

December 23, 2016

Via Email ([techforum@bpa.gov](mailto:techforum@bpa.gov))

U.S. Department of Energy  
Bonneville Power Administration  
Transmission Services  
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**Re: Comments of Puget Sound Energy, Inc. on the Draft Coordinated Transmission Agreement executed by the United States of America Department of Energy acting by and through the Bonneville Power Administration and California Independent System Operator Corporation**

Puget Sound Energy, Inc. (“PSE”) submits these comments on the Draft Coordinated Transmission Agreement (the “Draft CTA”) between Bonneville Power Administration (“BPA”) and California Independent System Operator Corporation (“CAISO”). PSE looks forward to collaborating with BPA on the Draft CTA and in this letter offers some preliminary feedback as BPA looks at next steps. In general, PSE is supportive of the approach of dispatch of EIM Participating Resources to relieve congestion, provided that the EIM Participating Resources are appropriately compensated for such dispatch.

**A. Proposed Clarifications to Definition in the Draft CTA**

**1. Definition of “Bonneville Managed Facilities” (Draft CTA, section 2.1)**

Section 2.1 of the Draft CTA defines the term “Bonneville Managed Facilities” as follows:

**2.1 Bonneville Managed Facilities:** The transmission paths or facilities that: 1) Bonneville establishes on its transmission system or any other transmission facilities for which Bonneville is the Transmission Operator; 2) Bonneville determines are impacted by the EIM and could reasonably affect Bonneville’s ability to provide reliable transmission service to EIM participants or any of its other transmission customers; and 3) are listed in section 1 of Exhibit C.

PSE proposes three clarifications to this definition of “Bonneville Managed Facilities.” First, the introduction of the definition should clarify that “Bonneville Managed Facilities” are transmission paths or *transmission* facilities that satisfy all of the three listed criteria. Second, the definition should clarify that “Bonneville Managed Facilities” may have different limits depending on the direction of flow on them. Finally, the definition should clarify that

“Bonneville Managed Facilities” are transmission paths or facilities over which Bonneville has operational control.

Consistent with these clarifications, PSE proposes the following redline revisions to section 2.1 of the Draft CTA:

**2.1 Bonneville Managed Facilities:** The transmission paths or transmission facilities that: 1) Bonneville establishes on its transmission system or any other transmission facilities for which Bonneville is the Transmission Operator and has operational control; 2) Bonneville determines are impacted by the EIM (recognizing that such facilities may have different limits depending on the direction of flow on them) and could reasonably affect Bonneville’s ability to provide reliable transmission service to EIM participants or any of its other transmission customers; and 3) are listed in section 1 of Exhibit C.

Finally, the addition or removal of resources in section 1 of Exhibit C should be coordinated with the region.

## **2. Definition of “EIM Transfer” (Draft CTA, section 2.13)**

Section 2.13 of the Draft CTA defines the term “EIM Transfer as follows:

**2.13 EIM Transfer:** The transfer of energy in real-time between an EIM Entity Balancing Authority Area and the CAISO Balancing Authority Area, or between EIM Entity Balancing Authority Areas, using transmission capacity made available to the EIM.

PSE proposes clarifying this definition by providing that the transmission capacity made available to the EIM is transmission capacity on BPA’s transmission system:

**2.13 EIM Transfer:** The transfer of energy in real-time between an EIM Entity Balancing Authority Area and the CAISO Balancing Authority Area, or between EIM Entity Balancing Authority Areas, using transmission capacity on Bonneville’s transmission system made available to the EIM.

## **3. Definition of “EIM Participating Resources Incremental Flow”**

As discussed elsewhere in these comments, BPA uses the term “EIM Incremental Flow” to address Lower Rate of Change Limit (Draft CTA, section 2.17), Upper Rate of Change Limit (Draft CTA, section 2.22), and Upper and Lower Rate of Change Limits (Draft CTA, section 5.1) when it should apply to the incremental flow of EIM Participating Resources. Therefore, PSE proposes the following definition of the term “EIM Participating Resources Incremental Flow” for use in Draft CTA sections 2.17, 2.22, and 5.1:

**2.[ ] EIM Participating Resources Incremental Flow:** The aggregate power flow contribution from the dispatch of the EIM Participating Resources listed in section 5 of Exhibit C.

