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July 22, 2016

VIA ELECTRONIC MAIL

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223

RE: Case 15-E-0302- In the Matter of the Implementation of a Large-Scale Renewable Program and a Clean Energy Standard

Re: Case 16-E-0270: Petition of Constellation Energy Nuclear Group, LLC; R.E. Ginna Nuclear Power Plant, LLC; and Nine Mile Point Nuclear Station, LLC to Initiate a Proceeding to Establish the Facility Costs for the R.E. Ginna and Nine Mile Point Nuclear Power Plants

Dear Secretary Burgess:

In accordance with the July 15, 2016 "Notice Extending Comment Deadline" in the above referenced proceedings, Alliance for a Green Economy, Council on Intelligent Energy & Conservation Policy, Nuclear

Information and Resource Service, and Sierra Club-Atlantic Chapter hereby submit the following comments.

Respectfully submitted,

/s/

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Alliance for a Green Economy

/s/

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/s/

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NEW YORK STATE
PUBLIC SERVICE COMMISSION

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COMMENTS IN THE ABOVE REFERENCED PROCEEDINGS FOR ALLIANCE FOR A GREEN ECONOMY, COUNCIL ON INTELLIGENT ENERGY & CONSERVATION POLICY, NUCLEAR INFORMATION AND RESOURCE SERVICE, AND SIERRA CLUB-ATLANTIC CHAPTER.

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Dated: July 22, 2016

On July 8, 2016, Department of Public Service Staff (“DPS” or “Staff”) submitted what it called a “Responsive Proposal” for subsidizing upstate nuclear reactors in New York.¹ The proposal introduces several new concepts, new utility obligations, and new costs into this case.

After claiming the nuclear tier would cost only \$270 million over 12 years,² the new “responsive proposal” outlined a plan that will cost nearly \$1 billion in just the first two years, with costs escalating

¹ Department of Public Service "Staff's Responsive Proposal for Preserving Zero-Emissions Attributes" July 8, 2016. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={BBFA4008-FD27-4209-B8E1-AD037578101E}>

to total approximately \$7.6 billion. The program will likely cost more than \$10 billion if Indian Point gets included.³

If Indian Point is excluded, the entirety of this uncompetitive subsidy would go to Exelon Corporation – the owner of three Upstate nuclear reactors and prospective owner of the fourth – in what is likely the largest gift of public funds to a single corporation in New York’s history. Under this plan, no other company or resource would be allowed to compete for these subsidies, even if they can offer comparative emissions reductions for lower costs and without the dangers and environmental harm caused by nuclear plants.⁴

Staff’s “responsive proposal” also outlines a new designation of “public necessity” with multiple vague criteria that the Commission is urged to use to make an immediate determination that all of the upstate nuclear reactors become eligible for long-term out-of-market contract through 2029. Thus, in the same step, Staff is proposing a new eligibility determination, proposing vague criteria for eligibility, and proposing that several reactors be determined eligible with no additional vetting process. Nowhere in the proposal does Staff detail for each reactor, why it recommends the Commission should provide this “public necessity” designation. In addition, despite one of the proposed eligibility criteria requiring an assessment of "the costs and benefits of such a subsidy for zero-emissions attributes for the facility in relation to other clean energy alternatives for the benefit of the electric system, its customers and the environment," no such analysis has been produced or even implied to support the staff's recommendation that certain nuclear facilities receive the 12-year indication of public necessity.

The public has been given only 14 days to comment, while the Governor appears – according to news reports – to be engaged in closed-door negotiations with nuclear companies predicated on the approval of these subsidies.⁵

We have also been provided the opportunity to respond to a petition filed by Exelon/Constellation entities urging the Commission to determine its operating costs and formula for setting Zero Emissions Credits prices simultaneously to the Commission considering Staff’s original white paper in this case.⁶ As multiple parties – including AGREE and NIRS – have pointed out in response to that petition, it was premature, given the absence of a policy to subsidize nuclear power plants or a process established by

² Department of Public Service. "Clean Energy Standard White Paper – Cost Study." April 8, 2016 Page 282. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={7B564AD9-E6E9-4FA9-93B6-1AA85B1719E2}>

³ See the appendix for this calculation.

