



April 22, 2016

Via Electronic Filing

TO:

Kathleen H. Burgess
Secretary
New York State Public Service Commission
Empire State Plaza, Agency Building 3
Albany, New York 12223-1350

FROM:

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Re: Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard (15-E-0302)

Dear Secretary Burgess:

Please find the comments of the Solar Energy Industries Association and Vote Solar (the Solar Parties) on the *Staff White Paper on Clean Energy Standard* for the above referenced proceeding.

Sincerely yours,

/s/ Richard Umoff
Richard Umoff

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Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard

Comments of the Solar Energy Industries Association and Vote Solar (Solar Parties)

Case 15-E-0302

I. INTRODUCTION

The Solar Energy Industries Association (SEIA) and Vote Solar (together the “Solar Parties”) appreciate the opportunity to comment on the *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (CES Proceeding).¹

Established in 1974, SEIA is the national trade association of the United States solar energy industry and is a broad-based voice of the solar industry in New York. Through advocacy and education, SEIA and its 1,000 member companies are building a strong solar industry to power America. There are 70 SEIA member companies in operation in New York working in all market segments – residential, commercial, and utility-scale. SEIA member companies provide solar panels and equipment, financing, and other services to a large portion of New York solar projects. In addition, SEIA is a party in the CES proceeding.²

Vote Solar is a non-profit grassroots organization working to foster economic opportunity, promote energy independence and address climate change by making solar a mainstream energy resource across the United States. Since 2002, Vote Solar has engaged at the state, local and federal levels to remove regulatory barriers and implement the key policies needed to bring solar to scale. Over the past eight years, Vote Solar has been an active participant in many of New York’s solar policy and program decisions that have helped establish the state as a leading solar market. Vote Solar is a party to the CES proceeding.

¹ Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard (Case 15-E-0302)

² The comments herein represent the views of SEIA and not any individual member company.

The Solar Parties strongly support Governor Cuomo’s recently announced 50% by 2030 renewable energy mandate. Additionally, we support the Reforming the Energy Vision (REV) initiative to modernize New York’s energy and electricity markets to scale clean and distributed energy resources to meet New York’s economic and environmental goals.³ The Solar Parties support New York’s renewed focus on driving large scale solar through the Clean Energy Standard (CES) and its continued commitment to distributed solar through NY-Sun.⁴ We encourage the Commission to use this rulemaking as an opportunity to diversify New York’s large scale renewables mix by adopting policies designed to increase large scale solar energy deployment, and to align New York’s efforts to drive distributed solar markets under the CES mandate. The Solar Parties have been a party to the Large Scale Renewables/CES proceeding and REV proceedings since their inception, and we look forward to engaging on these matters moving forward. Our comments offer a variety of recommendations to improve the final CES structure.⁵

II. KEY ISSUES

1. Obligated Entities

- a.** The Solar Parties agree with Staff’s recommendation that load serving entities should be the obligated entities under the CES. SEIA also agrees with Staff that this obligation will not be sufficient by itself to enable the significant build out of renewable energy projects that will be needed to meet the 50% by 2030 mandate. Long-term bundled power purchase agreements (PPAs) with the utilities or other credit-worthy counterparties will be necessary to meet this ambitious target.

2. Tier 1 Structure

- a.** The Solar Parties recommend that the Commission adopt an incremental renewables tier (Tier 1) that drives the deployment of large scale and distributed solar towards the 50% mandate by providing long term certainty and requiring full valuation of solar resources. We encourage the Commission to:

³ <http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CC4F2EFA3A23551585257DEA007DCFE2?OpenDocument>

⁴ <http://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun>

⁵ The Solar Parties also endorse the comments of the Alliance for Clean Energy New York.

- i. Drive large scale solar deployment to meet the 50% mandate by implementing a procurement mechanism that values the full benefits of large scale solar, and relies primarily on bundled PPAs to support the necessary financing of renewable energy projects.
 - ii. Drive deployment of distributed solar to meet the 50% mandate by continuing to implement NY-Sun, maintaining net metering for mass market customers, adopting rate design that fully values distributed solar, and maintaining consumer and investor confidence in the REV marketplace through grandfathering of projects as regulatory reforms are put forth.
- b. The Solar Parties recommend that *all renewable* resources eligible for Tier 1, including distributed solar, should receive RECs for their renewable energy generation in recognition of the benefits created by qualified renewable energy resources and to allow New York to cost effectively meet its objectives.
- c. We also recommend that the Commission monitor market segments within Tier 1, and apply policy support as needed to ensure New York develops a diverse suite of renewable energy technologies and ensure that ratepayers are served equitably across the state.

3. Alternative Compliance Payment

- a. The Solar Parties recommend that the Commission establish an alternative compliance payment (ACP) that prioritizes incremental renewable energy deployment and is based on best practices from other successful state RPS programs.

4. Long-Term Procurement

- a. The Solar Parties recommend that the Commission require the use of bundled PPAs as the primary procurement mechanism for Tier 1 renewable resources with a 20-year term and credit worthy counterparty. This type of contract is needed to support the most efficient and economical financing terms, which will minimize costs to customers, as demonstrated by several Department of Public Service (DPS) reports.