This definition would be used in sections 2.17, 2.22, and 5.1 of the Draft CTA.

#### **4. Definition of “Lower Rate of Change Limit” (Draft CTA, section 2.17)**

Section 2.17 of the Draft CTA defines the term “Lower Rate of Change Limit” as follows:

**2.17 Lower Rate of Change Limit:** The maximum MW amount by which CAISO may decrease EIM Incremental Flow on Bonneville Managed Facilities over the next five minute Market Interval relative to the EIM Incremental Flow in the prior 15 minute Market Interval.

PSE notes that the definition of the term “Lower Rate of Change Limit” in section 2.17 of the Draft CTA does not match what is currently implemented in the EIM model. Section 2.17 of the Draft CTA should reflect the implementation in the EIM model. PSE proposes the following revision to section 2.17 of the Draft CTA:

**2.17 Lower Rate of Change Limit:** The maximum MW amount by which CAISO may decrease EIM Participating Resources Incremental Flow on Bonneville Managed Facilities over the next five minute Market Interval relative to the EIM Participating Resources Incremental Flow on Bonneville Managed Facilities.in the prior 15 minute Market Interval.

Furthermore, PSE notes that the Lower Rate of Change Limits are actually directional change limits and not magnitude limits, and that the limits can vary depending upon direction. Therefore, PSE suggests that BPA consider using directional terminology, such as North, South, East and West Lower Rate of Change Limits, depending on the direction of each path.

#### **5. Definition of “Managed Limit” (Draft CTA, section 2.18)**

Section 2.18 of the Draft CTA defines the term “Managed Limit” as follows:

**2.18 Managed Limit:** The Bonneville Managed Facility flow limit that is determined by Bonneville and sent to the CAISO.

PSE proposes clarifying this definition by specifying that a Managed Limit is a limit on flow in a particular direction on Bonneville Managed Facilities and is necessary to prevent exceedance of a System Operating Limit or Interconnection Reliability Operating Limit. In particular, PSE proposes the following revisions to this definition:

**2.18 Managed Limit:** The Bonneville Managed Facility flow limit on a BPA Managed Facility in a particular direction that is necessary to prevent

exceedance of a System Operating Limit or Interconnection Reliability Operating Limit, as determined by Bonneville and sent to the CAISO.

**6. Definition of “Upper Rate of Change Limit” (Draft CTA, section 2.22)**

Section 2.22 of the Draft CTA defines the term “Upper Rate of Change Limit” as follows:

**2.22 Upper Rate of Change Limit:** The maximum MW amount by which CAISO may increase EIM Incremental Flow on Bonneville Monitored Facilities over the next five minute Market Interval relative to EIM Incremental Flow in the prior 15 minute Market Interval.

PSE notes that the definition of the term “Upper Rate of Change Limit” in section 2.22 of the Draft CTA does not match what is currently implemented in the EIM model. Section 2.22 of the Draft CTA should reflect the implementation in the EIM model. PSE proposes the following revision to section 2.22 of the Draft CTA:

**2.22 Upper Rate of Change Limit:** The maximum MW amount by which CAISO may increase EIM Participating Resources Incremental Flow on Bonneville Managed Facilities over the next five minute Market Interval relative to EIM Participating Resources Incremental Flow on Bonneville Managed Facilities in the prior 15 minute Market Interval.

Furthermore, PSE notes that the Upper Rate of Change Limits are actually directional change limits and not magnitude limits, and that the limits can vary depending upon direction. Therefore, PSE suggests that BPA consider using directional terminology, such as North, South, East and West Upper Rate of Change Limits, depending on the direction of each path.

