

LAW OFFICES  
**BALLARD SPAHR ANDREWS & INGERSOLL, LLP**

601 13TH STREET NW, SUITE 1000 SOUTH  
WASHINGTON, DC 20005-3807  
202-661-2200  
FAX: 202-661-2299  
WWW.BALLARDSPAHR.COM

ATLANTA, GA  
BALTIMORE, MD  
BETHESDA, MD  
DENVER, CO  
LAS VEGAS, NV  
LOS ANGELES, CA  
PHILADELPHIA, PA  
PHOENIX, AZ  
SALT LAKE CITY, UT  
VOORHEES, NJ  
WASHINGTON, DC  
WILMINGTON, DE

March 11, 2009

**VIA ELECTRONIC FILING**

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

**Re: New York Independent System Operator, Inc., Docket No. ER09-405-001;  
Report on Waiver Request**

Dear Secretary Bose:

Transmitted electronically for filing in the referenced docket is the New York Independent System Operator, Inc.'s Report on Waiver Request.

If there are any questions concerning this filing, please call me at (202) 661-2212.

Very truly yours,

*/s/ Daniel R. Simon*

Daniel R. Simon  
Counsel for  
New York Independent System Operator,  
Inc.

Enclosure

cc: Michael A. Bardee, Gregory Berson, Connie Caldwell, Shelton M. Cannon, Larry Gasteiger, Bill Heinrich, Lance Hinrichs, Jeffrey Honeycutt, Kathleen E. Nieman, Rachel Spiker, John Yakobitis

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

**New York Independent System Operator, Inc.    )**

**Docket No. ER09-405-001**

**NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.'S  
REPORT ON WAIVER REQUEST**

In accordance with the Commission's February 9, 2009 letter order in this proceeding, *New York Independent System Operator, Inc.*, 126 FERC ¶ 61,100 at P 18 & Ordering Paragraph A (2009) (the "Order"), the New York Independent System Operator, Inc. (the "NYISO") submits the following report providing additional information to assist the Federal Energy Regulatory Commission ("Commission") in determining whether to grant the NYISO's December 11, 2008 waiver request in this proceeding.

At the outset, the NYISO acknowledges that this matter should have been disclosed to its stakeholders, and formally to the Commission, more expeditiously. The NYISO is now taking steps through its shared governance process to ensure that similar matters will be promptly disclosed to Market Participants and the Commission after they are identified.

**I.       ANSWERS TO THE COMMISSION'S QUESTIONS**

**A.       When and How the Error Was Discovered**

The Order first requires the NYISO to explain when and how the error was discovered. To further assist the Commission in understanding how the error was discovered, this section first describes how the error occurred, then discusses when and how the error was discovered.

Finally, this section explains the steps the NYISO took after the error, and before the Commission issued the Order, to improve its procedures.

### **1. Introduction: The Nature of the Erroneous Inputs**

Pursuant to the requirements of Attachment M-1 to the NYISO's Market Services Tariff, the NYISO and PJM administer a joint operating protocol to implement the provisions of two contracts between Consolidated Edison ("ConEd") and Public Service Electric and Gas Company ("PSEG"). Energy scheduled under the contracts flows over two interfaces, including the "ABC" interface and – at issue here – the "JK" interface. The NYISO is responsible under Appendices 1 and 7 of Attachment M-1 of the NYISO Market Services Tariff for: (i) accounting for ConEd's "contract elections" submitted into the Day-Ahead Market ("DAM"); (ii) the flow of energy (by hour and MW) over the JK interface from Ramapo, NY/Waldwick, NJ through PSEG in New Jersey and back into New York through the ABC interface; and (iii) establishing New York Desired Flow schedules for the DAM, including the distribution of flows (in MW) across the interconnections making up the ABC and JK interfaces. The J and K lines in the latter interface are controlled by three phase-angle regulators ("PARs"). The NYISO's distribution of flows (represented in PAR settings) then becomes part of the data inputs used by the Security Constrained Unit Commitment software ("SCUC") to run the overall DAM.