⁴ In our previous comments, we have described the environmental, safety, and health impacts of nuclear power in great detail, including in our comments on the Cost Study, in which we discussed the monetary cost of these on the public.

⁵ According to an article from Fox 28. “The governor says his administration is working closely with both companies to help close the deal.”

Reference: "Exelon In Talks To Buy FitzPatrick Plant" July 13, 2016. Last accessed July 21, 2016 at <http://www.wnyvtv.com/news/local/Exelon-Reportedly-In-Talks-To-Buy-FitPatrick-Plant-386602751.html>

⁶ Public Service Commission proceeding #16-E-0270

the Commission for determining the cost of proposed Zero Emissions Credits.⁷ We believe Staff's "responsive proposal" proves those concerns correct, as it proposes a price-setting mechanism irrespective of plant operating costs. We therefore urge the Commission to dismiss Exelon/Constellation's petition or hold it in abeyance pending a final outcomes in the main Clean Energy Standard case.

This case is supposed to be about supporting large scale renewable energy,⁸ but has, over time, become more about subsidizing dirty and dangerous nuclear power plants that cannot turn a profit for their owners in New York's competitive market.

Staff's "responsive proposal" would ensure that – through a combination of market revenues and subsidies – nuclear owners receive \$56.48 per megawatt hour for their power during the first two-year period. Over time, this all-in cost of upstate nuclear energy would grow to \$68.15 per megawatt hour.⁹

When compared with alternatives, this is an exorbitant price to pay for climate mitigation:

- Energy efficiency costs \$35-40/MWh in the Northeast¹⁰
- Wind in the Northeast can be bought for as low as \$44/MWh (unsubsidized)¹¹

It is a consumer rip-off to force New York's consumers to buy nuclear power at such costly rates when real clean energy options are available for lower cost, and those costs are falling. Given the environmental, health, and public safety threats imposed by nuclear reactors are considered, staff's "responsive proposal" is even more one-sided.

Though Staff claims that rising market rates over time may reduce the subsidies during the program period, this will be little consolation to consumers because they will still end up paying the escalating \$56.48 -- \$68.15 per megawatt hour price for nuclear energy no matter what market rates do. Any reduction in subsidies would be made up for by rising market rates paid by consumers to the nuclear owner. All told, consumers would spend more than \$20 billion on nuclear power provided by the upstate nuclear plants over the next 12 years.¹²

⁷ Letter discussing process issues with Case #16-E-0270.

<http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={F2139523-FF48-4FEE-BF3D-09ABFFBE64F3}>

⁸ This case began as a proceeding to examine a strategy to support large-scale renewable energy in New York and was later expanded to consider a "Clean Energy Standard." The Department of Public Service website still lists this case on its home page as "New Large-Scale Renewable Program Proposed," making it difficult for the public to find and comment on the nuclear subsidy proposal. www.dps.ny.gov. Last accessed July 21, 2016

⁹ We calculated these figures using the chart of the last page of Staff's "responsive proposal." It represents the sum of the \$39 base rate plus the column labeled "x 0.53846 (short ton to MWh) for each tranche.

¹⁰ Billingsley, Megan A., et al. "The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs." Lawrence Berkeley National Laboratory. March 2014.

<https://emp.lbl.gov/sites/all/files/lbnl-6595e.pdf>

¹¹ Lazard. "Lazard's Levelized Cost of Energy Analysis - Version 9.0" November 2015. Page 9.

<https://www.lazard.com/media/2390/lazards-levelized-cost-of-energy-analysis-90.pdf>

¹² We calculated this number by taking the all-in cost of the nuclear plants (market rate of \$39, plus the unadjusted subsidy for each tranche) and multiplying it by the number of megawatt hours produced by the nuclear plants.

The Staff has refused to even consider alternatives to this nuclear spending. Because they followed orders from the Governor,¹³ they had their eyes on one specific outcome – save the upstate nuclear plants. A fairer, less arbitrary process would have been to develop a framework under which various technologies and companies could compete to meet New York’s greenhouse gas emissions goals.

Nowhere else in New York’s energy policy can we find such blatant corporate favoritism for one technology or one company.

