

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on February 16, 2012

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman  
Patricia L. Acampora  
Robert E. Curry, Jr.  
James L. Larocca

CASE 07-E-0088 - In the Matter of the Adoption of an Installed  
Reserve Margin for the New York Control Area.

CASE 05-E-1180 - In the Matter of the Reliability Rules of the  
New York State Reliability Council and the  
Criteria of the Northeast Power Coordinating  
Council.

ORDER ADOPTING INSTALLED  
RESERVE MARGIN FOR THE NEW YORK CONTROL AREA  
FOR THE 2012-2013 CAPABILITY YEAR

(Issued and Effective February 17, 2012)

BY THE COMMISSION:

INTRODUCTION

On December 2, 2011, the Executive Committee of the New York State Reliability Council (NYSRC) adopted an Installed Reserve Margin (IRM) for the New York Control Area (NYCA) of 16.0% for the upcoming Capability Year from May 1, 2012 through April 30, 2013. The NYSRC filed the IRM on December 13, 2011. On December 28, 2011, a notice of proposed rule making was issued in the State Register. In response to the notice, the NYSRC, New York Independent System Operator, Inc. (NYISO), and Multiple Intervenors filed comments in support of a 16.0% IRM. In this order, the Commission considers the comments received

and adopts an IRM of 16.0% for the NYCA for the upcoming Capability Year.

#### BACKGROUND

The NYSRC was formed in 1998 as part of the restructuring of New York's wholesale electricity market in order to promote and preserve the reliability of New York's power system.<sup>1</sup> Among other matters, the NYSRC is responsible for developing reliability rules in accordance with the standards, criteria and regulations set forth by the Commission, the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council (NPCC), the Federal Energy Regulatory Commission (FERC), and the Nuclear Regulatory Commission. In addition to incorporating such criteria, the NYSRC implements more specific or more stringent reliability standards that account for special circumstances within the NYCA, such as the configuration of New York's bulk power system and the severe consequences that may result from power interruptions in New York City and Long Island.

One of the NYSRC's key responsibilities is the establishment of an annual statewide IRM. The IRM is intended to ensure that adequate levels of generation are available to serve load during normal and system emergency conditions. In establishing the IRM, the NYSRC considers various factors, including load characteristics, uncertainties in load forecasts,

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<sup>1</sup> The NYSRC was formed by agreement among Central Hudson Gas & Electric Corporation (CHG&E), Consolidated Edison Company of New York, Inc. (Con Edison), New York State Electric & Gas Corporation (NYSEG), Niagara Mohawk Power Corporation (National Grid), Orange and Rockland Utilities, Inc. (O&R), Rochester Gas and Electric Corporation (RG&E), the Long Island Power Authority (LIPA), and the Power Authority of the State of New York (NYPA).

the transfer capability and configuration of the New York State transmission system, interconnections with other control areas, generation outages and deratings, and local reliability rules, as well as other pertinent inputs.<sup>2</sup> In accordance with NYSRC Reliability Rule A-R1, the NYSRC must establish the IRM for the NYCA, expressed as a percentage above forecasted peak loads:

such that the probability (or risk) of disconnecting any firm load due to resource deficiencies shall be, on average, not more than once in ten years. Compliance with this criterion shall be evaluated probabilistically, such that the loss of load expectation (LOLE) of disconnecting firm load due to resource deficiencies shall be on average, no more than 0.1 day per year.

Load-Serving Entities (LSE) are required to procure resource capacity that is sufficient to meet forecasted peak load and the statewide IRM reserve margin, as well as any Locational Capacity Requirements (LCR).<sup>3</sup> The NYISO determines each LSE's LCR based on the IRM. LSEs comply with the LCR and IRM by buying Installed Capacity (ICAP), which is a commitment by a generator to bid energy it can produce into the Day-Ahead Energy Market administered by the NYISO. LSEs may meet their ICAP requirements by either self-supplying (e.g., bidding into the ICAP market either LSE-owned generation or ICAP obtained through a bilateral contract), or by purchasing ICAP through NYISO-administered ICAP auctions.<sup>4</sup>

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<sup>2</sup> NYSRC Agreement section 3.03; NYSRC Reliability Rules, Resource Adequacy, Intro to Section A.

<sup>3</sup> NYSRC Reliability Rule A-R2. Currently, LCRs apply in New York City and on Long Island to reflect the existence of transmission constraints in those areas.

<sup>4</sup> A 16.0% IRM is equivalent to LSEs procuring 116% of the ICAP needed to meet forecasted peak load.

