

March 20, 2023

By Electronic Portal

Honorable Michelle L. Phillips Secretary to the Commission New York State Public Service Commission Empire State Plaza Agency Building 3 Albany, New York 12223-1350 Email: secretary@dps.ny.gov

Subject: Case No. 18-E-0130 -- In the Matter of Energy Storage Deployment Program

Dear Secretary Phillips:

In response to the New York State Public Service Commission's *Notice Announcing Webinars and Soliciting Comments* issued in the above captioned proceeding on February 6, 2023, the New York Independent System Operator, Inc. hereby submits comments for consideration.

Respectfully submitted, <u>/s/ James H. Sweeney</u> James H. Sweeney, Senior Attorney New York Independent System Operator, Inc. 10 Krey Boulevard Rensselaer, NY 12144 Tel: (518) 356-6000

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person

designated on the official service list compiled by the Secretary in this proceeding.

Dated at Rensselaer, NY this 20th day of March 2023.

/s/ Elizabeth Rilling

Elizabeth Rilling New York Independent System Operator, Inc. 10 Krey Blvd. Rensselaer, NY 12144 (518) 356-6177

STATE OF NEW YORK PUBLIC SERVICE COMMISSION

CASE 18-E-0130 - In the Matter of Energy Storage Deployment Program

Comments of the New York Independent System Operator, Inc. on New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage

The New York Independent System Operator, Inc. ("NYISO") values the efforts put forth by New York State Energy Research and Development Authority ("NYSERDA") and Staff of the New York State Department of Public Service ("DPS Staff") to develop New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage ("Roadmap"). Given the ambitious and challenging requirements ahead, the NYISO looks forward to continued, constructive coordination with the Public Service Commission ("Commission" or "PSC"), DPS Staff, and NYSERDA to pursue achievement of the State's energy storage deployment policy by 2030. The competitive wholesale electricity markets provide an effective platform to drive resource development while maintaining the reliability of the statewide electric system.

Currently, the NYISO Tariffs treat Energy Storage Resources ("ESRs") as Suppliers in the wholesale electric markets. ESRs are economically scheduled to inject energy onto, or to withdraw energy from the grid. ESRs include technologies like batteries and pumped hydro storage. ESRs capture energy produced at one time to charge, store the energy, then inject energy onto the grid at a later time, when it is more valuable. ESRs must, on net, consume electricity as they are not capable of producing electricity. Therefore, ESRs require excess energy not needed to serve other electric load to charge. Any generation resource on the grid today may produce this charging energy, including fossil-fired generators. ESRs participating in the NYISO-administered wholesale energy markets are dispatched and utilized to promote reliability and efficiency, shift load to less-constrained hours, manage intermittent renewable resource output, and reduce transmission congestion.

When dispatched effectively, energy storage can increase the utilization of clean, renewable generation and deliver that clean energy to loads. Storage may complement renewable resources by charging, *i.e.*, withdrawing electricity, when renewable resources are producing more than needed to serve load, or by charging using electricity that would otherwise need to be spilled from the system due to transmission limitations that temporarily prevent delivery of the electricity to load. Withdrawing during opportune times reduces transmission congestion or allows the system as a whole to not be hindered by congestion. Then, ESRs can inject electricity when it is needed; for example, at times when resources fueled by wind or solar energy are not available or are only producing a small fraction of their full capability. The quantity of ESRs contemplated in the Roadmap would store a substantial quantity of energy for later use on the grid. The NYISO will be able to economically dispatch the ESRs to reduce the impacts of transmission congestion, and to bridge short duration and cyclical daily renewable resource output lulls. Accommodating the operation of intermittent renewable resources will become more important as more and more renewable generation resources connect to the grid.

Storage resources represent additional net load to the grid because they must consume more electricity to charge than they can later inject. Therefore, the introduction of storage resources in significant quantities onto the electric system should ideally be staged not to outpace the introduction of the new clean, renewable resources envisioned by the Climate Leadership and Community Protection Act ("CLCPA"). Adding substantial quantities of ESRs before renewable

resources are sufficiently built-out to provide charging energy may result in storage resources relying on fossil-fired, and other non-renewable, generation to charge. As a result, storage may be unable to charge efficiently, at cost-effective prices, and could struggle to earn sufficient market revenues to remain in operation. In fact, adding ESRs to a grid that is, or is becoming, generation resource constrained could lead to higher electric demand and potentially higher electric prices (and costs to consumers). It could even exacerbate electric supply shortfalls compared to a similar grid without a significant penetration of ESRs.

