

PacifiCorp Energy Imbalance Market: Draft Tariff Framework

November 26, 2013

Webinar December 6, 2013



Pacific Power | Rocky Mountain Power | PacifiCorp Energy

Objectives

- Provide a draft tariff framework for how PacifiCorp will implement the Energy Imbalance Market (“EIM”)
 - ▶ This presentation provides that framework and will be reviewed during December 6, 2013 webinar
- Inform stakeholders about how EIM Entity market design will be incorporated into PacifiCorp’s Open Access Transmission Tariff (“OATT”)
- Generate stakeholder input

PacifiCorp OATT Changes

- Need to implement PacifiCorp EIM Entity responsibilities as outlined under the CAISO EIM Proposal and new Section 29 of the CAISO Tariff into PacifiCorp's OATT.
- Need to implement policy decisions reflected in the PacifiCorp EIM Entity Proposal.
- Define *new* responsibilities for:
 - ▶ Transmission Customers who voluntarily elect to participate directly in the EIM
 - ▶ Transmission Customers who elect NOT to participate

Categories of Changes to the OATT

- New definitions related to the EIM;
- Integrating EIM into existing OATT format;
- Revise “Hourly Pricing Proxy” pricing in Schedules 4, 9 and 10 to tie to EIM pricing; and
- New Attachment T defining EIM responsibilities and charges.

Definitions (*Illustrative*)

- Definitions for participation in the EIM:
 - ▶ BA and BAA
 - ▶ CAISO, CAISO BAA, CAISO Tariff
 - ▶ EIM Area
 - ▶ EIM Entity (EIM Entities other than PacifiCorp)
 - ▶ PacifiCorp EIM Entity (one each for PACE and PACW)
 - ▶ PacifiCorp EIM Entity Scheduling Coordinator
 - ▶ PacifiCorp EIM Participating Resource
 - ▶ PacifiCorp EIM Participating Resource Scheduling Coordinator
 - ▶ PacifiCorp EIM Transmission Service Customer
 - ▶ PacifiCorp EIM Transmission Service Provider
 - ▶ Market Operator
 - ▶ Non-Participating Customer

Definitions (continued)

- Definitions related to EIM implementation:
 - ▶ Base Schedule
 - ▶ Bid Cost Recovery
 - ▶ Congestion
 - ▶ Dispatch Instruction
 - ▶ Dynamic Transfer
 - ▶ E-Tag, including Transmission and Energy Profile
 - ▶ Feasibility
 - ▶ Flexible Ramping Constraint
 - ▶ Imbalance Energy (instructed and uninstructed)
 - ▶ Load Aggregation Point
 - ▶ Locational Marginal Price
 - ▶ Measured Demand
 - ▶ Metered Demand
 - ▶ Pricing Node
 - ▶ Resource Plan

Integrating EIM to Existing OATT Format

- Add EIM to dispute resolution procedure
- Clarify that designated Network Resources do not need to need to be “undesigned” for EIM participation
- Update curtailment provisions to reflect EIM
- Ensure all network, point-to-point, and interconnection customers comply with new Attachment T
 - ▶ *Applies to all new and existing customers*

Revise Price Definition in Schedules 4, 9 and 10

- Change from current Hourly Pricing Proxy based on reported indices to true market price based on Locational Marginal Price (“LMP”).
- EIM Participating Resources settle directly with the CAISO, not under PacifiCorp’s Schedule 9.

Attachment T - Overview

Section 1 – Purpose of Attachment T

Section 2 – Voluntary Customer Election To Participate Directly in EIM

Section 3 – Eligibility to be a PacifiCorp EIM Participating Resource

Section 4 – Roles and Responsibilities

Section 5 – EIM Transmission Service

Section 6 – System Operation Under Normal and Emergency Conditions

Section 7 – Outages

Section 8 – Metering

Section 9 – Settlements

Section 10 – Compliance and Market Monitoring

Section 11 – Reversion/Termination Plan



Purpose of Attachment T (Section 1)

- The purpose of Attachment T is to provide for PacifiCorp’ participation as an EIM Entity in the EIM administered by the CAISO.
- The PacifiCorp OATT and the CAISO Tariff will work together to support the EIM market.
 - ▶ Both tariffs must be read in conjunction with the other
 - ▶ CAISO Tariff governs EIM market design
 - ▶ PacifiCorp OATT governs EIM Entity parameters

Voluntary Election to be EIM Participating Resource (Section 2)

- The decision of a Transmission Customer to become an EIM Participating Resource is voluntary.
- Transmission Customers that choose to participate directly in the EIM must:
 - (1) Meet the requirements specified in Attachment T and the CAISO Tariff;
 - (2) Become or retain an EIM Participating Resource Scheduling Coordinator; and
 - (3) Follow the application and certification processes of both the CAISO and PacifiCorp.

