UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.	**)**	**Docket No. AD14-8-000**

POST-TECHNICAL CONFERENCE COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

In accordance with the Commission's March 19, 2014 *Supplemental Notice of Technical Conference* ("Supplemental Notice") in this proceeding, the New York Independent System Operator, Inc. ("NYISO") respectfully submits its post-technical conference comments. These comments discuss the impacts of recent cold weather events on the NYISO and discuss actions taken by the NYISO to prepare for and respond to those cold weather occurrences.

I. NYISO WINTER 2013-2014 MARKET OPERATIONS

Winter 2013-2014 was characterized by numerous periods of colder than average weather beginning in December 2013 and extending into February 2014. The winter included five major cold snaps, including three polar vortexes that extended across much of the United States. On January 7, 2014, the NYISO set a new record winter peak load of 25,738 MW during a polar vortex.

The NYISO met all reserve requirements throughout the winter operating period, despite significant generator capacity derates on some of the coldest days. The NYISO did not activate emergency procedures at any time during the winter operating period, although the NYISO

called demand response resources and issued public appeals for customers to curtail or reduce non-essential electric power use on January 7, 2014.

On several days during winter 2013-2014 the price of natural gas exceeded the price of oil, making oil-fired generators, including dual-fuel generators running on oil, more economic than natural gas-fired generators. In January 2014, the load-weighted price of electricity was $183/MWh, a 176% increase compared to the December 2013 price of electricity. Also in January 2014, the average price of natural gas was $27.43/mmbtu, indexed at Transco Zone 6 in the New York City area, almost 400% larger than the December 2013 price of natural gas. The NYISO's efficient selection of economic dispatch is demonstrated by a percentage increase in the price of electricity that was less than half of the natural gas price increase.

The NYISO Operations Department ("Operations") undertook two distinct efforts in response to the winter 2013-2014 cold weather market conditions. During the early part of the winter, Operations' efforts focused on managing generator capacity derates, some of which resulted from fuel supply or cold weather issues. NYISO also worked with the New York Transmission Owners ("NYTOs") to cancel or reschedule transmission outages. During the later part of the winter, due to the increased use of oil-fired resources, Operations' efforts focused on monitoring potential fuel depletions that could lead to generator capacity derates.

II. NYISO WINTER 2013-2014 OBSERVATIONS

Generators with confirmed gas nominations were generally successful in generating to their day-ahead electric commitments despite the numerous cold weather periods, including during gas pipeline Operational Flow Orders ("OFOs") or System Alerts. Generators connected to the interstate pipelines were also able to procure and nominate gas intraday, at times during

the winter, including for NYISO Supplemental Resource Evaluation ("SRE") commitments (*e.g.*, additional generators committed for reliability to meet changed or local system conditions).

The ability to purchase and nominate gas intraday helped maintain bulk power system and local Transmission Owner system reliability; however, gas purchasing flexibility is not available at all times of the day, even though generators may have the option to nominate gas throughout the day depending on the pipeline (*i.e.*, additional nomination cycles outside of the standard intra-day cycles). There was at least one occasion this winter when a generator could not respond to a late-evening requested reliability commitment due to fuel limitations, but could respond the following day. While some pipelines allow for hourly nominations, it is the NYISO's understanding that gas marketers are not always available outside of normal business hours for a generator to arrange a gas purchase.

Pipeline OFOs and System Alerts were in effect many days during the winter of 2013-2014. OFOs that limit daily balancing tend to be less restrictive than OFOs that require hourly balancing. Daily balancing restrictions usually require a generator to stay within its scheduled gas nominations, limiting overburn to a specific threshold over the course of the gas day. Hourly flow restrictions that require a generator to stay within its scheduled gas nominations each hour are more restrictive and limit generator flexibility to respond to electric system conditions. The NYISO observed both types of OFOs this winter; however, hourly balancing restrictions were generally applied only on the gas local distribution company ("LDC") systems.

In preparing for the 2013-2014 winter, the NYISO implemented new cold weather procedures to monitor gas nominations, oil inventories, and expected oil replenishment schedules for all dual-fuel, gas-fired, and oil-fired generators prior to each cold day. This near real-time monitoring is in addition to an annual survey the NYISO conducts each fall that requests

information on gas transportation arrangements, oil inventory, and oil replenishment capability from the same generators. The NYISO uses this fuel information to monitor the generators' capability to meet Day-Ahead electricity schedules.