The uncompetitive nature of the nuclear subsidies proposed flies in the face of the rest of the Clean Energy Standard proposal, under which renewable energy providers will have to compete for either power purchase agreements or renewable energy credits (or both). It contradicts the entire framework of the Reforming the Energy Vision, under which utilities are asked to provide competitive opportunities to find the most efficient and affordable ways to avoid large consumer investments in big infrastructure and centralized power plants. And it distorts New York’s long-standing competitive wholesale marketplace at a moment that it is finally bringing down costs for consumers.

From the Generic Environmental Impact Statement to the Staff White Paper to the Cost Study, no information has been provided to allow the public to compare various possible solutions to the issues raised by nuclear closures. As a result, no one has been able to systematically compare costs and benefits across different options for meeting the state’s 2030 40% greenhouse gas emissions reduction goal, job creation, or economic/societal benefits claimed by the nuclear industry.

Additionally, no analysis was ever provided to show whether the state can or cannot meet the 2030 goal without some or all of the nuclear reactors that are being proposed for subsidies. This is a key weakness in how the nuclear tier has been approached from the very beginning. However, various parties to this case have provided constructive critique and analysis pointing to the viability of alternatives to the nuclear tier. In our comments and reply comments, AGREE and NIRS provided analysis of alternative renewable energy and energy efficiency scenarios that would enable the state to meet or exceed its renewable energy and greenhouse gas emission goals. And the Clean Energy Organizations Collaborative submitted a detailed technical study of an energy efficiency standard, which found that demand reductions exceeding Staff’s projections could be achieved in greater amounts than the nuclear generation proposed to be "preserved" through the nuclear tier, and at far lower costs. The Synapse study¹⁴ reports thus:

In both the Reference and Higher Targets efficiency scenarios, the increase in energy efficiency and renewable energy reduces in-state fossil fuel-based generation substantially, and **replaces the load served by retiring nuclear facilities**. (See Figure 8 and Table 3 below.) Despite low natural gas prices, the aggressive renewable energy targets drive adoption of wind and solar resources. This reduces total system emissions 34 percent from 2015 levels by 2030 under the Reference scenario, and 37.5 percent under the Higher Targets scenario.

¹³ See Legal Memorandum by Richard Brodsky, Esq. filed on July 8, 2016. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={5186E8B1-FF58-474D-9C63-A7369B71AB31}>

¹⁴ Synapse Energy Economics "Aiming Higher: Realizing the Full Potential of Cost-Effective Energy Efficiency in New York" April 22, 2016

One of the most substantial impacts of the Higher Targets assumptions is the cost savings. Over the 2016 to 2030 time period, the Higher Target scenario saves \$3 billion relative to the Reference scenario.

Synapse further notes that its projected cost of energy efficiency is, conservatively, \$40/MWh. That projected cost is based on data from Staff's Energy Efficiency Portfolio Standard Electricity Performance Standard website, resulting in a statewide average cost of \$34/MWh, which Synapse rounded up to \$40/MWh to account for potential cost increases with more aggressive efficiency targets. Synapse's projected cost of efficiency is roughly equal to the market revenue price of \$39/MWh upon which the new nuclear subsidy rates will be added to consumers' bills. This implies that energy efficiency could provide the same purported emissions benefit as the nuclear tier, but at far lower direct costs and net costs to consumers. At \$40/MWh, energy efficiency would entail a direct cost to consumers \$16.48-\$28.15/MWh less than the nuclear subsidies, at a total direct cost of under \$500 million by 2030. The net cost benefit to consumers would be far greater, as energy efficiency reduces total electricity consumption and avoids transmission and delivery costs. For the DPS to propose adoption of a \$7.6 billion nuclear subsidy without considering alternatives is not only arbitrary and capricious, but recklessly negligent.

To remedy this deficiency, we offer an alternative approach for addressing the impending closure of uneconomical nuclear reactors in New York. Our "Responsible Proposal" is designed to meet the same policy goals as the proposed nuclear tier, but to do so in a way that protects consumers from unnecessary costs and minimizes the number and duration of support subsidies for nuclear reactors.

RESPONSIBLE PROPOSAL GENERAL FRAMEWORK

The potential for reactor closures should be addressed proactively, so as to prevent hasty and uneconomical investments, and to ensure consistency with the state's long-term goals for decarbonization, affordability, and economic development through the growth of energy efficiency and renewables.

