

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

**Assessing the State of Wind Energy
In Wholesale Electricity Markets**

Docket No. AD04-13-000

**COMMENTS OF THE
NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.
IN RESPONSE TO
NOTICE REQUESTING POST-TECHNICAL CONFERENCE COMMENTS**

Pursuant to Rule 213 of the Federal Energy Regulatory Commission's ("Commission") Rules of Practice and Procedure, the New York Independent System Operator, Inc. ("NYISO") submits these Comments in response to the Commission's December 21, 2004 Notice Requesting Post-Technical Conference Comments ("Notice") in the above referenced proceeding.

The Commission held a technical conference on December 1, 2004 in this proceeding to assess the state of wind energy in wholesale electricity markets. As indicated in the Notice, the conference focused on potential policy changes that would better accommodate the participation of wind energy in wholesale electricity markets and concluded with a list of action items. The Commission's Notice invites interested parties to submit post-technical conference comments regarding the action items and any other topic relevant to this proceeding.

1. Comments

In general, the perspective of the technical conference and conference's action item list, as appended to the Notice, is from the point of view of the provision of

transmission service to wind projects under the Commission’s Order No. 888 *pro forma* transmission tariff. Both independent system operators such as the NYISO and regional transmission organizations (collectively, “ISO/RTOs”), however, provide transmission services and administer wholesale electricity markets under individual Commission-approved tariffs that will likely differ from the *pro forma* transmission tariff in at least some respects. Despite the unique characteristics of the NYISO’s tariffs and market rules, many of the concepts and issues that are embodied in the questions raised at the conference and in the Notice are relevant to the NYISO and the manner in which wind resources are integrated into its Open Access Transmission Tariff (“OATT”)-governed transmission system operations and its Market Administration and Control Area Services (“Services Tariff”)-governed markets.

The conference addressed, and the Notice invites comments on, whether the Commission should reevaluate energy imbalance penalties under the *pro forma* tariff. The unique characteristics of intermittent generation resources have been recognized in the NYISO Services Tariff since its inception. For example, intermittent resources that were in existence in November 1999, plus up to an additional 500 MW of any subsequently developed new intermittent resources, are exempt from many of the market rules and tariff provisions regarding bidding and scheduling, operations, and financial settlements that otherwise apply to generators in the New York markets. As opposed to other traditional generation resources, intermittent resources in New York are not subject to penalties for deviations in output, either above or below, NYISO-directed operating levels. Likewise, such resources are not subject to the energy imbalance provisions of NYISO’s Day-Ahead energy markets and receive financial settlements that are based on

their actual real-time output during the dispatch day. Intermittent resources can also qualify to be Installed Capacity (“ICAP”) Suppliers in the NYISO’s resource adequacy markets. Unlike most other generation resources, however, intermittent ICAP Suppliers are not required to bid their eligible ICAP into the Day-Ahead Energy Market on a daily basis.

Whether, among other things, energy and capacity market rules for intermittent generation in New York should be revised as these resources are added in greater numbers is currently being examined by the NYISO and its stakeholders. As the Commission is aware, the New York State Public Service Commission (“NYPSC”) recently directed the implementation of a renewable portfolio standard (“RPS”) for the State of New York (“RPS Order”).¹ Given the objective of the RPS – to increase the proportion of electricity attributable to renewable resources to at least 25% of electric energy consumed in New York State by the end of 2013, the implementation of the RPS may result in the need for the NYISO to integrate as much as 3,300 MW of new wind resources into its wholesale energy market and transmission system operations. An increase of intermittent resources of this magnitude would represent nearly 100 times the amount of wind power currently installed in New York.

The RPS Order designated the New York State Energy Research and Development Authority (“NYSERDA”) as the agency responsible for developing the structure and administering the procurement of new renewable resources under the RPS. Given that NYSEDA has already commenced the procurement process for the first

1 See, Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Renewable Portfolio Standard, Order Regarding Retail Renewable Portfolio Standard (issued September 24, 2004).

several hundred MW of new renewable resources, the significant portion of which will likely be wind power, the NYISO is faced with the immediate need to review the market rules applicable to wind and other intermittent resources. Consistent with its tariff obligations, the NYISO will assess any necessary operational or market rule revisions from two perspectives: first, whether and how the addition of new intermittent resources in the magnitude sought by the RPS will affect the security and the reliable operation of the New York State Bulk Power System; and, second, how to ensure that any undue barriers to entering and participating in New York's competitive energy markets for intermittent resources are removed in a manner that is fair to all Market Participants.