- b. If some portion of REC only procurement is permitted, the Commission should ensure that renewable energy developers are adequately compensated for the value of their products. In this context the Commission should require utilities to purchase RECs and sell them at cost to other LSEs.
- c. The Solar Parties agree with the Staff position that utility owned generation (UOG) should only be permitted under narrow circumstances where there has been an adequate showing that a market need exists that cannot be otherwise met through competition. The Solar Parties also recommend that UOG should only be authorized after the DPS has determined that the design of the market or procurement is not a barrier to competitive response.

5. Self-Initiated Market

- a. The Solar Parties recommend that the Commission phase in complementary policies necessary to support a self-initiated PPA market over time, monitor market development, and adjust policies as needed.
- b. The Solar Parties recommend that the Commission find new ways to encourage self-initiated PPAs with LSEs and with large customers.
- c. The Solar Parties recommend that the Commission launch a separate stakeholder process outside of the CES process between third party off takers, regulators, utilities, and renewable energy developers to create a framework to support the self-initiated market.

III. DISCUSSION

1. Load Serving Entities Should be the Obligated Entities Under the CES

The Staff White Paper on Clean Energy Standard recommends that load serving entities (LSEs) will be responsible for compliance, with the obligation defined by a percentage of retail load for each compliance year.⁶ This structure has successfully driven renewable energy development in other states and should be adopted in New York. Employed in Massachusetts, this model has resulted in the installation of more than 1 GW of renewable energy capacity since 2008.⁷ Based

⁶ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 10

⁷ Massachusetts Department of Energy Resources: Available at: <http://www.mass.gov/eea/images/doer/energy-dashboard/progress-implementing-clean-energy/renewable-energy-installation-chart-2.png>

on this policy design, California now has more than 21.7 GW of eligible renewable energy capacity operating in the state.⁸

Additionally, Staff proposes that cost recovery occur through the supply charge rather than the delivery charge.⁹ Staff reasons that emissions are correlated with generation and therefore the cost of emissions should be reflected in energy prices.¹⁰ While the Solar Parties agree with this reasoning, we also point out that renewable energy attributes are not simply limited to the benefits of pollution reduction. Reduced dependency on fossil fuels also results in lower overall energy prices by creating a more diverse electricity supply, increased overall energy security, and increased resilience of the electric system. All of these attributes should be reflected in the supply charge.

2. Adopt an Incremental Renewables Tier (Tier 1) That Drives the Deployment of Large Scale and Distributed Solar Towards the 50% CES Mandate by Providing Long-Term Certainty, Requiring Full Valuation of Solar Resources, and Enabling Customer Adoption

The Solar Parties support Staff's proposal to implement a "new renewables" tier to drive incremental renewables growth under the CES (21). We agree with Staff that designating a tier for new renewables will create a clear and long-term price signal that will allow New York to achieve its 50% mandate most cost effectively.

The Solar Parties recognize Staff's intention to embrace the market based principles of REV and strongly supports the long-term goal to develop sustainable renewable energy markets. SEIA also agrees with Staff's argument that specific incentives may be needed to support technologies outside of competitive solicitations in order to achieve a mature solar market and the 50% CES mandate. Failure to provide support in the early years of the CES will undercut the investments made by New York to date and may undercut the state's ability of reaching the 50% mandate.

⁸ California Public Utilities Commission, *Biennial RPS Program Update*, January 1, 2016. Available at: http://www.cpuc.ca.gov/RPS_Reports_Docs/

⁹ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 11

¹⁰ *Id.*

Therefore, we urge the Commission to implement Tier 1 in a manner that provides long-term certainty, ensures full valuation of solar resources, and enables customer adoption of distributed energy resources.

a. Drive Large Scale Solar Deployment to Meet the 50% CES by Implementing a Procurement Mechanism That Relies Primarily on Bundled PPAs and Requires a Comprehensive Valuation of Large Scale Solar

In its White Paper, Staff states a preference for a generalized incremental renewables tier that does not include technology specific sub-tiers (i.e. carve-outs).¹¹ Staff cites the existence of other policy support such as NY-Sun as rationale for excluding sub-tiers.¹² While the Solar Parties recognize the benefits of NY-Sun to the distributed solar market, the large scale solar market does not enjoy the same policy support. The Renewable Portfolio Standard (RPS) Main Tier REC-only procurement model has failed to drive meaningful large scale solar deployment to date.¹³ This is due to the historical cost of solar versus other renewable resources, lack of additional policy supports, a REC only procurement process that does not provide sufficient revenue certainty to developers to enable efficient financing, and a valuation framework that fails to take into account all the benefits that large scale solar provides. While the cost of large scale solar continues to fall, with prices now around the \$40 - \$60/MW range, system economics for large scale solar are much different than for distributed solar or large scale wind, requiring a specific policy approach to drive utility scale solar deployment.¹⁴

Furthermore, New York has struggled to hit its renewable energy deployment goals. According to New York State Renewable Portfolio Standard Annual Performance Report, through 2014, New York had reached only 56% of its 10.4 million MWh renewable energy goal. The Governor's new 50% renewables mandate is even more ambitious than past goals, and meeting this target will surely require the deployment of a more diverse suite of clean energy resources, including large scale solar. Experience in other successful state RPS programs, including California, Massachusetts, New Jersey, North Carolina, and Maryland, shows that a solar sub-

¹¹ Id. at 18, 21

¹² Id.

