

**BEFORE THE STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Proceeding on Motion of the Commission to)
Consider Resource Adequacy Matters) Case 19-E-0530**

INITIAL COMMENTS ADDRESSING RESOURCE ADEQUACY

Pursuant to the August 8, 2019 *Order Instituting Proceeding and Soliciting Comments* (Order)¹ of the New York State Public Service Commission (Commission), the New York Power Authority (NYPA) hereby submits these *Initial Comments Addressing Resource Adequacy* (Comments).

I. INTRODUCTION

a. NYPA

NYPA is a corporate municipal instrumentality and political subdivision of the State of New York, organized under the laws of New York, and operates pursuant to Title 1 of Article 5 of the New York Public Authorities Law. NYPA is a “state instrumentality” within the definition of section 201(f) of the Federal Power Act (FPA).² It is engaged in the generation, transmission, and sale of electric power and energy at wholesale and retail throughout New York and is a founding member of the New York Independent System Operator (NYISO). NYPA’s bulk power transmission system encompasses approximately 1,400 circuit miles and consists of facilities ranging from 115 kV to 765 kV. NYPA is a diverse market participant in that its business interests include the following substantive areas: generation owner, transmission owner, demand response participant, and load serving entity.

¹ Case 19-E-0503, *Proceeding on Motion of the Commission to Consider Resource Adequacy Matters* (RA Proceeding)

² 16 U.S.C. § 824(f) (“No provision in this subchapter shall apply to, or be deemed to include . . . a State or any political subdivision of a State . . . or any agency, authority, or instrumentality of any one or more of the foregoing. . . .”); see also *Village of Bergen v. FERC*, 33 F.3d 1385, 1389 (D.C. Cir. 1994).

NYPA has no distribution facilities and virtually all its customers are connected to the transmission and distribution systems of other public utilities. NYPA owns approximately 25% of the installed capacity in the State, 75% of which comes from renewable resources. NYPA's customers are located throughout the State of New York, in both upstate and downstate areas, and include both wholesale power purchasers and end-users. Additionally, NYPA, rather than the Commission, is responsible for establishing the rates, terms, and conditions associated with the sale of power to NYPA customers.³

NYPA has taken the responsibility for constructing, owning, and operating critical segments of transmission and generation infrastructure throughout the State. NYPA owns or has contracts with substantial generation resources in New York State, including certain resources that are subject to buyer-side mitigation (BSM) within the capacity market administered by the NYISO. NYPA also is actively participating in and supporting the development of renewable resources in New York State to assist the State in achieving its energy and climate change related public policy objectives. Accordingly, NYPA has a unique perspective on the resource adequacy (Resource Adequacy, or RA) issues the Commission has raised in this proceeding (RA Proceeding).

b. Resource Adequacy Order and Proceeding

The RA Proceeding seeks input on “how to reconcile resource adequacy programs and the State’s renewable energy and environmental emission reduction goals.”⁴ It further notes that the current installed capacity (ICAP) procurement mechanism administered by the NYISO

³ PAL § 1014 (“the rates, services and practices relating to the generation, transmission, distribution and sale by [NYPA]...shall not be subject to the provisions of the [Public Service Law] nor to regulation by, nor the jurisdiction of the department of public service.”). *Lathorp v. Village of Bath*, 112 AD2d 749 (N.Y. App. Div. 4th Dep’t 1985) states the following, as well: “the Legislature has expressly provided that the services and practices, as well as the rates, of public agencies with respect to power supplied by [NYPA] shall be governed by the provisions in their contracts with [NYPA] and not by ‘general principles of public service law regulating rates, services and practices.’”

⁴ Order at p.1. The public policy goals at issue are described in section II.a., *infra*, and are hereinafter referred to in the aggregate as “Public Policy Goals” or “PPG”.

(ICAP Mechanism) is not a comprehensive RA instrument, “because it fails to recognize and provide compensation for many important factors, such as environmental and local reliability benefits.”⁵ As a result, the ICAP Mechanism has not been designed to ensure that the resources it procures will satisfy the Public Policy Goals, let alone do so in the most efficient and cost effective manner possible, as consumers deserve.⁶

To focus the proceeding, the Commission set forth six questions that parties are asked to address. In general, these questions seek comment on the State’s role with respect to Resource Adequacy and whether the ICAP Mechanism is (or can be modified to be) an effective means to transition from today’s electric system to the system that must be in place to achieve Public Policy Goals, or whether other RA mechanisms are preferable to meet Public Policy Goals.

c. Scope of Resource Adequacy and Approach to Comments

NYPA applauds the Commission for establishing the RA Proceeding to reconsider issues related to Resource Adequacy at this critical time in the evolution of the energy markets. Climate change represents an existential challenge that will require major changes to the electric grid and how we consume energy resources. As a result, NYPA agrees with the suggestion implicit in the Order that this proceeding must evaluate Resource Adequacy in its broadest sense.

Historically, New York has defined RA in a relatively narrow manner to address the need to procure sufficient generation and demand response resources to satisfy an administratively set reliability target: that the likelihood that load would have to be shed due to a shortage of capacity would be no more than one day in ten years, or 0.1 days per year. This Loss of Load Expectation (LOLE) approach uses a probabilistic model to determine what level of supply must be maintained to meet the LOLE standard.

⁵ Id, at p.3

⁶ Id.

NYPA believes that this proceeding should operate with an expanded concept of Resource Adequacy that is comprehensive and looks not just at an idealized concept of pure capacity to serve load. To achieve the Public Policy Goals, the State must transition from a system primarily designed around large, principally fossil-fueled, central station generation units, able to operate over extended periods, to a system with diverse supply and storage resources, many of which are intermittent in nature. This evolution will require a different resource mix and set of capabilities and products than currently exist, and calls for a comprehensive re-evaluation of not only our capacity procurement approach, but also our energy and ancillary services (E&AS) market design and our transmission and distribution (T&D) system planning protocols and incentives.

Such an approach would determine and procure the types of resource and attributes that will be needed as the market evolves. Moreover, this expanded RA concept would incorporate consideration of what T&D incentives must be in place to ensure that the T&D systems are sized efficiently to gather the new resource output and deliver it to end users.

