



**Public Service
Commission**

Public Service Commission

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February 13, 2017

SENT VIA ELECTRONIC FILING

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Room 1-A209
Washington, D.C. 20426

Re: Docket Nos. RM16-23-000; AD16-20-000 - Electric
Storage Participation in Markets Operated by
Regional Transmission Organizations and
Independent System Operators

Dear Secretary Bose:

Attached for filing in the above-referenced proceeding,
please find the Comments of the New York State Public Service
Commission and New York State Energy Research and Development
Authority. Should you have any questions regarding the
attached, please feel free to contact me at (518) 402-1537.

Very truly yours,

/s/ S. Jay Goodman
S. Jay Goodman, Esq.
Assistant Counsel

Attachment

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Electric Storage Participation)	
in Markets Operated by Regional)	Docket No. RM16-23-000
Transmission Organizations and)	
Independent System Operators)	
)	
Electric Storage Participation in)	
Regions with Organized Wholesale))	Docket No. AD16-20-000
Electric Markets)	

**COMMENTS OF THE NEW YORK STATE
PUBLIC SERVICE COMMISSION AND NEW YORK STATE ENERGY
RESEARCH AND DEVELOPMENT AUTHORITY**

INTRODUCTION

On November 30, 2016, the Federal Energy Regulatory Commission (Commission) published a Notice of Proposed Rulemaking (NOPR) in the Federal Register seeking comments on proposed market rules to enable the participation of electric storage resources and distributed energy resources (DERs) in organized wholesale electric markets.¹ The Commission proposes to require each Regional Transmission Organization (RTO) and

¹ FEDERAL REGISTER, Vol. 81, No. 230, 86522-86550 (issued November 30, 2016) (NOPR). The NOPR defines "organized wholesale electric markets" as "the capacity, energy, and ancillary service markets operated by [RTOs] and [ISOs]." (Id. at n.3.)

Independent System Operator (ISO) to: (i) create wholesale market rules that recognize the physical and operational characteristics of electric storage and DER aggregation resources, and (ii) define DER aggregators as market participants that can participate in wholesale markets under a participation model that best meets their unique characteristics.

The New York Public Service Commission (NYPSC) and New York State Energy Research and Development Authority (NYSERDA) (collectively, the "NY State Entities") appreciate the opportunity to comment on the NOPR. As detailed below, the NY State Entities:

- applaud the Commission's intent to enable the full integration and participation of electric storage and DER aggregation resources in the wholesale electric markets;
- recommend that the Commission reconsider the proposed ban on the "dual participation" of certain DERs, and address the concern regarding duplicative compensation for the "same service" by means other than a blanket prohibition that would frustrate the purpose of the NOPR and interfere with legitimate state policy objectives;

- recommend that the Commission direct the RTOs/ISOs to design market participation models that accommodate electric storage and DER aggregation resources without imposing new burdens on other technologies and/or existing RTO/ISO programs; and
- urge the Commission to respect regional independence by according individual RTOs/ISOs the flexibility to design participation models tailored to their unique circumstances.

BACKGROUND

Since at least 2010, the Commission has repeatedly expressed its interest in removing barriers to storage and DER participation in the wholesale electric markets.² The Commission has also conducted periodic reviews with regard to barriers to market entry by electric storage resources, as well as issued

² See, e.g., id. at P6; Docket No. AD10-13-000, Request for Comments Regarding Rates, Accounting and Financial Reporting for New Electric Storage Technologies, Letter Soliciting Comments (June 11, 2010) (requested comments regarding alternatives for categorizing and compensating storage services).

multiple rulemakings to improve storage participation in wholesale electric markets.³

In addition, on November 19, 2015, the Commission hosted a panel discussion on electric storage resources. The Commission subsequently asked RTOs/ISOs for data about rules that impact the market participation of electric storage resources. Specifically, the Commission asked "whether barriers exist to the participation of electric storage resources in the capacity, energy, and ancillary service markets in the RTOs and ISOs potentially leading to unjust and unreasonable wholesale rates."⁴

The New York Independent System Operator, Inc. (NYISO) responded to the Commission's inquiry by explaining that storage resources are currently permitted to provide a variety of services in its markets. Resources with the ability to provide at least 1 MW of capability for at least four consecutive hours are eligible to provide capacity, energy, operating reserves and regulation service as Energy Limited Resources. Electric storage resources that can perform for at least one but less

³ Id.