Competitive wholesale electricity markets are an efficient and necessary element of achieving New York State's resource development and environmental goals. The NYISO seeks to minimize production costs of suppliers to provide low-cost electricity for all New Yorkers. To allow the markets to minimize the cost of supply, all resource technologies that can support system needs, including ESRs, must be encouraged to fully participate in the NYISO-administered wholesale energy markets. Efficient wholesale markets depend on competition and transparent price signals that accurately reflect system needs. The price signals in the NYISO markets provide the foundation for economically efficient storage, generation, transmission, demand response, and energy efficiency investment decisions. Supply resources, including ESRs, rely on competitive offers and prices to determine when they will charge and when they will inject energy. At the same time, the NYISO recognizes that competitively awarded financial incentives may be necessary to facilitate resource development in the timeframe required by the CLCPA.

Competitive financial incentives could encourage developers to invest in supply technologies with the attributes sought, in the locations with the highest expected revenue value, and to operate those resources in response to market prices that reflect operational needs.

Competitive financial incentives, followed by ongoing exposure to market-based energy prices, will drive developers and owners to build and operate storage resources where and when the resources are needed on the electric system.

The NYISO respects the State's consideration of financial incentives, such as those discussed in the Roadmap, *e.g.*, Index Storage Credit ("ISC"),¹ or those discussed in the final Scoping Plan, *e.g.*, Clean Dispatch Credits ("CDC")² or a renewable energy credit ("REC")-like product, to increase the number of new targeted resources, including ESRs, interconnecting to the electric grid. If needed to facilitate resource development, such incentives should be designed to encourage storage resources to possess the capability to charge from the grid, even if the storage is coupled with other generation or load resources. The capability to charge from the wholesale electric grid improves a storage resource's ability to provide reliability services by enhancing the overall ability of the storage resource to inject or withdraw energy from the grid consistent with market incentives. At times when wholesale market purchases are the lowest-cost source of charging energy available, storage resources that can purchase from the NYISO's markets will enjoy a competitive advantage. Minimizing the cost storage devices incur to procure charging energy should ultimately lower electricity prices for consumers.

Pursuant to the Notice Announcing Webinars and Soliciting Comments issued on February 6, 2023,³ the NYISO respectfully submits these comments in response to the Storage Roadmap filed by NYSERDA and DPS Staff.

¹ See Roadmap at pp. 45-46.

² See New York State Climate Action Council's Final Scoping Plan ("Final Scoping Plan") at p. 241, available at <u>https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf</u>.

³ Case 18-E-0130, *In the Matter of Energy Storage Deployment Program*, Notice Announcing Webinars and Soliciting Comments (February 6, 2023).

I. COMMENTS

A. Energy Storage Resource Development Should Not Outpace Renewable Energy Resource Development

In the future when there is a surplus of renewable, weather-dependent generation in operation and New York is relying on tens of thousands of MW of resources that have variable, intermittent output characteristics (*e.g.*, wind and solar resources), it will need energy storage devices to both (a) store electricity produced by intermittent resources in excess of the New York Control Area ("NYCA") or relevant locational load, and (b) provide energy to the grid at times when lulls in intermittent output occur. Storage devices will need to provide these services both very quickly (changing their operation in response to signals that the NYISO issues every 6 seconds), and potentially for long periods of time (multiple hours, or even days) when intermittent output is less than, or greater than, demand.

Storage will be needed and most useful when there is an abundance of clean energy production. "Energy storage will play a critical role in supporting New York's decarbonized electric grid by integrating large quantities of variable renewable energy, reducing curtailment, and storing renewable generation for the times it is needed most."⁴ Today, renewable resource production is regularly insufficient to both serve other load and provide the charging energy needed for ESRs. Without a surplus of generation, ideally clean renewable generation, to "fuel" the storage, storage could become just another burden or load on the grid that available sources of supply may not have the capacity to serve. Increased electricity production is needed before a significant quantity of ESRs can be relied on as supply resources or to alleviate transmission congestion.

⁴ Roadmap at p. 6.

Near-term load increase could negatively impact the balance of the electric system or, in extreme cases, jeopardize the reliable operation of the electric system. Load is generally expected to increase as the electric system will soon be called upon to serve as the primary source of energy for other sectors of the economy (*e.g.*, heating, transportation). At the same time, storage resources consume more energy than they can inject back onto the power system, so adding storage will further increase overall load.

