UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York State Public Service Commission and New York State Energy Research and Development Authority	)	
	)	Docket No. EL19-86-000
v.	)	
New York Independent System Operator, Inc.	)	

MOTION TO INTERVENE AND COMMENTS OF THE NEW YORK ISO'S MARKET MONITORING UNIT

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (Commission), 18 C.F.R. §§ 385.212 and 214 (2007), Potomac Economics respectfully moves to intervene in the above-captioned proceedings.[1]

The New York Public Service Commission and the New York State Energy Research and Development Authority have filed a complaint requesting the Commission to, *inter alia*, exempt energy storage resources from the buyer-side mitigation rules. Potomac Economics is the Market Monitoring Unit ("MMU") for NYISO and is responsible for monitoring the electricity markets and evaluating potential rule changes that impact these markets.

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[1] We respectfully ask the Commission to accept these comments, which are one day out of time.

I. NOTICE AND COMMUNICATIONS

All correspondence and communications in this matter should be addressed to:

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II. BACKGROUND AND PURPOSE

This proceeding resulted from a complaint by the New York Public Service Commission ("NYPSC") and the New York State Energy Research and Development Authority ("NYSERDA") that sought to modify the NYISO Services Tariff to create exemption for energy storage resources ("ESRs") from the buyer-side mitigation ("BSM") rules. The BSM rules are used in certain capacity zones (New York City and Lower Hudson Valley) to prevent entities from artificially depressing prices below competitive levels by subsidizing the entry of *new* uneconomic capacity.

These comments discuss our concerns with creating blanket BSM exemptions for ESRs as proposed by the complainants. Section III discusses the importance of the BSM measures for ensuring that the NYISO wholesale market performs competitively and how they currently

accommodate state policies. Section III also discusses a mechanism that could be created to accommodate larger quantities of subsidize resources while preserving the role of the wholesale market in motivating economic entry and retirements. Section IV provides our conclusions.

III. ACCOMMODATING SUBSIDIZED RESOURCES IN THE ICAP MARKET

NYPSC and NYSERDA filed a complaint requesting the Commission to, *inter alia*, (a) find that the NYISO's tariff subjecting ESRs to BSM measures is unjust and unreasonable, (b) grant either a blanket or limited exemption to ESRs from BSM measures, and (c) fast track the processing of their complaint. In this section, we discuss the importance of BSM measures, the role of capacity markets, and their interaction with state policies, and we discuss a potential mechanism for accommodating state-sponsored resources instead of granting individual exemptions.

A. Importance of BSM Measures

The BSM measures are designed to prevent entities from suppressing capacity prices below competitive levels by subsidizing uneconomic new entry of a conventional generator. The BSM measures deter uneconomic new entry by imposing an Offer Floor that prevents the new generator from selling capacity at prices below its costs. Hence, the BSM measures largely prevent the new generator from suppressing capacity prices, so a large entity will be deterred from subsidizing new entry when its primary purpose would be to suppress prices.

The BSM measures are not intended to deter states from promoting clean energy and other legitimate public policy objectives. However, the BSM measures are an important tool for ensuring a workable balance between facilitating state policy objectives and ensuring that prices are just and reasonable for both merchant and subsidized resources. This balance is critical because if market participants lose confidence in the market and the competitiveness of future

prices, the market will fail to fulfill one of its primary purposes – to efficiently facilitate private investment and retirement decisions.

