) -- 55 years of operation

- Nine Mile Point 1: 621 MW (18.6%) -- 56 years of operation
- FitzPatrick: 838 MW (25%) -- 50 years of operation
- Nine Mile Point 2: 1,311 MW (39.1%) -- 39 years of operation

The oldest and smallest reactors will have the highest unit costs of operations (\$/MWh). Their maintenance costs can be expected to be proportionally greater, due to their greater age; and their fixed maintenance, fuel, staffing, and capital costs are distributed over a smaller amount of electricity sales. If Ginna or Nine Mile Point 1 were to retire, reducing the amount of nuclear generation by 17-19%, the “pool” of ZECs available to the remaining reactors would decrease by one-third (33.3%). If the other of those reactors retires, reducing nuclear generation by 36%, the available ZECs would decrease by two-thirds (66.7%).

If, in fact, the Tier 3 subsidies are necessary for the remaining reactors to continue operating, then Constellation may face a cascading series of retirement decisions for the younger, larger reactors as a result of the retirement of the older, smaller ones. Even if the PSC continues to subscribe to the core rationale for the Tier 3 program, this feature is inconsistent with it. That is, unless the PSC were to adopt one of the above proposals that provides a cost-effective means of replacing retiring reactors with renewable generation.

III. The Upstate Nuclear Reactors have serious flaws and negative impacts which have never been addressed.

We ask that the Commission consider the following comments from the Onondaga Nation, the Tuscarora Nation, the Tonawanda Seneca Nation, and the Haudenosaunee Environmental Task Force, stating their opposition to legacy nuclear power in New York State, as recently communicated in public comments on the draft State Energy Plan.

Onondaga Nation

As will be reflected below and is in the Red Paper, the Onondaga Nation is fundamentally opposed to the past and continued reliance on the aging nuclear reactors.

Despite the history that one of the reactors in Oswego is the oldest reactor in operation in the country and has been in operation for over 50 years, there is no responsible plan in place to properly or responsibly store, handle or remediate the ever increasing volume and number of spent fuel rods. While the Draft Plan does admit this problem, there is no solution mentioned. That is because neither the state nor the nuclear industry has any viable or responsible plan for these wastes which will remain highly radioactive and dangerous for tens of thousands of years.

The Plan does acknowledge that “nearly all spent nuclear fuel . . . is managed on site at the generation facility.” At the three Oswego reactors, this means that the spent fuel rods continue to be initially stored in concrete vaults in which water must be continuously circulated to provide sufficient cooling to prevent a nuclear explosion. As the number of spent fuel rods has accumulated over the years, an ever increasing number are being stored in these vaults, which has increased their density and lowered the cooling potential of the circulating water.

After prolonged storage in the vaults, spent fuel rods are moved into steel-lined concrete casks on the reactor sites. The Draft Plan admits that all plans for spent fuel rods are temporary, because “there are no available permanent disposal sites in the United States.” The Draft Plan also admits that “as dry casks approach their maximum licensing period the risks of their failure increases.”

The Draft Plan’s admissions about the absence of any responsible plan for disposal of nuclear wastes continues: “Waste remains on-site at more than one hundred reactor sites across the nation, including the four active New York State facilities, the Indian Point decommissioning site, and the Western New York Nuclear Service Center [West Valley], with no pathway for ultimate disposal.”

The Draft Plan is all too clear that one of its central strategies is to “ensure the continued operation of the existing nuclear fleet.” This will mean that Nine Mile Point 1 would be in operation for 80 years, which is twice its original projected safe life span, and that every ratepayer in the state will be taxed every month for decades to come, to hand an estimated \$40 billion to Constellation because reactors are the most expensive method of producing electricity.

These aging reactors are too expensive to operate and continued reliance on them will make electricity far too expensive in the state. The Draft Plan does acknowledge that continued operation of the aging reactors would require continued rate payer bail outs. The plan calls for “evaluation of extension of the Zero Emissions Credit Program.” This fundamental strategic mistake is followed by a meaningless caveat and admission, by stating that “any extension should be done with ratepayer protection in mind.”