⁴ Electric Storage Participation in Regions with Organized Wholesale Electric Markets, Docket No. AD16-20-000, FERC Letter (filed April 11, 2016) at 2.

than four hours are restricted only from providing capacity. The NYISO also permits electric storage resources with at least 1 MW of capability but one hour or less of run-time to provide regulation service to the wholesale market as a Limited Energy Storage Resource. Storage resources can also participate as components of one of three different types of "Demand Side Resources."⁵ Any storage resource that meets the applicable market rules may participate in the NYISO markets, and storage providers may set the price for capacity, energy, ancillary services, or regulation service.⁶ Storage providers are thus treated like any other resource in the NYISO markets.

The NYISO also explained that "Generators and Demand Side Resources may participate in the NYISO's wholesale markets ... if they meet the requirements to provide a particular wholesale service."⁷ However, the NYISO tariffs only permit certain demand side resources to provide services simultaneously to the wholesale markets and a distribution utility (i.e., the

⁵ Electric Storage Participation in Regions with Organized Wholesale Electric Markets, supra, NYISO Response (filed May 16, 2016) at 2-3.

⁶ Id. at 8.

⁷ Id. at 13.

retail market).⁸ These demand side resources may participate in local (i.e., retail) demand response programs in addition to the NYISO's wholesale demand response programs.⁹ Such participation is subject to tariff rules that do not allow resources to be paid twice for one service.

Lastly, the NYISO reported that it is developing models for demand response and DER participation in the NYISO's wholesale markets. This work is described in the "DER Roadmap," which the NYISO recently issued to present its "vision for integrating DER into NYISO's Energy, Ancillary Services, and Capacity markets."¹⁰ The DER Roadmap describes a plan to "facilitate the emergence of dispatchable DER through a series of economic-based products," thereby promoting grid and market

⁸ Id. at 13-14 and n.29 (explaining that demand side resources may participate in retail demand response programs in addition to the NYISO's wholesale demand response programs).

⁹ Id. at 14, n.29.

¹⁰ Distributed Energy Resources Roadmap for New York's Wholesale Electricity Markets, A Report by the New York Independent System Operator (January 2017) at 5, available at: http://www.nyiso.com/public/webdocs/markets_operations/market_data/demand_response/Distributed_Energy_Resources/Distributed_Energy_Resources_Roadmap.pdf?cldee=YWRhbS5ldmFuc0BkCHMubnkuZ292&recipientid=contact-d8d002c31d2fe5119404005056810dcf-2a695cd5b37e48d19e7ab0e0a2cd4ce9&esid=d1ddd383-62e9-e611-9424-005056815c52.

efficiencies on the basis of price signals.¹¹ The DER Roadmap takes into account, and supports, the “Reforming the Energy Vision” (REV) initiative that is the cornerstone of the State’s current energy plan.¹² REV includes an emphasis on promoting the deployment of DERs, including electric storage resources. Deployment of DERs including energy storage can provide greater market efficiencies for both existing and new generation, regardless of whether the generation is renewable or fossil fuel based. The 2015 State Energy Plan explains that REV serves a critical role in helping the State to achieve its goals for 2030 of procuring 50% of electricity generation from renewable energy sources, and reducing greenhouse gas emissions by 40% from 1990 levels.¹³ The NYISO is taking steps toward integrating storage and other DERs into the wholesale markets while aligning such participation with the emerging retail market for DERs.

The NY State Entities hereby provide these comments, based on a strong interest in the further integration of energy

¹¹ Id. at 5.

¹² Id. at 1; see also, 14-M-0101, Reforming the Energy Vision, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015) (REV Policy Order); and, The Energy To Lead: 2015 New York State Energy Plan (2015 Energy Plan), available at <https://energyplan.ny.gov/>.

¹³ 2015 State Energy Plan at 112.

storage in the electric markets for the benefit of furthering legitimate State policy objectives.

