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December 20, 2016

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: New York State Reliability Council,
Docket No. _____

Dear Secretary Bose:

Pursuant to Section 3.03 of the New York State Reliability Council Agreement (“NYSRC Agreement”)¹, the New York State Reliability Council, L.L.C. (“NYSRC”) hereby submits this filing to advise the Federal Energy Regulatory Commission (“Commission”) that the NYSRC has revised the Installed Capacity Requirement (“ICR”) for the New York Control Area (“NYCA”) for the period beginning on May 1, 2017 and ending on April 30, 2018 (“2017-2018 Capability Year”). The NYSRC respectfully requests that the Commission accept and approve the NYSRC’s filing effective no later than February 15, 2017, so that the revised ICR may be in place for the installed capacity

¹ The NYSRC Agreement is available on the NYSRC website, www.nysrc.org, under Documents/Agreements.

auction to be conducted by the New York Independent System Operator, Inc. (“NYISO”) on March --, 2017. The NYISO has informed the NYSRC that it needs the period between February 15, 2017 and March 30, 2017 to: (i) determine, in conjunction with the NYISO’s Operating Committee, the Locational Capacity Requirements for the three Localities in the New York Control Area (“NYCA”):New York City (NYISO Zone J), Long Island (NYISO Zone K) and the nested Locality of NYISO Zones G through J; (ii) define capacity import rights for the coming year; (iii) inform load serving entities (“LSEs”) of their minimum capacity requirements for capacity procurement in the NYISO’s auctions; and (iv) make other preparations for the March 30, 2017 capacity auction. The NYSRC also respectfully requests that the Commission grant any and all waivers of its regulations that it deems necessary to accept and approve the filing effective no later than February 15, 2017.

I. Summary

On December 9, 2016, the NYSRC Executive Committee adopted a required Installed Reserve Margin (“IRM”) of 18.0% for the NYCA for the 2017-2018 Capability Year. The Executive Committee’s decision was based on a technical study, the New York Control Area Installed Capacity Requirements for the Period May 2017 through April 2018, Technical Study Report (“2017 IRM Study” or “Study”) dated December 2, 2016, and other relevant factors. The 2013 IRM Study results indicate that, under base case conditions, a NYCA IRM for the 2017-2018 Capability Year of 18.1% would satisfy the NYSRC’s resource adequacy criteria, set forth in the NYSRC’s Reliability Rule A.1, Requirement R1. After considering the 2017 IRM Study, the results of various sensitivity studies which resulted in IRMs both higher and lower than the base case IRM,

and other relevant factors, the NYSRC Executive Committee determined that an IRM of 18.0% would meet the applicable resource adequacy criteria for the 2017-2018 Capability Year. A copy of the Study is attached hereto as Attachment A, and the resolution adopted by the Executive Committee with respect to its IRM determination is attached hereto as Attachment B. The 2017 IRM Study may be found on the NYSRC website, www.nysrc.org, under Documents/Reports.

Since the 18.0% IRM for the 2017-2018 Capability Year adopted by the NYSRC represents a change from the 17.5% IRM approved for the 2016-2017 Capability Year, Commission approval of the filing is required under Section 3.03 of the NYSRC Agreement. The NYSRC requests that the Commission accept and approve this filing and the revised IRM effective no later than February 15, 2017 so that the revised IRM is in place for the installed capacity auction to be conducted by the NYISO on March 30, 2017.

II. Background

The NYSRC was approved by an order issued by the Commission in 1998,² and subsequent Commission orders,³ as part of the restructuring of the electricity market in New York State and the formation of the NYISO. In its orders, the Commission approved the NYSRC Agreement among the members of the New York Power Pool (“NYPP”), which established the NYSRC and described its responsibilities, and the

² *Cent. Hudson Gas & Elec. Corp.*, 83 FERC ¶ 61,352 (1998), *order on reh’g*, 87 FERC ¶ 61,135 (1999).

³ *Cent. Hudson Gas & Elec. Corp.*, 86 FERC ¶ 61,062 (1999); *Cent. Hudson Gas & Elec. Corp.*, 87 FERC ¶ 61,135 (1999); *Cent. Hudson Gas & Elec. Corp.*, 88 FERC ¶ 61,138 (1999).

NYISO/NYSRC Agreement between the NYISO and the NYSRC⁴, which established the relationship between the NYISO and the NYSRC and their respective responsibilities.