As renewable resources are developed in accordance with the CLCPA, the total capability of wind and solar intermittent resources is expected to exceed demand and transmission capability. At times when wind or solar resources are producing more energy than the system needs to serve load or than the transmission system can carry, appropriately located ESRs could efficiently store the excess renewable output to serve load after renewable output subsides. Absent efficient charging opportunities that result from the variability of intermittent renewable resource output, storage resources may not be able to earn sufficient market revenues to remain in operation.

Given the interaction between storage resources and intermittent power generation, the addition of storage resources should not outpace the actual deployment of renewables onto the system.⁵ Additional storage may not be beneficial on a system where intermittent resource output rarely or never exceeds demand. For example, if storage resources are developed in large quantities in New York City before any offshore wind generation is completed, the charging demand of those additional storage resources could increase load in load pockets that are already transmission-constrained. At a minimum the storage would be expected to increase LBMPs

⁵ For the reasons explained on pages 5-7 of these comments, NYSERDA should consider structuring its incentives to support the appropriately timed introduction of storage onto the system. Adding substantial quantities of storage before renewable resources are sufficiently built-out to accommodate their operation may result in storage resources that are unable to earn sufficient market revenues to remain in operation.

when charging and, at times, the storage may not be able to charge without dispatching additional fossil fired generation.

Storage development could benefit from following the deployment of the renewable resources mandated by the CLCPA. ESR developers could increase their revenue and increase the system benefits from their resources if they locate where surplus energy is available for a portion of the day and energy can be injected, without being bottled by transmission constraints, when the power system needs it the most. Under these conditions, ESR developers benefit from marginal energy prices being lower when surplus energy is available and higher when their resources are injecting in response to system demand.

B. Storage Alone is Not a Complete Solution

While storage is a critical part of New York's future resource fleet, it is only one component of the total solution. The electric system will require electricity production to reliably meet demand across a wide range of conditions, every day of the year. In fact, the electric system will soon be called upon to serve increased load as other sectors of the economy (*e.g.*, heating, transportation) turn to electricity as their primary source of energy. As a result, the electric system will require more energy to be produced to accommodate increasing load and to charge ESRs. This increased electricity production will be needed before a significant quantity of ESRs can truly support electric system reliability by shifting supply or demand and providing other reliability services.

At the same time as clean, renewable generators and ESRs are being developed, other existing generators are deactivating. Deactivating existing generation without having new resources on the system that are capable of providing comparable reliability services could place at risk the ability to maintain a reliable electric system. To facilitate a successful transition to a

generation fleet that relies heavily on weather-dependent, clean, renewable resources, other technologies must fill in reliability gaps and mimic the reliability attributes of our existing fleet of generators. System needs in areas where existing generation is planning to retire due to environmental regulations could approach 12 hours.⁶

Storage resources can help to fill in short term gaps in electric generation output, but extended periods of reliance on storage to fill output gaps will rapidly deplete the short duration storage capabilities of existing battery technologies. Battery technology, the most common ESR being deployed today, generally does not have the power and energy capability to meet a need that extends over 12 hours. At times, electric production may be insufficient to both serve other load and charge the large quantities of storage that are expected to enter the system. These circumstances could extend beyond the periods when storage resources are able to supply energy to serve load.⁷ A successful transition requires replacing the reliability contributions of the existing generation fleet as the fleet's overall performance capabilities will be no less essential on a future grid than they are today.⁸

C. NYISO's Ongoing Market Design Efforts to Integrate Energy Storage Resources into the Competitive Wholesale Electricity Markets

The NYISO wholesale markets are an effective platform for reflecting public policy and technological influences in an economically efficient manner to reliably meet consumers' energy needs. Changes to the bulk electric power system due to state policies and new technologies

⁶ See NYISO 2021-2030 Comprehensive Reliability Plan ("CRP") at p. 13, available at <u>https://www.nyiso.com/documents/20142/2248481/2021-2030-Comprehensive-Reliability-Plan.pdf</u>.

⁷ The resource fleet must include generators that operate on storable fuels in addition to renewable resources and batteries. Long-duration, dispatchable, and emission-free resources will be necessary to maintain reliability and meeting the objectives of the CLCPA. *See* CRP at p. 9.

