

91 FERC ¶ 61,346
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: James J. Hoecker, Chairman;
William L. Massey, Linda Breathitt,
and Curt Hébert, Jr.

NRG Power Marketing, Inc.

v.

Docket No. EL00-49-000

New York Independent System Operator, Inc.

ORDER DENYING COMPLAINT

(Issued June 30, 2000)

On March 8, 2000, NRG Power Marketing, Inc. (NRG) filed a complaint against the New York Independent System Operator, Inc. (NYISO) alleging that the NYISO reduced energy clearing prices for certain hours on December 11 and 12, 1999, in violation of its own rules for Emergency Correction Action and Commission orders regarding Temporary Extraordinary Procedures (TEP), thereby violating the filed rate requirements of section 205 of the Federal Power Act. NRG requests that the Commission require the NYISO to reinstate the disputed clearing prices in accordance with the rates as originally determined and to recalculate the settlement amounts owed to NRG based on the original clearing prices.

As discussed below, we find that the NYISO had the authority to act in the manner it did, and we deny the complaint.

Background

The NYISO officially assumed control and operation of New York State's electric power grid from the New York Power Pool on December 1, 1999, after an initial two-week operating period. To address certain issues relating to the transition, the

Commission issued an order on September 15, 1999,¹ approving TEPs to address unanticipated market design flaws and transitional abnormalities during the NYISO's initial 90 days of operation. Among other things, the NYISO was permitted, in the event of a market design flaw or transitional abnormality that would impair reliability or market prices, to take Extraordinary Corrective Actions (ECA's) to recalculate the clearing prices to the level that would have been reached if a market design flaw or transitional abnormality had not arisen. It was envisioned that notice of corrective action be given no later than 24 hours after the hour in which corrective action is contemplated. ECA #5 was negotiated with market participants to allow the NYISO 48 hours to identify, and seven days to correct, erroneous prices during the period from December 8 to December 31, 1999, and 24 hours to identify erroneous prices after that period.

The NYISO states that on December 11 and 12, 1999, a series of previously undetected software flaws caused the NYISO's Security Constrained Dispatch (SCD) program to miscalculate real-time energy prices for a number of intervals, primarily by ignoring available lower cost generating units. The NYISO subsequently recalculated the prices and posted the corrected prices.

Complaint

NRG maintains that the price changes were not justified and that the NYISO's notice regarding these prices was not timely. According to NRG,² the ECA procedures posted on the NYISO's web site on November 10, 1999, provide that where there is a "transitional abnormality in the process" between December 8 and December 31, 1999, the NYISO will identify such prices within 48 hours and correct them within a period of seven days from identification.

As an example of the adjustments that it complains about, NRG states in its complaint that on Saturday, December 11, 1999, NRG bid into the real time market for hour block 1700 with its affiliate's Astoria 4-4 CT facility, the facility delivered 17.4 MWh of power that hour, and the clearing price for that hour eventually was set at \$1603.08/MWh. On Sunday, December 12, 1999, NRG bid into the real time market for the 1600 and 1700 hour blocks with its affiliate's Dunkirk 3 and 4 bus facilities. The market clearing price for the 1600 hour block was \$2810/MWh and for the 1700 hour block was \$6525.40/MWh. Those two facilities delivered a total of 180 MWh in the 1600 hour block and 304.5 MWh in the 1700 hour block.

¹New York Independent System Operator, Inc., 88 FERC ¶ 61,228 (1999).

²Complaint at 4-5.

NRG continues that at 5:32 p.m. on December 14, 1999, NYISO first notified it that it was reviewing prices for certain hours on December 11. At 10:14 p.m. on December 15, NYISO first notified NRG that it was reviewing prices for certain hours on December 12. The NYISO subsequently revised the posted price for hour block 1700 on December 11 from \$1603.08/MWh to \$36.75/MWh; for hour block 1600 on December 12 from \$2810.82/MWh to \$65.05/MWh and \$64.69/MWh, respectively, for two of NRG's affiliated generating facilities; and for hour block 1700 on December 12 from \$6525.40/MWh to \$259.06/MWh and \$248.99MWh, respectively.

NRG states that it complained to the NYISO that the price changes were not justified and that its notice regarding these prices was not timely. NRG asserts that the NYISO effectively conceded that the price notifications were untimely. NRG claims that the NYISO never gave an explanation for the revisions to the prices on December 11 and 12, and has not shown that the prices were the result of a market design flaw or transitional abnormality.

NRG argues that the NYISO has violated the Federal Power Act by unreasonably and arbitrarily reducing clearing prices in a manner contrary to Commission orders and approved NYISO procedures. NRG complains that more than 72 hours after the prices were posted, the NYISO first notified NRG that the prices on December 11 and 12 were under review, in violation of both the 24 hour requirement contained in the procedures approved in the September 15 order, and the less restrictive 48 hour requirement set forth in the NYISO's procedures regarding ECAs.