As described in the following section, NYPA believes that the current ICAP Mechanism, and in particular its BSM regime, represents an untenable barrier to achieving Public Policy Goals and a very significant modification to the existing design or a new approach, must be promptly designed and implemented, if we are to achieve these goals in a timely fashion. Any number of approaches to modifying the existing ICAP Mechanism could be developed to achieve these PPGs, but it is helpful to view them as falling into two main paradigms: (1) an approach that seeks largely to maintain the existing ICAP Mechanism but with modifications needed to achieve the Public Policy Goals (Status Quo Approach), and (2) a State administered, integrated resource plan (IRP) focused approach (IRP Approach). Either paradigm can produce a Resource Adequacy regime that will achieve the Public Policy Goals. Each has its own set of strengths and weaknesses, and both paradigms can be structured to employ a competitive market approach.

While it is clear that the PSC has jurisdiction to “take back” from FERC control over the definition and procurement of Resource Adequacy, the question the Commission should address is what option provides the most efficient and cost-effective means of meeting Public Policy Goals and can be implemented in the rapid timeframe needed to satisfy the mandates of Climate Leadership and Community Protection Act (CLCPA). NYPA observes that one benefit of employing a Status Quo Approach is that it may be more likely to garner broader cross-sector support. On the other hand, an IRP Approach has the benefit that it likely can be better tailored to achieve the Public Policy Goals in a manner that reflects the differing conditions and constraints faced by each load serving entity (LSE) and the different mix of attributes that may be necessary or desirable for each. However, whatever approach the Commission may decide to pursue, it is imperative that NYPA’s existing hydro resources be afforded the opportunity to earn appropriate compensation and not be included as part of a baseline reducing the amount of Public Policy Attribute Resource (defined below) capacity that must be procured.

Given the extensive changes required and the number of potential approaches within the two paradigms, NYPA has organized these Comments in a manner that identifies the two paradigms, sketches out approaches available within each, and highlights the pros and cons of these approaches. Answers to each of the questions are thus addressed in this manner, rather than addressing each individual question separately for each approach.

d. ICAP Mechanism Design Problems that Must be Corrected

The NYISO’s installed capacity market design has been very effective in procuring the type of resource it was designed to secure: undifferentiated capacity at a competitively determined price, without regard to the attributes of the resources providing such capacity, utilizing a sloped demand curve and a product definition (Unforced Capacity or UCAP) that rewards resources based on their historical availability. This was an appropriate objective at the time the market was designed, and the market design was a marked improvement over its predecessor, but times

have changed. We now need a procurement mechanism that will enable the State to comply with the legislated emission reduction mandates of CLCPA, which means attributes matter.

Unfortunately, two significant problems plague the existing ICAP Mechanism and will only grow worse as the State takes the actions required to satisfy the Public Policy Goals. First, the BSM rules not only fail to support, but likely will obstruct, the State's efforts to satisfy the Public Policy Goals. These rules send inaccurate price signals that create costly and inappropriate outcomes, most notably the requirement that load pay twice for the same capacity needed to meet its capacity obligation and Public Policy Goals (the Double Payment Problem), and this problem will be vastly expanded as more zero emission resources are brought online. Second, the market design fails to appropriately induce retirement of resources that no longer are desirable and instead establishes a *de facto* preference to retain aging, inefficient and high emission rate resources at the expense of enabling new resources required for the system to achieve the Public Policy Goals (Public Policy Attribute Resources, or PPARs) to clear in the market and gain a capacity obligation (the Retirement Incentive Problem).

The BSM rules, described in detail in section II.e., were intended to thwart the abuse of monopsony and oligopsony market power by preventing inefficient "surplus" capacity from being added to the system, with the intent of suppressing clearing prices below competitive levels. This was done by requiring new resources in mitigated capacity zones⁷ to bid no lower than an administratively determined competitive offer floor. In theory, if an LSE knew that its resource would not clear in the market due to the BSM mechanism, and therefore would not depress market clearing prices, then the LSE would have no reason to add this "surplus" capacity to the system.

⁷ Note that although BSM currently applies only to new entry in zones G through J, complaints pending at FERC seek expansion of BSM statewide to address both new entry and "uneconomic" retention through, *inter alia*, RMR, REC and ZEC payments. Accordingly, the BSM rules could impact all new and existing Public Policy Attribute Resources, and not just those in zones G through J, depending on FERC's response to pending pleadings.

In practice, however, the BSM rules did not prevent entry of all resources that the rules would characterize as inefficient excess capacity. As a result, over time, a number of resources have been mitigated. Moreover, to achieve the Public Policy Goals, large quantities of Public Policy Attribute Resources will need to be added to supplant thermal resources. The BSM rules would likely result in much of this new PPAR capacity being mitigated.

The result is that there is a disconnect between the amount of capacity available on the system and the amount that “counts” for purposes of satisfying each LSE’s capacity obligation. Moreover, this disconnect can be expected to grow as we add more PPAR capacity. This means that at the same time the system in fact has a growing surplus, the ICAP Mechanism will send a market signal that indicates all existing capacity should be retained (including environmentally obsolete thermal units) and new incremental capacity should be added. The artificially high clearing price received by existing thermal units induces units that would otherwise retire to remain on the system and is therefore antithetical to achieving the Public Policy Goals to decarbonize New York State.

Moreover, because the new resources, when mitigated, do not qualify to satisfy an LSE’s capacity obligation, the State’s consumers effectively pay twice for the capacity they require. They pay for the new resources that must be added to satisfy Public Policy Goals but don’t count toward the LSE capacity obligation, and then they pay for the capacity the LSE must procure from resources that do qualify to meet their capacity obligation. This double payment obligation renders the current market design unjust and unreasonable in NYPA’s view.

And finally, because the mitigated resources do not count toward the capacity obligation, they are not reflected in the clearing prices established by the ICAP demand curve. As a result, existing resources receive an artificially high clearing price, are insulated from the impact that should result when supply is added, and therefore see no price signal that would induce them to exit the market efficiently.

This perfect storm of failed price signals that results from the BSM rules will only worsen over time as the divergence between the amount of resources on the system and the lesser amount that qualify to satisfy the capacity obligation grows. It is a result of the BSM rules over-mitigating new entry of resources that are brought on to the system not with the intent to depress clearing prices, but to satisfy the legislative and regulatory mandates that comprise the Public Policy Goals.

e. The Challenge Ahead

The Public Policy Goals described below set an aggressive mandate to decarbonize New York State that will require very significant changes to the existing electric supply and delivery system. These changes will, of course, include dramatic infrastructure modifications to accommodate geographically and technologically diverse Public Policy Attribute Resources and their delivery to load centers. They also will require significant modifications to the market design and procurement mechanisms for Resource Adequacy resources, the characteristics and attributes procured via the E&AS markets, and the procedures for T&D expansion. It is particularly important that the Commission ensure that existing PPARs, such as NYPA's hydro resources and renewable resources whose REC contracts are expiring, be afforded the opportunity to earn appropriate compensation. These existing resources are critical to achieving the State's decarbonization goals. If they are no longer economically viable under a new Resource Adequacy regime, the State's goals likely will not be achievable.