The only acceptable “ratepayer protection” would be to terminate this program that takes money out of every rate payer’s pocket every month to subsidize the Constellation corporation. This is not fair and certainly does not fit within the state’s mantra of “affordability”. The continued rate payer subsidies are only necessary because reactors are the most expensive method of electrical production.

This rate payer funded bailout has never been approved by either the voters whose money is being taken or by the legislature.

These multiple billions of dollars should be directed into increased construction of renewable energy generation, such as solar and wind and into the necessary storage systems to ensure continuous availability of electricity.

As noted above, the “Western New York Nuclear Service Center” [West Valley] serves as a stark reminder of two fundamental concerns of the Onondaga Nation and the Haudenosaunee Environmental Task Force: (1) No long term plans exist for the safe and reliable handling of the ever increased number of highly radioactive spent fuel rods; and (2) the environmental unjust impact of the nuclear industry on Indigenous peoples—in this case, the citizens of the Seneca Nation.

Your attention is called to pages 21 to 27 of the Red Paper, and particularly to the comments of a Seneca Nation woman quoted on page 27. She documented that:

We have lost many to rare autoimmune diseases, cancers, etc.. Some live with the impacts now. . . . Especially people from Bucktown have expressed that cancer is in almost every home for 3 to 4 miles. Either someone is sick from cancers, etc., or someone recently passed.

[Dangers which we face include]: gastrointestinal diseases from eating fish, deer, etc.; use of contaminated plants; lung diseases; high rates of childhood asthma; many hysterectomies and reproductive issues; and children have developmental issues.

We, our parents, grandparents, and even my great grandmother had direct contact. My great grandmother died of colon cancer in 1980. The list of my family members who are deceased goes on and on, probably from direct and compounded impacts of the West Valley site.

We must face the reality that human health will be horribly negatively impacted by the continued and renewed reliance on reactors and the uranium industry. Continuing to produce highly radioactive wastes without any responsible plan for its safe storage and disposal is not responsible planning or governance.

The irresponsibility of continued operation of nuclear reactors without any responsible or realistic method of safely handling the wastes in the form of spent fuel rods is simply not acceptable. The Nation and its leaders are mandated to evaluate the impacts of all decisions and action on the seven generations yet to come. This continued stock piling of spent fuel rods does just the opposite. Rather than responsibly cleaning up these wastes and messes, they are being dumped on our children and grandchildren. Kicking the can (or in this case the spent fuel rods) down the road is not good leadership.

The Nation strongly urges the state to abandon this plan to continue down a failed path, which is too expensive, too dangerous and not green. All of the billions of dollars which this plan proposes to hand over to corporations and the nuclear industry would be far better utilized to double down on renewable sources of energy production, which are cheaper, safer and which can be brought on-line much quicker.

The Nation hopes that the Red Paper will assist the state in understanding the Nation's opposition and the harms of the nuclear industry on Indigenous peoples and Nations.

Tuscarora Nation

The Tuscarora Nation would like to see New York State harness the energy development from Mother Earth that does not include burning of fossil fuels or utilizing hazardous nuclear facilities that cause more long-term harm than good.

Currently there are no permanent storage facilities in New York (or the world) for the radioactive byproducts of nuclear energy, only facilities that act as temporary solutions. Combining this with the hazardous transportation of their spent fuel rods, the afterlife of nuclear power is too much of a risk for a "healthy environment" which the Plan states as one of the priorities in the proposed 2040 Energy Plan. It will be future generations of the Haudeonsaunee people that will carry the burden of the impacts from the hazardous nuclear waste left onsite of the developed nuclear facilities in their homelands. The Tuscarora Nation does not want their grandchildren to carry this burden.

The Nation agrees everyone has to do their part to help reduce greenhouse gases, but the real need is that NYSDEC and USEPA should not be allowing industry to pollute without consequences and taking more than what they actually need. Meaning, industry should not be considered when developing a plan that involves the continued existence of people's lives to live in peace and harmony with Mother Earth. We all need clean air, clean water and clean lands to continue to exist as humans.

