

**Revising the Procedures for Using Load  
Forecasts to Calculate ICAP Requirements**

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## ***Plan of Action***

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

- **For the purposes of this proposal, the TOs include NYPA and LIPA.**

We hope to implement these revised procedures for the 2004-05 capability year.

## ***Original Vision***

The following procedures were envisioned when the tariff was written:

- **Each TO would measure the noncoincident peak load within its own Transmission District (TD).**
- **The next year's ICAP requirement for LSEs within that TD would then be calculated by multiplying the product of**
  - *The TD peak load,*
  - *One plus the installed reserve margin (IRM) for the NYCA, adjusted for load diversity across the TDs, expressed as a percentage of peak load, and*
  - *One plus the regional load growth factor for that TD.*
- **Note that the adjustment for load diversity should always reduce the ICAP requirement.**

Similar procedures applied for locational ICAP requirements.

## ***Problems in 2003-04***

The ISO calculates a NYCA ICAP requirement based upon its own load forecasts for the NYCA, consistent with the installed reserve margin determined by the NYSRC.

- **It then ensures that the sum of the TDs' requirements is equal to the NYCA requirement.**
- **When this NYCA requirement differs from the sum of the TD requirements, the ISO allocated the difference among the TDs.**
- **It needed to do this to fulfill its mandate to ensure that sufficient resources are maintained within the NYCA.**

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

- **But in 2003-04, there was a difference of about 400 MW.**

## ***Problems in 2003-04***

As a result, LSEs found themselves needing to procure about 400 MW of ICAP that they had not planned to have to procure, based upon their load forecasts for 2003-04.

- **However, this capacity was necessary to meet reliability objectives for the NYCA.**

A secondary problem was that there was not sufficient opportunity to review the ISO's calculations.

This led the TOs to conclude that changes in these procedures were needed.

## ***Importance of Consistent Measures***

One of the main causes of the 400 MW discrepancy between the NYCA ICAP requirement calculated by the ISO and the sum of the TD requirements was inconsistency in the ways that each TO reported the peak load for its TD.

The TO proposal has been developed with the intent of ensuring:

- **Consistent procedures for weather normalization.**
- **Consistent treatment of losses.**
- **Consistent treatment of demand response.**

## ***Use Shares of Coincident Peak for Total Req't***

First, the TOs propose a change in the procedure used to determine shares of the total NYCA ICAP requirement.

- **Under the proposal, each TD's ICAP requirement would be based on its share of load in the NYCA coincident peak hour, instead of its load in that TD's noncoincident peak hour.**
  - *The peak load hour would be the hour in which load in the NYCA was highest, after the ISO adds back the effect of all demand reduction programs considered by the NYSRC when determining ICAP requirements.*
- **This will make it much easier to calculate ICAP requirements for each TD that will be consistent with the requirements the ISO would calculate for the NYCA.**

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

- **So the calculation of these requirements would be entirely separate.**

# ***Weather Normalization Procedure***

Next, to ensure consistency in weather normalization procedures:

- **A minimum weather normalization criterion would be specified.**
- **TOs would be required to report weather-normalized peak loads that are consistent with that criterion.**

Subject to this constraint, TOs would be permitted to use their own weather normalization procedures.

- **The TOs believe these are likely to be more accurate than either:**
  - *Forcing each TO to use the same procedure, or*
  - *Having the ISO weather-normalize across the NYCA.*



## ***Review of Weather Normalization Results***

However, the TOs also recognize the need for the ISO to ensure that these procedures are not manipulated to lower ICAP requirements, so a procedure for ISO review would be implemented.

Currently, TOs provide regional load growth factors (RLGFs) to the ISO. The ISO reviews these RLGFs to ensure that they are reasonable.

- **The reasons for having the TOs supply these RLGFs are similar to the reasons for having the TOs perform weather normalization.**
- **The potential for manipulation of RLGFs is similar to the potential for manipulation of weather normalization.**
- **Since the RLGF procedure deals with similar issues, and seems to work well, a similar procedure would deal with weather normalization.**

# ***Review of Weather Normalization Results***

Under that procedure:

- **The ISO will develop criteria to assess whether the results of the weather normalization performed by a TO are reasonable.**
- **If the results of the normalization do not meet these criteria, the ISO and the affected TOs would work together to resolve the difference.**
- **If they cannot resolve the difference, the ISO could impose its own method for weather normalizing (using the minimum criterion).**
- **The TO then may elect to take the issue to expedited dispute resolution.**
- **If the ISO agrees to accept weather normalization results that are not consistent with its criteria, any other market participant may take the issue to expedited dispute resolution.**

# ***Loss Allocation Procedure***

The ISO would develop methods to account for differences in the methods that each TO uses to measure load within its TD.

- **Some TOs use methods that implicitly include intra-TD transmission losses in load, while others do not.**
- **The ISO would deduct weather-normalized intra-TD transmission losses from the load of each TO that included those losses.**
- **It would then allocate weather-normalized NYCA-wide transmission losses to each TD, with each TD's share proportional to that TD's weather-normalized lossless peak load.**
- **This allocates transmission losses in a manner that treats all loads in the same manner and that ensures that all losses are allocated to load.**

No change is proposed to the manner in which losses are currently treated for the purposes of calculating locational ICAP requirements.

## ***Demand Response Procedure***

Finally, the ISO would add back the effects of any of the demand reduction programs considered by the NYSRC when determining ICAP requirements.

- **Since the ISO will perform all such adjustments, this will ensure consistency.**

# ***Calculation of Requirements***

The ISO would then use the existing procedures to calculate:

- **Locational ICAP requirements for each locality.**
- **Total ICAP requirements for each TD.**
  - *The sum of these requirements would match the weather-normalized NYCA peak load,*
  - *Multiplied by one plus the IRM for the NYCA,*
  - *Multiplied by one plus the weighted-average RLGf.*

# ***Posting, Notification and Disputes***

Finally, the ISO will post the results of its calculations.

- **It will notify market participants of this posting, giving them sufficient time to review the results.**
- **In the event that a market participant believes that the ISO has performed some aspect of this calculation incorrectly, it could discuss this with the ISO.**
- **If necessary, the market participant could elect to take the issue to expedited dispute resolution.**

## ***Conclusion***

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, to weather-normalize that load, or adjust for demand response.**

This proposal ensures that the sum of the TDs' ICAP requirements will match the ISO's ICAP requirement.

- **It thereby eliminates the need for the ISO to include an adder, resulting from inconsistent assumptions made by different TOs, that is spread over all of the TDs.**

This proposal permits all market participants with an opportunity to review and, if necessary, to dispute the results.

# ***Conclusion***

And each step in this process is either performed by the ISO or is subject to ISO review, which will ensure reliability and guard against any attempt at manipulation:

- **The ISO will monitor the results of the weather normalization performed by the TOs, and has the power to override those results when appropriate.**
- **The ISO will allocate losses among the TDs.**
- **The ISO will perform all adjustments associated with demand response programs.**