⁸ The resources required will need to be significant in capacity and have attributes such as the ability to come on-line quickly, stay on-line for as long as needed, maintain the system's balance and stability, and adapt to meet rapid, steep ramping needs. *See* CRP at p. 43.

create an imperative to continue to improve the wholesale markets. The NYISO regularly reviews market rules to accommodate participation of new and emerging resources, such as ESRs. When the capabilities of a particular technology require changes to existing market rules, the NYISO has evolved its markets and its Tariffs to accommodate participation.⁹

The NYISO's market design has evolved over time to expand participation opportunities for storage resources. In 2009, the NYISO implemented rules to integrate very short duration storage known as Limited Energy Storage Resources into the wholesale Regulation Service market. In 2020, the NYISO integrated ESRs into its wholesale Energy, Ancillary Services and Capacity markets with a more holistic set of rules treating ESRs as Suppliers.¹⁰ In 2021, the NYISO implemented Co-located Storage Resource ("CSR") market rules to accommodate colocated resources consisting of storage and generators powered by wind or solar energy. The NYISO is now in the process of developing its Hybrid Storage Resource ("HSR") model, which will expand opportunities for storage resources to aggregate with other generators behind the same point of interconnection. All of the generators in a HSR will collectively participate in the wholesale markets as a single resource.¹¹ The NYISO treats ESRs as supply resources in its markets and market design efforts, not as providers of transmission service.¹² Storage resources, like Generators, are included in the NYISO's reliability planning processes as facilities that can

⁹ See Final Scoping Plan at pp. 247-249.

¹⁰ The NYISO believes that, whenever possible, resources should be compensated for the value of the service they provide where and when those services are provided, rather than be supported by contracts providing a fixed rate of return. The NYISO believes, and its Tariffs are currently written to reflect, that ESRs that provide supply or supply-like services should be compensated in the same or a similar manner as other suppliers. The existing treatment of ESRs as supply demonstrates the NYISO's view that ESRs inject energy as opposed to moving electricity on the transmission system as do transmission facilities.

¹¹ The Final Scoping Plan, at p. 247, discussed how these NYISO efforts will improve grid reliability by expanding opportunities to participate in the wholesale electricity markets.

¹² There is no pathway in the NYISO's currently effective Tariffs by which a storage project could be evaluated through the interconnection process as a regulated transmission asset, and no methods by which to operate a storage asset as transmission-only.

meet reliability needs. Although ESRs, like other Suppliers, can be dispatched to help mitigate transmission constraints, to meet local reliability needs, and to defer transmission or distribution infrastructure investments, they do not change the thermal capability of a transmission facility and, therefore, do not change the ratings of transmission facilities.¹³

In 2023, the NYISO will undertake a project to assess whether a process for evaluating an energy storage project as a regulated transmission asset, including options for cost recovery, is needed to complement the existing wholesale market rules for ESRs. In limited cases, storage used exclusively as a regulated transmission asset may provide similar services to more traditional regulated alternatives, while providing valuable optionality to scale or augment project size or operation in the future. As part of the project the NYISO will consider and discuss incorporating storage as transmission into NYISO planning processes. The project will also consider rules and methods for operating the storage as a regulated transmission asset to address identified reliability issues.

The NYISO anticipates that its review will identify real-time market and operational challenges if storage operates outside of the existing wholesale market rules for ESRs. Any "storage as transmission" design would have to ensure that the NYISO is aware, in advance, of any energy injections or withdrawals, and any other services provided, by storage resources that are operating as transmission. The operation of storage as transmission would have to be coordinated with the NYISO's markets to develop efficient least-cost solutions to serve New York loads.

¹³ If the reliability planning process identify reliability needs, then the NYISO will solicit market-based and regulated backstop solutions to address those needs. Solutions can take the form of any generation or resource type, including demand response and storage, as well as new local and bulk level transmission solutions. Responsible Transmission Owners are required to provide the regulated backstop solutions, which may be eligible for cost recovery. The reports for each of these processes are reviewed with stakeholders and posted on the NYISO website.

Real-time system operation, coordinated by the NYISO, relies on all resources within the New York Control Area to manage transmission congestion and serve load. Storage resources would be no different. The NYISO's least-cost dispatch programs already develop efficient solutions to reliably and cost effectively manage transmission congestion in New York using all of the resources that the NYISO has the ability to commit and/or dispatch. In order to operate its system efficiently, the NYISO must know in advance, consistent with the timeframes for scheduling resources in its markets, how an energy storage device that participates as transmission will be operated and the services it will provide. If the NYISO's Real-Time Commitment and Real-Time Dispatch software does not have advance notice of an energy storage resource's injections and withdrawals, then it will not be possible for the NYISO to develop an accurate and efficient least-cost commitment to serve New York loads.