Tonawanda Seneca Nation

The plan must explicitly reject the expansion of nuclear energy, which has historically and in the present caused disproportionate harm to Haudenosaunee and other Indigenous Nations.

Haudenosaunee Environmental Task Force

The Haudenosaunee people have learned to examine the entire life-cycle of energy systems, and this analysis of uranium mining, milling, transportation and emissions from reactors has proven that electricity produced from renewable sources, such as solar and wind, reduces carbon emissions much faster and more efficiently, with a lower monetary cost than nuclear power. When all factors involved in the full nuclear life-cycle are properly considered, nuclear reactors are actually no better to address climate chaos than burning fossil fuels to produce electricity.

This reality alone should teach us not to keep blundering down this road of corporate dishonesty and self-serving greed. However, we also must remind everyone that reactors are extremely dangerous- they are controlled nuclear chain-reactions- and it is disappointing that the lessons of Chernobyl, Three Mile Island, and Fukushima are being ignored.

New York State's plans to continue subsidizing the four aging nukes at the shore of Lake Ontario clearly demonstrates that they are the most expensive way to produce electricity. These billions of dollars which are extracted from every electrical rate payer, be handed over to the corporation that owns and runs the four reactors, should be directed to build out wind and solar production. Reactors have to be subsidized because they are the most expensive method of electrical production, and the owners of the reactors do not want to take on that cost.

Nuclear reactors continuously generate highly radioactive and extremely hazardous wastes, primarily in the ever-accumulating spent fuel rods, which will remain radioactive for 10s of 1000s of years. New York State has no plans for responsibly handling or safely storing these fuel rods or other nuclear wastes. Seventy years ago, governments and corporations promised that proper disposal of these wastes and management of their risks would be developed. That has not happened and these fuel rods continue to pile up on the shores of Lake Ontario. Additionally, the Cattaraugus Seneca Nation Reservation, and the Seneca people who live there, are being poisoned by the failed West Valley site, which had been promised to "process" the spent fuel rods. It never did, and radioactive wastes continue to pollute the ground and Cattaraugus Creek, as it flows into the reservation.

The oldest reactor, Nine Mile One in Oswego, is now projected to be in operation for 80 years- which is twice its projected period for safe operation. Further, continued operation will continue to generate more spent fuel rods.

In order to keep these four aging reactors operating, their costs must be met, because they are the most expensive method of energy production. So, the state has also recently proposed extending the inequitable propping up of these reactors by the rate payers, in a plan to take money every month from every

electrical customer and hand it over to Constellation. The projected cost for this undemocratic and inequitable bail out is \$40 billion over the long haul.

From the decades of reckless mining of uranium on the Navajo Nation and many other Indigenous Nations, to the pilings after the milling, to the planned storage of nuclear wastes on Indian country, this industry has and will continue to have horrible impacts on Indigenous Nations, their people, their lands and waters. This injustice must be understood and acknowledged. These harms must be addressed and healed and not made even worse. The state's current ill-advised plans will inevitably only make these damages greater.

Currently, high- and low-level radioactive wastes are being trucked across the Onondaga and Seneca Nations' reservations. The Nations have been clear that this is not acceptable and it is strongly opposed. Yet again, the voices of Indigenous Peoples and Nations are being ignored.

All four of the aging reactors in New York are located on Haudenosaunee homelands, on the shores of Lake Ontario- three are near Oswego, on Onondaga territory, and the fourth is near Rochester, on Seneca territory. The Nations were never consulted about this use of their lands and water.

As Indigenous Peoples, the Haudenosaunee are deeply concerned about nuclear energy. Based on their culture and traditional teachings of protecting the rights of the natural world for the future generations, the Haudenosaunee cannot support nuclear energy. This will degrade and destroy all the elements of creation in the Thanksgiving Address. The Haudenosaunee have a fundamental right and responsibility to participate in policy and decision-making processes affecting any aspect of the environmental impacts on our territory. As treaties state, they have free use and enjoyment of their lands. The Haudenosaunee can live side by side in the river of life as their forefathers agreed, and in the spirit of the two row treaty, can meet together to polish the silver covenant chain.