¹³ New York State Energy Research and Development Authority. *New York State Renewable Portfolio Standard Annual Performance Report, Annual Performance Report through December 31, 2014*. Available at: <http://www.nyserda.ny.gov/All-Programs/Programs/Main-Tier/Documents>

¹⁴ SEIA/GTM Research U.S. Solar Market Insight 2015 Year in Review

tier is the most effective way to drive solar deployment within a renewable mandate. Thus, the Solar Parties encourage the Commission to consider this option within Tier 1 of the CES.

However, if the Commission chooses not to adopt a solar sub-tier to drive large scale solar deployment, the Solar Parties urge the Commission to adopt a procurement mechanism that provides long term certainty and is aligned with the REV principle of fully valuing all the benefits provided by renewable resources as part of a diverse low carbon energy portfolio.¹⁵

Specifically, the Commission should adopt Staff's recommendation and rely on bundled PPAs with a credit worthy counterparty as the primary procurement mechanism for large scale renewables. Bundled PPAs reduce risk and increase long-term certainty for large scale solar developers (see discussion of PPAs below). As demonstrated in the recently published Clean Energy Standard White Paper – Cost Study (Cost Study), the use of bundled PPAs will also significantly reduce the costs of meeting the 50% mandate when compared to the other modelled options.¹⁶

Additionally, the Commission should develop a framework for valuing large scale renewables, including large scale solar, to be used during resource procurement. This framework should recognize the full value of these resources as part of a diverse low carbon energy portfolio, including peaking value, locational value, environmental value, hedging value, and other benefits. This valuation is comparable to similar efforts undertaken in the REV process such as the LMP+D proceeding and procurement should reflect the full value provided by different renewable energy resources.¹⁷ As with the LMP+D process this should incorporate benefits such as the social cost of carbon and reduced emission of other pollutants, particularly during the NOx season and NOx compliance hours as well as benefits from reducing peak energy needs, capabilities to provide ancillary services and to locate close to load. We recommend that the Commission launch a stakeholder process to develop a similar framework.

¹⁵ SEIA defines large scale renewable resources as resources above 2 MW that bid into LSE resource procurement for the CES, as these resources do not qualify for the MW Block program and exceed the net metering system size limit.

¹⁶ New York State Department of Public Service, Clean Energy Standard White Paper -Cost Study. April 8. Available at: <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b7B564AD9-E6E9-4FA9-93B6-1AA85B1719E2%7d> at 40

¹⁷ See *Notice Soliciting Comments and Proposal on an Interim Successor to Net Energy Metering and of a Preliminary Conference* issued December 23, 2015 In the Matter of the Value of Distributed Energy Resources (Case 15-E-0751)

This framework could be applied using criteria inserted into procurements. The Commission should look to other state policies such as California's Renewable Auction Mechanism (RAM) or procurement models in Massachusetts and Connecticut as examples of effective efforts. Since 2010 California's RAM effort, for example, helped procure more than 1.5 GW of renewable generation PPAs.¹⁸ Aimed at resources between 3-20 megawatts, investor owned utilities hold two technology neutral auctions per year based on meeting their specific system needs. Similar needs-based procurements by New England states have also produced impressive results.

Finally, the Commission should regularly review the deployment of large scale solar in light of the CES targets. Modelling included in the Cost Study shows large scale solar playing a limited role in achieving the CES goal.¹⁹ In the interest of making sure New York has a diverse suite of technologies providing electricity, the Commission should ensure a policy framework is put in place to ensure utility scale solar plays a much larger role. If the CES targets are not being met, the Commission should evaluate and consider additional policy intervention to drive large scale solar development is warranted.

b. Drive Distributed Solar Deployment to Help Meet the 50% Mandate by Implementing NY-Sun, Maintaining Retail Net Metering for the Mass Market, Adopting Rate Design that Recognizes the Full Value of Solar, and Grandfathering Distributed Solar Projects

The Solar Parties support Staff's recommendation to continue NY-Sun under the CES and urge the Commission to ensure that NY-Sun is implemented throughout the CES compliance period.²⁰ However, NY-Sun is not the only policy driver that will determine the success of the distributed solar market. As Staff notes in the CES White Paper, there are ongoing net metering proceedings taking place in parallel to the CES rulemaking, most importantly LMP+D and REV's Track Two.²¹ The outcome of these proceedings is equally important to the success of the distributed solar market and will ultimately determine whether distributed generation will

¹⁸ For a more complete description of the RAM program, see e.g., *CPUC Resolution E-4655, Appendix D, Summary of RAM Program Rules*, issued May 16, 2014, pp. 50 *et seq.*;

¹⁹ New York State Department of Public Service, *Clean Energy Standard White Paper -Cost Study*. April 8. Available at: <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b7B564AD9-E6E9-4FA9-93B6-1AA85B1719E2%7d> at 35

²⁰ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 21

²¹ See *Staff White Paper on Ratemaking and Utility Business Models*, July 28, 2015 Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision (Case 14-M-0101)

play a meaningful role in helping New York meet its 50% CES mandate. Therefore, LMP+D and Track 2 require careful consideration in the context of the CES proposal and are addressed accordingly below.