The "erroneous inputs" to the DAM at issue in this proceeding were the PAR settings (in MW) for the J and K lines resulting from the NYISO's distribution of flows under Appendices 1 and 7 of Attachment M-1. The source of the erroneous inputs was telemetry data from two of a set of three newly installed redundant meters on the three PARs controlling the J and K lines at Ramapo/Waldwick. The NYISO's Power System Applications Engineering group included the new meters in the NYISO transmission system network model to provide a redundancy designed

to produce more accurate real-time data metering, in order to account for the possibility of bad data from the existing single meter on each PAR. The sign convention on the telemetry data produced by two of the three new redundant meters was negative, whereas the existing three meters had always produced data with a positive sign (or zero, meaning that the line was experiencing an outage). For purposes of providing real-time data and for the NYISO's Real-Time Market ("RTM") operation, the sign setting for each meter was properly accounted for. The Power System Applications Engineering group setting the meters had not, during nine years of previous operations, encountered a situation in which the sign setting of a meter needed to be specifically accounted for in the DAM.

The NYISO's Intelligent Source Selection software ("ISS") takes the telemetry data from meters and creates an historical repository of meter data, including data from each of the PARs. The ISS was modified on January 8, 2008, to begin reading data from the three new meters and placing it into the historical repository. The SCUC, in turn, accesses the data in the historical repository created by the ISS in order to distribute the New York Desired Flows across the PAR-controlled lines. Whereas the PAR metering sign settings were properly accounted for in the real-time markets, the sign setting did inaccurately impact the data in the historical repository that the SCUC accessed to model the DAM, causing the inadvertent error here.

The first SCUC operation affected by the negative telemetry data was for the DAM run for January 11, 2008. The DAMs for January 12 and 13 (a Saturday and a Sunday) were not affected because the SCUC is designed to access the historical repository for "like" days, and the new meters had not been installed as of the preceding weekend (January 5 and 6); therefore, the negative telemetry data from the two meters was not accessed by the SCUC to run the January 12 and 13 DAMs. The PAR input settings are displayed on the SCUC. On the pertinent days

(January 11, and January 14 through 24) some of the PAR settings for two of the JK PARs were displayed as negative MW values, whereas they had (until that point) always been positive values. This anomaly was not detected right away, because the SCUC review procedures in place throughout this period (until the error was detected and corrected) were designed simply to verify whether these PAR settings were non-zero values. A zero value would indicate a line outage that needed to be accounted for in the DAM, and a negative sign value would have never appeared before the installation of the second set of meters. Although correctly implementing NYISO procedures in place at the time, the SCUC engineers did not recognize that the negative sign values would be incorrect inputs into the DAM, and therefore did not detect the error.

## **2. When and How the NYISO Discovered the Error**

The erroneous inputs described above resulted in unusual, but not dramatically deviant, market outcomes. The NYISO noticed and examined the unusual outcomes, and discussed them internally. The NYISO was not aware at the time, however, what was causing them. On January 23, 2008, a Market Participant, DC Energy,<sup>1</sup> sent the NYISO a confidential e-mail raising concerns that the PAR setting values posted on OASIS might have been inaccurate because the DAM results generated on the days in question seemed inconsistent with historical data. DC Energy suggested this result was perhaps due to a scheduling error. Members of the NYISO's Energy Market Operations management responded to DC Energy's e-mail by immediately investigating the issue. Through this investigation, the NYISO identified the underlying cause of the discrepancies, as described above. The NYISO immediately corrected the problem, and

---

<sup>1</sup> See Motion to Intervene and Comments of DC Energy, LLC, Docket No. ER09-405-000 (filed Jan. 2, 2009).

starting with the January 24, 2008 administration of the DAM (for the operating day of January 25, 2008), the error ceased to exist.