**7. Definitions of “EIM Entity Agreement” and “EIM Transmission Service Provider”**

Neither the term “EIM Entity Agreement” nor the term “EIM Transmission Service Provider” is defined in the Draft CTA, but each term appears in the definition of the term “EIM Entity” in section 2.11 of the Draft CTA. The introductory paragraph of section 2 of the Draft CTA provides that “capitalized terms shall have the meanings assigned to them in the Glossary of Terms Used in NERC Reliability Standards, as it may be amended from time to time.” The Glossary of Terms Used in NERC Reliability Standards, however, does not define either the term “EIM Entity Agreement” or the term “EIM Transmission Service Provider,” and the definition of each such term is instead located in the CAISO tariff. Therefore, PSE proposes the addition of the following definitions to section 2 of the Draft CTA:

**2.[ ] EIM Entity Agreement:** The term as it is defined in the CAISO tariff.

**2.[ ] EIM Transmission Service Provider:** The term as it is defined in the CAISO tariff.

**B. Establishment and Functions of Coordinating Committee (Draft CTA, Section 3.1)**

Section 3.1 of the Draft CTA provides for a Coordinating Committee on which BPA and CAISO have representatives. This creates the potential for lack of input from and consideration of the views of EIM Entities. Section 3.1 of the Draft CTA should be revised to (i) expand the scope of the Coordinating Committee to include representation from each EIM Entity or (ii) provide for the Coordinating Committee to timely coordinate with each EIM Entity, including coordination in advance of Coordinating Committee meetings, and to receive and consider input from each EIM Entity. Any decisions made by the Coordinating Committee should be reviewed to ensure they do not compromise any agreements between either of the Parties and respective counterparties.

**C. Limitations on Data and Information Exchange (Draft CTA, Section 4.3)**

Section 4.3.2 of the Draft CTA restricts a Party to the Draft CTA from disclosing *non-public* data or information that it has received from the other Party under the Draft CTA without first promptly notifying the other Party of the request for disclosure. By contrast, section 4.3.3 of the Draft CTA may suggest that the disclosure of *any* data or information, including *public* data or information, could give rise to a claim for breach of the Draft CTA:

4.3.3 The Receiving Party shall immediately notify the Providing Party of any breach of this Agreement, including any instance of disclosure of data or information to a third party.

Based on the language in section 4.3.2 of the Draft CTA, which restricts the disclosure of *non-public* data or information, PSE suggests the following revision to section 4.3.3 of the Draft CTA:

4.3.3 The Receiving Party shall immediately notify the Providing Party of any breach of this Agreement, including any instance of disclosure of non-public data or information to a third party.

**D. Managing EIM Flows on Bonneville's Transmission System (Draft CTA, Section 5.0)**

**1. General Principle**

The BPA presentation, dated December 2, 2016, entitled "CA Framework Coordinated Transmission Agreement Review" (the "December 2 Slide Deck"), suggests that the Draft CTA does not contain new concepts or ideas but instead formalizes concepts and ideas previously agreed to in practice or in principle:

The CTA does not contain new concepts or ideas. Rather, it formalizes what has been previously agreed to in practice or in principle, even though the implementation of some of these concepts and ideas were deferred.

December 2 Slide Deck at page 3. Moreover, BPA suggested at the meeting on December 2, 2016, that the intention of the Draft CTA is not to introduce any additional requirements on EIM Entities but merely to “close the loop” on interaction with CAISO.

At the meeting on December 2, 2016, however, BPA indicated that it is not currently performing the operations contemplated by section 5.2, section 5.3 or section 5.4 of the Draft CTA. It is unclear to PSE whether any of section 5.2, section 5.3, or section 5.4 purports to increase the obligations of EIM Entities. The Draft CTA, as proposed, does not provide sufficient detail to discern the potential impact of these sections on EIM Entities. For example, it is unclear whether the terms and conditions of the Draft CTA would apply to curtailment obligations of unrelated bilateral e-tags. BPA and CAISO should commit to a series of meetings and workshops with EIM Entities before implementing any of the concepts or ideas contemplated by sections 5.2, 5.3 or 5.4 of the Draft CTA.

BPA indicated at the meeting of December 2, 2016, that there is “a lot of work” to be done by BPA and EIM Entities in implementing sections 5.2, 5.3 and 5.4 of the Draft CTA. The process by which BPA would implement these sections is not clear. In that regard, to the extent that any of the operations in section 5 of the Draft CTA are to proceed, the relationships between BPA and EIM Entities should be established and formalized. In general, PSE is supportive of the general approach of dispatch of EIM Participating Resources to relieve congestions, provided that the EIM Participating Resources are compensated for such dispatch.