The challenge ahead is to determine how to efficiently and cost-effectively transition (while maintaining critically important high levels of system reliability and resilience) from New York's existing electric supply fleet and market design to the resource mix and market design that can best achieve the Public Policy Goals. This would include inducing the retirement of thermal resources that no longer are needed or desirable, while supporting development of the new, zero emission resources (many of which will be intermittent) needed to meet PPG, and ensuring that flexible operating capability is retained and attracted in the amounts and locations

needed to support increased penetration of intermittent resources. NYPA welcomes the opportunity to work with the Commission, its staff and other stakeholders in the process of developing the grid of the future.

II. BACKGROUND

a. Public Policy Goals

New York State is a nationwide leader in progressive climate change energy policy and has established a number of Public Policy Goals in recent years. In 2009, under Executive Order 24,⁸ the State established a goal to reduce greenhouse gas (GHG) emissions by 80 percent by the year 2050. In 2016, the Commission adopted the Clean Energy Standard that targeted 50 percent of New York's electricity to be generated by renewable sources by 2030.⁹ In 2017, Governor Cuomo issued Executive Order 166,¹⁰ which required many State entities to reduce their GHG emissions by 40 percent by 2030 and 80 percent by 2050 from 1990 levels. Most recently, in July 2019, Governor Cuomo signed CLCPA, which codified a number of ambitious electric sector clean energy targets.¹¹ Among other directives, CLCPA directs New York to produce 70 percent of electricity from renewable energy by 2030 and achieve a carbon-free electricity system by 2040. CLCPA also includes targets for the installation of 6,000 MW distributed solar by 2025, 3,000 MW of energy storage by 2030 and 9,000 MW of offshore wind by 2035. New York has several other Public Policy Goals that complement the CLCPA, such as the Reforming the Energy Vision ("REV") initiative,¹² and the Zero-Emission Vehicle ("ZEV")

⁸ Exec. Order 24 (August 16, 2019)

⁹ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016)

¹⁰ Exec. Order 166 (June 1, 2017)

¹¹ Climate Leadership and Community Protection Act (signed July 18, 2019)

¹² See Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision

mandate,¹³ that will help drive the State towards the CLCPA objectives and impact the electric system.

b. Evolution of Capacity Procurement in the Northeast

Developers require an incentive to invest and build infrastructure, and owner/operators require financial signals to maintain it. The sales from E&AS alone are insufficient to reimburse developers for the costs they incur to build and maintain infrastructure used for grid reliability, such as facilities used only during peak load. The ICAP Mechanism is designed to quantify that need, to provide payment for needed infrastructure as a means of ensuring sufficient resources are available to satisfy peak load, plus any additional contingencies. In other words, capacity markets are an instrument to ensure Resource Adequacy.

The concept of capacity markets initially represented a means of allocating risk more appropriately to investors by separating the ability to generate electricity from its delivery. The expectation of restructuring the markets in this manner was that shifting risk from ratepayers to investors would reward good decisions and penalize bad ones rather than a more regulatory approach of giving all investments the same return.¹⁴

Only a few years after the capacity markets were introduced, merchant generators raised a concern that LSEs may add supply to the market for the sole purpose of depressing capacity auction prices. To respond to this perceived problem, FERC approved the implementation of BSM using minimum offer price rules (MOPRs), which set a floor on a new entrant's capacity bids.¹⁵ ISOs did not apply MOPRs consistently. Some ISOs immediately created exemptions to the BSM rules. Such exemptions were granted to providers who self-

¹³ See 6 NYCRR § 218

¹⁴ Patterson, Delia and Harvey Reiter, "Chasing the Uncatchable: Why trying to fix mandatory capacity markets is like trying to win a game of Whack-A-Mole," *Public Utilities Fortnightly*, June 2016, at 1, available at: <https://www.stinson.com/assets/htmldocuments/Chasing%20the%20Uncatchable.pdf>, citing, John Kwoka, *Barriers to New Competition in Electric Generation*, Report to the American Public Power Association (June 2008).

¹⁵ *Id.* at 2.

supplied their own capacity and to sellers acting under State procurement programs.¹⁶ FERC began to issue orders regarding existing BSM exemptions, including for self-supply, and renewable resources, which were intended to either define or limit these exemptions. However, these FERC decisions were inconsistent between ISOs and created a patchwork of varied rules that differed between ISO markets. When FERC issued exemptions to BSM rules, they typically were premised on the finding that the exempted entities likely lack an intent or ability to suppress prices.¹⁷ Such decisions intone that an actor's intent was a requirement for the implementation of BSM rules. Later, other FERC decisions suggested intent need not be an element necessary for mitigation measures.

The purpose of BSM was further altered as states began to exercise public policy to promote certain attributes possessed by some suppliers. "Over time, the [FERC] theory of the MOPR has changed, morphing from an examination of monopsony power to an examination of whether states have provided support or a subsidy to a resource that is selling into the capacity market."¹⁸ As a result, ISOs would exercise mitigation upon resources that receive support from a state with the opinion that the resource was gaining uneconomic entry, and therefore suppressing prices below competitive levels. The purpose of mitigation rules has become muddled, and the question of whether a supplier's intent to enter the market is for the purpose of dropping prices has been lost.

Additionally, with the passage of CLCPA, New York has codified energy and emissions goals into statutory mandates. State entities, including the Commission, now have a directive they are bound to support in the State's efforts to achieve Public Policy Goals. With legislated mandates, it is unequivocally evident that new resources that are beneficial to achieving the

¹⁶ Id.

¹⁷ Id., See, PJM Interconnection, L.L.C., 135 FERC ¶61,022 (2011) at 6 n.16, "that buyer-side market power mitigation rules are intended to address market power exhibited by certain entities seeking to lower capacity market prices."

¹⁸ New York State Public Service Commission, et al. v. New York Independent System Operator, Inc., 158 FERC ¶61,137 (Feb. 3, 2017), Commissioner Bay Concurring decision 3.