IV. There are better, more practical strategies for dealing with new, speculative loads that will increase energy consumption.

New York should be pursuing a 100% renewable energy powered grid, backed by storage. Research has found that this is the most cost effective and efficient way to power a grid.⁵ Various methods of energy storage can be used to address the intermittency of renewables cost

⁵ Budischak, C., Sewell, D., Thomson, H., Mach, L., Veron, D. E., & Kempton, W. (2013). Cost-minimized combinations of wind power, solar power and electrochemical storage, powering the grid up to 99.9% of the time. *Journal of Power Sources*, 225, 60–74. <https://doi.org/10.1016/j.jpowsour.2012.09.054>

effectively.⁶ Potential storage methods include many types of batteries such as lead-acid, lithium-ion, zinc-air, iron-air, sodium-ion, and flow batteries. Iron-air batteries are capable of storing energy at less than 1/10th the cost of lithium-ion batteries, and can deliver 100+ hour duration⁷ to make the grid reliable year-round. There are also many types of storage beyond batteries, which include capacitor banks, pumped hydro storage, compressed air storage, thermal storage, ice storage, hydrogen fuel cells, cryogenic storage (also known as liquid air or liquid nitrogen storage), gravity storage, flywheel storage, and magnetic storage. While each of these technologies have different advantages and disadvantages, using a variety of storage methods will address issues such as the limited rare earth metals needed for battery storage.

In addition to storage, energy efficiency measures, efficient technologies such as heat pumps and heat pump water heaters, and demand response policies will further ensure a reliable grid. Time-of-use rates and smart devices which incentivize people to use energy during off-peak hours will help shave peak energy loads. These are the cheapest, most environmentally friendly, and most resource efficient methods of meeting new power needs, and powering our grid through a mix of renewables, energy efficiency, and storage should not be dismissed as a path forward. This option deserves analysis to determine the cost and feasibility of achieving an optimized mix of renewables, efficiency, and storage to meet demand.

The DPS proposal contains no information about how the public can avoid paying for the full extent of the next 20 years; it assumes that ratepayers will be locked into a monopolistic contract with Constellation for two whole decades. We urge the Commission to consider how ratepayers can avoid an expensive ZEC 2.0 through aggressive pursuit of energy efficiency measures that lower individual household energy bills, demand response, and creative rate design to flatten peak energy needs. This could even lead to the decommissioning of these aging plants before their operating licenses run out, and would have a direct impact on household bills and a family's ability to afford their energy.

A new report from Rewiring America clarified this concept and urges policy makers and agency leaders to begin thinking differently about how individual households can contribute to the energy grid.

“Households have historically been seen as passive energy consumers, subject to rising prices. This is an outdated view. The world is moving toward a future where every household can be its own power plant or smart grid asset, generating clean electricity from rooftop solar and storing it to shift the loads from electric appliances and meet the needs of the grid... Far from being passive consumers, households are now essential energy infrastructure that can be leveraged to solve our energy challenges.”⁸

⁶ Kumar, U. (2025, June 20). What is the cheapest way to store solar energy?. [arka360.com. https://arka360.com/ros/cheapest-way-to-store-solar-energy#:~:text=Lead-Acid%20Batteries:%20Lead-.compared%20to%20lithium-ion%20batteries](https://arka360.com/ros/cheapest-way-to-store-solar-energy#:~:text=Lead-Acid%20Batteries:%20Lead-.compared%20to%20lithium-ion%20batteries).

⁷ Form Energy. (2025, January 21). Battery Technology. Multi-day storage: the pathway to a reliable, clean and secure grid. FormEnergy.com. <https://formenergy.com/technology/battery-technology/>

⁸ Wyent, C., Verma, M., and Kanj, W. (2025). *Homegrown energy: How household upgrades can meet 100 percent of data center demand growth*. Rewiring America.

The report then goes on to make two specific recommendations that could create capacity on the grid:

1. Require large power consumers, such as data centers and cryptocurrency miners, to meet one third of their projected capacity needs by paying for heat pumps in households with inefficient electric heating, cooling, and water heating. This will create capacity on the grid from a subset of households.
2. Pay for battery storage and rooftop solar for homes well suited for it. Immediate investments will create new generation capacity on the grid.

