

Expanding Application of Peak Hour Forecasts

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Purpose

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- **The purpose of this presentation is to:**
 - Provide stakeholders with the scope of this market design concept.
 - Discuss the current peak load hour forecast process.

Background

Background – Milestone

- **The NYISO intends to present a Market Design Concept Proposal (MDCP) to stakeholders later this year.**
 - The presentation will explore the viability of updating the peak hour forecast process.

Background – Scope

- **The NYISO and its stakeholders will consider expanding the number of peak load hours identified for use in allocating the obligations of Load Serving Entities (LSEs) in the ICAP market.**
 - The current process of setting the Minimum UCAP Requirements for LSEs is based on the single peak load hour identified by the NYISO, which is ultimately used by the TOs to assign capacity obligations to the LSEs serving load by transmission district.
 - Considering additional peak load hours in this process may allow for a more equitable allocation of purchase requirements to LSEs.

Background – Scope (Continued)

- **The NYISO and its stakeholders will also consider whether there are more factors that should be added to the peak hour forecast to account for energy production that is not currently incorporated.**
 - This has been referred to as the use of “gross” rather than “net” load; however, it is important to note that there are a number of factors that are already added back into the peak hour load under the current process, as we will discuss in this presentation.

Peak Hour Forecast Process

Peak Load Date and Hour

- **Each September, NYISO identifies the NYCA peak load date and hour for the current capability year (for example, this September 2021, the NYISO will provide this information for the 2021 Capability Year).**
 - The locality non-coincident peak load dates and hours are also identified.
 - The TOs report meter data for these peak load hours to the NYISO.
 - The data is submitted to the NYISO in multiple data files, and compiled by the NYISO in a single file.
 - TO load data is then compared to NYISO Decision Support System (DSS) data, to ensure that the actual loads match within a 1% tolerance.

Net Load vs. Gross Load

- **The peak hour load received from the TOs is net of certain production.**
 - Demand reductions during the peak load hour from all Special Case Resources (SCRs), which are Demand Response (DR) resources participating in the Capacity Market, are added back into the peak hour load.
 - The TOs choose whether their own load reduction programs that do not overlap with SCRs should be added back into the load.
 - Specific municipal generating units that participate in the NYISO Capacity Market are also added back into the load.
 - There is currently no adjustment to add back generation from resources not participating in the wholesale markets.
 - For example, there is no adjustment to the load for rooftop solar outside of the wholesale markets.

Weather Normalized Load

- **The TOs and the NYISO each weather normalize the peak load hour data.**
 - Models are developed by the NYISO and reviewed by the LFTF to weather normalize the data. Examples from 2020 include:
 - Single year model for the current year
 - Pool model including the current year and selected previous years.
 - The TO weather normalized load data is accepted if either:
 - The TO and NYISO adjusted loads are within 25% of each other, OR
 - The TO and NYISO weather normalized loads are within 1% of each other

Example Data*	NYISO	TO
Peak Hour Load	32,000	32,100
Weather Normalized Load	33,000	33,250
Adjusted Load	1,000	1,150

Must be within 1%

Must be within 25%

- **The ratio of coincident to non-coincident peak load is calculated in order to weather-adjust the peak load for each locality.**

*Data in this table is for example purposes only

ICAP Forecast

- **The forecasted peak load is communicated to the ICAP marketplace.**
- **The forecasted peak load is assigned to each TO.**
 - Each TO then assigns the forecasted peak load MW to each LSE.
- **These assigned peak load values are converted to ICAP MW, and then to UCAP values.**
 - These UCAP values become purchase requirements for each LSE.

Next Steps

Timeline

■ March 2021

- Continue discussion of the current peak hour forecast methodology with stakeholders.

■ Q2 2021

- Continue stakeholder discussions.

■ Q3 2021

- Continue stakeholder discussions.
- Present MDCP at BIC.

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- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