State's goals are not entering the market for the purpose of reducing capacity prices. To achieve the State's laudable vision, Public Policy Attribute Resources must be permitted to enter the market unmitigated. BSM rules cannot be permitted to act as a veto to State policy or usurp State law when the States have clearly been granted authority to promote environmental policy.¹⁹

Capacity markets, once a vehicle to ensure resource adequacy, have become weighted heavily by unwieldy mitigation rules in an attempt to modernize the market to changing policies. However, bolting additional conditions onto other rules is becoming more difficult to comprehend and the basic purpose of mitigation seems to have been left behind when continuously rebuilding the remedy. "The premise of the MOPR appears to be based on an idealized vision of markets free from the influence of public policies. But such a world does not exist, and it is impossible to mitigate our way to its creation."²⁰ BSM rules are now applicable to many renewable resources that could help New York reach its legislated Public Policy Goals. Rather than expanding mitigation to the anticipated influx of new resources required to meet these PPGs, the Commission is correct to reevaluate Resource Adequacy in New York and determine how to best support needed alternative renewable resources. Unfortunately, "[t]he reality is that once a market construct is accepted and implemented, it is very difficult to unwind."²¹ This reevaluation is not an easy task, and one which all stakeholders must approach with open minds and creative solutions.

¹⁹ See Section 2, e, Federal and State Jurisdiction

²⁰ New York Public Service Commission, et al. v. New York Independent System Operator, Inc., Order Granting Complaint in Part and Denying in Part, 158 FERC ¶61,137 (Docket No. EL16-92-000), Issued February 3, 2017, Commissioner Bay concurring, p.2.

²¹ PJM Interconnection, L.L.C. v. Essential Power Rock Springs, LLC, Chairman Bay dissenting, F.E.R.C. Docket No. ER15-623-000 et al., (Issued June 9, 2015), at dissent 6 (p. 187).

c. Setting the Capacity Obligation

The ICAP Mechanism “serves to maintain reliability of the bulk power system by procuring sufficient resource capability to meet expected maximum energy needs plus an Installed Reserve Margin (IRM).”²² The ICAP Mechanism promotes Resource Adequacy by providing suppliers with a means to recover a portion of their fixed capital costs, and provides a pricing signal for investment.²³ LSEs are required to purchase a certain quantity of capacity to meet peak demand. The requirements are based on forecasting load plus the amount above forecasted load that LSEs must secure. The New York State Reliability Council (NYSRC) establishes the IRM annually based on the Northeast Power Coordinating Council’s (NPCC) resource adequacy standard. “This standard reflects the probability that the disconnection of a firm’s supply due to a resource deficiency (Loss of Load Expectancy, or LOLE) should be on average no more than once in ten years.”²⁴ Each year the NYSRC files its proposed IRM for the following capability year with the Commission and FERC for approval. For each capability year, NYISO uses the IRM to conduct a study to determine the Locational Minimum Installed Capacity Requirements (LCR) for the localities of New York City (Load Zone J), Long Island (Zone K), and the G-J Locality referred to as the Lower Hudson Valley Zone (Zones G, H, I, and J).²⁵

²² NYISO website, available at: <https://www.nyiso.com/installed-capacity-market>.

²³ Mchich, Adila and Owain Johnson, Introducing the NYISO Electricity Capacity Market, CME Group, June 28, 2018, available at: <https://www.cmegroup.com/education/articles-and-reports/introducing-the-nyiso-eletricity-capacity-market.html>.

²⁴ Id.

²⁵ Locational Minimum Installed Capacity Requirements Study for the 2019-2020 Capability Year, New York Independent System Operator, January 17, 2019, available at: <https://www.nyiso.com/documents/20142/3679493/LCR2019-Report2-clean.pdf/d6ffe9be-a058-7cde-4bd3-725cce0105ef>.

d. NYISO's BSM Rules²⁶

Resources subject to BSM are new suppliers proposed in a mitigated capacity zone (MCZ), and projects with unforced capacity deliver rights (UDRs) with a terminus in an MCZ that request Capacity Resource Interconnection Service (CRIS), suppliers seeking to transfer CRIS from a different entity, and existing suppliers or UDRs that seek to increase CRIS either through a Class Year or a transfer.²⁷ NYISO examines these facilities in a two-part test to determine whether they are subject to MOPR. Each examined facility is tested in both the Part A and B test to determine if it is exempt from BSM rules and not subject to an offer floor. The Part A test compares the forecasted annual ICAP Spot Market Auction revenues to the "Default net CONE" (DNC). This is defined as 75% of mitigation net CONE. ICAP Spot Market Auction revenues are forecasted for one Capability Year occurring three years from the Summer Capability Period of the current Class Year.²⁸ The values obtained are then compared with the DNC projected for that same time period. Under the Part A test, the examined facility is exempt from BSM if the forecasted annual ICAP revenues exceed the DNC.²⁹ Under the Part B test, NYISO examines the economics of the proposed project by comparing the unit's net CONE to a three-year ICAP forecast.

FERC has granted a few exemptions to NYISO's BSM rules, and there remain complaints seeking new exemptions and compliance filings to implement previously approved

²⁶ In addition to BSM, the ISOs implement supply-side mitigation measures. According to the NYISO, the purpose of its supply-side mitigation rules is to prevent a supplier exercising market power to inflate prices above competitive levels by withholding capacity in the New York City and Zones G-J localities. Supply-side mitigation measures impose an offer cap on pivotal suppliers in the spot auction and impose penalties on capacity otherwise withheld. Potomac Economics, 2018 State of the Market Report for the New York ISO Markets (May 2019) (p.16), available at: <https://www.nyiso.com/documents/20142/2223763/2018-State-of-the-Market-Report.pdf/b5bd2213-9fe2-b0e7-a422-d4071b3d014b>.

²⁷ *Id.* at 6. See also, Market Administration and Control Area Services Tariff Att. H ISO Market Power Mitigation Measures, 23.4.5.7.

²⁸ New York Independent System Operator, Buyer Side Mitigation Narrative and Numerical Example, (May 17, 2018), p. 1-2, available at: <https://www.nyiso.com/documents/20142/3026079/BSM-Narrative-and-Numerical-Example-Updated-May-17-2018.pdf/>.