One of the responsibilities assigned to the NYSRC is the establishment of the annual statewide ICR for the NYCA.⁵ Section 3.03 of the NYSRC Agreement reads as follows:

The NYSRC shall establish the state-wide annual Installed Capacity requirements for New York State consistent with NERC[North American Electric Reliability Council] and NPCC [Northeast Power Coordinating Council] standards. The NYSRC will initially adopt the Installed Capacity requirement as set forth in the current NYPP Agreement and currently filed with FERC. Any changes to this requirement will require an appropriate filing and FERC approval. In establishing the state-wide annual Installed Capacity requirements, consideration will be given to the configuration of the system, generation outage rates, assistance from neighboring systems and Local Reliability Rules.

The ICR is described generally in terms of an installed reserve margin or IRM.⁶ The NYISO was assigned the responsibility to determine the installed capacity obligations of Load Serving Entities (“LSEs”) and to establish locational capacity requirements (“LCRs”) needed to ensure that the statewide ICR is met.⁷ The responsibilities assigned by the NYSRC Agreement and the NYISO/NYSRC Agreement are implemented in the NYSRC’s Reliability Rules, the NYSRC’s Policy No. 5-11,

⁴ The NYISO/NYSRC Agreement is available on the NYSRC website, www.NYSRC.org, under Documents/Agreements.

⁵ NYSRC Agreement, § 3.03; NYISO/NYSRC Agreement, § 4.5.

⁶ The annual statewide ICR is established by implementing NYSRC Reliability Rules for providing the corresponding statewide IRM requirements. The IRM requirements relates to ICR through the following equation: $ICR = (1 + \text{IRM Requirement}) \times \text{Forecasted NYCA Peak Load}$ (NYSRC Reliability Rules, A. Resource Adequacy, Introduction).

⁷ NYISO/NYSRC Agreement, § 3.4; NYISO Services Tariff, §§ 5.10 and 5.11.4.

Procedure for Establishing New York Control Area Installed Capacity Requirements⁸, and the NYISO’s Market Administration and Control Area Services Tariff (“Services Tariff”).

A. NYSRC Reliability Rules

The NYSRC Reliability Rules Manual, Section A, Resource Adequacy, Introduction,⁹ provides that among the factors to be considered by the NYSRC in setting the annual statewide IRM are the characteristics of the loads, uncertainty in the load forecast, outages and deratings of generating units, the effects of interconnections to other control areas, and transfer capabilities within the NYCA.

Reliability Rule A.1, Establishing NYCA Installed Reserve Margin Requirements, Requirement R1., is consistent with the NPCC resource adequacy criterion. It provides that:

The NYSRC shall establish the IRM requirement for the NYCA such that the probability (or risk) of disconnecting any firm load due to resource deficiencies shall be, on average, not more than once in ten years. Compliance with this criterion shall be evaluated probabilistically, such that the loss of load expectation (LOLE) of disconnecting firm load due to resource deficiencies shall be, on average, no more than 0.1 day per year. This evaluation shall make due allowance for demand uncertainty, scheduled outages and deratings, forced outages and deratings, assistance over interconnections with neighboring control areas, NYS Transmission System emergency transfer capability, and capacity and/or load relief from available operating procedures. (italics omitted).

Reliability Rule A.2 , Establishing Load Serving Entity Installed Capacity Requirements and Deliverable External Area Installed Capacity, Requirement R1, , provides that:

⁸ NYSRC Policy 5-11 is available on the NYSRC website, www.NYSRC.org, under Documents/Policies.

⁹ The NYSRC Reliability Rules are available on the NYSRC website, www.NYSRC.org, under Documents/NYSRC Reliability Rules and Compliance Monitoring.

LSEs shall be required to procure sufficient resource capacity for the entire NYISO defined obligation procurement period so as to meet the statewide IRM requirement determined from A.1. Further, this LSE capacity obligation shall be distributed so as to meet locational ICAP [Installed Capacity] requirements, considering the availability and capability of the NYS Transmission System to maintain A.1 reliability requirements. (italics omitted).

B. NYSRC Policy No. 5-11, Procedure for Establishing New York Control Area Installed Capacity Requirements

The last paragraph of Section 1.0: Introduction, of NYSRC Policy No. 5-11 provides that:

The final NYCA IRM requirement, as approved by the NYSRC Executive Committee, is the basis for various installed capacity analyses conducted by the NYISO. These NYISO analyses include the determination of the capacity obligation of each Load Serving Entity (LSE) on a Transmission District basis, as well as Locational Installed Capacity Requirements, for the following capability year. These NYISO analyses are conducted in accordance with NYSRC Reliability Rules and Procedures.

Section 2.2 of NYSRC Policy No. 5-11, “Timeline,” provides a timeline for establishing the statewide IRM. This timeline is based on the NYSRC’s providing the NYISO with next year’s NYCA IRM requirement in December, when the NYISO, under its installed capacity and procurement process, is required to begin its studies for determining the following summer’s LSE capacity obligations.