COMMENTS

I. THE COMMISSION SHOULD GRANT RTOS/ISOS THE FLEXIBILITY TO ACCOMMODATE REGIONAL INITIATIVES

In the NOPR, the Commission recognizes that effective competition “encourages entry and exit and promotes innovation, incentivizes the efficient operation of resources, and allocates risk appropriately between consumers and producers.”¹⁴ The Commission explains that existing market rules may not account for the unique operating characteristics of DERs, thereby impeding the ability of these resources to participate in the organized wholesale electric markets. Therefore, the Commission found that the market reforms proposed in the NOPR are needed to achieve the “[e]ffective integration of electric storage resources” into the wholesale electric markets, thereby ensuring that the markets yield just and reasonable rates.¹⁵

According to the Commission, the purpose of the NOPR is to “remove barriers to the participation of electric storage

¹⁴ NOPR at ¶14.

¹⁵ Id. at ¶9-12.

resources and distributed energy resource aggregations” in the organized wholesale electric markets.¹⁶ The Commission thus proposes that each RTO/ISO develop participation models with market rules that recognize “the physical and operational characteristics of electric storage resources” while ensuring that these resources can “provide all capacity, energy and ancillary services that they are technically capable of providing in the organized wholesale markets.”¹⁷

The NY State Entities fully support reforms that enable DERs - including, but not limited to, electric storage resources - to participate in the wholesale markets to the fullest extent of their technical capabilities, and on an equal footing with other market participants. The proposed reforms would generally further this goal by removing barriers to market entry that are suppressing the commercialization of electric storage and other DER technologies.

The NY State Entities also support most of the proposed wholesale market reforms because they would complement the REV initiative to promote DER participation in retail markets. As noted above, REV is a comprehensive effort that

¹⁶ NOPR at ¶1 and passim.

¹⁷ Id. at ¶3-5.

includes, among its goals, integrating DERs into the planning and operation of electric distribution systems.¹⁸ This effort is currently focused on developing participation models that would create retail market opportunities for electric storage and other DERs. Also, New York adopted REV as the cornerstone of the 2015 State Energy Plan,¹⁹ thereby obligating agencies and authorities (e.g., NYPSC and NYSERDA) to make energy-related decisions that are consistent with REV.²⁰

Increasing the deployment of energy storage resources is critical to achieve State policy objectives. Renewable energy resources typically cannot follow base point signals from the RTO/ISO in the same manner as conventional fossil fuel plants. Energy storage increases the benefits of intermittent resources, thus enabling them to be dispatched more like a “traditional” facility. Storage resources, therefore, will be

¹⁸ See, e.g., Case 14-M-0101, Reforming the Energy Vision, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015) at 3.

¹⁹ See generally 2015 State Energy Plan.

²⁰ New York Energy Law §6-104(5)(b) (requiring “[a]ny energy-related action or decision of a state agency ... or authority shall be reasonably consistent with the forecasts and the policies and long-range energy planning objectives and strategies contained in the plan....”)

critical for the State to achieve its renewable energy penetration goals.

However, these resources may not reach their full potential unless they are compensated fairly and adequately by the market. The NY State Entities thus applaud the Commission's efforts to support the development of such market mechanisms, and strongly support the continuation of this work.

Finally, the RTOs/ISOs should be granted flexibility to devise participation models that reflect market conditions and ongoing initiatives within their respective control areas. The DER Roadmap, for instance, presents "the NYISO's vision for integrating DER into the NYISO's Energy, Ancillary Services, and Capacity markets."²¹ The NYISO is developing the market enhancements needed to "permit dispatchable DER (i.e., controllable resources) with various capabilities to participate in" these markets.²² The NYISO would layer these enhancements on existing demand response and other programs to integrate all DER technologies in the wholesale markets.²³ This ongoing effort is consistent with most of the market reforms proposed in the NOPR.

²¹ DER Roadmap at 5.

²² Id.

²³ Id. at 5-6.

Importantly, the NYISO is attempting to harmonize the developing wholesale market enhancements with the complementary retail programs emerging from the REV initiative.²⁴ This effort is crucial to foster innovation in the wholesale market without impeding legitimate state policy objectives. The NYISO should be allowed to continue these efforts in collaboration with Transmission Owners, market participants, and stakeholders in New York. Accordingly, in ruling on the market reforms proposed in the NOPR, the Commission should grant RTOs/ISOs the flexibility to accommodate regional initiatives such as those described in the NYISO's DER Roadmap.