The following concerns have been identified in relation to potential reactor closures:

- Electricity System Reliability
- Greenhouse Gas Emissions
- Impact on workers and communities

Staff's response to these concerns has been to propose that New York consumers should spend approximately \$7.6 billion through 2029 to avoid having to deal with the challenges of reactor closures. We note that Staff's proposal merely reduces the likelihood of some reactor closures, but it does not and cannot eliminate them: at least four reactors in New York, including two of the four upstate reactors, will be closed before 2030 due to expirations of federal nuclear operating licenses. Additionally, unexpected equipment failures and/or maintenance needs may arise that prove technically or financially infeasible to address. There is also the possibility of a catastrophic nuclear accident at one of these facilities, or at another facility in the U.S. or abroad that triggers industry-wide shutdowns (as happened in Japan after the Fukushima nuclear disaster when public opinion turned squarely against continued nuclear generation. As of writing, no reactor in Japan is operating.)

Our proposal provides another way, one that is more economical, ensures compliance with state climate goals, reduces risk, protects the environment, and mitigates impacts on communities and workers.

RESPONSIBLE PROPOSAL BASIC PROCESS

Nuclear reactors should not receive any subsidies automatically. Owners of nuclear reactors that are uneconomical and at risk of retirement should be required to file notices of intent to retire one year in advance with the Department of Public Service before any out-of-market payments are considered. (For Ginna and FitzPatrick, we understand notice of retirement has already been submitted, so we will address those two reactors separately.)

A notice of intent to retire should trigger two analyses:

1. A reliability study performed by the New York Independent System Operator to determine whether any transmission, distribution or supply impacts would result from the potential retirement of reactor/s that must be addressed.
2. A greenhouse gas emissions study that determines whether or not the reactor retirement will jeopardize New York's ability to meet its statutory greenhouse gas emissions reductions targets. (More about this below.)

If these determinations are performed and find that the reactor can close without any reliability concerns and without jeopardizing greenhouse gas goals, no subsidies should be offered to the nuclear owner and the state should plan for the reactor to close. In the event of a reactor closure, a worker and community protection plan should be activated to provide transition support to affected employees of the closed nuclear facility and to municipalities and school districts impacted by loss of tax revenue and economic activity. Later in this document, we provide a proposal for the creation and revenue stream for a fund for these activities. The community and worker protection fund would be available to address closures of all power generation facilities, not just nuclear reactors.

If a determination is made that the reactor closure would create a reliability concern and/or jeopardize greenhouse gas emissions goals, a competitive solicitation should be issued to find resources or a combination of resources to meet these needs. The solicitation should be designed to ensure that the chosen solution meets both reliability and greenhouse gas goals. Nuclear operators should be allowed to compete to be selected during this process along with large-scale renewable energy and distributed energy providers. Utilities should also be qualified to propose solutions.

In the event that a reliability issue is identified, but no solutions are found that meet both the reliability and emissions criteria, the NYISO RMR process should be triggered.

EMISSIONS TARGETS TO BE USED IN THE ANALYSIS

New York has set a long-term goal of 80% greenhouse gas reductions by 2050, with an interim target of 40% reductions by 2030. These targets were adopted in the 2015 State Energy Plan after multiple noticed meetings of the Energy Planning Board, analysis provided by multiple agencies, a public comment period during which tens of thousands of people commented, and public hearings held in multiple locations across the state. Currently, these are the only emissions targets adopted by the state.

We propose at the least, these are the targets that should be used when considering whether reactor closures will jeopardize greenhouse gas emissions goals. We believe that under current policy, these are the only greenhouse gas goals that can legally be considered when determining whether it is justifiable to prevent the closure of reactors deemed unnecessary for reliability. AGREE and many other parties encouraged the state to adopt enforceable interim emissions targets during the State Energy Plan process. In adopting the current State Energy Plan in 2015, the Planning Board opted not to do so, effectively limiting the PSC's statutory authority to the development and implementation of policies and regulations that support the 2030 and 2050 greenhouse gas emissions and renewable energy targets.

However, we recognize and support concerns that other factors should be considered. For instance, it is generally accepted that greenhouse gas emissions in the near-term will have a greater impact on climate change than those emitted later. It is also accepted that cumulative greenhouse gas emissions should be taken into account over the period between now and 2030, not just the greenhouse gas emissions created in the year 2030.

