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August 16, 2010

**By Electronic Filing**

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

**Re: *New York Independent System Operator, Inc.*, Docket No. ER08-850-000  
Informational Report on Operation of Rate Schedule**

Dear Secretary Bose:

Pursuant to ordering paragraph “B” in the Commission’s June 17, 2008 “Order Conditionally Accepting Tariff Revisions” (“June 2008 Order”), and its June 18, 2010 “Notice of Extension of Time” in the above docket, the NYISO submits this Informational Report apprising the Commission of the progress of its centralized wind forecasting program, the revenues it has collected from wind generators under Services Tariff Rate Schedule 7, “Charges for Wind Forecasting Service,” and the NYISO’s disposition of those revenues. The NYISO is including information on the disposition of its Rate Schedule 7 revenues only in a non-public filing as they represent payments made to a single contractor and, as such, are commercially sensitive. The contractor has requested that the confidentiality of payments made to it for its wind forecasting services remain confidential.

The Commission’s June 2008 Order authorized the NYISO to implement a centralized wind forecasting mechanism and add Rate Schedule 7 to its Services Tariff. NYISO’s wind forecasting mechanism uses data regarding wind speed and wind direction collected by interconnected wind resources in the NYCA, and other meteorological data, to forecast the amount of energy expected to be produced by wind resources over various time frames.<sup>1</sup> The NYISO uses these wind facility-specific Energy forecasts in its Day-Ahead and Real-Time

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<sup>1</sup> Consistent with the June 2008 Order, the NYISO exempts from the forecasting program and Rate Schedule 7 payment obligations those units that were in commercial operation as of January 1, 2002 with a nameplate capacity of 12 MW or less.

commitment and dispatch process to more accurately schedule resources both in NYCA and from its neighbors. A more accurate system commitment and dispatch reduces operating costs and increases the reliability of service to New York loads. Facility-specific Day-Ahead and realtime Energy forecasts are also provided to the wind facilities themselves.

The Commission's June 2008 Order also authorized the NYISO to assess a small fee on each interconnected wind facility in the program to offset the costs of its wind forecasting mechanism. The NYISO has contracted with AWS Truepower to provide the NYISO with realtime wind energy forecasts updated every 15 minutes, including eight hours of energy forecast data for each wind facility in the program. In addition AWS Truepower provides a forecast twice daily of energy expected to be produced for each hour of the following two days ("Day-Ahead wind energy forecast").

## **I. PROGRESS OF THE NYISO's WIND FORECASTING PROGRAM**

The NYISO's goal in adding the wind forecast mechanism to its Day-Ahead SCUC process, was to avoid over-committing other resources when next-day wind energy would solve any capacity shortage identified to meet NYISO's own forecast of next day load. The goal of adding the wind forecast mechanism to the Real-Time commitment ("RTC") and dispatch ("RTD" process was to better inform commitment decisions over RTC's two-hour plus time horizon and to allow more informed dispatches of wind and other generating units over RTD's sixty-minute window.

The NYISO's wind forecast mechanism is working well in providing a picture of the amount of wind-generated Energy output that the NYISO can expect over the relevant time period. Attached as Appendix A, is a series of graphs produced for the month of June 2010 and providing monthly data back to June 2009.

- The first graph shows the average hourly absolute MW error and the maximum hourly MW error in a given month of the wind energy forecast, predicting wind energy output one hour out.
- The second graph provides the average hourly absolute error of the wind energy forecast (also referred to as Mean Absolute Error or "MAE"), average hourly absolute error of a persistence assumption and the bias of the wind forecast, all measured for one hour out. The persistence assumption applies the current actual energy output of the wind as the forecast value of the wind energy output for all subsequent time steps. It is noteworthy that for the one-hour forecast timeframe, persistence performs slightly better than the forecast on average.
- The third graph presents the wind energy forecast performance when the actual wind energy output is changing by more than 20 percent of total wind capacity (equivalent to 251MW) over the course of an hour. The wind energy forecast typically outperforms

persistence by roughly five to ten percent, which reflects the value of having a centralized forecast.

- The fourth and final graph shows the MAE and bias of the Day-Ahead wind energy forecast provided at 4 AM daily and used in the Day-Ahead Market commitment process.

This information is available monthly on the NYISO website in the “CEO / COO Report” provided as part of the monthly Management Committee meeting materials.

The outcomes presented to-date are within the NYISO’s expectations and indicate that the forecasted energy outputs are in line or better than industry standards. The NYISO has requested AWS Truepower to produce wind energy forecasts that minimize MAE. As shown in the second graph of Appendix A the MAE of the wind energy forecast one hour out averaged less than 4% from June 2009 through June 2010. As shown in the fourth graph of Appendix A the MAE of the wind energy forecast on a day-ahead basis averaged roughly 8% for the same period. The NYISO will continue to work with AWS Truepower to improve and evolve the wind energy forecast as needed to meet future operational requirements.

## **II. COLLECTION AND DISPOSITION OF RATE SCHEDULE 7 REVENUES**

### **1. Revenues Received Under Rate Schedule 7**

When the wind forecasting program began, the NYISO had 706 MW of installed wind capacity subject to the Rate Schedule 7 charge. This grew to 1063 MW by the end of 2008 and to 1273 MW in January 2009 where the number of MWs of installed wind capacity in New York still stands.<sup>2</sup> By the end of 2010, the NYISO expects an additional 15 MW of wind capacity to be on line and, by the end of 2011, another 610 MW of wind capacity. Development has slowed in New York with the economic recession. For the past three years the NYISO has recovered the following annual sums:

July 2008 - Dec 2008	\$63,074.57
Jan 2009 - Dec 2009	\$205,330.23
Jan 2010 - May 2010	<u>\$87,495.00</u>
Total RS 7 Income to the NYISO 7/2008 to May 2010	\$355,899.80

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<sup>2</sup> Due to the exemption explained in Footnote 1, the wind energy forecast is provided for 1256 MW out of the 1273 MW installed wind capacity.

## 2. Cost of Implementing the Wind Forecasting Mechanism

The NYISO has contracted with AWS TrueWind to provide daily and hourly Energy output forecasts. The NYISO has paid AWS TrueWind the following amounts:

July - December 2008:	\$ [REDACTED]
January- December 2009:	\$ [REDACTED]
January 2010 - May 2010:	\$ [REDACTED]
Total Paid:	\$ [REDACTED]

The NYISO has expensed about [REDACTED] of the Rate Schedule 7 income on the AWS contract.<sup>3</sup> This contract was established for a two-year term with automatic renewals annually thereafter unless notification otherwise is provided by the NYISO. [REDACTED].

The NYISO commits to review again in one year its costs to implement the wind forecasting mechanism and the revenues it collects under Rate Schedule 7. At that time, if the NYISO is expensing 80% or less of the Rate Schedule 7 revenues it recovers in implementing the wind forecasting mechanism, the NYISO will consider, with its stakeholders, the appropriateness of a decrease in the Rate Schedule 7 recoveries. At that time, August 16, 2011, the NYISO will also notify the Commission of the results of its review and will provide, as appropriate, a timeline for the stakeholders' reconsideration of Rate Schedule 7 charges.

## III. CONCLUSION

For the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept this filing as fully satisfying the requirements set forth in the June 2008 Order.

Respectfully submitted,

/s/ Mollie Lampi

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<sup>3</sup> [REDACTED].

## Appendix A