For example, if the NYISO does not know that a "storage as transmission" device is going to inject energy to help address a transmission constraint, then the NYISO's market solution will (1) dispatch other resources to address the same transmission congestion that the storage device is being operated to solve, and (2) schedule more energy to serve New York load than it needs to, since the injection by the transmission storage device will likely also serve New York load.

The NYISO encourages the DPS and NYSERDA to participate in the NYISO stakeholder meetings related to the storage as transmission project. The discussions on incorporating storage as transmission into NYISO planning processes, as well as consideration for market participation and operating rules for these assets, could provide valuable perspectives to help shape the Roadmap efforts going forward.

D. Energy Storage Resource Value Materializes Through a Suite of Attributes

ESRs can promote reliability and efficiency, shift load, manage intermittent renewable output, and reduce transmission congestion through participation in the NYISO-administered Energy, Ancillary Services, and Installed Capacity markets. The unique characteristics of energy storage allow it to provide many services to the grid if energy storage participates under the NYISO's currently effective market rules, including the relief of peak demand through injections, as additional load when intermittent output exceeds current system needs, and potentially reducing overall transmission congestion by charging when the transmission system is unconstrained and injecting power at a later time, when it is needed to address transmission constraints. The NYISO believes, and its Tariffs are currently written to reflect, that ESRs provide supply or supply-like services that should be compensated in the same or a similar manner as other suppliers.¹⁴ The existing treatment of ESRs as supply demonstrates the NYISO's view that ESRs are more valuable to the electric system when injecting or withdrawing energy as opposed to participating as transmission facilities.¹⁵

Because energy storage resources can operate as either additional load or additional generation (subject to their storage limits), they will help the NYISO and the Transmission Owners balance the system. This flexibility to respond to different system needs makes energy storage valuable. The Roadmap asks about additional Ancillary Services that storage can effectively provide.¹⁶ Energy Storage Resources may provide Operating Reserves and

¹⁴ The NYISO believes that, whenever possible, resources should be compensated for the value of the service they provide where and when those services are provided, rather than be supported by contracts providing a fixed rate of return.

¹⁵ The NYISO treats ESRs as supply resources, not as providers of transmission service. Although ESRs, like other resources, can be dispatched to prevent an overload of a transmission facility, they do not change the thermal capability of a transmission facility and, therefore, do not change the ratings of transmission facilities.

¹⁶ See Roadmap at p. 23.

Regulation Service when injecting power, comparably to other Generators, and have the added flexibility to also provide those services when they are scheduled to withdraw energy, or when they receive a zero MW schedule.

Today, an ESR participating in the wholesale electric markets may also provide costbased Ancillary Services, such as Voltage Support Service, if it meets the tariff requirements to provide such service. The Roadmap goes on to contemplate whether storage and other resources should be paid to provide inertia as traditional, spinning fossil resources are phased-out. If appropriate to maintain reliability on the New York State Power System, the NYISO will explore a product for inertia and, if the product is warranted, introduce a project for consideration through the NYISO's stakeholder process.

The PSC and NYSERDA should encourage ESRs to fully participate in the New York wholesale electricity markets and to operate consistent with market price signals. Any limitations on storage resources that reduce operational flexibility to respond to market signals could reduce their ability to provide necessary grid services. In order to realize the benefit of storage resources balancing intermittent resource generation, storage resources must deliver stored energy into the NYCA and have the flexibility to participate in the real-time Energy market, Regulation Service market, or Operating Reserves market. Inefficiencies are likely to arise if storage resources are only operated to address a very limited set of system needs.

E. Funding of Energy Storage Resources

Efficient wholesale markets depend on competition and transparent price signals that accurately reflect system needs. The price signals in the NYISO markets provide the foundation for economically efficient generation, transmission, demand response, and energy efficiency investment decisions. Locational marginal prices provide operational incentives for resources to

perform and support grid reliability. Investors and developers rely on transparent market signals to determine whether to build new facilities, what type of facility to build, and where to build. Wholesale market prices must, therefore, accurately reflect system needs and resource costs in order to produce the most efficient investment and operational decisions, and ultimately the lowest costs for consumers. The NYISO continues to believe that competitive wholesale electricity markets should be the primary mechanism to attract and compensate electric generators, including ESRs.