### **3. The NYISO's Actions to Prevent and/or Identify Similar Errors More Quickly**

Paragraph 19 of the Order directs the NYISO to file a report within 180 days either proposing tariff changes or updating the Commission on the development of procedures for stakeholder involvement in the analysis of errors and the development of corrective action. The NYISO's senior management and Board have already begun developing proposed principles to be utilized in such procedures. In the near future, the NYISO will begin obtaining Market Participant input on these principles and the concomitant procedures.

The NYISO notes that, even prior to the Order, it began implementing preventive and diagnostic procedures that would address this type of issue specifically, as well as market anomalies generally. Immediately after correcting the PAR setting errors in the DAM, in January 2008, the NYISO commenced a daily manual examination of the PAR settings and meter values used in the DAM. Thereafter, the NYISO's management further developed and implemented new company controls and procedures to protect against a similar error occurring again. These updated procedures are mapped and periodically reviewed by its Process Controls Group.

The NYISO also developed, with the active involvement and guidance of its senior management, additional procedures and capabilities to perform daily analysis and, where appropriate, investigation of unusual, unexpected or inefficient market outcomes. Thus, in October 2008, the NYISO created the Operations Analysis and Services ("OAS") Group. The OAS Group performs a daily review and root cause analysis of Real-Time Balancing Market

Congestion Residual uplift charges and reports the results to all Market Participants at the stakeholders' monthly Management Committee meeting. The OAS Group also monitors and investigates daily operational events that affect NYISO market performance and key market metrics.

In sum, during 2008, the NYISO implemented, on its own initiative, controls and processes to address the errors at issue – which are consistent with its historic efforts to self-correct errors and with its corporate compliance program.

## **B. The NYISO's Report of the Error to the Commission**

After discovering and fixing the PAR setting error in late January 2008, the NYISO informed Commission staff about the issue in a manner consistent with its past practice. The NYISO first contacted the Commission's Office of Energy Market Regulation, Division of Tariffs and Market Development - East ("OEMR-East") to schedule a meeting, which ultimately took place on March 17, 2008, to inform the Commission about the error.

The NYISO has had a long-standing practice of discussing with OEMR-East (or its predecessors) market administration errors or anomalies, as OEMR-East staff typically assists the Commission on orders affecting the NYISO. This practice has enabled the NYISO to candidly apprise Commission staff of issues before they became the subject of formal filings, including several tariff waiver requests.<sup>2</sup> Similarly, the NYISO has initiated dialogues with the

---

<sup>2</sup> In addition to having the informal conversations with Commission staff described above, the NYISO has voluntarily and formally self-reported administration or market implementation errors to the Commission consistent with the NYISO's compliance program, which requires such disclosure, remediation, and, where appropriate, seeking relief from the Commission. *See, e.g., New York Independent System Operator, Inc.*, 119 FERC ¶ 61,114 (2007) (granting waiver request so that the NYISO would not have to correct the settlements for the Bid Production Cost Guarantee payments for certain generators); *New York Independent System Operator, Inc.*, 115 FERC ¶ 61,026 (2006) (granting waiver request to allow the NYISO to correct  
(continued...)

Commission’s Office of Enforcement where appropriate – for example, in instances where the NYISO suspected that market manipulation or other improper market behavior may be occurring. In past instances where the NYISO self-reported tariff administration errors, it did so by apprising OEMR-East prior to formally filing with the Commission a request for relief. In this instance, the NYISO’s disclosure was not intended to circumvent the Office of Enforcement; rather, the NYISO was acting in manner consistent with its past practice. The NYISO simply did not appreciate the Office of Enforcement’s potential interest in this type of matter. In future matters where the NYISO self-reports a market administration error and, where applicable, a tariff violation, it will formally apprise the Office of Enforcement, consistent with the affirmative reporting obligations now imposed by Order No. 719.<sup>3</sup>

The March 17, 2008 meeting provided an opportunity for the NYISO to both informally apprise Commission staff of the error and to seek guidance on how to proceed. On the date of the meeting, the NYISO had not yet determined that the modeling error was inconsistent with a specific tariff provision nor fully analyzed its market impacts. Commission staff suggested that the NYISO determine whether the error constituted a tariff violation and, if so, whether it needed