However, Staff's proposal, and the status quo, to keep ratepayers on the hook for these subsidies is an untenable and unsustainable method for ensuring our state has enough generation to meet our needs. There is an extremely high opportunity cost in pursuing a ZEC 2.0 program, and we miss opportunities to build a more flexible, distributed grid. A 2020 study of 123 countries over 25 years reveals that not only do countries pursuing nuclear programs fail to reach appreciable carbon reductions, but they also drain funds that could have been put towards building out renewable alternatives. This is due to the fact that nuclear energy and renewable generation are fundamentally incompatible. Each strategy requires specific engineering designs that lock the system into one pathway and crowds out the other; transmission and distribution systems in which a grid structure is optimized for large scale centralized power production such as baseload nuclear, will make it more challenging, time-consuming and costly to introduce small-scale, distributed renewable power. Grid modeling shows that nuclear is not in fact a good complement for renewable resources. Pairing nuclear generation with renewables pushes up the Levelized Cost of Energy (LCOE) for renewable sources, which, if built as flexible sources to meet variable demand, reduces their utilization and thus increases their cost per kwh.

V. DPS Staff has not followed the recommendations of the Climate Action Council's Final Scoping Plan

While DPS staff has noted in their proposal that companies must demonstrate need, they have still gone to great trouble to develop a whole proposal before companies have done so. The nuclear plant operators have not yet publicly stated a financial need, and to the undersigned commenters, it would appear that the proposal in question is simply a result of inertia. We should not continue to subsidize the upstate nuclear reactors simply because we have been doing so in the past.

In fact, the Climate Action Council's Final Scoping Plan explicitly notes that the ZEC program should be evaluated to understand whether the nuclear reactors could be phased out in favor of more cost-effective and environmentally friendly alternatives.

“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 requirements, as well as cost, health, safety, community impact, and environmental concerns of nuclear power generation.”⁹

This analysis has not been done, nor has any plan ever been established to complete such an analysis in compliance with the Final Scoping Plan. Staff’s proposal to extend an expensive ZEC program, without an analysis of alternatives, is an incomplete one, and they should be required to offer a more careful examination of the upstate nuclear reactor’s ability to meet the moment we are in and the needs of our changing grid.

VI. Staff’s proposal contains no guardrails to protect ratepayers from a long contract with essentially a regulated monopoly

The only protection for ratepayers in Staff’s proposal against an endless supply of ZECs for the upstate nuclear operators is an acknowledgement that ZEC 2.0 should 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 in a manner that adequately replicates the economics of the program...” For such a significant monetary benefit to the facility owners, there should be far more requirements and opportunities for reassessment of eligibility and need from the upstate operators. Facility owners should have to prove every 3-5 years that they still need the incentives, and staff’s proposal should have outlined a public, transparent process for the facility owners to comply with.

This proposal would lock ratepayers into a ZEC program for twenty years; standard consumer protection guidelines usually prevent corporations from being able to lock in consumers for such a long period; why is the ZEC program any different? A process to re-evaluate the ZEC program every 3-5 years should also outline what it looks like to end the subsidy program, should the process reveal the ZECs to be a) no longer needed, b) unduly burdensome to ratepayers, c) incompatible with the changing mix of renewable generation and storage being added to the grid, and d) not cost-competitive with other renewables and storage that are greening the grid.

⁹ New York State Climate Action Council. 2022. “New York State Climate Action Council Scoping Plan.” Page 254 climate.ny.gov/ScopingPlanpg.

VII. Ratepayers should not be responsible for the bottomline of a single company. Facility owners should have to demonstrate that they are cost-competitive with other zero-emissions resources and compete to win these subsidies

Under Staff's current proposal, all of the ZEC subsidies will go to just one company, which does not encourage competition or cost- or resource-efficiency on the part of the facility owners. Yet in the past, competition has been the hallmark of how the Commission has approached subsidies in Tiers 1 and 2. For example, in order for renewable developers to receive subsidies from Tier 1 for their projects, they must respond to periodic solicitations, issued by NYSERDA. NYSERDA then reviews and awards contracts based on this competitive, bid-procurement process. Tier 2 was created as an explicit "*Competitive* [emphasis added] Tier 2 program designed to support non-state-owned wind and run-of-river hydroelectric generating facilities".

