

February 22, 2000

**VIA HAND DELIVERY**

David P. Boergers  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

Re: New York State Reliability Council  
Docket No. ER00-

Dear Mr. Boergers:

Pursuant to Section 3.03 of the New York State Reliability Council Agreement, the New York State Reliability Council, L.L.C. ("NYSRC") hereby submits this filing to advise the Commission that the NYSRC has revised the Installed Capacity Requirement for the New York Control Area ("NYCA") for the Capability Year beginning on May 1, 2000 and ending April 30, 2001. The NYSRC respectfully requests that the Commission accept and approve the NYSRC's filing effective no later than March 17, 2000, so that the revised Installed Capacity Requirement may be in place for the installed capacity auction to be conducted by the New York Independent System Operator ("NYISO") on March 31, 2000. The NYSRC also respectfully requests that the Commission grant any and all waivers of its regulations that it deems necessary to accept and approve the filing effective no later than that date.

**I. Background**

The NYSRC Agreement, which established the NYSRC and entrusted it with the responsibility to develop the bulk power system reliability rules for the NYCA, was approved by the Commission in its June 30, 1998 order conditionally authorizing the establishment of the

NYISO.<sup>1</sup> In its April 30, 1999 order, the Commission directed certain changes to the NYSRC Agreement.<sup>2</sup> The revised NYSRC Agreement was filed on July 6, 1999, and approved on July 29, 1999.<sup>3</sup>

Under Section 3.03 of the NYSRC Agreement and Section 5.10.1 of the New York Independent System Operator Market Administration and Control Area Services Tariff ("ISO Services Tariff"), the NYSRC is responsible for establishing a statewide annual Installed Capacity Requirement ("ICR"). The NYSRC Agreement provides that the NYSRC initially will adopt the Installed Capacity Requirement that was in effect under the New York Power Pool ("NYPP"). That section of the agreement further provides that any subsequent change to the statewide Installed Capacity Requirement requires a FERC filing and Commission approval. On September 10, 1999, the NYSRC adopted the Initial Reliability Rules For Planning and Operating the New York State Power System ("Initial Reliability Rules"). The Initial Reliability Rules were filed with the Commission on October 18, 1999. Section 3.1.1 of the Initial Reliability Rules adopted a statewide Installed Reserve Requirement ("IRR") of 22 percent which was consistent with the pre-existing NYPP Installed Capacity Requirement. This statewide Installed Reserve Requirement resulted in an Installed Reserve Requirement of 18 percent for each of the NYPP Member Systems, which was included in the NYPP Agreement. The Installed Capacity Requirement relates to the Installed Reserve Requirement through the following equation:

$$\text{ICR} = (1 + \text{IRR}) \times \text{Forecasted NYCA Peak Load.}$$

Pursuant to its responsibilities, the NYSRC then conducted an engineering study to review the existing Installed Reserve Requirement, which is referred to in the study as the Installed Reserve Margin or "IRM". (A copy of the NYSRC study is attached hereto as Appendix A.) On the basis of the study, the NYSRC determined that a statewide Installed Reserve Margin of 18 percent is adequate to meet reliability criteria in the New York Control Area during the Capability Year from May 1, 2000 through April 30, 2001. Consequently, on January 31, 2000 the NYSRC adopted a resolution reducing the statewide Installed Reserve Margin from 22 percent to 18 percent. (A copy of the NYSRC resolution is attached hereto as Appendix B.)

The new statewide Installed Reserve Margin of 18 percent will be translated into an Installed Capacity Requirement for each Load Serving Entity ("LSE") in the New York Control Area by the NYISO in accordance with the NYSRC Reliability Rules and the NYISO Installed Capacity Requirements Manual.

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<sup>1</sup> Central Hudson Gas & Electric Corp. et al., 83 FERC ¶ 61,352 (1998).

<sup>2</sup> Central Hudson Gas & Electric Corp. et al., 87 FERC ¶ 61,135 (1999).

<sup>3</sup> Central Hudson Gas & Electric Corp. et al., 88 FERC ¶ 61,138 (1999).

## **II. Reasons for and Description of this Filing**

Section 3.03 of the New York State Reliability Council Agreement states:

The NYSRC shall establish the state-wide annual installed capacity requirements for New York State consistent with NERC and NPCC standards. The NYSRC will initially adopt the installed capacity requirement as set forth in the current NYPP Agreement and currently filed with FERC. Any changes to this requirement will require an appropriate filing and FERC approval. In establishing the state-wide annual installed capacity requirements, consideration will be given to the configuration of the system, generation outage rates, assistance from neighboring systems and Local Reliability Rules.

The Reliability Rules of the NYSRC establish the standard to which the bulk power system of New York State will be planned. The standard for setting the Installed Capacity Requirement is consistent with the standards of the Northeast Power Coordinating Council ("NPCC"). The relevant NPCC reliability criterion is as follows:

Each Area's resources will be planned in such a manner that, after due allowance for scheduled outages and de-ratings, forced outages and de-ratings, assistance over interconnections from neighboring Areas and regions, and capacity and/or load relief from available operating procedures, the probability of disconnecting non-interruptible customers due to resource deficiencies, on the average, will be no more than once in ten years.<sup>4</sup>

The NYSRC study was conducted to determine the statewide Installed Reserve Margin necessary to meet the NPCC criteria within the NYCA during the period from May 1, 2000 through April 30, 2001. The study was performed by NYISO staff at the request and under the guidance of the NYSRC. The study used a state-of-the art computer model called the Multi-Area Reliability Simulation ("MARS") program. The MARS model includes a detailed load, generation and transmission capacity representation of the New York Control Area as well as the four external control areas interconnected to New York. The MARS model calculated the probability of outages of generating units, coupled with a model of daily peak-hour loads, thus determining the number of days per year of expected capacity shortages. The resulting measure, termed the "loss-of-load expectation" ("LOLE") index, provided a measure of generation system reliability. This technique is commonly used in the electric power industry for determining installed reserve requirements.

