

BPA/CAISO Coordinated Transmission Agreement

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Overview

- Background on BPA's role as a Transmission Provider for EIM Entities
- Goals of BPA's approach to managing EIM Impacts on its transmission system and customers
- CTA Process
- CTA Overview
- Schedule

BPA Focus for Use of its Transmission for the EIM

- Develop a risks and controls framework to assess risks to customers' existing and future transmission usage rights and evaluate the adequacy of existing BPA controls to protect those rights.
- Develop a risk mitigation and control framework that ensures BPA meets its obligations and protects customer rights.
- Provide information to aid EIM Entities seeking to understand how they might be able to use their transmission rights on the Federal Columbia River Transmission System (FCRTS) if they were to join the California Independent System Operator Energy Imbalance Market (CAISO EIM).

Reason for BPA's EIM Transmission Focus

- BPA is NOT a participating Balancing Authority Area (BAA) in the CAISO EIM.
- Multiple EIM BAAs (existing and future) in the Northwest rely on BPA transmission to operate their BAAs.
 - Currently and in an EIM context
- Thus it is important for BPA to understand and manage the use of its transmission when enabling these customers' participation in the market.

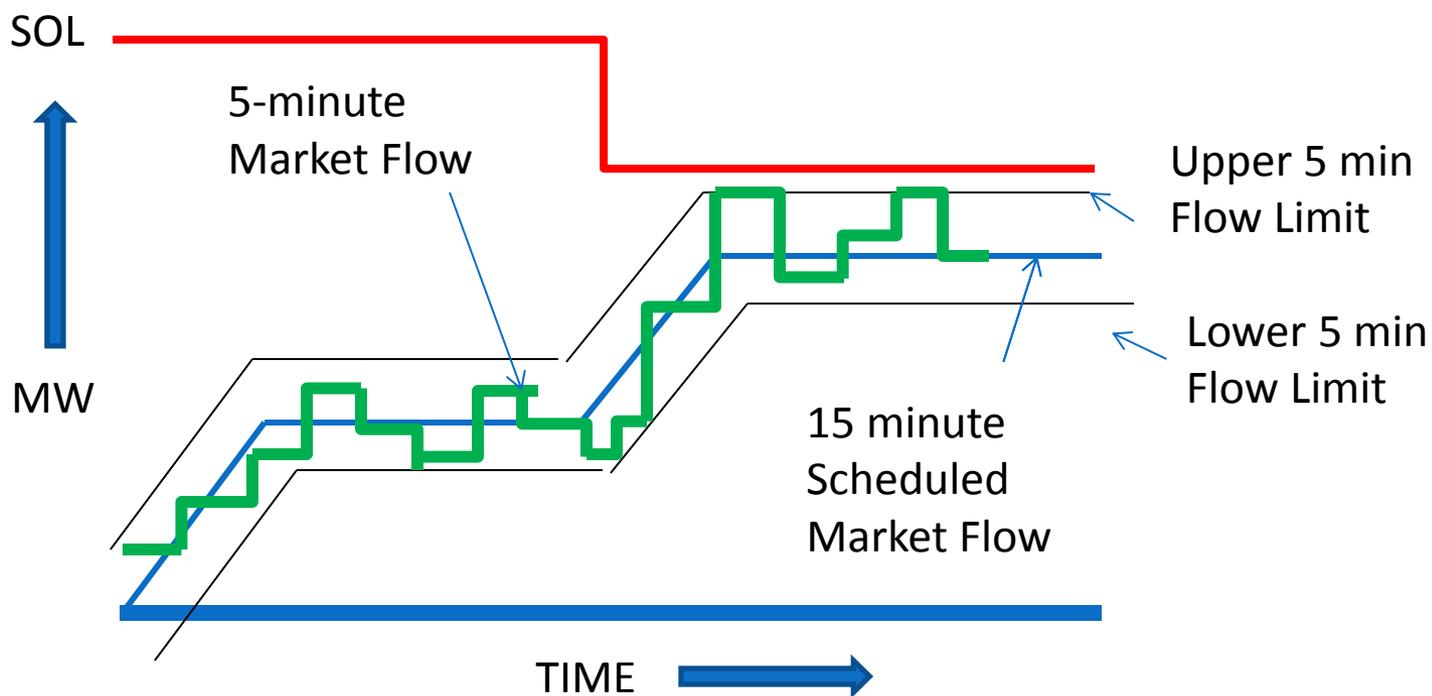
Overview of EIM Controls

- Dynamic Controls – Upper/Lower Limits or Rate of Change (“ROC”)
- Operational Visibility
- Congestion Management
- Response to contingencies

ROC/UL Limit Controls

- 5-minute market dispatches are limited based on BPA's Dynamic Transfer Limits: Operating Procedures for Use of Upper and Lower Transfer Limits on BPA's Transmission System Business Practice.
- BPA sets the Upper and Lower delta-flow limits.
- The limits are set based on empirically acceptable impacts.
- During a real-time curtailment the limits are automatically set to zero (via EIDE) for the duration of the event.

ROC/UL Limit Visualization



CTA Overview

- The CTA is a seams agreement between the EIM market operator (CAISO) and the transmission provider (BPA) that enables EIM Area flows on BPA's transmission system while ensuring the reliability of the BPA transmission system.
- The CTA includes operational controls and data exchange that are both currently in use and under development
- BPA and the CAISO have coordinated with each other and BPA customer EIM Entities for several years. The CTA clarifies and formalizes the nature of that coordination.
- Agreement posted [here](#)

Coordinating Committee and Working Group

- A Coordinating Committee consisting of the parties (BPA and CAISO) was established under the agreement to identify and resolve any issues associated with the CTA and to discuss potential additions or revisions to the CTA.
- A Working Group including impacted EIM Entities along with BPA and CAISO meets quarterly to discuss CTA implementation and operations.
 - The working group is intended to be a forum to discuss the implementation and operation of the CTA and the actions the Coordinating Committee is taking under the agreement.
 - It is NOT intended to be a general forum for discussing EIM policy development.

Key Elements of the CTA

- Data Sharing (Section 4.8)
- Rate of Change/UL Limits (Section 5.1)
- Do not Exceed (Section 5.2)
- Incremental Flow Calculation (Section 5.3.1)
- Incremental Flow Relief (Section 5.3.2)
- Base Flow Relief (Section 5.3.3)
- Contingency relief (Section 5.4)
- Appendices for data and managed facilities

Multi-Phase CTA Implementation

Overall CTA Implementation Plan

Package 1 - Includes

- 4.6 – Notifications & Other Information;
- 5.2 – Managing EIM Area Incremental Flows When Bonneville is not Curtailing Transmission Schedules; and
- 5.3.1 – EIM Area Incremental Flow and EIM Area Total Flow



Package 2 - Includes

- 5.3.2 – EIM Area Incremental Flow Obligation When Bonneville is Curtailing Transmission Schedules; and
- 5.3.3 – Additional Flow Obligation for Transmission Schedules Not Attributable to EIM Area Incremental Flow



Package 3 - Includes

- 5.4 – Adjustment of Generation