III. NYISO LESSONS LEARNED AND NEXT STEPS

The NYISO is exploring potential market design changes to address two reliability concerns observed during the sustained cold weather of winter 2013-2014: (i) the significant number of generator capacity derates on cold days; and (ii) the potential for limited fuel supplies during sustained cold periods. The NYISO will continue to perform its seasonal fuel assessments of gas transportation, alternative fuel inventories and predicted replenishment rates. In addition, the NYISO is exploring ways to improve generator energy offer reference level management during time periods when the gas prices can change rapidly or when more frequent fuel type changes may be necessary (*e.g.*, natural gas to oil or oil to natural gas).

The NYISO is also working to increase its gas system awareness by incorporating the fuel capability of units into the visual displays in the Operations' control room. The ability to monitor the actual fuel capability of units (gas, oil, etc.), especially during periods of the more restrictive hourly OFOs, will provide additional real-time information to help NYISO Operations maintain electric system reliability. The NYISO is also coordinating efforts with the interstate, intrastate, and LDC pipelines to incorporate gas pipeline outage scheduling with NYISO electric system outage scheduling.

The NYISO is also actively participating in the Eastern Interconnection Planning Collaborative ("EIPC") Gas-Electric System Interface Study ("EIPC Study"). The EIPC Study, funded by the U.S. Department of Energy, is evaluating the interaction between the natural gas and electric systems over the next five and ten years. The EIPC Study covers a broad study

region, consisting of the service territories served by NYISO, PJM Interconnection L.L.C., ISONew England, Independent Electricity System Operator (Ontario), Midcontinent Independent System Operator, Inc. and Tennessee Valley Authority. Future NYISO planning efforts will be informed by the EIPC Study results.

IV. QUESTION OF COMMISSIONER PHILIP MOELLER ON COLD WEATHER TECHNICAL CONFERENCE

Question: For each power plant that ran this winter, and that is expected to retire due to EPA regulations, what resources will replace it?

Answer: The NYISO does not own or develop capacity resources. Generation is developed by Market Participants as they deem it economic to do so, with the resources that they choose. The NYISO is not aware of any generators that operated during the winter 2013-2014 and have announced their intention to retire or mothball unit(s) as the direct result of EPA regulations.

The NYISO Interconnection Queue specifies what generation Market Participants are developing. As of April 2014, more than 5,000 MW of proposed new gas-fired generation is listed in the NYISO Interconnection Queue. Approximately 4,240 MW of the proposed gas-fired generators are combined cycles, some of which will have dual-fuel capability. The remaining resources in the NYISO Interconnection Queue are gas-only combustion turbines.

The NYISO conducts an annual assessment of the reliability of the New York State Bulk Power Transmission Facilities in accordance with criteria, rules and procedures established by the NYISO, North American Electric Reliability Corporation (NERC) Reliability Standards, Northeast Power Coordinating Council (NPCC), and New York State Reliability Council (NYSRC). In addition, as part of its tariff-based Comprehensive Reliability Planning Process, the NYISO conducts a Reliability Needs Assessment ("RNA") that provides a long-range

reliability assessment of both resource adequacy and transmission security of the New York bulk power system over a ten-year study period. The RNA considers any units that have submitted a notice of their intent to retire or mothball prior to April 15 of the planning year as retired for the period of the study. Proposed new generation projects (as listed in the NYISO interconnection queue or as planned and listed in the NYISO Gold Book), and projects proposed as market-based solutions by Transmission Owners also may be considered for inclusion in the RNA model.

If the long-range reliability assessment shows issues surrounding resource adequacy or transmission security ("Reliability Need"), the NYISO will request market-based and alternative regulated proposals from interested parties and designate one or more Responsible Transmission Owners to develop a Regulated Backstop Solution to address each identified need. Should it appear that market-based solutions will not meet the Reliability Need by the need date, the NYISO can trigger a Regulated Backstop Solution or an Alternative Regulated Solution to proceed to seek regulatory approvals and build its project. Should the NYISO determine that an imminent threat to bulk power system reliability will arise, the NYISO may also request that a Transmission Owner or Developer seek approval of a Gap Solution to meet the reliability need.

V. CONCLUSION

In conclusion, the NYISO respectfully submits these post-technical conference comments for the Commission's consideration.

Respectfully submitted,

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