Section 4.4 of NYSRC Policy No. 5-11, NYSRC Executive Committee, sets forth the process for approval of the annual statewide IRM by the NYSRC Executive Committee as follows:

The NYSRC Executive Committee has the responsibility of approving the final IRM requirements for the next capability year.

- Review preliminary and final and final base case assumptions and models for use in the IRM Study.
- Review preliminary base case IRM results.
- Approve sensitivity studies to be run and their results.
- Review and approve IRM Study prepared by ICS [Installed Capacity Subcommittee].
- .Establish and approve the final NYCA IRM requirement for the next capability year (See Section 5)
- To the extent practicable, ensure that the schedule for the above approvals allow that the timeline requirements in Section 2.2 are met.
- Notify the NYISO of the NYCA IRM requirements and meet with NYISO management as required to review IRM Study results.

Make IRM Study results available to state and federal regulatory agencies and to the general public by posting the study on the NYSRC Web site.

III. Communications

The names, titles, mailing addresses, and telephone numbers of those persons to whom correspondence and communications concerning this filing should be addressed are as follows:

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 Executive Secretary
 New York State Reliability Council, LLC
 7 Wheeler Avenue
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IV. Adoption of IRM for the 2017-2018 Capability Year

A. 2017 IRM Study

The 2017 IRM Study was conducted by the NYSRC to determine the statewide IRM necessary to meet NYSRC and NPCC reliability criteria within the NYCA during the period from May 1, 2017 through April 30, 2018. The reliability calculation process for determining the NYCA IRM requirement utilizes a probabilistic approach. This technique calculates the probabilities of outages of generating units, in conjunction with load and transmission models, to determine the number of days per year of expected capacity shortages. The General Electric Multi-Area Reliability Simulation (“GE-MARS”) is the primary computer program used for this probabilistic analysis. The result of the calculation for loss of load expectation (“LOLE”) provides a consistent measure of electric power system reliability. Computer runs for the 2017 IRM Study were performed by NYISO staff at the request and under the guidance of the NYSRC. The GE-MARS model includes a detailed load and generation representation of the eleven NYCA zones as well as the four external control areas (“Outside World Areas”) interconnected to the NYCA. The GE-MARS program also uses a transportation model representing transmission that reflects the ability of the system to transfer energy between zones under probabilistic generation and load scenarios. This technique is commonly used in the electric power industry for determining installed reserve requirements.

The 2017 IRM Study continues to implement two study methodologies the Unified and the IRM Anchoring Methodologies. These methodologies are discussed in

the 2017 IRM Study (at pages 6 and 7) under the heading IRM Study Procedures. These methodologies are discussed in greater detail in Appendices A and B of Policy 5-11.

The 2017 IRM Study also evaluates IRM requirement impacts caused by the updating of key study assumptions and various sensitivity cases.¹⁰ The comparison with the 2016 base case IRM is depicted in Table 6-1 at page 23 of the Study. The results of the sensitivity cases are set forth in Table 7-1 at page 25 of the Study and in Table B-1 at page 49 in Appendix B of the Study. The base case results, the sensitivity cases and other relevant factors provide the basis for the NYSRC Executive Committee determination to adopt an 18.0% NYCA IRM requirement for the 2017-2018 Capability Year.

Definitions of certain terms in the 2017 IRM Study can be found in the Glossary, Appendix D of the Study.

¹⁰ The NYSRC Executive Committee approved the assumptions used in the 2017 IRM Study base case on July 8, 2016, and approved revised assumptions on October 14, 2016. The sensitivity cases for the 2017 IRM Study were approved by the NYSRC Executive Committee on September 9, 2016. The assumptions used in the Study are set forth in Appendix A of the Study in Table A.3 on page of 14, Table A.5 on page 19, Table A.7 on page 33, Table A.9 on page 40, and Table A.11 on page 41.

B. 2017 Study Base Case Results

The base case for the 2017 IRM Study calculated the NYCA IRM requirement for the period May 1, 2017 through April 30, 2018 to be 18.1% under base case conditions.¹¹

The 2017 base case result of 18.1% is 0.7 percentage point higher than the 17.4% base case IRM requirement determined by the 2016 IRM Study. There are seven parameter drivers that, in combination increased the 2017 IRM from the 2016 base case. Of these, the three most significant drivers are (1) updated Ontario, New England, Quebec, and

IRM by 0.5%; (2) updated generating unit EFORds¹² which increased the IRM by 0.4%; and (3) additional wind capacity, which increased the IRM by 0.4%. Table 6-1 on page 23 of the Study, set forth below, shows the IRM impact of individual updated study parameters that result in this change from the 2016 base case IRM. PJM Interconnection (PJM) interconnected external area models, which increased the

¹¹ There is a 95% probability that the IRM is within a range from 17.8% to 18.4% based on a standard error of 0.025 per unit. See Appendix A of the Study, A.1.1 Error Analysis, at page 11.

