

## TC-22 PROPOSED TARIFF LANGUAGE FOR EIM

### DEFINITIONS TO BE INCLUDED IN PART 1 OF BPA's OATT

List of Changes Published for July 28-29, 2020 TC-22, BP-22 and EIM Phase III Workshop	
Definition	Description of Proposed Change(s)
Transmission Customer Base Schedule	Added language

#### **Balancing Authority (BA)**

The responsible entity that integrates resource plans ahead of time, maintains load-Interchange-generation balance within a BAA, and supports interconnection frequency in real time.

#### **Balancing Authority Area (BAA)**

The collection of generation, transmission, and loads within the metered boundaries of the BA. The BA maintains load-resource balance within this area. For purposes of this Tariff, "BAA" shall have the same meaning as "Control Area."

#### **Balancing Authority Area Resource**

A resource marketed by BPA that can provide or voluntarily contracted for by BPA to provide EIM Available Balancing Capacity, and that can provide regulation and load following services to enable the BPA EIM Entity to meet reliability criteria.

#### **Bid Cost Recovery (BCR)**

The MO EIM settlements process through which the BPA EIM Participating Resources recover their bid costs.

#### **California Independent System Operator Corporation (CAISO)**

A state-chartered, California non-profit public benefit corporation that operates the transmission facilities of all CAISO participating transmission owners and dispatches certain generating units and loads. The CAISO is the MO for the EIM.

#### **BPA**

The Bonneville Power Administration

#### **BPA BAA**

The BAA operated by BPA.

### **BPA BAA Transmission Owner**

A transmission owner, other than BPA, that owns transmission facilities in BPA's BAA.

### **BPA EIM Business Practice (BPA EIM BP)**

The business practice posted on BPA's OASIS that contains procedures related to BPA's implementation of EIM and the rights and obligations of Transmission Customers and Interconnection Customers related to EIM.

### **BPA EIM Entity**

The Transmission Provider in performance of its role as an EIM Entity under the MO Tariff and this Tariff, including, but not limited to, Attachment Q.

### **BPA EIM Entity Scheduling Coordinator**

The Transmission Provider or the entity selected by the Transmission Provider who is certified by the MO and who enters into the MO's pro forma EIM Entity Scheduling Coordinator Agreement.

### **BPA EIM Participating Resource**

A resource, aggregation of resources, or a portion of a resource: (1) that has been certified in accordance with Attachment Q by the BPA EIM Entity as eligible to participate in the EIM; and (2) for which the generation owner and/or operator, or designated marketing agent, enters into the MO's pro forma EIM Participating Resource Agreement.

### **BPA EIM Participating Resource Scheduling Coordinator**

A Transmission Customer with one or more BPA EIM Participating Resource(s) or a third-party designated by the Transmission Customer with one or more BPA EIM Participating Resource(s), that is certified by the MO and enters into the MO's pro forma EIM Participating Resource Scheduling Coordinator Agreement.

### **BPA Interchange Rights Holder**

A Transmission Customer who has informed the BPA EIM Entity that it is electing to make reserved firm and non-firm PTP transmission capacity available for EIM Transfers without compensation.

### **CAISO BAA or CAISO Controlled Grid**

The system of transmission lines and associated facilities of the CAISO participating transmission owners that have been placed under the CAISO's operational control.

### **Dispatch Instruction**

An instruction by the MO for an action with respect to a specific BPA EIM Participating Resource or Balancing Authority Area Resource for increasing or decreasing its energy supply or demand.

### **Dispatch Operating Point**

The expected operating point, in MW, of a BPA EIM Participating Resource that has received a Dispatch Instruction from the MO or a Balancing Authority Area Resource to which the BPA EIM Entity has relayed a Dispatch Instruction received from the MO. For purposes of Attachment Q of this Tariff, the Dispatch Operating Point means the change, in MW output, of (i) a BPA EIM Participating Resource due to an EIM bid being accepted and the BPA EIM Participating Resource receiving a Dispatch Instruction; or (ii) a Balancing Authority Area Resource for which a Dispatch Instruction has been issued by the CAISO with respect to EIM Available Balancing Capacity. The Dispatch Operating Point is expressed either as a negative MW quantity for the downward movement of generation, or a positive MW quantity for the upward movement of generation.

### **Dispatch Operating Target**

The expected operating point of a resource that has received a Dispatch Instruction, which is the optimal Dispatch of a resource as calculated by CAISO based on telemetry and representing a single point on the Dispatch Operating Point trajectory in the middle of the Dispatch Interval. The resource is expected to operate at the Dispatch Operating Target after completing the Dispatch Instruction, taking into account any relevant Ramp Rates and time delays.

### **Dynamic Transfer**

The provision of the real-time monitoring, telemetering, computer software, hardware, communications, engineering, energy accounting (including inadvertent Interchange), and administration required to electronically move all or a portion of the real energy services associated with a generator or load out of one BAA into another. A Dynamic Transfer can be either:

- (1) a Dynamic Schedule: a telemetered reading or value that is updated in real time and used as a schedule in the AGC/ACE equation and the integrated value of which is treated as an after-the-fact schedule for Interchange accounting purposes; or
- (2) a Pseudo-Tie: a functionality by which the output of a generating unit physically interconnected to the electric grid in a native BAA is telemetered to and deemed to be produced in an attaining BAA that provides BA services for and exercises BA jurisdiction over the generating unit.