---

(...continued)

errors it made in its computation of Bid Production Cost Guarantees when implementing market mitigation measures); *New York Independent System Operator, Inc.*, 117 FERC ¶ 61,164 (2006) (granting waiver request to allow the NYISO to avoid the burden and expense of correcting certain settlement data); *New York Independent System Operator, Inc.*, 107 FERC ¶ 61,292 (2004) (granting waiver request to allow the NYISO to avoid holding a Transmission Congestion Contract Reconfiguration Auction in order to address a database transcription error).

<sup>3</sup> *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶ 31,281 at P 311 (2008) (“The Final Rule broadens the reporting duties of the MMU, [and] clarifies that it is to refer to Commission staff any instances of misconduct by the RTO or ISO, as well as by a market participant...”); *see also Wholesale Competition in Regions with Organized Electric Markets*, Notice of Proposed Rulemaking, 122 FERC ¶ 61,167 at P 191 (2008) (describing how the Advanced Notice of Proposed Rulemaking for Order No. 719 had proposed “*expanding* the subject matter of such referrals to include suspected rule or tariff violations committed by an RTO or ISO as well as by market participants” (emphasis added)).



to file a tariff waiver request. Staff also recommended that the NYISO investigate and explain in detail to the Commission whether it would be appropriate to correct any DAM prices impacted by the error. Thereafter, the NYISO's internal market monitoring unit ("MMU") was apprised of the error and the NYISO examined the relevant tariff provisions as discussed with Commission staff.

The NYISO's tariffs generally do not contain specific PAR setting procedures. The specificity of the PAR setting provisions associated with the administration of the grandfathered contracts described in Section I.A.1 above is, therefore, unusual. After further review and analysis, the NYISO eventually concluded that the error was inconsistent with Attachment M-1 to the NYISO's Market Services Tariff.<sup>4</sup>

The NYISO studied the impact of the error with the help of its external Independent Market Advisor, Dr. David Patton of Potomac Economics. Once this analysis was completed, the NYISO concluded that it would be inappropriate to retroactively change the DAM results impacted by the PAR setting error. The NYISO then filed its tariff waiver request (including a detailed affidavit from Dr. Patton), formally notifying the Commission of the error and commencing a public proceeding that allowed interested parties to intervene and comment.

---

<sup>4</sup> As described in Section I.A.1 above, Attachment M-1 provides the operating protocol governing the planning, operation, control, and scheduling of energy pursuant to grandfathered contracts between ConEd and PSEG. Appendix 1 to Attachment M-1 contains the "Process Flow" the NYISO must follow. For day-ahead scheduling, step 4 in the Process Flow requires ConEd to submit a day ahead contract election ("NY-DAE"). In step 5, the NYISO uses these hourly values as the New York Desired Flows based on the aggregate ABC interface and aggregate JK interface using ConEd's NY-DAE. Step 6 then requires the NYISO to establish the distribution flows in accordance with Appendix 7 to Attachment M-1. In step 7, the NYISO then must run the DAM with the New York Desired Flow schedules determined in steps 5 and 6, and in step 8 the NYISO must post the results. The NYISO eventually concluded that the error was inconsistent with steps 5 and 6 of Appendix 1, because the summation of the PAR settings were inconsistent with the New York Desired Flow, and the historical data captured by the SCUC incorrectly established the distribution flows (in situations where incorrect, negative PAR settings were used), as generally provided in Appendix 7.

**C. The NYISO's Notification to Its Market Monitor of the Tariff Violation**

The NYISO's internal MMU was made aware of the error in March 2008, shortly after the NYISO met with Commission staff on March 17. The MMU was also informed that the NYISO had advised Commission staff of the issue. Thereafter, the NYISO informed its Independent Market Advisor, Dr. David Patton, and by early July 2008, had begun discussions with Dr. Patton about Potomac Economics' analysis of the error and its financial impacts.