²⁹ *Id.* at 2.

exemptions pending before FERC for approval. NYISO's competitive entry exemption (CEE) applies if a resource (a) does not have any "non-qualifying contractual relationship" with a Non-Qualifying Entry Sponsor, and (b) is not itself a Non-Qualifying Entry Sponsor.³⁰ Non-Qualifying Entry Sponsors include transmission owner, public power entity, an entity with a transmission district, New York State or an instrumentality of New York State.

On May 8, 2015, the Commission, NYPA, and New York State Energy Research and Development Authority (NYSERDA) filed a complaint at FERC seeking a blanket exemption from BSM for renewables and self-supply resources.³¹ On October 9, 2015, FERC approved both the renewable exemption and the self-supply exemption (SSE), but directed NYISO to propose a cap for unmitigated renewable resources to enter per Class Year. On April 13, 2016, NYISO filed a compliance filing with FERC and proposed a limit of 1,000 MW of ICAP in any Class Year, and to date, FERC has not responded.³² NYISO recently requested that FERC act upon its compliance filing, noting that the 2019 Class Year is commencing and a decision on the renewable exemption cap would impact the results of the projects selected for the Class Year.³³ To date, FERC has not responded to NYISO's request. The compliance filing to implement both the renewable exemption and the SSE remains pending.

Lastly, on July 29, 2019, the NYPSC and NYSERDA jointly filed a complaint at FERC seeking an exemption from BSM measures for energy storage resources (ESRs).³⁴ The ESR Complaint requests a blanket exemption, or in the alternative, an annual exemption of 300 MW

³⁰ NYISO MST Att. H. Section 23.4.5.7.9.1.2. FERC granted the competitive entry exemption in Consol. Edison Co. of N.Y., Inc. v. N.Y. Indep. Sys. Operator, Inc., 150 FERC ¶61,139 (2015).

³¹ New York Public Service Commission et al. v. N.Y. Indep. Sys. Operator, Inc., FERC Docket No. EL15-64-000 (filed May 8, 2015).

³² New York Indep. Sys. Operator, Inc., Compliance Filing and Request for Commission Action within Sixty Days, FERC Docket No. ER16-1404-000 (Apr. 13, 2016).

³³ Docket No. ER16-1404-000, *supra*, Motion Requesting Commission Action on Compliance Filing, Notice of Implementation Plans, and Conditional Request for Tariff Waivers of the New York Independent System Operator, Inc. (July 19, 2019).

³⁴ FERC Docket No. EL19-86-000 (ESR Complaint).

with any unused capacity to be carried-over to the next annual period. Though the ESR Complaint sought a fast track process, it remains pending before FERC.

While the CEE, renewables exemption and the SSE are improvements to the mitigation regime, they are inadequate to address the fundamental flaws of the BSM rules - the Retirement Incentive and Double Payment Problems - that erect an unjust and unreasonable barrier to achieving Public Policy Goals. For example, the renewables exemption is lost if a new intermittent resource that would otherwise qualify for it is paired with storage. Given the inherent rationality of pairing wind or solar facilities with storage resources, this element of the renewables exemption greatly diminishes its value. Additionally, the very limited definition of the types of facilities that can qualify is too limiting to accommodate PPARs needed to meet the Public Policy Goals. So significant changes to the BSM design are required.

e. Federal and State Jurisdiction

As the Commission considers what Resource Adequacy changes may be necessary to achieve the PPGs, jurisdiction must be considered to determine what is within the State's authority to act unilaterally and what actions overlap with federal jurisdiction. In fact, because New York already has a FERC-approved and NYISO-administered ICAP Mechanism, it is possible that one or more Resource Adequacy options designed to rectify the Double Payment Problem previously described could necessitate cooperation from FERC. Certain approaches will likely garner greater market participant support than others and have a better reception at FERC.

The Federal Power Act (FPA) provides the federal government with authority over wholesale electricity markets and interstate transmission.³⁵ Congress reserves to the states authority over retail markets.³⁶ In addition, states have authority over their resource portfolio,

³⁵ 16 U.S.C. §824(b)(1), §824(e).

³⁶ 16 U.S.C. §824(a), §824(b)(1)

and over reliable service.³⁷ Moreover, states authority over generation extends to siting and construction of facilities.³⁸ As concisely stated by the Third Circuit Court of Appeals, “while the federal government has exclusive control over interstate rates and transmission, the ‘[n]eed for new power facilities, their economic feasibility, and rates and services, are areas that have been characteristically governed by the States.’”³⁹

In addition, the State also has authority over public policy. It is well established that states may exercise their police power to promote environmental policies.⁴⁰ Therefore, not only can states determine their resource mix, but they have the right to promote certain resources or attributes in order to assert and achieve public policy goals.

Various states’ exercise of their jurisdictional authority and police power to promote public policy objectives have led to multiple legal skirmishes over their public policies and their impact upon the federally regulated wholesale markets. While the Supreme Court has ruled against certain state activity deemed to directly set wholesale prices, the Court also recognized state authority and many tools available to support public policy objectives. States and FERC have recognized that the focus of this clash may be found in mitigating resources given state support.

³⁷ 16 U.S.C. §824, §824o.

³⁸ 16 U.S.C. §824.

³⁹ PPL Energy Plus, LLC v. Solomon, 766 F.3d 241 (3rd Cir. 2014), quoting, Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n, 461 U.A. 190, 205, 103 S.Ct. 1713, 75 L.Ed.2d 752 (1983).

⁴⁰ See, e.g., New York State Public Service Commission, et al. v. New York Independent System Operator, Inc., Order Granting Complaint in Part and Denying in Part, 158 FERC ¶61,137 (Feb. 3, 2017) Commissioner Bay concurring decision 3 (“Given their plenary police powers, states are free to use their authority to act on behalf of their citizens, as long as they do not ‘intrude on FERC’s authority over interstate wholesale rates’”, citing, Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1298 (2016) (See also, Constitutional Considerations: State Versus Federal Environmental Policy Implementation, Hearing Before the Subcomm. on Env’t and the Economy of the H. Comm. on Energy and Commerce, 113th Cong. (July 11, 2014) (statement of Robert Meltz, Legislative Attorney, Congressional Research Service) (“States, of course, have their own inherent police power to deal with these environmental problems. It is not that they get their authority to do so from the Federal Government.”). Hughes v. Talen 578 U.S. Policy (2016), No. 14-614 slip op. at 15 (“Nothing in this opinion should be read to foreclose Maryland and other States from encouraging production of new or clean generation through measures ‘untethered to a generator’s wholesale market participation.’”)

