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Calpine Cost Offer Proposal

Advocacy Presentation

August 9, 2019

Summary

Key Message:

Implement Reference Level approach for Cost Offers to reduce dependencies on Market Participants (“MP”), thereby abolishing the individualized Fuel Cost Policy (“FCP”) requirement, while still allowing a structured mechanism for MPs to submit cost inputs and fuel adjustments.

Key Features:

- ✓ Systematic and automated calculation of Reference Levels by PJM/IMM to replace traditional cost offers that are required to be submitted by MP;
- ✓ (Optional) 3-tiered hierarchical approach in determining Reference Levels for 3-part offers to evaluate mitigation applicability;
- ✓ MP defaults to a set Cost based Reference Level
- ✓ MP option to submit fuel price adjustment or change offer parameters with approval
- ✓ MP continues to maintain responsibility for all physical and financial parameters used for Cost Based Reference Levels in a database (i.e. MIRA)

Key Benefits:

- ✓ Simplified approach that alleviates the need for Market Participant to maintain and negotiate a FCP;
- ✓ Standard automated process ensuring appropriate calculation of cost that can result to setting the LMP with PJM defaulting to fuel index price for all generators;
- ✓ Reduction of errors resulting from reduced execution risk by the Market Participant by eliminating the responsibility to submit ***daily*** cost offers;
- ✓ Expedited Market Clearing because reliance on MP submission is limited to Price-Based Offers only.

Current vs. Proposal

Current MP Responsibilities

- MPs submit/maintain a PJM/IMM negotiated Fuel Cost Policy (“FCP”)
- MPs submit the following offers:
 - Price-Based offers
 - Price-Based PLS offers
 - Cost-Based offers
- MPs to submit/maintain cost inputs for IMM to validate

Note:

First 2 abovementioned MP responsibilities present substantial burden and risk for unintentional mistakes, which may have no bearing to the market, but still resulting to penalties.

Proposed MP Responsibilities

- **NO FCP required from MP**
- **NO Cost offers to be submitted by MP**
- MPs maintain the responsibility of providing cost inputs for IMM to validate in a database, **but with no hourly and daily responsibilities**

Note:

MPs will be alleviated 2 out of 3 current responsibilities, to be replaced by a more robust function supervised by the IMM.

Reference Level Approach

- Currently, potential errors are generally flagged after the Market has cleared. This means resource can be mitigated to the incorrect Cost offer, market impact would be mostly undetected.
- Fast forward into the future, a well-developed Reference level, void of MP “intervention”, is a more robust alternative to existing process such that reference levels or “cost offers” are calculated via an automated process, free of MP submission errors, detected prior to clearing the Market.

“Best” Reference Level Approach

- *Every other ISO/RTO has its own version of “cost offers” (PJM), also known as Reference Levels for ISONE and NYISO, Default Energy Bids/Proxy Commitment costs for CAISO, and Verifiable Costs for ERCOT.*
- Calpine believes a process similar to ISONE presents the “BEST” solution for the following reasons:
 - Geographic location (East Coast);
 - Footprint that crosses state lines;
 - Fuel fundamentals and fuel security issues;
 - IMMAC functionalities similar to MIRA to effectuate automated calculations without “starting from scratch”; This includes defining several fuel price sources and related fuel premium, etc.;
 - 3-tiered reference level hierarchy approach with MP options kept intact.



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