More fundamentally, the Draft CTA and operations under it should not compromise contracts between either the EIM Entity and BPA or the EIM Entity and CAISO. BPA and CAISO should propose a process by which BPA and CAISO plan to implement section 5 of the Draft CTA prior to executing the Draft CTA, and this process should provide for stakeholder input. This process should include an explicit consideration of potential effects of the Draft CTA on EIM Entities and how appropriate compensation for EIM Participating Resources would be provided for redispatch under section 5 of the Draft CTA.

## **2. Upper and Lower Rate of Change Limits (Draft CTA, Section 5.1)**

Section 5.1 of the Draft CTA suggests that CAISO would use EIM Participating Resources to manage *EIM Incremental Flow* on Bonneville’s transmission system within the Upper Rate of Change Limits and the Lower Rate of Change Limits on each Bonneville Managed Facility.

... The CAISO will use EIM Participating Resources listed in Exhibit C to manage EIM Incremental Flow on Bonneville’s transmission system

within the Upper Rate of Change Limits and the Lower Rate of Change Limits on each Bonneville Managed Facility. ...

The definition of the term “EIM Incremental Flow,” however, applies to both “the dispatch of EIM Participating Resources and imbalance energy from EIM non-participating resource deviations from EIM Base Schedules.” (Draft CTA, section 2.7.) This section 5.1 should be revised to limit the ability of CAISO to use the EIM Participating Resources listed in section 5 of Exhibit C to manage only aggregate power flow contribution from dispatch from these EIM Participating Resources on Bonneville’s transmission system. Therefore, PSE suggests the following revisions to section 5.1 of the Draft CTA:

Bonneville will notify ~~the~~ CAISO of the Upper Rate of Change Limits and the Lower Rate of Change Limits for each Bonneville Managed Facility before each Market Interval. ~~The~~ CAISO will use EIM Participating Resources listed in Exhibit C to manage EIM Participating Resources Incremental Flow on Bonneville’s transmission system within the Upper Rate of Change Limits and the Lower Rate of Change Limits on each Bonneville Managed Facility. If Bonneville fails to send ~~the~~ CAISO Upper Rate of Change Limits or Lower Rate of Change Limits before a Market Interval or ~~the~~ CAISO fails to receive the Upper Rate of Change Limits or Lower Rate of Change Limits before a Market Interval, ~~the~~ CAISO will use the Upper Rate of Change Limits and Lower Rate of Change Limits that were last sent by Bonneville and received by ~~the~~ CAISO, and ~~the~~ CAISO will ensure that EIM Participating Resources Incremental Flow does not exceed those limits.

### **3. Managing EIM Area Total Flows When Bonneville is not Curtailing Transmission Schedules (Draft CTA, Section 5.2)**

Section 5.2 of the Draft CTA, if implemented, would allow BPA to send to CAISO a signal indicating that EIM Area Total Flow shall not increase from the previously calculated EIM Area Total Flow megawatt value received by Bonneville if Bonneville determines that a Managed Limit is exceeded or will be exceeded as a result of the next binding real-time dispatch Market Interval. This limitation on EIM Area Total Flow would occur notwithstanding the fact that BPA is not curtailing transmission schedules on its transmission system. The proposed section 5.2 of the Draft CTA introduces inefficiencies to the EIM that affect balancing and economic dispatch throughout the EIM footprint, would impose costs on EIM Entities, and would occur prior to curtailment under the BPA Open Access Transmission Tariff that requires the curtailment of Point-to-Point Transmission (“PTP”) customers and the redispach of Network Transmission (“NT”) customers on a pro rata basis. As discussed below, EIM Participating Resources should be compensated for such costs.

