Load Pocket Thresholds

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Agenda

- Review History of Load Pocket Thresholds ("LPTs")
- Current Methodology
- Concerns
- Next Steps

LPTs - History

History

- Transmission line constraints tend to create "load pockets" more often in NYC than in the rest of NY State.

- In 2002, FERC required NYISO to set narrow "Load Pocket" Thresholds (LPTs) in parts of NYC to limit the possible exercise of market power by In-City generators during transmission-constrained intervals. *See* Docket No. ER01-3155.

- The current method to calculate LPTs has been in place for more than fifteen years and, although aspects of the NYISO-administered markets have changed, the method to calculate LPTs has not.

LPTs
Current Methodology

What do we do today?

The Tariff-specified methodology (MST 23.3.1.2.2) for setting DAM and RTM LPTs is as follows:

$$Threshold = \frac{2\% * Average\ Price * 8760}{Constrained\ Hours}$$

where:

- Average Price = the average price in the Real-Time Market in the Constrained Area over the past 12 months, adjusted for fuel price changes, and adjusted for Out-of-Merit Generation dispatch as feasible and appropriate; and

- Constrained Hours = the total number of minutes over the prior 12 months, converted to hours (retaining fractions of hours), in which the real-time Shadow Price has been greater than $0.04/MWh, indicating an active constraint, on any interface or facility leading into the Constrained Area in which the Generator is located. For the In-City area, "Constrained Hours" shall also include the number of minutes that a Storm Watch is in effect. Determination of the number of Constrained Hours shall be subject to adjustment by the ISO to account for significant changes in system conditions.

Concerns

Concerns

1. Very tight DAM LPTs have developed since Spring 2017
2. Are constraints an appropriate measure of market power
3. Tight LPTs may not correspond to presence of market power

Very tight DAM LPTs have developed since Spring 2017

- Daily changes in generator costs relative to energy references often exceed LPTs
  - This could potentially restrict suppliers from offering their expected or actual costs with even a minor change in fuel prices
- Could cause over-mitigation

Are constraints an appropriate measure of market power

- LPTs are employed to identify economic withholding when a NYC Generator causes LBMP to rise in the load pocket, while the load pocket is transmission constrained.
  - Constraint frequency and shadow price more often depend on PAR allocations of imports from PJM.
- In the current rule for calculating LPTs, "Expected market power" over the coming months depends on the # of hours over the past year in which generators in the load pocket were subject to local constraints OR to broader transmission constraints (City-wide).
  - Some narrowly-defined load pockets contain many In-City generators with no potential to exercise market power.

Tight LPTs may not correspond to presence of market power

- The topology of the system has changed over the past 15-20 years.
- It's assumed that a generator in a narrow load pocket has the potential to exercise market power during constrained intervals in BOTH its narrow load pocket and in larger load pockets in which its narrow load pocket is embedded.
  - Some generators may never face constrained intervals at the most narrow load pockets; they may only face hourly transmission constraints in a broad city-wide load pocket – and have little to no potential to exercise market power in that broad load pocket.
  - In several narrow load pockets, all generating units are rather small, and unlikely to be able to affect LBMPs City-Wide, despite presence of an active city-wide transmission constraint.
- The effects of large swings in natural gas prices and/or LBMPs gets averaged in and then used to average the next 12 months of LPTs.

Next Steps

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- ❑ Evaluation of potential improvements continues
- ❑ Feedback/Input is requested from Stakeholders
- ❑ January MIWG for follow up

Feedback?

- Email additional feedback to: sjacon@nyiso.com

Questions?

We are here to help. Let us know if we can add anything.

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