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December 30, 2013

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

Re: New York State Reliability Council, L.L.C.
Informational Filing
Docket No. ____

Dear Secretary Bose:

The New York State Reliability Council, L.L.C. ("NYSRC") hereby submits this filing **for informational purposes only** to advise the Commission that the NYSRC has determined that the current Installed Capacity Requirement ("ICR") for the New York Control Area ("NYCA") should be retained for the period beginning on May 1, 2014 and ending on April 30, 2015 ("2014-2015 Capability Year"). Since the ICR for the NYCA has not been changed for the 2014-2015 Capability Year, Commission authorization is not required, and this filing is submitted for informational purposes only. It is our understanding that no notice is required for this submittal.

I. Summary

On December 6, 2013, the NYSRC Executive Committee adopted a required Installed Reserve Margin ("IRM") of 17.0% for the NYCA for the 2014-2015 Capability Year. The Executive Committee's decision was based on a technical study, the New York Control Area Installed Capacity Requirement for the Period May 2014 to April 2015, Technical Study Report ("2014 IRM Study" or "Study") dated December 6, 2013, and other relevant factors. The 2014 IRM Study results indicate that, under base case conditions, a NYCA IRM for the 2014-2015 Capability Year of 17.0% would satisfy the NYSRC's resource adequacy criteria, as set forth in the NYSRC's Reliability Rule A-R1. After considering the 2014 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 adopted an IRM of 17.0% for the 2014-2015 Capability Year. A copy of the Study and its Appendices are attached hereto as Attachment A and Attachment B, respectively, and the resolution adopted by the Executive Committee with respect to its IRM determination is attached hereto as Attachment C. The 2014 IRM Study may be found on the NYSRC website, www.nysrc.org, under Documents/Reports.

While the current IRM of 17.0% will remain unchanged for the 2014-2015 Capability Year, various factors that affect the IRM have changed. The 2014 IRM Study describes the various factors that resulted in the NYSRC's determination. The IRM will be used by the New York Independent System Operator ("NYISO") to establish the minimum capacity requirements for load serving entities ("LSEs") and the locational installed capacity requirements ("LCRs") for New York City (NYISO Zone J), Long

Island (NYISO Zone K), and the Lower Hudson Valley (NYISO Zones G-J) for the coming Capability Year.

II. Background

The NYSRC was established by an order issued by the Commission in 1998,[1] and subsequent Commission orders,[2] 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 NYISO/NYSRC Agreement between the NYISO and the NYSRC[3], 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.[4] 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,

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

[2] *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).

[3] The NYSRC Agreement and the NYISO/NYSRC Agreement are available on the NYSRC website, www.nysrc.org, under Documents/Agreements.

[4] NYSRC Agreement, § 3.03; NYISO/NYSRC Agreement, § 4.5.

> assistance from neighboring systems and Local Reliability Rules.

The ICR is described generally in terms of an installed reserve margin, or IRM.[5] The NYISO was assigned the responsibility to determine the installed capacity obligations of LSEs and to establish LCRs needed to ensure that the statewide ICR is met.[6] 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. 5-7, Procedure for Establishing New York Control Area Installed Capacity Requirements,[7] 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,[8] 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-R1, NYCA Installed Reserve Margin Requirement, 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

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[5] 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+ IRM Requirement) x Forecasted NYCA Peak Load (NYSRC Reliability Rules, A. Resource Adequacy, Introduction).

[6] NYISO/NYSRC Agreement, § 3.4; NYISO Services Tariff, §§ 5.10 and 5.11.4.

[7] NYSRC Policy 5-7 is available on the NYSRC website, www.nysrc.org, under Documents/Policies.

[8] The NYSRC Reliability Rules are available on the NYSRC website, www.nysrc.org, under Documents/NYSRC Reliability Rules and Compliance Monitoring.

> 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-R2, Load Serving Entity Installed Capacity Requirements, provides that:

> 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-R1. 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-R1 reliability requirements.

(Italics omitted.)

B. NYSRC Policy No. 5-7, Procedure for Establishing New York Control Area Installed Capacity Requirements

The last paragraph of Section 1: Introduction, of NYSRC Policy No. 5-7 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. 5-7, "Timeline," provides a timeline for establishing the statewide IRM. This timeline is based on the NYSRC providing the NYISO with next year's NYCA IRM requirement in December of each year, 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. 5-7, 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 and approve preliminary and final base case assumptions and models for use in IRM Study. Review preliminary base case IRM results.
> - Approve sensitivity studies to be run and their results.
> - Review and approve the 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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IV. Adoption of IRM for the 2014-2015 Capability Year

A. 2014 IRM Study

The 2014 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, 2014 through April 30, 2015. 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 provides a consistent measure of electric power system reliability. Computer runs for the 2014 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 2014 IRM Study continues to implement two study methodologies, the Unified and the IRM Anchoring Methodologies. These methodologies are discussed in the 2014 IRM Study (at pages 6 to 8) under the heading IRM Study Procedures. These methodologies are discussed in greater detail in Appendices A and B of Policy 5-7.