II. THE COMMISSION SHOULD DIRECT MARKET REFORMS THAT ALLOW DISTRIBUTED ENERGY RESOURCE AGGREGATIONS TO PARTICIPATE IN WHOLESALE AND RETAIL PROGRAMS IF THEY ARE NOT PAID TWICE FOR THE "SAME SERVICE"

Notwithstanding the general intent of the NOPR to enable DER proliferation, the Commission proposes a limitation that would force resources to choose between the wholesale and retail markets. Specifically, the Commission notes that DERs participating in the wholesale market as part of an aggregation may not also be eligible to participate in retail compensation

²⁴ DER Roadmap at 4-6.

programs.²⁵ Out of its apparent concern that DERs participating in a retail program and as part of an aggregation in the wholesale market might be paid twice “for the same services,” the Commission proposes to bar these resources from the wholesale market if they also participate in one or more retail programs.²⁶

Applying this overbroad solution to the discrete issue of duplicative compensation would create a barrier to entry for resources that are economic only if they can participate in both markets. It also would discourage DER market participation rather than enable it, and uproot the current demand response programs in New York that have proven to be effective. This approach, therefore, is inconsistent with the Commission’s stated intent to establish market rules that enable DERs to participate in the organized wholesale electric markets to the full extent of their technical capabilities.

DERs may provide distinct benefits to the wholesale and retail markets, and their participation in each market should be supported to maximize the potential deployment of these resources. The Commission’s express purpose in

²⁵ NOPR at ¶134.

²⁶ Id.

encouraging DER participation in the wholesale market is to enhance competition and ensure that wholesale rates are just and reasonable.²⁷ In contrast, retail REV programs that promote DER proliferation pursue different goals, including: (i) reducing carbon emissions; (ii) reducing load during distribution system peaks in order to avoid expensive distribution infrastructure upgrades otherwise needed to meet those peaks; (iii) improving distribution system efficiency; (iv) promoting fuel and resource diversity; and, (v) supporting distribution system reliability and resiliency.²⁸

DERs thus provide distinct services to the wholesale and retail markets. Rather than adopting a blanket prohibition against dual participation, the Commission can address its “duplication of compensation” concern through an alternative approach. For example, the Commission proposes new market participation models that recognize “the physical and operational characteristics of electric storage resources”

²⁷ See, e.g., NOPR at ¶12.

²⁸ REV Policy Order at 4. Further, the retail programs may be activated at different times of the day and on different days of the year than the times when a DER aggregation may be dispatched in the wholesale market. This disparity also reduces the risk that an aggregation might be compensated twice for providing a single market service.

without creating "prohibitively expensive or otherwise burdensome requirements."²⁹ This same approach may guide RTO/ISOs in crafting market participation models that define the circumstances under which a DER would, and would not, provide the "same services" to both the wholesale and retail markets. The participation model could specify that "dual participation" resources would not receive wholesale compensation when simultaneously providing the "same service" to the retail market, but the DER may be compensated for each distinct service provided to any market. The NYISO has successfully used this approach for demand response resources that participate in wholesale and retail programs.

This alternative approach would balance the Commission's intent to reduce barriers to DER market entry with the Commission's concern that resources should be compensated once for each service provided. This approach also would be consistent with the Commission's recent finding that demand response resources can simultaneously participate in the retail

²⁹ NOPR at ¶¶13-16.

and wholesale markets without artificially suppressing capacity prices.³⁰

In contrast, adopting the proposed ban on “dual participation” would create a stout barrier to DER market entry and, if applied to all resources, could dismantle the current demand response programs in New York. Market rules and policies that compel DER aggregations to choose among available programs artificially suppress the resources available to participate in the wholesale and retail markets, which is contrary to both State and Federal goals. New service providers that could enhance competition and promote just and reasonable wholesale rates would be unavailable to support the distribution system and benefit retail customers if they elect to participate only in the organized wholesale electric markets. Conversely, DER aggregations that elect to participate only in the retail market would be unavailable to enhance competition and promote just and reasonable rates in the wholesale market. The needs of the two markets are different, but both can be satisfied by the same DER aggregation, thereby creating a synergistic benefit for

³⁰ New York State Public Service Commission et al. v. New York Independent System Operator, Inc., 158 FERC ¶61,137 (issued February 3, 2017) at P31.

consumers. Moreover, resources participating in a DER aggregation can honor the wholesale market and retail program rules, including wholesale energy market bidding requirements, without being paid twice for the same service.