The problem is that New York has adopted no goals or policy regarding cumulative greenhouse gas emissions or interim targets between now and 2030. Without such a statutorily authorized and transparent policy, there is no way for policy makers to evaluate or justify any proposed action or rule. And there is no way for intervenors like us to propose alternatives for meeting those goals, which raises due process concerns.

The proposed nuclear tier is a perfect example of this deficiency in state policy. Many parties, including Department of Public Service Staff, various Commissioners, and Governor Cuomo have claimed that New York cannot meet its climate goals without the proposed nuclear subsidies. However, the State Energy Plan does not justify nuclear subsidies for Ginna or Nine Mile Point 1, both of which will close when their licenses expire in 2029. Those two reactors will be unavailable to support the 2030 emissions goal. Likewise, concerns over "backsliding" on the state's greenhouse gas reduction targets have no statutory weight because there is no stated policy defining backsliding and no interim targets between now and 2030 against which to measure whether we are backsliding or not.

As a result we end up with a murky goal the nuclear tier is trying to satisfy and no way for parties to propose alternative ways to meet the murky goals that may be more cost-effective.

To remedy this situation, we propose that relevant state agencies undertake a process to put into place a stated policy on both biannual and cumulative greenhouse gas emissions targets. This kind of transparent policy would strengthen New York as a climate leader and ensure that all energy policy is created in the context of these goals. It would remedy some of the statutory issues raised by the nuclear tier in this proceeding. And it would ensure commensurate and fair treatment of all technological and policy solutions that are necessary to keep New York on track to meet its climate goals.

Once these biannual and cumulative targets are in place, it would be justified and reasonable -- rather than arbitrary and capricious -- to analyze reactor closures to determine whether they jeopardize not only the long-term goals, but the short-term and cumulative goals. If it is found that a reactor closure may compromise New York's compliance with its climate goals, the solicitation and evaluation of all options should be considered as outlined above.

Load impacts from electrification of transportation and heating should be considered in the context of a total statewide emissions analysis, due to the incremental emissions benefits of electric vehicles and

heat pumps over fossil fuel combustion vehicles and heating systems particularly with an increasingly renewable electricity grid.

WORKER AND COMMUNITY PROTECTION AND TRANSITION

The Commission, the Governor, or the NYS Legislature could implement a community and worker protection program to ensure a responsible and effective economic transition for communities and workers impacted by power plant closures. Multiple pieces of New York State energy policy are designed to supplant the state's current dirty energy resources with new, renewable, and/or distributed resources. The state should recognize this fact and approach it proactively and with a commitment to ensure that workers and communities land on their feet.

The best option for communities and workers affected by the transition is to provide for a seamless transition into the new green economy. If an appropriate portion of renewable energy and storage facilities and jobs can be located in communities that have historically provided a home to the state's energy resources, that is ideal. However, in recognition that the transition could be bumpy instead of smooth and that in some cases the ideal location for new resources will be in other places, we propose a ratepayer or taxpayer funded worker and community protection fund. For nuclear reactor closures, the planning should also include negotiation with nuclear owners for the retention of the workforce for a timely and responsible decommissioning. It is critical that as nuclear plants close, the billions of dollars accumulated in decommissioning trust fund accounts are leveraged to reduce the cost and maximize the impact of the community and worker protection plan.

A community and worker protection fund could provide revenue assistance for communities and workers facing loss of revenue and income due to power plant closures. This fund would be somewhat temporary because the transition from fossil and nuclear fuels only has to be made once. This need not be an ongoing charge to ratepayers once the transition is complete, but it will likely need to be in place through at least 2030.

At the outset, we propose the equivalent of a \$1/MWh surcharge on electricity consumption. This would raise approximately \$160 million per year, declining over time with statewide electricity demand. While we know it may be unpopular to propose any kind of rate increase, this amount is far less than the increases being proposed to support the nuclear power plants, a large justification of which is that the plants support jobs and tax revenue for local communities. In fact, it is about one-third of the cost of the nuclear tier subsidies in the first two years (declining to a much smaller share over the 12-year term of the Staff's responsive proposal), and it would provide a benefit to all power plant communities in the state that could face power plant closures. A less regressive way to raise these funds would be through income taxes.