FERC has recognized that states have jurisdiction over resource adequacy.⁴¹ However, FERC has also recognized that ISOs have been granted authority over resource adequacy standards when an installed capacity market is governed by a tariff that was filed for FERC approval, and stakeholders authorized the ISO to seek FERC approval for resource adequacy determinations.⁴² In other words, states may grant authority to ISOs in order to create capacity markets. However, the creation of a capacity market only means that the ISO may make changes, including standards, that are necessary to run its capacity market. Once a capacity market is approved, this does not mean that a state cannot take back resource adequacy.

The Commission has recognized there are many options to review to renovate Resource Adequacy. If, through this RA Proceeding, the Commission determines that market reforms are necessary, the Commission could seek stakeholder input to develop details of a specific proposal or set of proposals and then move the proposal through the NYISO stakeholder process to ultimately file for a tariff change pursuant to FPA Section 205. .

In the alternative, the Commission may decide that in order to accommodate PPARs into the markets, and to recognize the benefits they provide, it should take-back its control over Resource Adequacy. When evaluating its options, the Commission should consider what can be approved and adopted promptly. New York State has codified very aggressive Public Policy Goals, and it is important to resolve any market barriers to PPARs quickly so new resources may come online and assist the State in reaching its statutory obligations. Therefore, the Commission should take into consideration any potential litigation or regulatory process that may slow necessary changes in determining the best course to achieve the PPGs.

⁴¹ Devon Power, L.L.C., et al., 110 F.E.R.C. ¶61.315 (2005).

⁴² ISO New England Inc., 111 F.E.R.C. ¶61,185 (2005)

III. COMPONENTS OF A COMPREHENSIVE RESOURCE ADEQUACY CONSTRUCT

As stated previously, these Comments are premised on a concept of Resource Adequacy that is much broader than the traditional approach based on the LOLE test that underlies the ICAP Mechanism. An improved Resource Adequacy regime would achieve the following:

- ensure sufficient resources are secured to meet LOLE requirements;
- facilitate entry of new Public Policy Attribute Resources;
- ensure existing PPARs, such as NYPA's hydro facilities and renewable resources whose REC contracts are expiring, are sufficiently compensated that they remain economically viable and available to meet the PPGs;
- retain and attract needed flexible resources in the amounts and locations required;
- eliminate the Double Payment Problem caused by the existing BSM rules;
- provide efficient price signals to incent rational exit of appropriate resources
- secure the flexible, long duration resources necessary to balance the increase in intermittent resources on the system;
- provide appropriate incentives and signals to support transmission and distribution enhancements needed to achieve the Public Policy Goals; and
- be capable of being implemented promptly, commensurate with the time frame required by the Public Policy Goals.

Achieving the foregoing objectives will necessitate significant changes in the capacity procurement mechanism, and in the following sections we will describe various approaches we have evaluated or that have been developed in other regions.

In addition, changes to the E&AS markets will help in achieving these goals. Greater granularity in operating reserve requirements will send the signal to retain and attract flexible resources where they are needed. It is also likely that new or expanded product definitions may be required in the E&AS markets. For example, it may be appropriate to develop additional categories of operating reserves or ramping services. A resource that can provide a very large quantity of energy over an extended period and in a response time shorter than 10 minutes may provide benefits the electric system will require that are not compensated properly under the current E&AS design.

NYPA recognizes that NYISO currently is evaluating E&AS market design revisions. The Commission should actively consider the initiatives NYISO has identified as well as others that can help to facilitate achieving the Public Policy Goals in an efficient and cost-effective manner, as supplements to the narrower capacity market revisions. It also should consider how best to ensure that efficient transmission and distribution expansions necessary to accommodate Public Policy Attribute Resources are developed and constructed in a timely manner. In the following sections, NYPA focuses more narrowly on the approaches available to structure capacity procurement to achieve Resource Adequacy goals.

IV. APPROACHES EVALUATED

A number of approaches to Resource Adequacy and other attempts at accommodating State policy goals into the wholesale markets have been considered both nationally and by stakeholders in New York. NYPA has evaluated a number of approaches, both within the paradigms of the Status Quo Approach and the IRP Approach.

a. Status Quo Approach

1. Two-Stage Capacity Auctions

Two-stage capacity auctions have been considered in various ISOs. In 2011, FERC rejected a proposal from ISO-NE, but stated it generally agreed with the principles of the two-tiered pricing.⁴³ As it has previously been presented, a two-stage capacity auction can present problems that would need to be addressed.

The general concept is to hold two separate stages of a capacity auction. The first stage includes all offers, including those resources that are mitigated bidding at

⁴³ *ISO New England, Inc., et al.*, Order on Paper Hearing and Order on Rehearing 135 FERC ¶61,029 (April 13, 2011). The ISO-NE proposal was called the Alternative Price Rule.

their mitigated minimum offer price. This first stage garners a higher clearing price due to the mitigation of certain resources. In the second stage, a capacity auction is run again, but this time the mitigated resources' bids are not subject to their mitigated minimum offer price. Without mitigated offers, the second auction typically clears at a lower price. Resources that clear both auctions receive the higher price from stage one, while resources that were only accepted in the second auction receive the lower clearing price of stage two.

There are concerns with a two-stage capacity auction. First, there exists possible significant capacity surplus. New York could face an unnecessary surplus of capacity. Additionally, with no incentive to exit the market, incumbent generators may remain in service indefinitely if relatively high capacity prices exceed their going-forward costs. Therefore, LSEs may be required to purchase a large amount of capacity and pay a relatively high price.

Modified approach

The concept of a two-stage capacity auction was first conceived before there were widespread thoughts of accommodating Public Policy Goals into the wholesale markets. With this objective in mind, a modified approach could be created to help incorporate attributes valued by PPGs. For example, first BSM rules would need to be modified to exempt all Public Policy Attribute Resources. Once the necessary exemptions are established, a stage one auction would run using all bids. This auction would determine the capacity prices and the quantify of capacity available. Next, a second auction would run, but would include only PPARs and potentially flexible resources needed to support PPARs. The resources that clear only stage one would

receive the price from that auction, while those that clear stage two receive a premium payment for the enhanced characteristics. This concept would encourage the development of PPARs.