Out-of-market payments have the potential to insulate resources from price signals, reduce incentives to follow dispatch instructions, and undermine the efficiencies of the NYISOadministered wholesale electricity markets. Out-of-market payments could include REC-like financial incentives or a regulated rate-of-return on transmission equipment that effectively guarantee fixed revenue and insulate renewable resources from temporal and location-based wholesale market price signals. Such arrangements, potentially including storage as transmission, could allow resources to depress wholesale energy prices by injecting energy when other market solutions are available or by injecting energy when market conditions warrant reducing injections or even withdrawing energy. Any incentives or actions to suppress or act contrary to locational marginal prices harm the markets as a whole and harms resources that depend on the wholesale markets for their compensation. If storage resources are compensated as regulated transmission assets and insulated from market compensation and risks, they will not have the incentive to minimize outages or to operate consistent with grid needs.

Efficient and reliable dispatch outcomes, and resource revenues based primarily on competitive wholesale electricity market participation and price signals, on the other hand, will continue to encourage suppliers to locate in the most advantageous locations, follow dispatch

signals, and minimize spillage of the clean resource megawatts the State needs to meet its CLCPA requirements. The NYISO respects the State's consideration of financial incentives, such as those discussed in the Roadmap, *e.g.*, Index Storage Credit ("ISC"),¹⁷ or those discussed in the final Scoping Plan, *e.g.*, Clean Dispatch Credits ("CDC")¹⁸ or a renewable energy credit ("REC")-like product. The NYISO recognizes that additional financial incentives may be necessary under the CLCPA to increase the number of new resources, including ESRs, interconnecting to the electric grid. The NYISO has previously encouraged the Commission to continue to administer renewable energy credits ("RECs") to increase renewable resource development while leveraging the competitive markets to the fullest extent possible.

The NYISO recommends that the PSC and NYSERDA consider financial incentives that will encourage energy storage resources to select locations of the highest value to the electric system, after an influx of renewable generation resources enter service, and to operate in response to market prices. An ISC, CDC, or a REC-like product could be structured to encourage energy storage resources to select locations of the highest value and to operate in response to market price signals while continuing to place investment risk on developers rather than consumers. These financial incentives could be structured similar to the "Fixed ORECs" and "Index ORECs" such that they increase development of the storage resources called for by the CLCPA and facilitate workable approaches to finance energy storage resources that provide appropriate performance incentives.

Consistent with NYISO's prior comments on REC mechanisms, the NYISO requests that the PSC and NYSERDA consider the following elements when developing financial incentives

¹⁷ See Roadmap at pp. 45-46.

¹⁸ See Final Scoping Plan at p. 241.

for energy storage resources. Any financial incentive should expose ESRs to wholesale market price signals and require resources to respond to operational dispatch instructions. Using markets to encourage resources to select locations of the highest value and to operate in response to market prices appropriately minimizes the financial risk that would be shifted to consumers, away from developers. Specifically, for ESRs, any financial incentives should also allow the ESRs to modify charging and injecting patterns over time in response to system conditions. Financial incentives for ESRs should encourage resources to withdraw and charge when realtime energy prices are negative.

The NYISO also encourages NYSERDA, DPS, and all interested stakeholders to follow the NYISO's upcoming demand curve reset process. ESRs will be considered during the evaluation of viable peaking plant technologies. The current demand curve reset process is in its early stages; however, if the localized levelized embedded cost for an ESR is used to establish the reference point of the Installed Capacity demand curves, the wholesale market should support the efficient development of ESRs without the need of additional financial incentives.¹⁹

¹⁹ See NYISO Installed Capacity Working Group meeting materials for the March 7, 2023 meeting, available at <u>https://www.nyiso.com/documents/20142/36639552/2023-03-07%20ICAPWG%20-%20Demand%20Curve%20Reset%20v2.pdf/ae66691e-224d-ce7d-afbe-40f8f6fcb9a7</u>.

II. CONCLUSION

The NYISO respectfully requests that the Commission consider these comments during its review of the Roadmap. As discussed herein, the NYISO respectfully encourages the PSC to factor these comments into its policy decisions related to energy storage deployment.

Respectfully submitted,

/s/ James H. Sweeney

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