In fact, when the Commission received petitions from renewable energy developers seeking to amend contracts with NYSERDA for the purchase of RECs/ORECs due to unanticipated supply chain challenges, inflation, and rising interest rates, the Commission denied their petition on the grounds that competition is "a cornerstone of Commission policy for controlling the costs associated with supporting renewable generation"¹⁰ and that a competitive solicitation process, as opposed to administrative determination, remains the best mechanism to balance just and reasonable rates as well as meeting the renewable energy goals of the CLCPA."

In the case of the regulated, investor-owned, gas and electric utilities, rate cases are required for these monopolies to request rate increases, returns on equity, raises for staff, and increasing program and capital expenditure budgets for distribution wires and pipes. This process allows ratepayers an opportunity to conduct discovery, submit expert testimony, and cross-examine companies requesting their money. It is also a required and necessary process for the monopolistic utilities, who would otherwise have no accountability or transparency with the public.

If Staff and the Commission plan to hand out huge subsidies with no requirements for competition with other cost-competitive entities, then it must be acknowledged that nuclear plants require a higher level of oversight and regulation in order to protect the public. The upstate nuclear operators should have to submit to a rate case in order to give the public an opportunity to intervene, examine monetary requests for support, and submit and negotiate their own proposals for consideration.

Otherwise, there should be a competitive solicitation for the subsidies based on resource-need (generation, storage, energy efficiency) and the attributes (dispatchable and reliable), and

¹⁰ Case 15-E-0302, Order Denying Petitions Seeking to Amend Contracts with Renewable Energy Projects (issued October 12, 2023) (October 2023 Order).

eligibility for ZEC credits should be extended to energy efficiency, renewables, demand response, and storage resources, as well.

Storage facilities have desirable qualities that are unique to a grid with ever-increasing amounts of renewable energy, and ensures that we are not wasting the production from renewable resources where there is excess generation. It is exceedingly uneconomical to operate nuclear reactors in a ramping or load-following mode.¹¹ Also, they cannot change their output quickly and regularly operating them in a variable mode can cause fuel performance and maintenance problems. In a scenario where there is not enough storage to absorb excess electricity, renewables are often curtailed instead, impacting the cost and performance of the RPS.

Due to the rapidly declining costs of battery storage systems, they may already be more cost-effective in balancing the grid than subsidizing nuclear energy. Lazard's 2025 *Levelized Cost of Energy* report shows that unsubsidized utility-scale Solar PV + Storage (\$50-\$131/MWh) and Wind + Storage—Onshore (\$44-\$123/MWh) are both less expensive than new nuclear reactors (\$141-\$220/MWh)¹²; and at the lower-ends of their LCOE ranges, their costs are less than that of ZEC-subsidized nuclear generation in DPS's proposal, which ranges from \$69.27/MWh in Tranche 7 (2029) to \$115.75/MWh in Tranche 17 (2048-2049).¹³ Based on the long-term trends of cost reductions in solar, wind, and battery storage, it appears likely that they will compare even more favorably with the cost of Tier 3 by the time DPS's proposed extension would go into effect.

¹¹ Zhang, Zhibo, and Jin Jiang. "On load-following operations of small modular reactors." *Progress in Nuclear Energy*, Volume 173, 2024.

<https://doi.org/10.1016/j.pnucene.2024.105274>

<https://www.sciencedirect.com/science/article/pii/S0149197024002245>

¹² Lazard. "LCOE+: Levelized Cost of Energy." June 2025.

<https://www.lazard.com/media/uounhon4/lazards-lcoeplus-june-2025.pdf>

¹³ See "Department of Public Service Staff Zero Emissions Credit Extension Proposal" at p. 30.