First, the Solar Parties urge the Commission to adopt Staff's recommendation to maintain retail net metering for mass market customers in its Track Two Proposal.²² As the Solar Energy Industries Association stated in its Track Two comments, retail net metering is fundamental to engaging mass market customers.²³ Retail net metering continues to make cost effective solar energy available to homeowners in New York State. A change in the retail net metering approach for the mass market will significantly curtail the deployments of small distributed solar systems and hamstring an important segment of the solar market that would otherwise help New York to reach its 50% renewables mandate.

Second, the rate design discussion underway in the LMP+D proceeding for large distributed solar customers presents an excellent opportunity to implement reforms that ensure large distributed solar will help New York achieve its 50% mandate.²⁴ The Commission should focus on developing an LMP+D tariff that enables and incentivizes commercial, industrial, and community solar customers to invest in New York's clean energy economy. To encourage customer adoption, the tariff should be simple, long-term, and should recognize the full value of large distributed solar systems. In its filing on April 18, the Solar Parties recommend a framework consistent with these principles.²⁵ If the approved LMP+D framework proves to be

²² See *Staff Recommendation See Staff White Paper on Ratemaking and Utility Business Models*, July 28, 2015 (Case 14-M-0101) at pg. 108; 92-93; Staff has defined mass market as residential and small commercial customers. SEIA defines mass market as residential and small commercial customers with on-site systems under 250 kW, or with subscription in community solar projects, as this is consistent with Staff's Track Two recommendation. While this discussion focuses on the mass market, SEIA proposes that the LMP+D tariff, referred to as the DER Rider in SEIA's filing, be applied only to off-site solar systems at this time.

²³ *Id.*

²⁴ SEIA defines large distributed solar systems as 250 kW and above.

²⁵ Comments of the SEIA and Vote Solar in response to the Commission's *Notice Soliciting Comments and Proposals on an Interim Successor to Net Energy Metering and of a Preliminary Conference* (15-E-0751). Available at: <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={64464429-EEEE-491E-90E2-DBE993EA6671}>

effective, then the Commission should consider applying the framework to all resources larger than 2 MW.²⁶

Finally, as the Commission has recognized time and again throughout the REV process, customer engagement is central to developing the REV market. The ambitious 50% CES mandate underscores the importance of maintaining customer confidence in clean energy markets. However, customers will only invest in distributed solar systems if they are confident that their investment will be secure over the long-term, and not subject to significant regulatory risk.²⁷ Therefore, as the Commission moves forward with the CES rulemaking and related regulatory reforms, including LMP+D and Track Two, it should clearly state that existing projects will be grandfathered for their useful life. Failure to grandfather projects for the useful life of the project will undermine customer confidence in New York's clean energy economy, chilling investment and making it more difficult to achieve the 50% CES mandate.

The Commission should retain retail net metering for mass market customers to enable customer adoption, implement a simple and dependable LMP+D tariff that recognizes the full value of large distributed solar, and grandfather all projects as regulatory reforms are implemented so as not to erode consumer confidence in the market. All of these factors are key to using the distributed solar market to help meet the 50% CES.

c. All Renewable Resources Eligible for Tier 1, Including Distributed Solar, Should Generate Renewable Energy Credits in Recognition of All of the Benefits Delivered by Tier 1 Resources and to Allow New York to Cost Effectively Meet its 50% CES Mandate

The Staff White Paper states that RECs will be the compliance mechanism for the CES.²⁸ The Solar Parties support the use of RECs for compliance, as RECs facilitate regional trading and

²⁶ The Solar Parties recognize that certain adjustments may need to be made when applying the LMP+D framework to resources larger than 2 MW.

²⁷ The recent determination by the Nevada PUC that net metered customers will not be grandfathered under a new net metering regime has resulted in several lawsuits, consumer outcry, and the departure of several major solar providers from the state. The Nevada PUC determination serves as an example of the dire impact that regulatory reversal of commercial expectations can have on consumer confidence in a state energy market. (<http://www.greentechmedia.com/articles/read/nevada-net-metering-decision>)

²⁸ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 13

liquid markets, and reduce costs overall. However, the White Paper is unclear about whether *all* Tier 1 eligible resources will get credit for RECs under the CES.

The Solar Parties believe that all Tier 1 eligible resources should generate Tier 1 RECs, including new distributed solar systems on retail net metering and systems on successor tariffs such as LMP+D.²⁹ This is consistent with the purpose of RECs - to capture environmental and other benefits of renewable energy production. All eligible resources within Tier 1 will generate renewable energy in furtherance of the CES goal and therefore should be fairly compensated for the benefits of this energy production.

The Solar Parties contend that NYSERDA should not claim RECs produced by distributed solar generators in exchange for a NY Sun incentive. Under the construct contemplated here, claiming the REC in exchange for incentive significantly discounts the benefits that these generators bring toward meeting the new policy goal. NY Sun incentives were administratively set long before the 50% mandate was established. This discount becomes more acute based on the declining nature of the NY Sun incentives over time. Instead, the Commission should clearly state that NY Sun incentives and REC values are not linked, and allow solar generators to sell RECs to LSE's to help meet their compliance targets.

Further, all renewable energy generated in the state or for application to the state's CES should be tracked through the New York Generation Attribute Tracking System (NYGATs) and the associated RECs may be monetized by the generator or its agent. This will ensure straightforward accounting of renewable energy production and the most efficient application of that energy to meet New York's 50% mandate.