## **Energy Imbalance Market (EIM)**

The real-time market to manage transmission congestion and optimize procurement of imbalance energy (positive or negative) to balance supply and demand deviations for the EIM Area through economic bids submitted by EIM Participating Resource Scheduling Coordinators in the fifteen-minute and five-minute markets.

## **EIM Area**

The combination of BPA's BAA, the CAISO BAA, and the BAAs of any other EIM Entities.

## **EIM Available Balancing Capacity**

Any upward or downward capacity from a Balancing Authority Area Resource that has not been bid into the EIM and is included in the BPA EIM Entity's Resource Plan.

## **EIM Entity**

A BA, other than the BPA EIM Entity, that enters into the MO's pro forma EIM Entity Agreement to enable the EIM to occur in its BAA.

## **EIM Transfer**

The transfer of real-time energy resulting from an EIM Dispatch Instruction: (1) between the BPA BAA and the CAISO BAA; (2) between the BPA BAA and an EIM Entity BAA; or (3) between the CAISO BAA and an EIM Entity BAA using transmission capacity available in the EIM.

## **e-Tag**

An electronic tag associated with an Interchange Schedule in accordance with the requirements of WECC.

## **Forecast Data**

Information provided by Transmission Customers regarding expected load (as determined pursuant to Section 4.2.4.3 of Attachment Q of this Tariff), generation, Intrachange, and Interchange, as specified in Section 4.2.4 of Attachment Q and the BPA EIM BP. The Transmission Customer Base Schedule includes Forecast Data that is used by the BPA EIM Entity as the baseline by which to measure Imbalance Energy for purposes of EIM settlement.

## **Interconnection Customer**

Any Eligible Customer (or its Designated Agent) that executes an agreement to receive generation interconnection service pursuant to Attachments L or N of this Tariff.

**Imbalance Energy**

The deviation of supply or demand from the Transmission Customer Base Schedule, positive or negative, as measured by metered generation, metered load, or realtime Interchange or Intrachange schedules.

**Instructed Imbalance Energy (IIE)**

Refer to the Transmission Provider's Transmission, Ancillary, and Control Area Service Rate Schedules and General Rate Schedule Provisions, or its successor.

**Interchange**

E-Tagged energy transfers that cross Balancing Authority boundaries, not including EIM Transfers.

**Intrachange**

E-Tagged energy transfers within a Balancing Authority boundary, not including real-time actual energy flows associated with EIM Dispatch Instructions.

**Load Aggregation Point (LAP)**

A set of Pricing Nodes that is used for the submission of bids and settlement of demand in the EIM.

**Locational Marginal Price (LMP)**

The marginal cost (\$/MWh) of serving the next increment of demand at that PNode consistent with existing transmission constraints and the performance characteristics of resources.

**Manual Dispatch**

A Dispatch by an EIM Entity to an EIM Participating Resource or a Non-Participating Resource in its Balancing Authority Area, outside of Market Clearing of the Real-Time Market.

An operating order issued by the BPA EIM Entity to a Transmission Customer with a BPA EIM Participating Resource or a Non-Participating Resource in BPA's BAA, outside of the EIM optimization, when necessary to address reliability or operational issues in BPA's BAA that the EIM is not able to address through economic dispatch and congestion management.

**Market Operator (MO)**

The CAISO.

**Measured Demand**

Refer to the Transmission Provider's Transmission, Ancillary, and Control Area Service Rate Schedules and General Rate Schedule Provisions, or its successor.

**Metered Demand**

Refer to the Transmission Provider's Transmission, Ancillary, and Control Area Service Rate Schedules and General Rate Schedule Provisions, or its successor.

**MO Tariff**

Those portions of the CAISO's approved tariff, as such tariff may be modified from time to time, that specifically apply to the operation, administration, settlement, and oversight of the EIM.

**Network Resource:**

Any designated generating resource owned, purchased or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale of one year or more to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis except for purposes of fulfilling obligations under a reserve sharing program or output associated with an EIM Dispatch Instruction.

**Non-Participating Resource**

A resource in BPA's BAA that is not a BPA EIM Participating Resource.

**Operating Hour**

The hour during the day when the EIM runs and energy is supplied to load.

**Pricing Node (PNode)**

A single network node or subset of network nodes where a physical injection or withdrawal is modeled by the MO and for which the MO calculates an LMP that is used for financial settlements by the MO and the BPA EIM Entity.

**Resource Plan**

The combination of load, resource and Interchange components of the Transmission Customer Base Schedule, ancillary services plans of the BPA EIM Entity, bid ranges submitted by BPA

EIM Participating Resources, and the EIM Available Balancing Capacity of Balancing Authority Area Resources.

**Transmission Customer Base Schedule**

An energy schedule that provides Transmission Customer hourly-level Forecast Data and other information that is used by the BPA EIM Entity as the baseline by which to measure Imbalance Energy for purposes of EIM settlement. The term “Transmission Customer Base Schedule” as used in this Tariff may refer collectively to the components of such schedule (resource, Interchange, Intrachange, and load determined pursuant to Section 4.2.4.3 of Attachment Q) or any individual components of such schedule.

**Uninstructed Imbalance Energy (UIE)**

Refer to the Transmission Provider’s Transmission, Ancillary, and Control Area Service Rate Schedules and General Rate Schedule Provisions, or its successor.

**Variable Energy Resource**

A device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

**TC-22 PROPOSED TARIFF LANGUAGE FOR EIM**

**SCHEDULE 1A**

**EIM Administrative Service**

**Under review.**