The nuclear bailouts proposed for Nine Mile Point, FitzPatrick and Ginna amount to \$303,000¹⁵ per year per worker, much more than the average salary for workers at FitzPatrick, which is \$119,000 per year.¹⁶

¹⁵ \$7.6 billion, divided by 2090 jobs (based on news reports and company websites), divided by 12 years.

¹⁶ Tim Knauss, Syracuse Post-Standard "Oswego County ads beg Cuomo to save FitzPatrick nuclear plant" November 19, 2016.

With this much smaller fund, the state could fund the transitional support for municipalities and school districts now mandated under law, ensure the retention of 40-50% of existing nuclear worker jobs, and provide economic support, retraining, and job placement for workers who do lose their jobs.

AGREE, CIECP, NIRS, and Sierra Club-Atlantic Chapter estimate a fully funded program for the closure of FitzPatrick (including replacement of tax revenue and support for a large percentage of workers) would cost less than \$40 million/year -- again, about one-third the annual subsidy consumers would pay to FitzPatrick under DPS's revised proposal.¹⁷

OTHER CONSIDERATIONS

To ensure the state meets its greenhouse gas emissions targets as quickly as possible using the most economic resources, the CES should be augmented with a number of provisions:

- Implement a binding efficiency target that increases to 3% per year
- Increase the RPS to 65 percent by 2030, which would in effect match California's 50 percent, since California does not count large hydro toward compliance with its renewable energy targets.
- Make a commitment to offshore wind benchmarked at targets of 5,000 MW by 2025, and 10,000 MW by 2030, as recommended by several parties to this proceeding. This would provide a large renewable energy resource close to downstate load centers, relieving some of the anticipated need for large, expensive and difficult to site transmission projects from upstate to downstate.
- Augment the CES projections to include growth of rooftop solar beyond the 2023 expiration of the NY SUN program, through 2030. Doing so would recognize about 4,000 MW of additional distributed solar that is likely to be installed by 2030, beyond NY SUN's 3,000 MW. It is critical that the state not underestimate its likely potential for renewable energy growth. Lower than reasonable projections for renewable energy could be unreasonably used to justify costly nuclear subsidies: For instance, correcting this projection alone would show additional carbon-free generation equal to the output of Nine Mile Point 1 or Ginna.¹⁸
- Consider interim benchmarks for other core resources:

http://www.syracuse.com/news/index.ssf/2015/11/oswego_county_ads_beg_cuomo_to_save_fitzpatrick_nuclear_plant.html

¹⁷ Alliance for a Green Economy and Nuclear Information and Resource Service. "Replacing FitzPatrick: How the Closure of a Nuclear Reactor can Reduce Greenhouse Gasses and Radioactive Waste, while Creating Jobs and Supporting the Local Community"

http://www.allianceforagreenconomy.org/replacing_fitzpatrick.pdf

¹⁸ Presently, under NY SUN, solar projects are being developed in amounts of 600-700 MW/year, with about 2,200 MW remaining to be developed. At this rate, NY SUN's development goal will be reached earlier in 2020-21. (<http://www.nyscrda.ny.gov/All-Programs/Programs/NY-Sun/Megawatt-Block-Dashboards>) If solar continues to be developed at a comparable rate (500 MW/year), that would result in 4,500-5,000 MW of additional rooftop solar PV developed by 2030. That amount of solar would generate 5,125-5,694 MWh of generation--greater than the generation provided by either Nine Mile Point 1 (4,800 GWh) or Ginna (4,600 GWh).

- o Utility-scale Solar PV (at least 5,000 MW by 2030)
- o Onshore Wind (6,000-7,000 MW by 2030)
- o Energy Storage (4,000 MW by 2030)

These measures would make it possible to exceed the 50% Renewable Portfolio Standard as currently defined -- up to 60-68% renewables, accounting for load increases resulting from electrification of transportation and heating.¹⁹ However, it would still be very much in line with other states and jurisdictions with a 50% RPS. This is due to the fact that NY, unlike states like California, Oregon, and Washington, includes existing large-scale hydropower resources in its definition of renewables. California has a similar amount of large-scale hydro generation (10 TWh/year vs. 15 TWh/year in NY), and both Oregon and Washington rely on hydro generation to a much greater degree than NY does. Were NY to define renewable energy consistent with these other leading states, the current CES proposal would really be a 35% RPS. Nevertheless, higher targets are achievable in NY, with the proper policies, regulations, and market signals.