**D. The Steps the NYISO Took to Inform Its Market Participants, Stakeholder Committees, and the Commission of the Error**

As discussed above, the manner in which the NYISO initially communicated the PAR modeling error to Commission staff was consistent with its past practice. The NYISO appreciates the Commission's concern with the length of time that passed between the identification/correction of the error and the NYISO's formal waiver request. The NYISO acknowledges that this matter should have been disclosed to its stakeholders, and formally to the Commission, more expeditiously. The NYISO is taking steps to ensure that similar matters will be promptly disclosed to Market Participants after they are identified.

As discussed above, the NYISO informed Commission staff about the error less than two months after the NYISO discovered and corrected the error. Soon after the error was identified, the NYISO's Operations Department began analyzing its potential market impacts. Thereafter, the NYISO began conversations with its Independent Market Advisor regarding the issue. Unfortunately, the Lake Erie circuitous scheduling problem<sup>5</sup> diverted internal and external resources and contributed to the delay in completing the NYISO's analysis.

---

<sup>5</sup> See generally, *New York Independent System Operator, Inc.*, 124 FERC ¶ 61,174, at PP 3-7 (2008).

Between September and November 2008, the NYISO worked with the Independent Market Advisor to complete the analysis of the market impacts associated with the modeling error. On December 3, 2008 the NYISO briefed its Market Participants about the error. Specifically, NYISO management described the PAR modeling error to its Management Committee and stated the NYISO's intent to file a tariff waiver request with the Commission. The NYISO filed its formal waiver request on December 11, 2008.

The NYISO regrets the delay that occurred before it formally notified the Commission and its stakeholders of the error. The NYISO now recognizes that a better approach would have been to provide an initial briefing for Market Participants, and a more formal notification to the Commission, before impact studies had been completed, and to have enlisted its Independent Market Advisor more quickly to accelerate the impact analysis. In order to improve how it addresses any similar errors in the future, the NYISO is committed – as required by the Order – to working through its stakeholder process to develop standardized procedures that will expedite and improve its error notifications to the Commission and Market Participants.

## **II. CONCLUSION**

This report demonstrates the inadvertent nature of the error (the sources of which were complex and unanticipated), highlights the steps the NYISO took to inform the Commission (through an informal meeting and a formal waiver request) and its Market Participants, and explains how the NYISO acted consistent with past practice by voluntarily self-reporting the matter to Commission staff. Immediately following the discovery of the error, the NYISO developed procedures to strengthen its ability to detect and promptly correct future market errors, and will be undertaking the development of additional procedures to ensure transparency for stakeholders, pursuant to paragraph 19 of the Order. Again, the NYISO regrets the delay that

occurred, and is committed to the development of procedures to ensure greater transparency and timely communications to its stakeholders and the Commission.

The NYISO respectfully requests the Commission to accept this report and to grant the requested tariff waiver.

Respectfully submitted,

NEW YORK INDEPENDENT SYSTEM  
OPERATOR, INC.

/s/ Robert E. Fernandez  
Robert E. Fernandez, General Counsel  
New York Independent System Operator, Inc.  
10 Krey Boulevard  
Rensselaer, NY 12144  
Tel: (518) 356-6000  
Fax: (518) 356-4702

/s/ Howard H. Shafferman  
Howard H. Shafferman  
Daniel R. Simon  
Jack N. Semrani  
Ballard Spahr Andrews & Ingersoll, LLP  
601 13th Street, N.W., Suite 1000 South  
Washington, D.C. 20005  
Tel: (202) 661-2200  
Fax: (202) 661-2299

March 11, 2009

## **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 Washington, D.C., this 11<sup>th</sup> day of March, 2009.

/s/ Pamela S. Higgins  
Pamela S. Higgins  
Ballard Spahr Andrews & Ingersoll, LLP  
601 13th Street, N.W., Suite 1000 South  
Washington, D.C. 20005  
(202) 661-2258