²⁹ We recognize the potential interaction between the CES and the DER valuation mechanisms (LMP+D) being developed in another proceeding, due to the potential to double count the value of environmental attributes, once these attributes start to take on explicit values. While we do not specify a mechanism at this time we would simply suggest that the final LMP+D methodology should avoid this potential for double counting. The Solar Parties urge the Commission to allow stakeholders sufficient opportunity to weigh in on this issue in these proceedings.

d. Monitor Market Segments Within Tier 1, and Apply Policy Support as Needed to Develop a Diverse Suite of Market Segments to Ensure Ratepayers Are Served Equitably and New York's Ambitious 50% Goal is Met

Staff has stated a preference for a generalized new renewables tier that relies on policy support for specific market segments rather than sub-tiers to drive a diverse mix of renewable energy resources.³⁰ As discussed above, the Solar Parties believe that a solar sub-tier is the most effective way to drive solar markets. However, if the Commission adopts Staff's recommendation for a generalized Tier 1, the Solar Parties recommend that the Commission direct utilities to include criteria in their PPA solicitations that include preferences for renewable energy projects that can be sited close to loads, have low visual and noise impacts, have coincidence with summer peak demands, and have low maintenance requirements.

In addition, the Commission should conduct regular reviews of Tier 1 market segments and apply policy support to laggard markets as needed. Failure to provide bridge policies could result in an inequitable distribution of the economic growth resulting from New York's clean energy investments, and will make it more difficult for New York to meet its long term REV and CES goals.

A pressing example of this issue is the current state of the Commercial and Industrial Upstate (C&I Upstate) market segment. This market has experienced a marked slowdown in activity since the change from monetary to volumetric crediting for remote net metered projects. Difficult project economics and low incentive levels make new development very challenging under the new rate design. The Solar Parties urge the Commission and NYSERDA to review the feasibility of project development for this market segment after it issues its June CES Order. The Commission should consider whether the combination of Tier 1 RECs, compensation under the LMP+D tariff, and MW Block incentives will be sufficient to drive this part of the distributed generation market. If the C&I Upstate market continues to lag as the CES is implemented, the Commission should implement additional policy supports.

³⁰ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 21

Failure to support the C&I Upstate market is inequitable to ratepayers in the Upstate region who are paying into the CES. Additionally, this market segment presents a significant opportunity to pursue the Governor's priority to drive economic development in Upstate New York.

As discussed previously in these comments, New York's large scale solar market segment also may require specific policy intervention. To date, despite increasingly competitive pricing for large scale solar projects the state has no projects over 2 MW. Meanwhile other eastern U.S. states that have developed portfolio or energy standards for renewable energy and provided specific support for large scale solar in the form of a carve out or parallel incentives have seen substantial growth. For example, North Carolina, which combined a solar carve out with a state Investment Tax Credit for solar has seen substantial growth in its large scale solar industry as a result of those policies. The large scale solar market should be monitored closely to determine whether additional policy support is warranted.

3. Geographic and Resource Eligibility

a. Limit Geographic Eligibility to Resources Capable of Physically Delivering Energy into New York

The Staff White Paper recommends that eligible resources must be able to show the ability to physically deliver energy into the New York market.³¹ The Solar Parties support this approach because it properly balances the objectives of limiting compliance costs and developing a New York clean energy economy, while limiting legal risk under the Dormant Commerce Clause.

b. Limit Hydro Eligibility to Upgrades and Low Impact Hydro as Proposed

The Staff White Paper proposes to limit the eligibility of hydro to upgrades and low impact hydro (Appendix A). The Solar Parties support limiting hydro in this manner to ensure that New York develops a diverse mix of incremental renewables that would be threatened by a broader definition of eligible hydro. Limiting hydro eligibility is consistent with RPS best practices.

³¹ Id. at 20

4. Banking and Borrowing of RECs

a. Limit Banking and Borrowing of Credits to Ensure Transparency in the Market

The Staff White Paper recommends that limited banking of RECs be allowed, and seeks comment on the issue of whether borrowing should be allowed.³² The Solar Parties recognize that some banking and borrowing creates flexibility for LSEs during the compliance period to help LSEs cost effectively meet compliance requirements. Therefore, the Solar Parties are not opposed to banking or borrowing. However, we urge the Commission to limit banking and borrowing, as excessive banking or borrowing may impair market transparency around supply and demand in the market. Reduced transparency makes it more difficult for market participants to make sound investment decisions based on market conditions. Borrowing, in particular, should be very limited and should include comprehensive security and collateral requirements to protect the rest of the market from defaults.

5. Setting Targets Over the Compliance Period

a. Set Compliance Targets Through 2030 with the Option to Conduct Triennial Reviews as Needed to Avoid Diluting the CES Market Signal, and Frontload Procurement to Take Advantage of Federal Tax Benefits

The Staff White Paper recommends that the Commission set 2017 and 2020 goals in the initial CES implementation and then set goals every three years through 2030.³³ The Solar Parties recommend that the Commission set compliance targets out to 2030 with the option to review targets as needed, rather than setting the goals every three years. We also recommend that the Commission clarify that the final 2030 target would continue beyond 2030 until further amended. One of the strengths of the CES mandate is that it creates long-term certainty for renewable energy market participants by establishing a strong market signal through 2030. This long-term certainty enables developers to prospect for sites and projects with confidence that there will be a market for the projects through the CES period and brings down development costs which ultimately reduces procurement and compliance costs. However, the market signal will be muted and will lead to a loss of long-term development horizons and efficiencies if CES

³² Id. at 26

³³ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 8, 17

goals are set on a short timeframe such as every three years. Therefore, the Commission should set forth annual targets through 2030 and reserve the option to review the targets on a triennial basis as needed.