A significant part of this assessment was begun during the RPS proceeding and is continuing. To study whether the implementation of an RPS and the addition of intermittent resources in amounts envisioned by the RPS objective would create system reliability issues, the NYISO and NYSERDA have jointly sponsored a study, which was described in more detail in the NYISO's compliance filing under Docket Nos. RM02-1-001 and ER04-449-000, as well as its comments on the American Wind energy Association's May 20, 2004, petition in Docket Nos. PL04-15-000, RM02-12-000, -1-001, and -1-005. Phase I of this study, which is complete, provided a preliminary review of the reliability impacts of adding significant wind resources. The study also recommended certain specific transmission interconnection features or capabilities that New York should require for all new wind farms.

The NYISO recently received the initial results of Phase II of the study, which is expected to be finalized in the February-March 2005 time frame. Phase II will recommend, among other things, changes to reliability standards, criteria, and the rules

for planning and operating the New York transmission system (*e.g.*, any special requirements or conditions that should be placed on wind generation development) to ensure that the security and reliability of the New York transmission system is maintained. Following the completion of the Phase II portion of the study, it is the NYISO's intent to assess whether the current exemptions from energy imbalance penalties and other energy market rules for intermittent resources should be revised as these resources become a larger portion of New York's total generation base.

With respect to attaching new intermittent resources to the transmission grid, as noted in its compliance filing in Dockets RM02-1-001 and ER04-449-000, the NYISO fully supports the Commission's determination in Order 2003A that special transmission interconnection provisions will be required for newer technologies such as wind power. Moreover, any special interconnection requirements for intermittent resources may differ on a region by region basis depending upon the electrical characteristics of the system to which such technologies are to be interconnected. The NYISO will reflect its consideration of the findings of the New York wind study in its comments on the Commission's recently announced Notice Of Proposed Rulemaking, under which amendments to the pro-forma Large Generator Interconnection Agreement are being considered to include specific technical interconnection requirements for wind generators (Docket RM05-4-000).

Effective forecasting tools are an important issue for the NYISO and its Market Participants, particularly for applications such as forecasted hourly and peak electric loads, weather, and generation capabilities. Accordingly, as suggested in the conference action item list, improved tools for forecasting wind flows could be one way to reduce

energy imbalance penalties and enable intermittent resources to compete on a more equal footing with other resources. The NYISO is presently examining the system being used by the California Independent System Operator and supports the use of a centralized wind forecasting center, although the merits of the NYISO's involvement in such a center and the manner in which forecasts might be integrated into NYISO market operations are still being evaluated. The NYISO does note that the creation of a centralized wind forecasting facility was one of the recommendations contained in Phase I of the joint NYISO/NYSERDA wind study.

Anticipating a more significant presence of intermittent resources in the New York capacity markets, the NYISO will also assess its current methodology for determining the equivalent amounts of ICAP MWs for which wind power should be certified to supply to the ICAP market. Any changes in how the capacity values for wind power are certified will require a consensus among Market Participants and must be an approach that, in the NYISO's view, can be applied fairly and equally to the entire range of generating resources in New York and not simply to those resources whose output is intermittent in nature. The Effective Load Carrying Capability method that is referenced in the attachment to the Notice may be one potentially feasible approach. There are other approaches that may achieve comparable results with less administrative burden, for example, the methodology currently employed by PJM, and the NYISO is considering these approaches, as well.

If the NYISO ultimately determines that revisions to its energy and/or capacity market rules are necessary to accommodate the significant addition of new intermittent resources, it will introduce appropriate proposals to its Market Participants for review

through the NYISO governance process during 2005. Any necessary tariff revisions would result from that governance process would be submitted to the Commission in the latter part of 2005.

II. Conclusion

The NYISO looks forward to working with Commission staff and the other parties to this proceeding as the Commission considers policy changes that would better accommodate the participation of additional wind energy resources in wholesale electricity markets. A foundation of the NYISO's participation in this proceeding will be its belief that any policy changes that may be considered by the Commission should include the flexibility for individual ISO/RTOs to develop intermittent resource market rules that ensure workable competition in each of their respective markets.

Respectfully submitted,

NEW YORK INDEPENDENT
SYSTEM OPERATOR, INC.

s/s Gerald R Deaver

Mollie Lampi, Assistant General Counsel
Gerald R. Deaver, Senior Attorney
Attorneys for
New York Independent System Operator, Inc.

New York Independent System Operator, Inc.
290 Washington Avenue Extension
Albany, New York 12203

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each party designated on the official service list compiled by the Secretary in Docket No. AD04-13-000, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (2004).

Dated at Albany, NY this 28th day of January, 2005.

s/s Gerald R Deaver
Gerald R. Deaver
Counsel for
New York Independent
System Operator, Inc.
290 Washington Ave. Extension
Albany, New York 12203