2. Resource Carve-Out

A resource carve-out structure is another market reform that has been reviewed by PJM after it was recommended by FERC. In April 2018, PJM presented two mutually exclusive proposals to FERC seeking approval of either one.⁴⁴ First, PJM proposed capacity repricing, a two-stage auction approach. Second, if FERC rejected capacity repricing, PJM proposed MOPR-Ex, which would expand mitigation to state-subsidized resources new and existing, with limited exemptions. However, on June 29, 2018, FERC rejected both proposals.⁴⁵ Instead of its approval, FERC offered advice, and suggested PJM entertain a Fixed Resource Requirement Alternative. FERC's recommendation was essentially to exclude state-sponsored resources from the capacity market and deduct a commensurate amount of load from the capacity market. The concept is that state-sponsored resources will receive revenues from state programs instead of through the capacity market. However, the capacity from state-sponsored resources will be recognized by the markets with the removal of an equivalent amount of load, thus preventing a surplus of unnecessary capacity.

⁴⁴ PJM Interconnection, L.L.C., Capacity Repricing or in the Alternative MOPR-Ex Proposal: Tariff Revisions to Address Impacts of State Public Policies on the PJM Capacity Market, FERC Docket No. ER18-1314-000 (April 9, 2018).

⁴⁵ PJM Interconnection, L.L.C., Order Rejecting Proposed Tariff Revisions, 163 FERC ¶61,236 (June 29, 2018).

There remain some issues with a carve-out proposal. This approach offers no incentive for incumbents to retire. Also, carving-out state-supported resources from one market could lead renewables and others to export to another market.

3. Substitution

A substitution model has recently been adopted by ISO-NE in its forward capacity auction (FCA), called the Competitive Auctions with Sponsored Policy Resources (CASPR).⁴⁶ The CASPR substitution model operates as follows: the FCA runs first, maintaining current process and MOPR applications. Winners of bids receive capacity supply obligations (CSOs). Next, a substitution auction runs directly after the FCA. Existing resources with CSOs from the primary auction may offer a demand bid in the substitution auction but must agree that if their offer is accepted, they will retire permanently. Demand bids may be offered at or below the CSO value. Conceptually, a state-sponsored resource will likely fail to clear the primary FCA (likely due to mitigation measures) and will then bid in the substitution auction to gain a CSO. If an existing resource clears the substitution auction, it transfers its CSO to a substitute resource and retires permanently. The existing resource that transfers its CSO receives payment of the primary FCA but pays the substitute resource the price of the substitution auction clearing price. The existing resource keeps the difference between the primary and the substitution auction clearing prices as a severance payment, and the substitute resource steps accepts the CSO of the existing resource, free of mitigation measures. Thus, the existing resource receives an incentive to retire and the substitute resource enters the market, and its provided capacity is recognized by the market.

⁴⁶ ISO New England Inc., Order on Tariff Filing, 162 F.E.R.C. ¶ 61,205 (2018).

ISO-NE has experienced problems with its CASPR program. Not as many existing resources chose to retire as compared to the amount of state-sponsored resources desiring to enter the market and willing to replace the existing resources. Additional reviews need to be done, but as it stands, CASPR may present a barrier to new entry of resources with policy-supportive attributes until the substitution price outweighs the going-forward earning potential of older fossil units. One issue with this design is that the going-forward earning potential of these legacy fossil units may be high for years to come without a mechanism that allows for the entry of new resources not subject to mitigation.

b. IRP Approach

In the alternative to the Status Quo Approach, the State may take over resource adequacy under an IPR Approach. California adopted an IRP Approach to assuring Resource Adequacy. In 2004, the California Public Utilities Commission (CPUC) adopted a Resource Adequacy policy framework to ensure reliability of electric service.⁴⁷ The program was developed in response to the California energy crisis in 2001, when the State faced blackouts. The CPUC established RA obligations for all LSEs within its jurisdiction. The CPUC sets three types of Resource Adequacy requirements: System RA, Local RA, and Flexible RA. System RA requirements are based on each LSE's adjusted forecast plus a 15% planning reserve margin, like New York's IRM. Local RA requirements are based on an annual CAISO study using a 1-10 weather year and an N-1-1 contingency analysis. Flexible RA requirements are based on an annual CAISO study that currently reviews the largest three-hour ramp for each

⁴⁷ Public Utilities Code Section 380.

month needed to run the system reliably.⁴⁸ Bilateral contracting makes up the majority of the forward capacity procurement. The LSEs then conduct competitive solicitations to secure their portfolio requirements. Once completed, the resulting contracts are filed with the CPUC for approval of cost recovery. The CPUC conducts enforcement proceedings if LSEs fail to acquire capacity to meet load and reserve requirements. LSEs file monthly compliance documents demonstrating they have sufficient capacity.

V. APPROACHES FOR FURTHER CONSIDERATION

As previously stated, a comprehensive approach to Resource Adequacy will address broadly the E&AS market design, transmission and distribution expansion planning and incentives as well as capacity procurement. We stress that from the narrower capacity procurement perspective, any solution must correct the Retirement Incentive and Double Payment Problems and recognize the contribution of NYPA hydro resources and resources with REC contracts that have expired. Certain approaches to solving these problems, and in particular the Double Payment Problem, may require revision to the existing NYISO tariff and therefore action from FERC (or from a court, if FERC approval is not forthcoming). Moreover, time is of the essence to implement a solution to these problems to facilitate procurement of the quantities of Public Policy Attribute Resources needed to satisfy the Public Policy Goals.

Accordingly, as the Commission evaluates the approaches below, NYPA believes it should recognize that an approach that can garner sufficient stakeholder support to achieve a 58% vote, or one that FERC could endorse under a FPA 206 complaint, may have considerable benefit compared to an approach that is more likely

⁴⁸ CPUC website, Resource Adequacy The Basics, available at: <https://www.cpuc.ca.gov/RA/>.

to require lengthy litigation to implement. In our view, FERC, NYISO and stakeholders have a significant incentive to reach a compromise solution to Resource Adequacy.

Their incentive lies in the recognition that if FERC persists in a market design that stymies achievement of New York's statutorily mandated Public Policy Goals, or insists on an approach that fails to correct the Double Payment Problem, then it will in effect be ordering the continuation of rates and practices that will be increasingly unjust and unreasonable, and therefore likely to be rejected on judicial review in favor of an approach proposed by the State, such as a IRP Approach. With that perspective in mind, NYPA believes that the following Status Quo and IRP Approaches should be evaluated by the Commission and all stakeholders.

a. Status Quo Approach

One approach (Multiple Characteristic Pricing, or MCP)⁴⁹ could be fashioned that would use the existing demand curve spot market auction mechanism, but instead of the current structure that co-optimizes only among the IRM and LCRs would co-optimize over additional parameters. Under this approach, the Commission would establish portfolio requirements that each LSE must secure through the auction, if not achieved through bilateral and self-supply arrangements. These would presumably reflect, for example, a certain percentage of hydro, wind, solar and other zero carbon resources. It could also set requirements for the flexible resources that will be needed to maintain a reliable system with the intermittent resource additions.

