

**Proposal for Revising the Load Forecast Process for
Determining ICAP Requirements**

Prepared by Michael Cadwalader

**Presented to
NYISO Management Committee**

**September 17, 2003
New York, NY**

Plan of Action

My presentation today will summarize the main elements of a proposal for revising the procedures for using load forecasts to calculate ICAP requirements.

- **The original proposal has been passed through the stakeholder process and was approved by BIC.**
 - *The original proposal has been modified to clarify the ISO's role in establishing the final ICAP requirements*
- **The goal is for these revised procedures to be implemented for the 2004-05 capability year.**

Current Process

The tariff currently contemplates the following procedures:

- **Each TO determines its adjusted noncoincident peak load forecast within its own Transmission District (TD).**
- **The ISO similarly determines the adjusted NYCA peak load forecast.**
- **The next year's NYCA ICAP requirement is calculated by multiplying the NYCA adjusted forecast by one plus the installed reserve requirement (IRM) for the NYCA.**
- **The next year's ICAP requirement for each TD is then calculated by multiplying the NYCA adjusted peak load by the ratio of the TD's noncoincident adjusted peak load to the sum of the TDs' noncoincident adjusted peak loads.**

Similar procedures applied for locational ICAP requirements.

Differences between the NYISO and TO's Load Forecast in 03-04

The NYISO determines the NYCA ICAP requirement based on the NYCA adjusted peak load forecast (top down). However the TO's NYCA "load forecast" uses the sum of the TOs' adjusted TD noncoincident adjusted peak forecasts (bottoms up)

- **The NYCA ICAP requirement should always have been smaller than one based on the sum of the noncoincident TD ICAP requirements. This was not the case in 2003-04 by about 400MW.**
- **Since the NYCA requirement differed from the sum of the TD requirements, and the ISO allocates the NYCA requirements to TDs based on the individual TD's share of the sum of the TD's peak, errors in the requirement of one TD are socialized among all TDs.**
- **With the current process the ISO does fulfill its mandate to ensure that sufficient resources are maintained within the NYCA. However, the individual TD requirement may not be appropriate.**

In previous years, this difference had been small, so it was not cause for concern.

Other Issues in 2003-04

The posting of the NYCA ICAP requirements was not conspicuous to market participants.

- **There was not sufficient opportunity to determine the causes for the differences before the requirements had to be firmed up.**

The proposal is based on a subsequent review of the causes of the observed differences, and will result in a more accurate and consistent method for calculating each TD's ICAP requirements.

ISO Review of the Causes for the Differences

The ISO conducted a detailed investigation into the cause of the 2003-04 difference between the NYCA ICAP requirement calculated by the ISO and by the sum of the TD requirements.

- **The ISO found that the main causes of the differences were:**
 - *Use of non-coincident TD peak times resulted in differences in TD adjustments for weather normalization.*
 - *Inconsistent treatment of losses for each TD.*
- **There was also the potential for that some differences may be attributed to inconsistent treatment of demand response, although that was not a major contributor to the differences for 2003-04.**

The proposal directly addresses each of these causes for the differences observed.

Proposal Requires One Tariff Change

First, this proposal changes the procedure used to determine shares of the total NYCA ICAP requirement.

- **Under the proposal, each TD's ICAP requirement will be based on its adjusted load in the NYCA coincident peak hour.**
- **This will facilitate the calculation of ICAP requirements for each TD that are consistent with the requirements the ISO would calculate for the NYCA.**

The only known tariff change is to replace current provision that sets each TD's ICAP requirement by allocation of the NYCA adjusted peak load to TDs for one that directly determines each TD's ICAP requirement.

Locational ICAP requirements will continue to be calculated based on the peak load hour for each locality.

Other Modifications to Ensure Consistency

To ensure consistency in weather normalization results:

- **The ISO will specify a minimum weather normalization criterion.**
- **TOs will be required to report weather-normalized peak loads that are consistent with that criterion.**

To ensure consistency in the inclusion of transmission losses in loads reported for each TD:

- **The ISO will deduct these losses from the loads of TOs that include these losses in their reported TD loads.**
- **It will then allocate all transmission losses to each load on a pro rata basis.**

And to ensure consistent treatment of demand response programs:

- **The ISO will perform all associated adjustments to peak loads.**

Calculation and Posting of Requirements

The ISO will use existing procedures to calculate:

- **Locational ICAP requirements for each locality, and**
- **Total ICAP requirements for each TD.**

Then it will post the results of its calculations.

- **It will notify market participants of this posting, giving them sufficient time to review and comment on the results.**

ISO Review of Results

The proposal does not change the need for the ISO to ensure that the results of the ICAP requirement calculations are appropriate.

- **The ISO will continue to conduct its own independent review and evaluation of the final forecast values for each TD with regard to consistency and validity.**
- **The ISO will have the ultimate authority to use its own forecast values for each TD whenever necessary to ensure consistency and validity.**

ICAP Requirement Resulting from this Proposal

The objective of this proposal is to determine each TD's ICAP requirement

- **The ISO validates these results by performing an independent TD by TD forecast.**
- **The NYCA requirement is determined by the sum of the validated TD forecasts.**

Benefits of this Proposal

This proposal ensures that different TDs' ICAP requirements are calculated in a consistent manner.

- **TDs' ICAP requirements will no longer differ due to differences in the procedures used to calculate TD load and transmission losses, to weather-normalize that load, or adjust for demand response.**

This proposal eliminates the sources of current differences between NYCA requirements and individual TD requirements, thereby ensuring that each TD's ICAP requirement is consistent with its appropriate share of NYCA peak load.

- **It will eliminate the need for the ISO to allocate NYCA ICAP requirements to TDs**

And this proposal affords all market participants an opportunity to review the results of these calculations.