We further recommend that the Commission consider the availability of federal tax credits when setting procurement targets. Given that these tax benefits decline over time, we strongly recommend that the Commission front-load procurement in the years 2016-2019 to coincide with federal tax policy.

6. Alternative Compliance Payment

a. Establish an Alternative Compliance Payment (ACP) That Prioritizes Incremental Renewable Energy Deployment and Cost Containment, and is Based on Best Practices from Other Successful State RPS Programs

The Staff White Paper recommends use of an alternative compliance payment (ACP) to contain compliance costs and drive incremental renewables towards the 50% mandate.³⁴ SEIA supports Staff's recommendation to adopt an ACP. The Solar Parties encourage Staff to model potential ACP levels and adopt an ACP that is likely to drive new in state renewable development and deter overreliance on out of state renewables for compliance. Specifically, the ACP should be set at a level above expected market prices to encourage incremental renewable energy deployment rather than simply collect penalty payments.

The Solar Parties also recommend that the Commission look to states where ACPs have successfully driven new renewables and contained costs, such as California, New Jersey, and Massachusetts as a guide. Although some have argued that the ACP in New Jersey and Massachusetts have led to high REC prices, the ACPs were set appropriately high at the beginning of the programs to spur development. The ACP can be reviewed periodically to ensure that the state is not overpaying for renewable generation as the industry develops and costs come down in New York.

³⁴ Id. at 14

Finally, SEIA recommends that ACP revenues be used to fund activities and programs that facilitate renewable energy development in New York or otherwise benefit ratepayers.

7. Long-Term Procurement

a. Use Bundled Power Purchase Agreements (PPAs) as the Primary Procurement Mechanism for Tier 1 Renewable Resources

SEIA strongly supports the Staff's recommendation to require Electric Distribution Companies to procure a percentage of the CES target through long-term, bundled PPAs with renewable generators. As the Options Report and Cost Study show, and as the White Paper reaffirms, employing long-term bundled PPAs is the least expensive way to encourage the development of new renewable energy in New York State. The Cost Study makes the case plainly. The revenue certainty from using PPAs "allows projects to come forward at a lower expected gross program cost than a fixed-price REC approach."³⁵ Bundled PPAs will reduce renewable energy developer prices and minimize developer risk by taking market price risk off the developer, which will enable project financing under advantageous terms. Depending on the structure of the PPA, developers would still be responsible for development risk, permitting risk, construction cost and schedule risks, as well as operating output/performance risks. Requiring that the majority of the CES mandate come from bundled PPAs would help open the door to a new era of renewable energy development in New York State.

Given the lower costs for ratepayers provided by bundled PPAs, we recommend that most of the CES obligation be met through this contracting mechanism. In addition to cost saving to ratepayers, long-term bundled PPAs also allows New Yorkers to reap the price hedging benefits for energy not subject to highly variable fuel costs.

Similar to the other Northeastern states, PPA length should be 20 years. In its July 2014 decision the Commission recognized the benefits of entering into 20 year agreements in the existing RPS. At that time the Commission agreed that setting 20 year contracts, reduced risk, encouraged

³⁵ New York State Department of Public Service, Clean Energy Standard White Paper -Cost Study. April 8. Available at: <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b7B564AD9-E6E9-4FA9-93B6-1AA85B1719E2%7d> at 40

renewable energy development and helped New York markets keep pace with trends in neighboring states.³⁶

b. Designate NYSERDA as Administrator of Central Procurement

The Solar Parties strongly recommend that Staff designate NYSERDA as the administrator of central procurement on behalf of utilities, who will act as counterparties. Having solicitations run by an independent central agent protects against utility bias during the selection process, ensures transparency, and protects against utilities steering contracts toward affiliate companies and lowers the overall cost of participating in the annual procurement.

The Solar Parties also strongly recommend that the Commission establish a specified schedule for procurements to occur each year. A significant contributor to the inability of the Main Tier procurements to reach their target quantities was the uncertain and erratic schedule of procurements that provided limited opportunity to anticipate future solicitations. As solicitation agent, NYSERDA should also develop standardized solicitation practices, criteria for ranking offers with criteria including factors other than costs alone, and standardized contracting terms to the extent possible.

Over time and after standardized solicitation requirements are established this responsibility could be transferred to an entity established by the joint utilities. A compelling rationale, however, should be presented for the change. In the near term, using NYSERDA as an agent leverages their experience and will result in a timely, efficient, and more cost-effective process than the utilities managing solicitations individually, or building a brand new entity to provide this service.

After describing NYSERDA's preferred role as central procurement agent, the White Paper goes on to say that NYSERDA should continue to issue solicitations for contracts for compliance entities to obtain RECs during the initial years of the CES and that these RECs can then be *allocated or sold* to LSEs toward the fulfillment of their CES obligation.³⁷ The meaning of the

³⁶³⁶ New York PSC, *Order Authorizing Modifications to the Main Tier Contract Term*, July 2, 2014. At 13.