PROCESS FOR FITZPATRICK AND GINNA

The planned and/or pending closures of FitzPatrick and Ginna should be dealt with in the following way:

The reliability assessment performed by NYISO and submitted on the record in this proceeding has determined that both reactors, as well as five other fossil fuel generation units, may close as expected without resulting in reliability impacts, requiring no competitive solicitations or the issuance of reliability must run (RMR) contracts. In addition, it should be noted that Rochester Gas & Electric is on schedule to complete a transmission system upgrade required to address reliability impacts of Ginna's pending March 2017 closure, under a settlement in a previous PSC case.

Therefore, the only germane question is whether there is an emissions impact resulting from the closure of Ginna or FitzPatrick that warrants mitigation. Because Ginna will be closed by August 2029 at the latest, when its federal operating license expires, the continued operation of Ginna is not relevant to meeting the 2030 emissions target. Therefore, subsidies to support Ginna are not warranted. It should be noted that Ginna is the smallest nuclear generating unit in the state, and can be most easily replaced with incremental additions of renewables and efficiency, should the state's future emissions reductions plans identify such a need.

Similar to Ginna, FitzPatrick is also a smaller nuclear generating unit, providing 6,600 GWh of generation each year. The permanent closure of the reactor would likely result in a temporary incremental increase in fossil fuel generation, from existing generators operating at higher capacity factors to provide the additional load. The Commission should do one or both of the following to assess the need for mitigation:

1. Model the impact of an Energy Efficiency Standard, as proposed in the Synapse study submitted in this case. In that study, Synapse notes that the standard would, by 2020, result in 6,132 GWh

¹⁹ Alliance for a Green Economy and Nuclear Information and Resource Service. Comments in New York Public Service Commission Case 15-E-0302. April 22, 2016. See, Appendix A: Analysis of Renewable Energy Potential and NYS Emissions Targets.

of load reductions beyond those modeled by Staff in the CES White Paper, for a total load reduction of 8,325 GWh from 2016. The additional efficiency reductions by 2020 would be equivalent to more than 90% of FitzPatrick's annual generation, and total statewide load reductions would be more than 125% of FitzPatrick. During that time, subsidies to FitzPatrick could total over \$450 million, whereas the incremental cost of energy efficiency would be only \$20 million (at Synapse's \$40/MWh projection, versus the \$39/MWh market revenue projection for nuclear).

2. Conduct a competitive solicitation for incremental renewable energy and energy efficiency resources in the amount of 6,600 GWh, evaluated against the total cost of nuclear generation from FitzPatrick at the proposed rates in Tranche 1 and Tranche 2 in DPS's proposal (\$56.48 and \$58.59), amounting to \$1.53 billion by 2020. We note that the projected costs of both a 3.0% energy standard (\$40/MWh) and of unsubsidized onshore wind in the Northeast (\$44/MWh) are substantially less expensive than the continued operation of FitzPatrick.

By taking these steps, the Commission can assure that FitzPatrick's closure does not interfere with the state's ability to meet the 2030 emissions reduction targets. Option 2 of the process described above could be adapted for evaluating the impact of other reactor closures and determining how to respond to them.

In addition, we note that extraordinary actions would be required in order for the PSC's decision in this case to result in the continued operation of FitzPatrick. Entergy is well down the road to effectuating the closure of the reactor. To date, Entergy has, among other activities, submitted deactivation notices to the relevant authorities (NY PSC, NYISO, and the Nuclear Regulatory Commission), and it has withdrawn requests submitted to Nuclear Regulatory Commission for operating license amendments that would be necessary for the continued operation of FitzPatrick.

The continued operation of the reactor is not only contingent on PSC's adoption of Staff's responsive proposal, but the expedited completion of an agreement between Exelon and Entergy for the sale of the reactor, which is itself contingent on the PSC's determination. There is, however, no guarantee that a decision by PSC to approve the Staff proposal will result in the transfer of FitzPatrick and its continued operation, as the successful culmination of that private transaction is dependent on other factors, including Exelon's due diligence process and the ability of the parties to reach favorable terms.