Eligibility to be a PacifiCorp EIM Participating Resource (Section 3)

- PacifiCorp EIM Entity Qualifications
 - ▶ Location and Transmission Rights
 - Must be long-term firm transmission customers, either network or long-term firm point-to-point customer.
 - External resources may participate in the EIM as a PacifiCorp EIM Participating Resource if: (1) The resource is a designated Network Resource and has arranged firm transmission over third-party transmission systems to the PacifiCorp BAA boundary; (2) the resource is a designated Network Resource that meets PacifiCorp's requirements for Dynamic Transfers through Pseudo-Ties; or (3) the external resources is not a designated Network Resource but: (i) the resource arranges to be Dynamically Transferred to PacifiCorp's BAA for purposes of EIM participation and (ii) the resource has purchased long-term firm transmission on PacifiCorp's transmission system.
- Certification by the PacifiCorp EIM Entity (affirmative obligation of EIM Customer to be certified by PacifiCorp)
- Obligation to Report a Change in Information including changes to any facilities
- Meets CAISO Qualifications

Roles and Responsibilities (Section 4)

- Describes the respective obligations and responsibilities of:
 - ▶ PacifiCorp EIM Entities and the PacifiCorp EIM Entity Scheduling Coordinator;
 - ▶ Non-Participating Customers; and
 - ▶ PacifiCorp EIM Participating Resources and their respective Scheduling Coordinators

Responsibilities of PacifiCorp

- No change in BAA, NERC/WECC, or Transmission Service Provider Responsibilities
- Identification of EIM Entity Scheduling Coordinator
- Providing and updating modeling data to the CAISO
- Identifying transmission capacity available to the EIM
- Processing applications for entities seeking to become PacifiCorp EIM Participating Resources
- Determination of Load Aggregation Points
- Determination of EIM cost allocations
- Determination of other EIM Market Parameters

Responsibilities of PacifiCorp

- Congestion Management
- Management of Interchange
- Reserve Sharing
- Interaction with Peak Reliability
- Development and maintenance of EIM Transmission Service Customer, EIM Transmission Service Provider, or any other procedures required to support PacifiCorp EIM participation
- Determination of whether PacifiCorp EIM participation needs to be suspended or terminated
- Implementation of the Reversion/Termination Plan

Responsibilities of PacifiCorp

- Registration
- Submission of Base Schedules and Resource Plans
- EIM Transmission Capacity and Modeling Updates
- Communication of Changes and Exceptional Dispatch
- E-Tags
- Provision of Updated Settlement Data to the CAISO
- Provision of Meter Data
- Settlement of CAISO Amounts
- Dispute Resolution with the CAISO
- Right to act on Advisory Schedules

Responsibilities of PacifiCorp EIM Participating Resources

- Scheduling Coordinator Services
- Registration
- Submission of Bids
- Provision of Forecasts and Bid Ranges
- Outage Reporting
- Meter Data
- Duty to Update Information
- Compliance with Operating Instructions

EIM Responsibilities of Non-Participating Customers

- Registration Data
- Duty to Update Required Data
- Outage Reporting
- Forecast Data
- Meter Data
- Additional Data Required by the Market Operator or the EIM Market Monitor

EIM Transmission Service (Section 5)

- EIM Transmission Service Reciprocity – no charge for transfers between CAISO and PacifiCorp BAAs
- Determination of EIM Transmission (internal to the PacifiCorp BAAs) and Transfer Capacity (between the PacifiCorp BAAs and between the PacifiCorp BAAs and the CAISO BAA or other EIM Entity BAAs)
 - ▶ Provision of EIM Transmission and Transfer Capacity by the EIM Entity
 - ▶ Provision of EIM Transfer Capacity by an EIM Transmission Service customer