Participation in the NYISO-administered ICAP auctions is generally voluntary, although the NYISO conducts a monthly spot auction in which LSEs are obligated to purchase any remaining ICAP requirements pursuant to the ICAP "Demand Curve."<sup>5</sup> The Demand Curve, which is administratively set, establishes the quantity and price of ICAP commitments that LSEs are required to procure in relation to the IRM.<sup>6</sup>

COMMENTS

NYSRC

The NYSRC requests that the Commission adopt an IRM of 16.0% for the NYCA for the upcoming Capability Year. The NYSRC advises that, on December 2, 2011, its Executive Committee voted to adopt an IRM of 16.0%.<sup>7</sup> The Executive Committee's decision

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<sup>5</sup> If sufficient amounts of ICAP cannot be procured in the spot market to meet the LCR, the NYISO attempts to procure additional resources to make up any deficiency at a price that is capped at the spot auction clearing price.

<sup>6</sup> Under the Demand Curve, the price for ICAP gradually decreases as the amount of available ICAP goes above the IRM, while it increases as available ICAP decreases, in order to send an appropriate price signal when additional resources are needed.

<sup>7</sup> The NYSRC is governed by an Executive Committee, which is comprised of thirteen members, including six Transmission Owners (i.e., CHG&E, Con Edison, LIPA, National Grid, NYSEG/RG&E, and NYPA), one representative of the Wholesale Sellers sector (i.e., Independent Power Producers of New York, Inc.), one representative of the Large Consumers sector (i.e., Multiple Intervenors), one representative of the Municipals and Electric Cooperatives sector (i.e., New York Municipal Power Agency), and four members not affiliated with any Market Participants.

was based on a technical study that was performed by the NYISO at the request and under the guidance of the NYSRC.<sup>8</sup>

The 2012 IRM Study employed the General Electric Multi-Area Reliability Simulation computer modeling software program to calculate the probabilities of outages of generating units, in conjunction with load and transmission models, to determine the number of days per year of expected capacity shortages. The NYSRC indicates that this technique is commonly used in the electric power industry for determining IRM requirements.

The 2012 IRM Study was conducted to determine the IRM for the NYCA that is necessary to meet NYSRC and NPCC criteria. The 2012 IRM Study calculated an IRM of 16.1% for the NYCA under base case conditions. This amount represents a 0.6% increase from the previous base case of 15.5% determined in the 2011 IRM Study. The NYSRC explains this increase is primarily due to an increase in wind-powered generation, updated NYCA purchase and sale capacity projections, and reduced availability of NYCA generating units.

In order to illustrate how the IRM would be affected by different assumptions, the 2012 IRM Study included 18 sensitivity studies. These sensitivities used different assumptions from those adopted in the base case, such as differences in generation unit availability, generator retirements, and limited assistance from neighboring control regions. After considering the sensitivity results, and the modeling and assumption changes made to simulate actual operating conditions and system performances, the NYSRC

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<sup>8</sup> New York State Reliability Council, L.L.C., Installed Capacity Subcommittee, New York Control Area Installed Capacity Requirements for The Period May 2012 Through April 2013, Technical Study Report (December 2, 2011) (2012 IRM Study).

Executive Committee determined that a 0.1% reduction from the base case was warranted, and thus, established a final IRM of 16.0%.

Since the 16.0% IRM represents a change from the current IRM for the 2011-2012 Capability Year, the NYSRC Agreement requires approval of the revised IRM from FERC.<sup>9</sup> On December 12, 2011, the NYSRC filed for FERC's approval of the 16.0% IRM by no later than February 16, 2012, so that the revised IRM may be in place prior to the ICAP auction to be conducted by the NYISO starting on March 29, 2012 (December 12 FERC Filing).

NYISO

The NYISO supports the proposed IRM of 16.0%, which it believes is within a range of reasonable IRM levels that will maintain reliability of the NYCA bulk power system. According to the NYISO, the NYSRC correctly applied the LOLE criterion and the 2012 IRM Study to arrive at an IRM of 16.0%.

The NYISO requests expeditious action on the IRM, and indicates that it needs to know the NYCA IRM by February 16, 2012, so that it can calculate the minimum capacity requirements in time for the March 29, 2012 ICAP auction. A decision by February 16, 2012, the NYISO asserts, is also needed in order to inform market participants, including LSEs, of their new minimum requirements by March 19, 2012, so that they have sufficient notice to develop or adjust bidding strategies. The NYISO recommends that the Commission coordinate its decision with FERC, since inconsistent determinations would create uncertainty and confusion about which IRM to apply.

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<sup>9</sup> NYSRC Agreement, Section 3.03. The NYSRC's revised IRM of 16.0% is pending FERC action in Docket No. ER12-597-000.