The blanket prohibition against dual participation would also impede market participation and frustrate the intent of the NOPR by not allowing DER aggregations to be compensated for each market service that they provide. Further, it would interfere with legitimate State policy objectives by forcing the State to compete with the wholesale market for these resources by increasing retail program incentives, thereby unnecessarily inflating retail bills. There could also be an immediate impact due to existing resources being forced to choose either the retail programs or the wholesale markets. Furthermore, resources that were planning on entering the market and participating in both wholesale and retail programs would have to reconsider the value of entering and participating in only the retail or the wholesale market.

For the foregoing reasons, the NY State Entities respectfully urge the Commission not to bar DERs that participate in a retail program from also participating in the organized wholesale electric markets as part of a DER

aggregation. The Commission should instead address its “duplication of compensation” concern by directing RTOs/ISOs to develop market participation models with compensation rules that distinguish wholesale market services from retail market services. The NY State Entities respectfully submit that this approach would be more effective at promoting the Commission’s goals of enabling the full DER market participation, enhancing competition, and ensuring just and reasonable rates.

III. THE COMMISSION SHOULD DEVELOP PARTICIPATION MODELS THAT ACCOMMODATE ELECTRIC STORAGE RESOURCES AND DER AGGREGATIONS WITHOUT BURDENING OTHER MARKET PARTICIPANTS

The Commission proposes to direct RTOs/ISOs to design participation models that enable electric storage resources, individually or participating in a DER aggregation, to participate in the organized wholesale electric markets to the fullest extent of their technical capabilities. The Commission explains that participation models that do not recognize the physical and operational characteristics of electric storage resources “may limit the market opportunities for new resources

and correspondingly limit the potential supply of some services.”³¹

In developing new participation models, however, the RTOs/ISOs must design market rules that achieve this goal without impeding participation by other market participants including, but not limited to, demand response resources. For instance, the NOPR states that the participation models must establish market rules on metering and telemetry system requirements for DER aggregations.³² Certain requirements may be reasonable for a traditional generation resource, but may not be reasonable for all DERs or aggregations of same, given that the individual resources may be as small as 1 kW.³³ Unnecessarily burdensome metering and telemetry should not be required for all resources within an aggregation participating in the wholesale market because the constituent resources operate independently of each other, and the loss of one would not interfere with the operation of the overall resource. For these reasons, the bulk system operator does not need to know that every component of the aggregation is operating. Further, the cost of certain

³¹ NOPR at ¶2.

³² Id. at ¶5.

³³ Id. at ¶86.

metering and telemetry may be prohibitive for smaller resources and, potentially, could force them to exit the market (or not enter it in the first instance). This outcome would be counter-productive, unnecessary, and inconsistent with the intent of the NOPR to remove barriers to DER aggregation market entry.

Regardless of whether the specific metering and telemetry requirement is applied to electric storage resources, it should not be broadly applied to all demand response providers.

Metering and telemetry are specific examples of a general concern that market participation rules designed for one DER technology may have adverse, unintended consequences if applied to a different technology. The participation models should be designed to facilitate the participation of all DER technologies in a manner that would not impede or discourage the participation of any particular technology. The NY State Entities, therefore, respectfully urge the Commission to allow the RTOs/ISOs to make individual determinations of what requirements are needed for the participation models they will develop in response to any ruling on the NOPR. This includes, but is not limited to, metering and telemetry requirements.

CONCLUSION

For the reasons set forth herein, the NY State Entities support the Commission's proposals to remove market barriers that impede the proliferation of electric storage resources and DER aggregations. The NY State Entities respectfully urge the Commission to direct market reforms that accommodate dual participation in wholesale and retail programs, and that do not impose burdensome requirements on other market participants such as demand response resources.

Respectfully submitted,

/s/ Paul Agresta

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