At the meeting of December 2, 2016, BPA indicated that section 5.2 of the Draft CTA helps to ensure that “market flows will not exacerbate the flow situation.” It is not clear why

there should be a goal of market flows not exacerbating the flow situation—particularly inasmuch as market flows are flows under transmission contracts purchased from BPA. In any event, it appears that the effect of section 5.2 is to potentially impose non-economic dispatch of EIM Participating Resources without expressly providing for compensation and without redispatch or curtailment of other BPA transmission schedules. EIM Participating Resources should be compensated for dispatch under section 5.2 of the Draft CTA.

BPA has also indicated that section 5.2 of the Draft CTA is a “bridge” (i) that is intended to only be operative for an hour or two and (ii) that, if the flow exceedance persists beyond a couple of 15-minute intervals, BPA would move to section 5.3 of the Draft CTA (*e.g.*, curtailing non-firm tags, etc.). BPA stated, for example, that section 5.2 of the Draft CTA would not persist in the absence of non-firm schedules being cut. Section 5.2 of the Draft CTA, however, does not contain any such restrictions. Similarly, section 5.2 of the Draft CTA contains no limits to its use and could potentially be invoked to protect all types of BPA transmission schedules, including non-firm transmission schedules.

Imposing limits on the EIM Area Total Flow without compensation (i) limits flows from EIM Participating Resources and other resources and (ii) unfairly imposes the costs of congestion of limitations of BPA’s transmission facilities solely on EIM Entities. Section 5.2 of the Draft CTA benefits transmission customers, including those that are not EIM Entities (*i.e.*, by not curtailing PTP customers or redispatching NT customers), and BPA. (For example, under proposed section 5.2 of the Draft CTA, a PTP customer using a pseudo-tie e-tag could increase its use of the BPA transmission system up to the full tag capacity, regardless of whether BPA was initiating pre-curtailment activities, such as Federal Columbia River Power System discretionary redispatch.) Section 5.2 of the Draft CTA essentially proposes to leverage the EIM to redispatch EIM Participating Resources, rather than rely on transmission curtailment priorities; compensation should be provided for such use.

In short, BPA and CAISO should establish a methodology pursuant to which EIM Participating Resources would be fairly compensated for redispatch provided pursuant to section 5.2 of the Draft CTA.

#### **4. Managing EIM Area Total Flows When Bonneville is Curtailing Transmission Schedules (Draft CTA, Section 5.3)**

In contrast to section 5.3 of the Draft CTA, section 5.2 does not rely solely on EIM Participating Resources but instead treats such EIM Participating Resources commensurately with other resources. If BPA and CAISO were to implement section 5.3 of the Draft CTA in an effective and appropriate manner, then there would likely be benefits to BPA transmission customers generally while providing fair treatment of EIM Entities.

One issue of concern with respect to section 5.3 of the Draft CTA is the potential for disproportionate curtailment of EIM Entities. BPA should establish a principle that an EIM Entity should not experience curtailment to the extent that it is providing redispatch under

section 5.3 of the Draft CTA. BPA indicated that if EIM Entities delivered “requested curtailment” amounts under section 5.3 of the CTA (presumably including reduced flows as a result of resupply) but other transmission customers do not, BPA would seek additional curtailment from non-EIM Entities. BPA indicated that it would coordinate with EIM Entities to identify types of e-Tags that should be excluded from traditional curtailment inasmuch as they are covered by EIM. This could include bilateral e-Tags—for example, bilateral e-Tags supporting Non-Participating Resources. Section 5.3 of the Draft CTA does not currently address these matters. BPA should consider revising section 5.3 of the Draft CTA to provide that

- (i) e-Tags with the Source Purchasing Selling Entity matching an EIM Participating Resource Scheduling Coordinator would be counted toward the EIM obligation but
- (ii) e-Tags with the Source Purchasing Selling Entity *not matching* an EIM Participating Resource Scheduling Coordinator *would not* be counted toward the EIM obligation unless both the EIM Entity and Source Purchasing Selling Entity agree to assign the obligation to the EIM.

BPA should clarify that the identification of e-Tags subject to redispatch under section 5.3 of the Draft CTA would be subject to prior mutual agreement between the affected EIM Entity and BPA.

\* \* \*

PSE appreciates BPA’s review of these comments and consideration of the recommendations contained herein. By return e-mail, please confirm BPA’s receipt of these comments.