In addition, the reversal of Entergy's planned closure of FitzPatrick would not be without technical and financial complications. Entergy is planning to operate FitzPatrick until January 2017, approximately four months past its normally scheduled refueling date of September 2016, in order to use up additional nuclear fuel. Because a refueling outage has not been anticipated, Entergy may have difficulty rescheduling the refueling outage to occur on the normal schedule, and/or the plant may incur additional fuel costs, contractor costs, and/or outage time. Alternatively, FitzPatrick would operate to January as planned, but require the purchase of additional fuel.

Should FitzPatrick continue to operate, it would also incur expenses and potential outage time for required plant upgrades, including but not limited to the installation of a hardened containment vent, which must be installed during the next refueling outage, per Nuclear Regulatory Commission order. Entergy has been operating this reactor without a hardened wetwell vent for decades, a condition the

NRC has deemed to cause the risk of a hydrogen explosion and loss of containment in the case of an accident.²⁰

None of these complications may be impossible to overcome, but the combination of these circumstances is entirely unprecedented in the nuclear industry. A precondition of nuclear safety is maintaining a stable and predictable operational environment, which hardly characterizes the current period of uncertainty, potentially to be followed by a rapid change in ownership and management, and followed still by possible further staff reductions. What is more, a deferral of the required safety upgrade would also result in the continued operation of FitzPatrick with a known nuclear safety vulnerability, exposing New York state residents to the risk of radiation exposure from a nuclear accident.

We add, as a final concern, that the scenario now being contemplated would result in one generation owner and its affiliates--Exelon and/or Constellation Energy Nuclear Group (co-owned by Exelon and Electricité de France)--controlling a share of statewide and local generation capacity unprecedented in New York since deregulation and the institution of competitive markets. Through facilitating the transfer of FitzPatrick to Exelon, the PSC would enable the concentration of ownership of over 3,100 MW²¹ of baseload nuclear generation capacity into the hands of one merchant generation company. That is more than 40% of installed capacity in NYISO zones B-C. The capacity owned by Exelon and its affiliates would amount to more than the total annual energy usage in Zones B and C, and over 60% of total annual load in Zones A-C. Not only would the PSC's action here result in an exorbitant, uncompetitive, out-of-market subsidy to one merchant generation company; it would undermine the competitive wholesale market in, at the very least, an entire region of the state. This development would raise serious anti-competitive and anti-trust concerns, and be contrary to the state's support of competitive energy markets at both the wholesale and, through REV, distribution system level.

Conclusion

For all of the above reasons, we urge the Commission to take a step back and take the time to consider alternatives to the proposed nuclear subsidies proposed by Staff. There are far more reasonable, more affordable, and safer ways to meet the laudable policy goals at the heart of this case.

Respectfully submitted,

²⁰ See documents related to this issue here: <http://www.allianceforagreenecconomy.org/content/fitzpatrick-documents#vent>

²¹ This figure includes Ginna, FitzPatrick, Nine Mile Point unit 1, and CENG's 82% ownership share in Nine Mile Point unit 2. It excludes the Long Island Power Authority's 18% ownership share in Nine Mile Point unit 2, amounting to approximately 235 MW.

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APPENDIX: Calculation of Proposed Tier 3 Program Costs

Upstate Nuclear Plants				
Tranche	ZEC price	# of mwh/year (millions)	Annual cost (millions)	total for tranche (millions)
1	\$17.48	27.6	\$482.45	\$964.90
2	\$19.59	27.6	\$540.68	\$1,081.37
3	\$21.38	27.6	\$590.09	\$1,180.18
4	\$23.83	27.6	\$657.71	\$1,315.42
5	\$26.45	27.6	\$730.02	\$1,460.04
6	\$29.15	27.6	\$804.54	\$1,609.08
total				\$7,610.98
Indian Point				
Tranche	ZEC Price (adjusted for downstate)	# of mwh/year	Annual cost (millions)	total for tranche (millions)
1	\$10.48			
2	\$12.59	16.5	\$207.74	\$415.47
3	\$14.38	16.5	\$237.27	\$474.54
4	\$16.83	16.5	\$277.70	\$555.39
5	\$19.45	16.5	\$320.93	\$641.85
6	\$22.15	16.5	\$365.48	\$730.95
total				\$2,818.20

Total Upstate and Indian Point (millions)

\$10,429.18