NRG maintains that if the real time prices on December 11 and 12 were caused by a market design flaw or transitional abnormality, then certain November prices which, to NRG's detriment, were not adjusted also resulted from the same causes. According to NRG, shortly after commencing operations on November 18, 1999, the NYISO significantly overstated the energy load required by the market, leading to an over-commitment of generator's facilities. Due to the NYISO's unknown overstatement of the load, NRG asked its affiliates to bring generation facilities on line to meet an energy need that ultimately did not exist. NRG states that notwithstanding the complaints by NRG and others, the NYISO did not revise prices to compensate generators for the increased costs caused by this "transitional abnormality" in the NYISO operations.

Notice of Filing and Pleadings

Notice of NRG's complaint was published in the Federal Register, 65 Fed. Reg. 14,267 (2000), with comments, protests, and interventions due on or before March 28, 2000. The New York State Public Service Commission filed a notice of intervention, and

the Independent Power Producers of New York, Inc.; the Member Systems;³ PG&E National Energy Group, PG&E Generating, and PG&E Energy Trading Power, L.P.; Sithe Power Marketing, L.P.; Southern Energy NY Gen, L.L.C., Southern Energy Bowline, L.L.C., and Southern Energy Lovett, L.L.C.(Southern Parties); and TransAlta Energy Marketing (U.S.) Inc. filed timely motions for leave to intervene. The Member Systems protested NRG's filing and the Southern Parties filed comments.

The Member Systems oppose the reinstatement of prices requested by NRG that were the result of computer software errors and which they state would provide an exorbitant and inappropriate windfall for NRG at the expense of consumers. They state that it is important that the NYISO have the ability to institute corrective actions under the Temporary Extraordinary Procedures to rectify anomalous market results arising from an unanticipated design flaw or transitional abnormality.

The Southern Parties request that if the Commission grants the relief requested by NRG, it reinstate the prices for all market participants with a stake in the market clearing prices for December 11 and 12, 1999.

The NYISO's Answer

In its answer, the NYISO admits that it was unable to fully comply with the ECA procedures for announcing that erroneously posted prices were under review insofar as it was approximately 24 hours late in announcing its review of the December 11 and 12 prices. Nevertheless, the NYISO asserts, it substantially complied with the ECAs, and was clearly acting within their spirit, when it corrected the erroneously posted prices in order to ensure that real-time energy prices were determined in accordance with its pricing methodology. The NYISO states that NRG must not be permitted to reap a multi-million dollar windfall, at the expense of other market participants, because of unanticipated software errors that emerged during the early stages of NYISO operations, especially when the NYISO's price correction did not injure NRG other than by depriving it of a windfall. Moreover, restoring the erroneously calculated prices would violate the filed rate and could undermine New York's wholesale electric power market.

³The Member Systems include Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., LIPA, the Power Authority of the State of New York, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

The NYISO states that on December 11 and 12, 1999, a series of previously undetected software flaws caused the NYISO's Security Constrained Dispatch (SCD) program to miscalculate real-time energy prices for a number of intervals.⁴ It states that in some instances the SCD program incorrectly ignored a number of low-cost generators in the price calculation step, causing the NYISO to post erroneous market clearing prices based on the bids of much more expensive units, despite the fact that the actual base point signals the NYISO sent to generators were much lower. During these SCD intervals, the NYISO states that the marginal units in the correct price calculation had bid prices between \$12/MWh and \$80/MWh.

In other instances, the prices calculated by the SCD used erroneous reference bus prices. This problem was due to an attempted programming fix to an unrelated SCD problem that did not work as intended and caused this unexpected incidental error.

The NYISO states that in many instances the erroneously calculated price was dramatically higher than a correctly calculated price, derived from the actual interplay of supply and demand, would have been. The NYISO explains that generators whose bids set the erroneous prices were not actually dispatched to operate at the levels to which those bids applied, and in fact no generator was sent a base point dispatch signal to any bid price above \$500/MWh on its bid curve. Moreover, during the vast majority of the intervals in question, the corresponding maximum price associated with any dispatch signal was less than \$200/MWh, and the highest cost unit dispatched had a bid below the corrected prices.

The ISO further contends that even if a unit was actually dispatched at the erroneous price, and its bid exceeded the corrected price, that unit would have been paid the "bid production cost guarantee" pursuant to Section 4.23 of the NYISO's Market Administration and Control Services Tariff, protecting it from economic injury.

The NYISO states that it provided this information on December 22, 1999, via electronic mail to the NYISO's Technical Information Exchange (TIE) list,⁵ followed by

⁴The ISO states that its SCD program has two steps. First, the SCD program dispatches generating units on a least-cost basis subject to reliability criteria by the use of "base point" signals. This is the actual physical dispatch of the system. Then in the second step, the ISO calculates prices. See NYISO Answer at 3.

⁵The TIE list has approximately 700 subscribers, which the NYISO believes includes representatives of every NYISO market participant, and has become the standard
(continued...)

substantial additional information concerning these software problems. Although the NYISO immediately suspected that the posted prices in question were anomalous, it did not immediately understand what caused them, and could not rule out the possibility that they were the product of legitimate competitive market forces. The NYISO, together with outside consultants, conducted an extensive review of the December 11 and 12 prices. The NYISO believes that its actions were consistent with the filed rate, since it already has the authority, and is required, to correct all prices that do not reflect the operation of its market rules.