Although the primary objective of subsidies for clean energy is to promote environmental policy, ambitious policies to add large amounts of supply without removing less-clean existing generation will tend to suppress prices in the short-term. Indeed, NYSERDA's recent offshore wind study acknowledges that subsidies for offshore wind will reduce wholesale market prices (if granted Renewable Energy Exemptions from the BSM measures), thereby helping to offset the cost of subsidies that are ultimately passed on to consumers.[2]

Just and reasonable capacity prices are particularly important in the NYISO because it operates a spot market where the capacity price is set based on the level of supply and a "demand curve" based on the annualized cost of new entry of a conventional generator assuming a 20-year investment horizon. When supply increases significantly above the resource adequacy requirement, prices fall below the annualized Net CONE. Conversely, when the surplus falls near the requirement, prices rise above Net CONE. Hence, investors build generation based on the assumption that the NYISO will remain committed to competitive markets over the 20+ year investment horizon. Merchant generators risk capital without a guarantee to future revenue. To ensure just and reasonable capacity prices, the BSM measures should prevent out-of-market subsidies from upsetting the balance between supply and demand over an extended period.

To accomplish these purposes, the BSM measures provide several types of exemption to allow generators to sell capacity:

- *Competitive Entry Exemption* – Generators receive a CEE if they are willing to enter the market without subsidies or other support. Competitive new entry benefits

[2] See Appendix E.4 of NYSERDA's (2018) *Offshore Wind Policy Options Paper*.

consumers by reducing prices and encourages older high-cost existing generation to retire.

- *Part B Test Exemption* – Generators receive this exemption if they can demonstrate their annualized net cost of new entry is lower than expected capacity prices over the first three years of operation. Like the CEE, this allows consumers to benefit from low-cost new entry.
- *Part A Test Exemption* – Generators receive this exemption if their entry does not lead to an abnormally large capacity surplus. In the New York City, this is approximately 600 MW above the capacity requirement. In the lower Hudson Valley, this is approximately 710 MW above the requirement. This exemption could allow subsidized resources to sell capacity provided that the volume of new entry from subsidized resources is reasonably balanced by policies that lead to retirements of older generation.
- *Renewable Entry Exemption and Self Supply Exemption* – The Commission has directed the NYISO to file these but it also affirmed the need for such exemptions to be limited so that capacity prices are not suppressed below competitive levels.[3] It is unclear what limits will be placed on these exemptions since the Commission has not yet ordered on these compliance filings.

For energy storage resources, the Part A Test Exemption provides a viable means to sell capacity provided that the state policies are reasonably balanced between adding supply and

[3] *New York Public Service Commission, New York Power Authority, and New York State Energy Research and Development Authority v. New York Independent System Operator, Inc.,* 153 FERC ¶ 61,022 (2015) at PP 51 ("We agree with NYISO that a renewable resources exemption in NYISO should be limited to renewable resources that are both purely intermittent and that have relatively low capacity factors and high development costs because these resources have limited or no incentive and ability to artificially suppress capacity prices. In addition, the exemption should limit the total amount of such renewable resources—in the form of a megawatt cap—that may receive the exemption, to further limit any risk that these exempted resources will impact NYISO's ICAP market prices.").

retiring older generation. Subsection B discusses state policies that will lead to the retirement of up to 6 GW of generation from 2020 to 2025 and how this should allow most subsidized resources to receive Part A Test Exemptions.

In addition, energy storage costs are falling quickly so that battery storage resources are expected to receive CEE and Part B test exemptions in the near future. However, if these exemptions are inadequate to satisfy state policy-makers and the Commission agrees that some modification of the BSM measures is needed to facilitate state policy, we recommend a mechanism that would maintain a reasonable balance between supply and demand in the capacity market. This mechanism is discussed in Subsection C.

B. Role of Capacity Markets and Interaction with State Policies

Capacity markets supplement energy and ancillary services markets by providing the "missing money" to resources that are required for satisfying the planning reliability requirements.[4] Economic signals from the capacity market play a key role in motivating efficient entry and exit decisions. These signals complement New York state policy initiatives by: (a) ensuring that while some entry and exit from the market is policy-driven, market signals will still encourage investment needed to maintain reliability; and (b) rewarding subsidized resources that provide greater value to the wholesale market, thereby reducing the cost of developing new policy resources.