Multiple Intervenors

Multiple Intervenors urges the adoption of a 16.0% IRM, as supported by the 2012 IRM Study, as well as the expertise and best judgment of the NYSRC Executive Committee.<sup>10</sup> The 2012 IRM Study, according to Multiple Intervenors, reflects numerous sensitivity analyses that produce higher or lower IRMs than the base case, but justify adopting an IRM of 16.0%, notwithstanding the base case result of 16.1%. In particular, Multiple Intervenors points to the use of the 2002 load shape as a conservative assumption in the base case and the sensitivity analysis using "a less-extreme load shape based on more recent data," that projected a reduced IRM of 13.7%. Multiple Intervenors also points to the sensitivity analysis that used a new model for assessing generator outage rates and estimated a reduction in the base IRM from 16.1% to 15.1%. Multiple Intervenors requests expeditious action on the IRM so that it may be incorporated into the ICAP auction scheduled to be conducted by the NYISO on March 29, 2012.

DISCUSSION

Jurisdiction Over The IRM

The New York State Public Service Law (PSL) provides that "every electric corporation...shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and in all respects just and reasonable."<sup>11</sup> Moreover, the PSL authorizes the Commission to prescribe the "safe, efficient and adequate property, equipment and appliances thereafter to be used," whenever the NYPSC determines that the

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<sup>10</sup> Multiple Intervenors notes that the IRM of 16.0% was approved by 12 of the 13 members of the NYSRC Executive Committee.

<sup>11</sup> PSL §65(1).

utility's existing equipment is "unsafe, inefficient or inadequate."<sup>12</sup> This authority encompasses prescribing reliability rules necessary to ensure safe and adequate service.<sup>13</sup>

The IRM, as established by the NYSRC, is intended to ensure the adequacy of electric generating facilities in New York. As such, it is a key tool available to the Commission to foster the adequacy of generating resources. While the IRM is a measure of adequacy, it is based, in part, on reliability criteria. Accordingly, the Commission has jurisdiction to review and approve the IRM, first as a matter of adequacy, and alternatively as a matter of reliability, so that electric corporations, such as LSEs, provide safe and adequate service, instrumentalities and facilities. The Commission has already exercised this authority in approving the current IRM of 15.5% for the NYCA.<sup>14</sup>

#### The IRM for the 2012-2013 Capability Year

The NYSRC has considerable experience and expertise in evaluating and determining the sufficiency of the IRM within the NYCA. The 2012 IRM Study utilized a sophisticated computer model that included a detailed load, generation and transmission representation of the 11 NYCA zones, as well as the four

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<sup>12</sup> PSL §66(5). The Commission also notes that the Federal Power Act reserves jurisdiction to the States to "set and enforce compliance with standards for [the] adequacy...of electric facilities," such as the IRM. 16 U.S.C. §824o(i)(2).

<sup>13</sup> Case 05-E-1180, Matter of Reliability Rules, Order Adopting New York State Reliability Rules (issued February 9, 2006).

<sup>14</sup> See, Case 07-E-0088 et al., Installed Reserve Margin, Order Adopting Installed Reserve Margin for the New York Control Area for the 2011-2012 Capability Year (issued February 22, 2011).



external control areas. The model calculated the number of days per year of expected capacity shortages, expressed as an LOLE index, which is a common utility practice for determining installed reserve requirements.

The 2012 IRM Study calculated a NYCA IRM base case requirement of 16.1% for the period May 1, 2012 through April 30, 2013. This result is 0.6% higher than the base case of 15.5% determined for the 2011-2012 Capability Year. The NYSRC provides a satisfactory explanation for this increase. Its primary reasons include an increase in wind-powered generation, updated NYCA purchase and sale capacity projections, and reduced availability of NYCA generating units. In adopting a 16.0% IRM, the Executive Committee of the NYSRC considered the 2012 IRM Study, the impact on the IRM under various sensitivity cases, and other relevant factors.

Given its experience and expertise in developing the IRM, the Commission gives considerable weight to the NYSRC's findings, conclusions, and recommendations. The NYSRC has adequately demonstrated that the appropriate IRM for the upcoming Capability Year should be 16.0%. Recognizing that the sufficiency of electric generation facilities is critical to the health, safety and welfare of the citizens of New York, the Commission finds that the 16.0% IRM requirement recommended by the NYSRC is reasonable and properly responds to our State's needs and our statutory mandates to ensure reliability and the adequacy of generation facilities. We conclude that the record supports the NYSRC's decision to adopt the base case in the 2012 IRM Study with minor modification, based on a consideration of all sensitivity scenarios (including those that would decrease the IRM as well as those that would increase the IRM) and other relevant factors. Therefore, the Commission adopts the NYSRC-recommended IRM of 16.0% for the NYCA during the Capability Year

beginning on May 1, 2012, and ending on April 30, 2013. This action is supported by the record and is in the public interest.

