Joint and Common Market

PARALLEL FLOW VISUALIZATION

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February 15, 2022

Issue Review

Purpose: An introduction to Parallel Flow Visualization and the updates to the NAESB standards that enact it

Key Takeaways:

- <u>Deficiencies</u> exist in how TLR relief obligations are calculated
  - The calculation relies on a mix of static and real-time information
  - Outside of the Market Flows submitted by the Market Based Operating Entities within the Congestion Management Process, current rules assume all generation serving load is using Firm Transmission Service
- <u>PFV Enhances</u> TLR relief obligation calculations
  - Assigns a specific curtailment priority of each generator based on expanded electronic tagging or a transmission service provider's tariff
  - Requires all Balancing Authorities to submit real-time state estimator data to a common powerflow model

PFV Update

- A compliance filing for PFV standards is due on March 2nd 2022
- The PFV go-live date is June 2nd 2022

Contacts

Comments and questions can be sent to:

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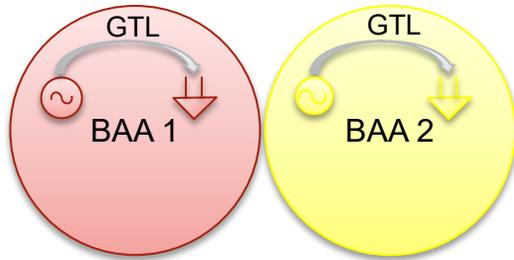- Joe Ciabattoni Joseph.Ciabattoni@pjm.com

Appendix Slides
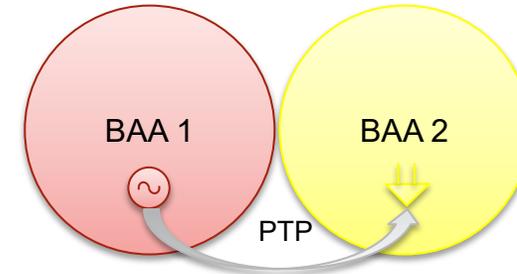
- Accuracy
  - Uses near real-time data (generation, zonal load, etc.) provided by Each RC
  - Uncovers the reality of cross-border system use

- Equitability
  - Assigns generation-to-load into more appropriate categories

Generation-To-Load (GTL)

Interchange Transactions (PTP)

PFV – Setting GTL Priorities

- Two ways to establish the transmission priority of a generator(s)

Tagged Secondary Non-Firm
- Allows non-firm generation-to-load to be represented by Intra-BA e-tags

Generator Priority Schedules
- Each generator's priority is set according to the Transmission Providers OATT

Relief Obligation and Credit For Redispatch

- Under TLR level 3 and higher a BA may redispatch its system to meet the target GTL flow, which is the difference between the net GTL flow (net of the forward and reverse impacts) and the IDC calculated relief obligation.

- Meeting the target GTL flow may be accomplished by redispatching any generation that may either reduce forward flows or increase reverse flows.

- The IDC will determine if a Credit for the Redispatch was accomplished from the start of the redispatch time. If so, the Credit for Redispatch will be applied to the next hour relief obligation calculation by the IDC and will not result in a double counting of non-firm impacts.

Pseudo-Ties

- PFV provides a clear path for consistent modeling of Pseudo-Ties under two general approaches:
    - Tagged Pseudo-Ties using Pseudo-BAs (PTP)
    - Attaining BA includes IDC base-case modeling (GTL)

CMP Firm Flow Limit Overrides

- The CMP will still determine how much flow is firm and non-firm on Flowgates covered under the agreement

- Each CMP party will submit firm (FFL) overrides to the IDC, which will be used to quantify firm and non-firm PFV GTL