New York state has used its permitting authority to bring about the retirement of 3 GW of coal and nuclear capacity in 2020 and 2021. Another wave of retirements (up to 3 GW) is expected from 2023 to 2025 when the NYDEC tightens air permit requirements for older

[4] The "missing money" refers to the revenues over and above those earned from selling energy and ancillary services that are needed to provide market incentives for maintaining sufficient capacity margins to satisfy planning reliability criteria such as the "one-day-in-ten-year" reliability standard.

peaking units in non-attainment areas. Approximately 1.8 GW of new merchant generation has been built or is expected to become operational between 2018 and 2020, and this private investment has been partly motivated by these expected policy retirements. On the other hand, state subsidies for new entry of policy resources will tend to reduce the amount of merchant generation that enters the market. As long as the surplus capacity does not become abnormally large, state-subsidized resources are expected to pass the Part A test.[5] Hence, the capacity market complements public policies by ensuring that these policy retirements will not lead to high prices or violations of planning reliability criteria.

The NYISO markets also complement state policies by providing market incentives for resources that provide greater value. Generators that locate in areas that cause less congestion or help relieve congestion receive significantly more revenue. Resources that provide greater resource adequacy benefits also receive more compensation in the capacity market. The NYISO markets provide key incentives that influence the selection of specific projects to build renewable generation and energy storage resources. For example, many of the peaking units that will retire between 2023 and 2025 because of tightening air permit requirements are located in import-constrained load pockets, so the NYISO markets will provide incentives that attract some subsidized resources to these load pockets where they can be rewarded for providing significant reliability benefits. These market incentives ultimately lead to selection of more efficient public policy projects, which reduces the cost of these policies for consumers.

[5] In our *2018 State of the Market* report (section VIII.D), we examined the degree to which current BSM rules could exempt state-subsidized resources in Zone J, given the state policies to subsidize or retire resources. Our analysis showed that 740 MW (Summer UCAP) or 64 percent of subsidized resources may receive exemptions in their first year of operation under the Part A test. Our study was based on a realistic set of assumptions (1.2 GW of ESR entry and 800 MW of offshore wind entry by 2030) given the targets at the time of analysis.

Subsidized new entry can disrupt these long-term economic price signals that facilitate merchant entry and exit. However, capacity markets in New York (through market response and/or application of BSM rules) have performed reasonably well in regulating entry and exit decisions even as the state has sought to effect a number of resource mix changes.[6] The capacity market would not be able to attract investment without the NYISO's strong commitment to competitive market principles and BSM measures that ensure subsidized entry does not drive prices below competitive levels.

The Commission has recognized there are legitimate public policy objectives which affect the wholesale markets, and it has allowed for narrowly tailored exemptions for certain resource types such as renewables. However, large quantities of subsidized resources could overwhelm the supply-demand balance in the capacity market and could result in substantial artificial capacity surpluses that may not be absorbed for several years.

As described in the complaint, New York state has ambitious targets for a variety of resource types. For example, the state has a target of 3 GW for ESRs by 2030 and 9 GW of offshore wind by 2035. One of the primary arguments made by the PSC for establishing a new exemption for ESRs is that they are small, unlikely to significantly affect capacity prices. In arguing for the exemption, it correctly points out that there is no threshold for triggering BSM rules. We do not find these arguments to be valid. The need for BSM measures is driven not by the size of individual generating projects or portfolios, but by the aggregate amount of generating capacity that receives out-of-market subsidies. For example, the effects of one hundred individual 5 MW projects entering the market is no different from one 500 MW generator

[6] For instance, in the last one year over 800 MW of efficient merchant entry has occurred in the Mitigated Capacity Zones in NYISO.

entering the market. Accordingly, BSM measures should not consider the sizes of the new resources.