³⁷ See *Staff White Paper on Clean Energy Standard* issued January 25, 2016 (Case 15-E-0302) at 41

term “allocate” in the sentence is unclear and should be clarified. This is discussed in further detail below.

c. Ensure Renewable Energy Providers Receive Value for the Product They Produce

If the term “allocate” assumes that RECs would be given to LSEs without payment for the attributes, then the Solar Parties do not support the direct allocation of RECs to the utilities. RECs should be sold to utilities to ensure renewable energy providers receive the value for the product that they produce (i.e. renewable energy). The REC sale will ultimately drive more renewable energy development in furtherance toward meeting the 50% mandate.

If, however, the term “allocate” assumes that the associated RECs from a procurement would be divided on a proportional basis between LSEs and then made available for sale, then the Solar Parties support allocation. We note that there may be efficiencies in allocating all RECs to the utilities and then authorizing ESCOs to purchase RECs at cost directly from the utilities. This structure may reduce transaction costs for all parties.

Further, we agree with the White Paper that utilities should not be prevented from selling RECs or energy obtained through bundled PPA transactions to third parties for shorter periods of time. Utilities should be able to take advantage of market opportunities. This ability to resell RECs or energy may also further decrease costs to ratepayers.

d. Allow for Some REC Only Contracts to Increase Flexibility for LSEs

The Solar Parties also support the use of some REC only contracts to help meet the CES goal. While REC only contracts should be the minority portion of the portfolio to reach CES goals, these contracts may provide flexibility to LSEs while meeting the needs of additional market participants.

e. Utility Owned Generation (UOG) Should only be Permitted Under Narrow Circumstances Where There Has Been an Adequate Showing That a Market Need Exists That Cannot Be Otherwise Met by the Competitive Market

We strongly support the White Paper's recommendation that utility owned generation (UOG) should only be allowed under limited circumstances.³⁸ Allowing widespread utility entry into the generation market would deter third parties from entering and could lead to utility self-dealing. Allowing utility entry into the markets is also inconsistent with well-established Commission policy that separated the generator function from the electric distribution corporation. We question the rationale that a utility's ability to claim federal tax credits would lower the cost of capital and reduce compliance expenses given that for years renewable energy developers have developed a variety of structures to pass the benefits of federal tax credits to various investors in an effort to lower costs.³⁹

We support the Staff recommendation that utility owned generation should only be allowed in exceptional circumstances. Utility owned generation should only be authorized when third party developers fail to provide a market solution. This principle is consistent with the policy articulated in the REV Track 1 Order. The Solar Parties strongly expect the market and third parties will be able to provide solutions in most instances if the market design and solicitation is structured properly.

8. Self-Initiated Market

a. Phase in Policies Necessary to Support a Self-Initiated PPA Market Over Time, Monitoring Successful Market Development and Adjusting Policies as Needed

The Solar Parties strongly support efforts to create a regulatory environment that fosters independent energy contracts between renewable energy developers and off-takers including large customers, LSEs, Community Choice Aggregators (CCA) and even potentially self-initiated "merchant" large scale solar customers. Across the country, many SEIA members have entered into these arrangements. In general, we recommend that the Commission consider

³⁸ Id. at 44

³⁹ Id. at 42

phasing in policies to promote the self-initiated market in two distinct market segments: self-initiated PPAs with LSEs and CCAs or on a merchant basis; and self-initiated PPAs with large customers.

b. Encourage Self-Initiated PPAs with LSEs, CCAs or on a Merchant Basis

The Commission should encourage self-initiated PPAs by renewable generators with LSEs and CCAs or on a merchant basis. At least with respect to LSEs, self-initiated PPAs should count toward the entity's CES compliance obligation.

The Commission has expressed an interest in understanding whether self-initiated PPAs can play a role in the CES. While such projects are rare several SEIA members have experience that may provide insights into this proceeding. Among restructured markets, Texas may be the only market in which self-initiated projects have occurred without the public policy support of a solar tier. More detail on the Texas case is found in Appendix A of these comments. In brief, two key complementary policies – property tax abatements and substantial transmission investments – played a role in promoting all solar in the state including these projects.

Low regulatory requirements have also played a significant role in the development of both solar projects that could be considered “self-initiated.” Texas school districts offer a substantial property tax abatement in exchange for an agreed upon payment in lieu of taxes as permitted by state law, to large scale solar projects. While New York City offers a property tax abatement it is limited to distributed solar projects and capped at \$62,500, making the incentive ineffective for large scale projects.⁴⁰ While NY state tax policy may prevent the use of such abatements for large scale projects, the Commission may wish to consider an additional incentive to encourage large scale solar projects and maintain a diverse portfolio of renewable energy.

c. Encourage Self-Initiated PPAs with Large Customers

Fortune 500 companies such as Apple, Microsoft, Amazon and General Motors see renewable energy as a key component of their business as well as a key hedge for reducing their energy costs and risks. However, New York's market in these transactions has lagged far behind the rest of the country. We appreciate the interest of Staff in trying to fix this problem. In general,

⁴⁰ <http://programs.dsireusa.org/system/program/detail/3037>

we believe that the self-initiated market will grow as costs come down for renewable energy resources across the state. Requiring the use of bundled PPAs will help drive down prices and will make this market more attractive for corporate off-takers.