The 2014 IRM Study also evaluates IRM requirement impacts caused by the updating of key study assumptions and various sensitivity cases.[9] The comparison with the 2013 base case IRM is depicted in Table 6-1 at page 21 of the Study. The results of the sensitivity cases are set forth in Table 7-1 at page 22 of the Study and in Table B-1 at page 51 of the Study Appendices. The base case results, the sensitivity cases, and other relevant factors provide the basis for the NYSRC Executive Committee determination to adopt a 17.0% NYCA IRM requirement for the 2014-2015 Capability Year.

Definitions of certain terms in the 2014 IRM Study can be found in the Glossary in Appendix D at page 76 of the Study Appendices.

B. 2014 Study Base Case Results

The base case for the 2014 IRM Study calculated the NYCA IRM requirement for the period May 1, 2014 through April 30, 2015 to be 17.0%.[10] The 2014 base case result of 17.0% is 0.1 percentage point lower than the 17.1% base case IRM requirement determined by the 2013 IRM Study. Table 6-1 on page 21 of the Study, set forth below, compares the estimated IRM impacts of changing certain key Study assumptions from the 2013 Study.

Table 6-1 Parametric IRM Impact Comparison (2013 vs. 2014 IRM Study)

Parameter	Estimated IRM Change (%)	IRM (%)	Reasons for IRM Changes

[9] The NYSRC Executive Committee approved the preliminary Assumptions Matrix used in the 2014 IRM Study base case on July, 12, 2013, and approved the final Assumptions Matrix assumptions on October 10, 2013. The sensitivity cases for the 2014 IRM Study were approved by the NYSRC Executive Committee on August 9, 2013. The assumptions used in the Study are set forth in Appendix A.3 starting on page 14 of the Study Appendices.

[10] There is a 95% probability that the IRM is within a range from 16.8% to 17.2% based on a standard error of 0.023 per unit. *See* Appendix A of the Study, A-1.1 Error Analysis, at page 11of the Study Appendices.

2013 IRM Study – Final Base Case		**17.1**	
2014 Parameters that Increase the IRM			
Updated SCR/EDRP	+0.8		Reduced SCR effectiveness – from 81% to 63%.
Updated Generating Unit EFORd's	+0.7		Increased 5-year EFORd average for NYCA fleet.
Updated DNMC Ratings	+0.5		Downstate to upstate capacity ratio has been reduced.
Retirements	+0.3		Retirements of relatively good performing units in Downstate.
Updated Cable Outage Rates	+0.1		Recent Increase in cable outages.
Updated Non-SCR/EDRP EOPs	+0.1		Less EOP participation.
Mothballed Units Returned to Service	+0.1		Return to service of poor performing units.
Updated Maintenance	+0.1		New Load Shape (2007) stresses system slightly in shoulder months
Total IRM Increase	**+2.7**		
2014 Parameters that decrease the IRM			
New Multiple Load Shape Model	-0.9		New load shapes are less stressful in upper bins (less days near peak).
Updated Neighboring Control Area Models	-0.8		Lower loads in PJM than previously forecast.
Remove Marble River Wind	-0.5		Removal of a poor performing unit that was assumed in 2013 IRM Study.
Updated LFU	-0.2		Zone J unchanged while other zones have less uncertainty.
Updated Topology	-0.2		Increase of transfer limits.
Updated Load Forecast	-0.1		Downstate load growth diminished compared to Upstate.
Use 2012 Wind Shape	-0.1		Recognizes more efficient wind experience.
Total IRM Decrease	**-2.8**		
2014 Parameters that do not change the IRM			
New MARS Version	0		
Updated Study Year	0		
Net Change from 2013 Study		**-0.1**	
2014 IRM Study Final Base Case IRM		**17.0**	

After considering the 2014 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 6, 2013, the NYSRC Executive Committee adopted an IRM of 17.0% for the 2014-2015 Capability Year.

V. Contents of the Filing

The following documents are being submitted for filing:

- This transmittal letter;
- A copy of the NYSRC 2014 IRM Study (Attachment A);
- A copy of the Study Appendices (Attachment B);
- A copy of the NYSRC resolution adopting the revised IRM for the 2014-2015 Capability Year (Attachment C).

VI. Conclusion

WHEREFORE, the NYSRC respectfully requests that the Commission accept this NYSRC filing for informational purposes.

Respectfully submitted,

/s/ Paul L. Gioia

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