¹²

Table 6-1: Parametric IRM Impact Comparison – 2016 IRM vs. 2017 IRM Study

Parameter	Estimated IRM Change (%)	IRM (%)	Reasons for IRM Changes
2016 IRM Study – Final Base Case		17.4	
2017 IRM Study Parameters that Increased the IRM			
Updated PJM, Ontario, NE and Quebec Models	+0.5		Less assistance available from NE, Ontario, and Quebec.
Updated Generating Unit EFORd's	+0.4		Dropped a good performance year (2010) and added a poor performance year (2015).
New Wind Capacity	+0.4		Wind performance is less than the existing fleet performance.
Retirements	+0.1		Downstate retirements can raise IRM requirements because of their location.
PJM Wheel Removed	+0.1		Loss of PSEG wheel redirects some assistance to localities outside of zones J and K.
Updated DMNC Ratings	+0.1		DMNC ratings of downstate units decreased when compared to upstate units.
Long Island topology change	+0.1		Lower tie ratings on some of the interfaces surrounding Long Island.
Total IRM Increase	+1.7		
2017 IRM Study Parameters that Decreased the IRM			
Updated Load Forecast	-0.3		Lower load levels overall, particularly downstate.
Updated Non-SCR EOPs	-0.2		MWs available in EOP programs declined.
Rest of State Units Modeled as Load Modifiers	-0.2		Loss of poor performing capacity with resulting reduction of peak load.
Replace PJM 4-Bubble with 5-Bubble Model	-0.1		Small amount of increased transfer capability with 5-bubble representation.
Updated SCRs	-0.1		SCRs registered were less, improving the fleet average despite worse SCR performance.
Multiple Wind Shape Model Update	-0.1		Past five-year wind performance was better than the previously used 2013 wind shape.
Total IRM Decrease	-1.0		
2017 IRM Study Parameters that do not change the IRM			
Multiple Solar Shapes	0		
Updated Maintenance Schedules	0		
Updated Cable Outage Rates	0		
Updated Topology	0		Excludes Long Island topology change above.
Net Change from 2016 Study			
		+0.7	
2017 IRM Study – Final Base Case			
		18.1	

After considering the 2017 IRM Study results, the modeling and assumption changes made to simulate actual operating conditions and system performance, the numerous sensitivity studies, which resulted in IRMs higher and lower than the base case IRM, and based on its experience and expertise, on December 9, 2016 the NYSRC Executive Committee adopted an IRM of 18.0% for the 2017-2018 Capability Year.

V. Effective Date

The NYSRC respectfully requests that the Commission accept and approve this filing effective no later than February 15, 2017, so that the revised statewide ICR may be in place in time for the NYISO installed capacity auction for the summer capability period from May 1, 2017 through October 31, 2018. The auction is scheduled to take place on March 30, 2017. The NYISO has advised the NYSRC that in order for the new ICR to be reflected in the summer capability period auction, both the NYISO and its market participants should be informed of the newly established IRM by no later than February 15, 2017. In order to provide adequate notice to the NYISO, the NYSRC respectfully requests that the Commission act in an expedited manner to accept and approve this filing effective no later than February 15, 2017. The NYSRC also respectfully requests the Commission grant any and all waivers of its regulations that it deems necessary to allow the Commission's acceptance and approval of the filing to be effective no later than that date.

VI. Contents of the Filing

The following documents are being submitted for filing:

- This transmittal letter;

- A copy of the NYSRC 2017 IRM Study (Attachment A);
- A copy of the NYSRC resolution adopting the revised IRM for the 2017-2018 Capability Year (Attachment B).

VII. Conclusion

WHEREFORE, in view of the foregoing, the NYSRC respectfully requests that the Commission accept and approve the NYSRC's filing effective no later than February 15, 2017, and grant any and all waivers of its regulations that it deems necessary to accept and approve the filing effective no later than February 15, 2017.

Respectfully submitted,

/s/ Paul L. Gioia

Paul L. Gioia
*Counsel to the New York State Reliability
Council*

ATTACHMENT A

NYSRC 2017 IRM Study and Appendices

ATTACHMENT B

NYSRC RESOLUTION

CERTIFICATE OF SERVICE

I hereby certify that, I have this day caused to be served by First Class Mail or electronic mail the foregoing documents upon the parties to the official service list compiled by the Secretary for this proceeding.

Dated at Washington, DC this --th day of December --, 2016.

Winston & Strawn
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