There are a number of options that have been previously suggested to encourage this market either as part of Options Report or in party comments. One idea that received support from multiple parties was using a state entity such as New York Power Authority (NYPA) to enter into long-term PPAs with renewable energy developers and then reselling the power and/or RECs to “volunteers.” This model needs further exploration and may require further legal analysis or even legislative changes.

Along these lines, as the biggest consumer of electricity in New York, the State government should lead by example. Since the expiration of Executive Order 111, no mandate exists for state agencies to procure renewable energy. On behalf of New York State government agencies, NYPA could enter into long-term contracts with renewable energy providers for portions of its own load, as well as resell energy and RECs to state agencies. However, we caution that these transactions must be considered additional to NYPA’s own efforts to achieving the “non-jurisdictional” portion of the CES goal.

The Solar Parties recommend that policy interventions to stimulate the self-initiated market in New York should strive for consistency with the Center for Resource Solutions and the Green-e Program. This will protect purchasers and make them confident that they are purchasing a credible green product.

Despite our support, the Solar Parties urge the Commission not to over rely on third party off-takers, especially in the early years. Fostering the self-initiated market will take time. These efforts should be additive and complimentary to the CES goal. Self-initiated PPAs with large customers should not count toward the overall CES compliance obligation. Large customers would not want to participate in a market with competing claims on their purchased RECs. As a final recommendation, the Solar Parties encourage the Commission to set up a separate process to address how this market can be developed and consider the kinds of complementary policies or

incentives that would build the market for self-initiated projects. Developing this market requires collaborative process between developers, utilities, off takers, and regulators.

IV. CONCLUSION

The Solar Parties appreciate the opportunity to comment and look forward to working with Staff on this matter going forward. We strongly support Governor Cuomo's goal of ensuring that 50% of New York's power comes from renewable energy resources by the year 2030 and our member companies will play a critical role in achieving that goal.

Respectfully submitted,

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APPENDIX A

Among restructured markets, Texas may be the only market in which self-initiated projects have occurred without the public policy support of a solar tier. Out of the 1,800 MW of solar expected to be online by the end of 2016,⁴¹ only ~146 MW from two projects could be considered “self-initiated.”

In 2014 First Solar built Barilla 1 Solar Project, a 30 MW competitive open contract project in ERCOT that is the only solar project in the U.S. without a long-term PPA.⁴² Barilla was self-financed by First Solar, a model that is highly unlikely to be adopted broadly in large scale solar development given the substantial investments required.⁴³ Furthermore, while the insolation in west Texas- where Barilla is located- ranges from 6 – 6.5+ kWh/m²/day, the insolation in New York state ranges from 4-5 kWh/m²/day.⁴⁴ This difference in solar resource results in a similar difference in cost profile for large scale solar projects holding all other project-specific costs (property and labor costs, transmission infrastructure, etc.) constant.

In October of 2015 Luminant, the largest independent power producer in Texas, announced a long-term PPA with SunEdison for 116 MW. While this could be considered “self-initiated” as the investment was not mandated by state or local policy, some context is helpful in understanding the relevance of this project to NY. First, in addition to the favorable economics enjoyed by projects in west Texas as discussed above, the offtaker, Luminant is the largest independent power producer in the state with a sister company that is the largest competitive retail LSE in the state. ERCOT has a System Wide Offer cap (SWOC) of \$9,000 per MWh, which, combined with an Operating Reserves Demand Curve provide substantial incentive to LSEs to hedge their offerings with competitively priced generation that is not subject to fluctuating fuel prices.

At the same time Luminant has several large older lignite coal units, some of which are expected to retire rather than upgrade pollution controls to maintain compliance with new air regulations.

⁴¹ http://www.ercot.com/content/gridinfo/resource/2016/generation/GIS_REPORT__January_2016.xls

⁴² <http://investor.firstsolar.com/releasedetail.cfm?releaseid=869379>

⁴³ <http://www.solarelectricpower.org/utility-solar-blog/2014/november/another-record-quarter-and-new-trends-in-the-drive-for-grid-parity.aspx>

⁴⁴ http://www.nrel.gov/gis/images/eere_pv/national_photovoltaic_2012-01.jpg

This leaves Luminant with a potential loss of supply of more than 1,000 MW of generation in its portfolio and, in addition to the newly announced solar project Luminant has acquired, 2,988 MW worth of combined cycle power plants.⁴⁵

Finally, transmission policy in Texas played a key role by providing the infrastructure necessary to animate the market for large scale solar in west Texas where it is most cost competitive. First, while the generator bears 100% of the costs of interconnection, transmission service providers pay for any network upgrades or other costs beyond interconnection facilities which are then allocated to load based on postage stamp pricing. Second, ERCOT and the Public Utilities Commission identified regions and approved the construction of major transmission assets to serve “Competitive Renewable Energy Zones.” These two policies greatly improved solar developers’ certainty that they would be able to build in the regions with the most renewable energy resources and still serve load over substantial distances.

⁴⁵ <https://www.luminant.com/luminant-announces-the-acquisition-of-the-la-frontera-portfolio-from-nextera-energy-resources/#.VtTFKeanR64>