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<sup>4</sup> NPCC Document A-2, Basic Criteria for Design and Operation of Interconnected Power Systems, August 9, 1995, Section 3.0, Resource Adequacy - Design Criteria.

The study by the NYSRC included a base case and numerous sensitivity analyses. The base case analysis included representation and assessment of the following:

- Interconnection support from neighboring systems during emergencies;
- Load forecast uncertainty;
- Generating unit forced outage uncertainty;
- Transmission constraints internal to the New York Control Area; and
- The impact of installed capacity located in neighboring areas (i.e. external ICAP).

The contribution to the Installed Reserve Margin for each of the five variables above is summarized on pages 2 and 3 of the study. The results of the sensitivity analyses are displayed in Figure 2, page 6 of the study.

The MARS study indicated that the required Installed Reserve Margin for the NYCA for the upcoming Capability Year is 15.5 percent under base case conditions. The reduced Installed Reserve Margin can be attributed primarily to the increased use of smaller generating units, higher actual average system unit availability and a lower system load factor (sharper peak) than represented in the NYPP study conducted in 1987.

The NYSRC study also considered a number of sensitivities, which indicated that the Installed Reserve Margin could vary from 11.8 percent to 17.0 percent, depending on key assumptions. The assumptions considered included the following:

- Internal and external transfer limits;
- Load forecast uncertainty distribution;
- Source and magnitude of external ICAP;
- Emergency assistance from neighboring areas; and
- Generator unit availabilities.

The NYSRC determined that it would be prudent to set the statewide Installed Reserve Margin at 18 percent, which is slightly higher than the range of values resulting from the sensitivity analyses, based on the following factors which provide support for a conservative approach:

- The combined impact of the sensitivity testing and the confidence limit on the base case Installed Reserve Margin;
- The changes in electric dispatch protocols associated with the transition to the NYISO and neighboring independent system operators;
- Other uncertainties associated with electric industry restructuring, including regulatory and legislative actions; and
- Further consideration and review of the experiences of the summer of 1999, including the impact on New York City and other major load areas.

The statewide Installed Reserve Margin of 18 percent adopted by the NYSRC will replace the 22 percent statewide Installed Reserve Requirement that existed under the NYPP, and which was adopted in the Initial Reliability Rules. The 22 percent statewide Installed Reserve Requirement was based on a 1987 study prepared by the New York Power Pool. Due to the peak load diversity among the NYPP Member Systems at the time of the 1987 study, the 22 percent statewide Installed Reserve Requirement resulted in an Installed Reserve Requirement of 18 percent for each of the NYPP Member Systems. Consequently, the Installed Capacity Requirement for each Member System equaled that Member System's non-coincident annual peak multiplied by (1 + 18 percent). The sum of each Member System's Installed Capacity Requirement resulted in total statewide installed capacity equal to (1 + 22 percent) multiplied by the annual peak load for the New York Control Area.

Similarly, the statewide Installed Reserve Margin of 18 percent adopted by the NYSRC will have to be translated by the NYISO to arrive at an Installed Capacity Requirement for each LSE in the New York Control Area.<sup>5</sup> The NYISO analysis will be based on the following equation:

$$\text{ICR} = (1 + \text{IRM}) \times \text{Forecasted NYCA Peak Load}$$

The NYISO will establish the Installed Capacity Requirements for LSEs in accordance with the NYSRC Reliability Rules and the NYISO Installed Capacity Requirements Manual. In order to implement the statewide Installed Capacity Requirement set by the NYSRC, the NYISO must first determine the load diversity that currently exists in the New York Control Area. Once that task is completed, the NYISO must establish the Installed Capacity Requirement applicable to each LSE within the New York Control Area. The sum of those individual LSE Installed Capacity Requirements will add up to the statewide Installed Capacity Requirement described in the equation above.

### **III. Effective Date**

The NYSRC respectfully requests that the Commission accept and approve this filing, effective no later than March 17, 2000, so that the revised statewide Installed Capacity Requirement may be in place in time for the NYISO installed capacity auction for the summer capability period from May 1, 2000 through October 31, 2000. The auction is scheduled to take place on March 31, 2000. The NYISO has advised the NYSRC that in order for the new Installed Capacity Requirement to be reflected in the summer capability period auction, market participants should be informed of the newly established Installed Capacity Requirements by March 22, 2000. In order to provide adequate notice to the NYISO, the NYSRC respectfully

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<sup>5</sup> See Section 5.10.1 of the ISO Services Tariff, First Revised Sheet No. 73.

requests that the Commission act in an expedited manner to accept and approve this filing effective no later than March 17, 2000. The NYSRC also respectfully requests the Commission grant any and all waivers of its regulations that it deems necessary to allow the Commission's acceptance and approval of the filing to be effective no later than that date.

#### **IV. Contents of the Filing**

The following documents are being submitted for filing:

- This transmittal letter, dated February 22, 2000;
- A copy of the NYSRC study (Appendix A);
- A copy of the NYSRC resolution adopting the revised Installed Reserve Margin (Appendix B);
- A form of notice suitable for publishing in the Federal Register; and
- A computer diskette containing the proposed Federal Register Notice.

#### **V. Company Contacts**

The names, titles, mailing addresses, and telephone numbers of those persons to whom correspondence and communications concerning this filing should be addressed are as follows:

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**VI. Certificate of Service**

A copy hereof, together with all attachments, is being served upon each person on the official service list in Docket Nos. ER97-1523 et al.

Respectfully submitted,

Paul L. Gioia

Counsel to the New York State  
Reliability Council