System Operation Under Normal and Emergency Conditions (Section 6)

- Routine Operation of EIM
- Management Of Contingencies and Emergencies
 - ▶ EIM Exceptional Dispatch
 - ▶ EIM Emergency
 - ▶ Report of Contingency/Exceptional Dispatch
- Congestion Management
- Market Disruption
- Business Continuity
- Continued Communication between PacifiCorp EIM Entity and CAISO

Outages (Section 7)

– Reporting Outages by the following:

- (1) PacifiCorp EIM Entity Transmission Outages
- (2) EIM Transmission Service Provider Outages
- (3) EIM Participating Resource Outages
- (4) Outages of Non-Participating Resources

– General rules

- ▶ Planned outages: no less than 7 and preferably greater than 30 days in advance
- ▶ Unplanned: as soon as possible, but no later than within 30 minutes (also must include estimated outage duration and time of return)

Metering (Section 8)

– PacifiCorp EIM Participating Resources

- ▶ Comply with CAISO requirements, sign metering agreement, and pay for any metering upgrades needed to meet the CAISO requirements

– PacifiCorp EIM Entity Metering

- ▶ Plan is to be a Scheduling Coordinator Metered Entity

– Non-Participant's Revenue Meters

- ▶ For revenue meters, Transmission Customers are not required to upgrade. Instead, PacifiCorp EIM Entity Scheduling Coordinator will disaggregate 15-minute meter data into 5-minute intervals.
- ▶ Transmission Customers that wish to improve the interval granularity of their revenue meters may choose to upgrade their meters at their own cost

Settlements (Section 9)

- Purpose - identify and allocate EIM-related charges
- EIM Payment Calendar – as required by CAISO
- EIM Residual Balancing Account – capture costs not otherwise assigned by tariff until allocation can be proposed in 205 filing
- Market Validation and Price Correction – ability to make corrections as required by CAISO

Potential EIM Charge Types

- The CAISO’s EIM Development Costs – Pursuant to Implementation Agreement
- The CAISOs EIM Annual Fee (Charge Code 4560)
- Instructed Imbalance Energy
- Uninstructed Imbalance Energy
- Unaccounted for Energy (UFE) (Charge Code 6474)
- Inadvertent Energy – [not settled through EIM]
- Penalties for Under-Scheduling or Over-Scheduling
- Real-Time Market BAA Neutrality (Charge Code 6477)
- Real-Time Market System Neutrality (New Charge Code)
- Real-Time Congestion Balancing Account (Charge Code 6774)
- Real-Time Bid Cost Recovery (Charge Code 6678)
- Flexible Ramping Constraint (Charge Code 7056)
- Financial Adjustments
- CAISO Tax Liabilities
- Variable Energy Resource Forecast
- EIM Transmission Fee – [Unreserved Use]

Compliance and Market Monitoring

(Section 10)

- **Provision of Data To The EIM Market Monitor and Regulatory Authorities**
 - ▶ Transmission Customers, the PacifiCorp EIM Entity, the PacifiCorp EIM Entity Scheduling Coordinators, PacifiCorp EIM Participating Resources, and PacifiCorp EIM Participating Resource Scheduling Coordinators will be responsible for complying with market monitoring activities.
- **Compliance**
 - ▶ General statement of need to comply with PacifiCorp and CAISO EIM Tariffs.

Reversion/Termination Plan (Section 11)

- If implemented, PacifiCorp must:
 - ▶ Reinstigate pre-EIM schedule 4, 9, and 10 “hourly pricing proxy” provisions
 - ▶ Take any other necessary actions to revert to pre-EIM Transmission Provider responsibilities

Next Steps: Stakeholder Processes

- PacifiCorp stakeholder process
 - ▶ <http://www.oasis.oati.com/ppw/index.html>
 - ▶ Comments on tariff framework due December 20, 2013
 - ▶ PacifiCorp to post draft tariff language January 16, 2014
 - ▶ Contact: Sarah Edmonds: sarah.edmonds@pacificorp.com (503-813-6840) or Nathan Ortega: nathan.ortega@pacificorp.com (503-813-5191) with questions, comments or feedback
- CAISO stakeholder process
 - ▶ <http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergyImbalanceMarket.aspx>