The NYISO also disputes NRG's argument that the NYISO disfavors generators. In addition to questioning whether there was any negative financial impact as a result of its actions, the NYISO describes how it explained to market participants via electronic mail on December 8, 1999, that it was virtually impossible, as a technical matter, to recalculate the entire market for the first week of NYISO operations.

Discussion

A. Procedural Matters

Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure,⁶ the notice of intervention and the timely, unopposed motions to intervene serve to make those who filed them parties to this proceeding.

B. NYISO's Authority to Revise Incorrectly Calculated Market Clearing Prices

The NYISO acts as an administrator of the spot energy market. In this role, it neither purchases nor sells energy. It facilitates the sale of energy by calculating market clearing energy prices consistent with the market rules and the bids received from buyers and sellers. The market rules provide that the market clearing prices paid to sellers and charged to buyers will be calculated using Locational Based Marginal Pricing (LBMP). This is defined in Section 1.17e of the NYISO Open Access Transmission Tariff (OATT) as "a pricing methodology under which the price of Energy at each location in the NYS Transmission System is equivalent to the cost to supply the next increment of Load at that location (i.e., the short run marginal cost)." Attachment J to the OATT specifies in detail

⁵(...continued)
medium through which the NYISO communicates important information to market participants. NYISO Answer at 12.

⁶18 C.F.R. § 385.214 (1999)

the LBMP calculation method that the NYISO is to use. It provides that the NYISO shall run a SCD normally every five minutes to minimize the total Bid Production Costs of meeting the system load and maintaining scheduled interchanges with adjacent control areas over the next SCD interval. It also provides that bid production costs for this purpose will be calculated using bids submitted into the real-time market. Thus, the "filed rate" for the NYISO energy market is not a static number but rather a formula rate calculated as described above. To comply with the provisions of the tariff, the formula must be applied as intended using the correct inputs. Any other result is not an approved rate.

It is undisputed that the recalculation of the energy prices which are the subject of this complaint was the result of computational errors in the calculation of LBMP in several time periods caused by faulty computer software, which resulted in the originally posted energy prices not reflecting the market bidding. Specifically, in calculating the originally posted real time energy prices the SCD used by the NYISO ignored a number of low cost bids thus resulting in posted prices that exceeded the prices needed to clear the market. The originally posted LBMP's did not accurately reflect the short run marginal cost of real time energy nor did they minimize the total Bid Production Costs of meeting the system load as required by the market rules. Moreover, the generators that set the erroneously high price were never actually dispatched to a level corresponding to that price. In other words, the originally posted prices did not even accurately reflect the actual dispatch of energy. As a result, those posted energy prices were not the correct results of the prescribed formula using the actual market data. For the recalculation, the actual energy bids that were submitted to the NYISO during those periods were used as well as the correct formula to calculate energy market clearing prices. Thus, the corrected and reposted prices represented the actual result of the market bidding and the only approved tariff rates.

Under these circumstances involving the erroneous calculation of a formula rate, the NYISO did not have to rely on any temporary authority or interim procedures to correct incorrect energy clearing prices. In ISO New England, Inc.,⁷ the Commission held that consistent with the filed rate doctrine, the ISO has the authority, and is required, to correct all prices that do not reflect operation of the ISO market rules (which are the filed rate). This ensures that both buyers and sellers are protected if the ISO makes computational errors and thus fails to fully follow the market rules. The NYISO has that same authority and is required to promptly correct its errors. In the instant case, the original posted prices did not reflect the operation of the NYISO's market rules. If the

⁷90 FERC ¶ 61,141 (2000)

original prices were allowed to stand, buyers would be required to pay higher prices than required by the market rules. Thus, the Commission finds that, under the factual situation presented herein, the recalculation of market clearing energy prices by the NYISO to be an appropriate and necessary response to correct errors.

A robust, competitive market needs correct, real-time price signals in order to function properly. The NYISO has the obligation to correct errors and notify the participants as soon as possible after the error is identified. While the NYISO responded in these circumstances as soon as it determined there was a problem, it did not respond as soon as it had anticipated. The NYISO has represented that it has overhauled its price review and validation procedures to be able to ensure a prompt response in the future. It has stated that it has increased the amount of staff resources dedicated to price review, involving a larger number of market monitoring personnel, as well as a number of outside economic consultants.

For the above reasons, the Commission rejects NRG's arguments that the price recalculations are in violation of the Federal Power Act and Commission orders. We also reject NRG's assertion that these and other actions are evidence that the NYISO disfavors generators. In this regard, we accept the NYISO's explanation of the reasons for its actions during the first week of its operation of which NRG also complains.

The Commission orders:

The complaint is hereby denied, for the reasons discussed in the body of this order.

By the Commission.

(S E A L)

David P. Boergers,
Secretary.