As noted above, the IRM is also used to establish ICAP prices under the ICAP Demand Curves. As the IRM increases or decreases, it is expected that the costs for procuring sufficient ICAP will fluctuate in correlation, and that auction participants will be impacted accordingly. Although no formal estimate of the cost impact associated with a change in the IRM has been developed for the upcoming Capability Year, or for prior changes in the IRM, we estimate that the current 0.5% increase in the IRM may require the procurement of up to 186 MW of more ICAP.

#### Environmental Quality Review

Under the State Environmental Quality Review Act (SEQRA), Article 8 of the Environmental Conservation Law, and its implementing regulations (6 NYCRR Part 617 and 16 NYCRR §7), the Commission must determine whether the action that it is authorized to approve may have a significant impact on the environment. The proposed action over which the Commission has jurisdiction is the establishment of an IRM for the NYCA for the Capability Year beginning on May 1, 2012 and ending on April 30, 2013.

The Commission is Lead Agency for the review of this action pursuant to SEQRA. There are no other "involved agencies," and the action contemplated is an "unlisted action," as defined in 6 NYCRR §617.2.

An Environmental Assessment Form (EAF) regarding the action was prepared by Staff for the Commission's consideration.<sup>15</sup> After considering the EAF, the record in this

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<sup>15</sup> 6 NYCRR §617.6(a)(3).

proceeding, and the criteria for determining significance listed in 6 NYCRR §617.7(c), the Commission concludes that the action will not have a significant adverse impact on the environment. The Commission finds that the action will not result in a significant impact on the environment, since the Commission is implementing its existing policy for ensuring the adequacy of resources by maintaining the probability of disconnecting firm load due to a resource deficiency at no more than once in ten years, on average. The recalibration of the IRM for the 2012-2013 Capability Year furthers this established policy, and accounts for changes in the modeling data.

Accordingly, as Lead Agency, the Commission determines that the proposed action will not have a significant adverse impact on the environment. As such, it is unnecessary to prepare an Environmental Impact Statement. A Notice of Determination of Non-Significance (Negative Declaration) concerning this unlisted action is attached.

Timely Review and Adoption of Future IRMs

The Commission has previously recognized the need to develop a workable process that provides sufficient time for our review and adoption of the IRM, taking into account any necessary actions by the NYISO or FERC.<sup>16</sup> To ensure the Commission has adequate time to comply with the notification requirements of the State Administrative Procedure Act, and to thoroughly consider any comments received in response to the notice, we expect that the NYSRC will file all future IRMs sufficiently in advance of the date by which the Commission's approval is sought.

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<sup>16</sup> Case 07-E-0088 et al., supra, Order Adopting 2008-2009 IRM, pp. 12-13.

CONCLUSION

For the reasons stated above, the Commission adopts a 16.0% IRM for the NYCA for the Capability Year beginning on May 1, 2012, and ending on April 30, 2013.

The Commission orders:

1. An Installed Reserve Margin of 16.0% is adopted for the New York Control Area for the Capability Year beginning May 1, 2012, and ending April 30, 2013.

2. The New York State Reliability Council is advised that it is expected to file all future Installed Reserve Margins sufficiently in advance of the date by which approval is sought.

3. These proceedings are continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING  
Secretary

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

CASE 07-E-0088 - In the Matter of the Adoption of an Installed Reserve Margin for the New York Control Area.

CASE 05-E-1180 - In the Matter of the Reliability Rules of the New York State Reliability Council and the Criteria of the Northeast Power Coordinating Council.

NOTICE OF DETERMINATION  
OF SIGNIFICANCE/NEGATIVE DECLARATION

NOTICE is hereby given that an Environmental Impact Statement will not be prepared in connection with the approval by the Public Service Commission of an Installed Reserve Margin (IRM) for the New York Control Area for the Capability Year beginning on May 1, 2012, and ending on April 30, 2013. This is based upon the Commission's determination, pursuant to regulations implementing Article 8 of the Environmental Conservation Law contained in 6 NYCRR Part 617, that such action will not have a significant effect on the environment. The action contemplated is an Unlisted Action, as defined in 6 NYCRR §617.2.

The action will not result in a significant impact on the environment, since the Commission is implementing its existing policy for ensuring the adequacy of resources by maintaining the probability of disconnecting firm load due to a resource deficiency at no more than once in ten years, on average. The recalibration of the IRM for the 2012-2013 Capability Year furthers this established policy, and accounts for changes in the modeling data.

The address of the Public Service Commission, the lead agency for the purposes of the Environmental Quality Review for this action, is Three Empire State Plaza, Albany, New York

12223-1350. Questions may be directed to Richard H. Powell at  
(518) 486-2885 or to the address above.

JACLYN A. BRILLING  
Secretary