In addition, the peak load in New York is projected to remain flat or even decline over the foreseeable future. Therefore, granting exemptions for several individual categories of resource (such as ESRs or renewables or SCRs) could lead to significant price distortions in the capacity market even if the size of the individual resources is small. Ultimately, this could severely undermine the ability of capacity markets to incent new entry and exit through just and reasonable rates. Hence, we do not believe it is necessary or beneficial to establish an ESR-specific exemption from BSM measures. As an alternative to granting the requested exemption, the BSM measures could be improved to better accommodate the State's policy initiative to invest in ESRs. The next section discusses how the existing BSM measures and recommended improvements could together better accommodate the State's initiatives.

C. Mechanisms to Accommodate State Actions

In considering the existing BSM rules and possible improvements, it is important to recognize how State policies can adversely affect the markets. Subsidized entry in the wholesale electricity market is problematic to the extent that it artificially alters the supply and demand balance. This is the primary issue because this change in the supply and demand balance can significantly change prices and other market outcomes. Hence, to the extent that current and new BSM rules minimize artificial changes in the supply demand balance resulting from public policy initiatives, these rules will protect the integrity and performance of the capacity market.

The Part A Test Exemption can be adequate in allowing subsidized resources to sell capacity as long as the pace of subsidized entry is generally matched by retirements and the surplus of capacity does not reach abnormally high levels. However, if the volume of subsidized entry outstrips the pace of retirements, subsidized resources will likely be mitigated and

consumers will have to bear excess costs. Therefore, mitigating subsidized resources based on the existing rules may be an inefficient outcome. We believe there are several pathways for accommodating entry of subsidized entry while preserving the ability of capacity markets to set just and reasonable prices that provide efficient incentives for entry and exit.

The Part A Test is designed to allow for new entry of subsidized resources as long as it does not create artificial surpluses that cause capacity prices to be suppressed substantially below competitive levels. Specifically, a new generator will receive an exemption as long as it does not cause capacity prices to fall below 75 percent of the annualized net cost of entry of a new peaking unit. Hence, new subsidized generators can enter and sell capacity as long as the surplus capacity margin remains relatively moderate (less than 6 percent). Consequently, state policies to subsidize some resources are less likely to be mitigated if paired with policies to retire some existing resources. To the extent that the NY state desires to procure additional resources beyond the ones exempted through the Part A test, an additional mechanism that explicitly coordinates the entry of subsidized resources with the retirement of resources could be developed. We collaborated with ISO-NE to develop the CASPR framework for accommodating state-sponsored resources, and a similar framework could be implemented in New York.

CASPR allows a subsidized resource (that is initially mitigated) to acquire a capacity obligation from an existing resource that agrees to retire in exchange for a payment from the developer of the subsidized resource. Therefore, CASPR allows state-subsidized resources to enter the market and sell capacity, while ensuring that this does not lead to increasing capacity surpluses. In addition to preventing artificial surpluses, such an approach would obviate the need for exemptions that are specific to a technology and/or size such as the one requested by the complainants.

IV. CONCLUSIONS

The wholesale market is critical for efficiently satisfying the reliability needs of New York. Efficient market performance in this area is essential because it is fundamental to delivering the benefits of competitive markets to the State's consumers. Although subsidized investment may suppress prices in the short-term, markets that perform poorly over the long-run will fail to facilitate efficient investment and retirement decisions and raise costs considerably.

The BSM rules play a critical role in ensuring that out-of-market investment does not suppress capacity prices below competitive levels in the short-run. The BSM rules reasonably balance the goal of protecting the integrity of the market by ensuring efficient capacity prices against the goal of facilitating capacity sales by state-subsidized resources. Given New York's ambitious agenda for promoting clean energy policies, evolving the BSM framework to apply rules similar to the CASPR rules in New England could be beneficial.

However, we do not support the complainant's proposal to introduce a technology-specific exemption for ESRs and respectfully recommend that the Commission reject this proposed exemption.

Respectfully submitted,

/s/ David B. Patton

David Patton
President
Potomac Economics, Ltd.

August 19, 2019

CERTIFICATE OF SERVICE

I hereby certify that I have this day e-served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 19th day of August 2019 in Fairfax, VA.

/s/ David B. Patton