To address the Double Payment Problem, MCP would have to be paired with an exemption from BSM for all Public Policy Attribute Resources. This is entirely

⁴⁹ The MCP model is described in greater detail in comments submitted in this proceeding by the Joint Utilities, of even date herewith.

appropriate, because the State has no choice in adding PPARs to meet the legislatively mandated PPGs. Thus, the PPARs are added not to suppress clearing prices but to meet the State's statutory obligations, and therefore BSM should not apply to these resources. In the short run, clearing prices would likely fall as significant PPAR capacity is added, but this circumstance would be transitory and would provide the incentive for the environmentally obsolete, high carbon emitting resources to retire, thereby addressing the Retirement Incentive Problem.

A second approach that warrants consideration (CRIS+) would establish tradable CRIS rights paired with BSM exemption. This CRIS+ mechanism would be similar in concept to ISO-NE's CASPR mechanism but modified to fit the NYISO markets. Through bilateral negotiations (instead of the FCA substitution auction applicable to CASPR), new PPARs would procure from existing thermal resources a commitment for an existing resource to retire and transfer to the new PPAR its CRIS rights. Unlike our current market rules, however, which contemplate the transfer of CRIS rights but do not include an associated exemption from BSM for the new resource, this mechanism would carry with it a BSM exemption, just as CASPR does.

This mechanism should be coupled with a revision to the existing BSM rules to provide that BSM would apply only for a limited time, such as 2 or 3 years. The limitation on BSM should apply to existing resources as well as new PPAR, because maintaining the existing disconnect between the quantity of supply on the system and the quantity that qualifies to serve the capacity obligation perpetuates an inefficient market design and inefficient price signals.

Limiting the period in which BSM applies would go a long way to address the Retirement Incentive Problem, as existing resources would recognize that the current artificially high, BSM-driven clearing prices will not continue permanently and therefore they would have an incentive to strike a reasonable negotiated outcome promptly. If the incumbent strikes too hard a bargain, the PPAR knows that its disqualification from capacity payments will be of limited duration and therefore can plan around this temporary issue. Further, the limited application of BSM should continue to act as a barrier to entry for a resource whose purpose is to suppress prices. Such an approach strikes a balance between the regulatory certainty required to support cost-effective investment and the need to transition the system resources to meet PPGs.

b. IRP Approach

Although likely to engender greater opposition from certain stakeholders and FERC, the Commission should strongly consider a modified CAISO-type procurement approach, if market participants and FERC fail to endorse a satisfactory solution based on the Status Quo Approach. The Commission would establish portfolio requirements applicable to each LSE to secure the PPAR and other flexible resources required to meet Public Policy Goals. Each LSE would issue a competitive solicitation to procure its portfolio, to the extent it does not already have such resources via existing self-supply or bilateral contract.

Any such auction design should be structured to employ a uniform clearing price mechanism. The benefits of a uniform clearing price mechanism in terms of market

efficiency and consumer impacts have been long recognized. This type of auction can be expected to yield the greatest consumer benefits.⁵⁰

It should be recognized that requiring LSEs to execute the quantity of power purchase agreements (PPAs) that would be necessary under such an approach would materially increase their debt obligations (because PPAs are reflected as debt on their books) and risk exposure. Thus, one negative aspect of this approach is that it may increase costs and required returns on investment that would have to be passed on to consumers relative to a Status Quo Approach. However, one modification to this approach may be worth considering, as it would likely produce consumer cost savings. If an independent entity, possibly NYSERDA, were to conduct a centralized procurement of PPAR, it could allocate the costs of that procurement to each LSE, thus enabling the LSEs to avoid having to carry individual PPAs on their books and the administrative burden of administering competitive solicitations.

VI. COMMUNICATIONS

NYPA requests that all correspondence and communications concerning this filing be sent to each of the following persons and that each are included on the Commission's official service list for this filing.⁵¹

Glenn D. Haake
Special Counsel
New York Power Authority
30 South Pearl Street – 10th Floor
Albany, NY 12207-3245
Tel: (518) 433-6720
Glenn.Haake@nypa.gov

Andrew Antinori
Senior Director Market Issues
New York Power Authority
123 Main Street
White Plains, NY 10601
Tel: (914) 287-3726
Andrew.Antinori@nypa.gov

⁵⁰ See <http://www.cramton.umd.edu/papers2005-2009/baldick-single-price-auction.pdf>

⁵¹ Complainants respectfully requests waiver of 18 C.F.R. § 385.203(b)(3) to allow each person listed to be included on the Commission's official service list for filing.

VII. CONCLUSION

NYPA supports the Commission's decision to take a hard look at the role Resource Adequacy should occupy in New York's evolving electric markets and the challenges posed by the decarbonization objectives of the State's Public Policy Goals. These Comments identify potential approaches the Commission may wish to consider in determining the most cost-effective and efficient approach to achieving the PPGs. Whatever approach the Commission decides to pursue, it is imperative that it ensure that existing resources such as NYPA's hydro facilities and renewable resources whose RECs are expiring be afforded the opportunity to earn appropriate compensation to ensure their continued availability and economic viability. Failure to do so will greatly impede the State's ability to achieve the PPGs. Addressing the flaws of the existing ICAP Mechanism and developing an improved approach is an extremely complicated undertaking. NYPA stands ready to assist the Commission as it pursues this important objective.

Dated: November 8, 2019

Respectfully submitted,

/s/ Glenn D. Haake

Glenn D. Haake
Special Counsel
New York Power Authority
30 South Pearl Street – 10th Floor
Albany, NY 12207-3245
Tel: (518) 433-6720
Glenn.Haake@nypa.gov

/s/ Alan T. Michaels

Alan T. Michaels
Lead Energy Market Advisor
New York Power Authority
30 South Pearl Street – 6th Floor
Albany, NY 12207-3245
Tel: (518) 433-6716
Alan.Michaels@nypa.gov