



Department of Energy

Official File

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EXECUTIVE OFFICE

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In reply refer to: A-7

Subject: BPA decides to enter the Western Energy Imbalance Market

To: Parties interested in BPA's market participation

The Bonneville Power Administration has decided to join the Western Energy Imbalance Market (EIM) in 2022. This decision follows an extensive assessment and related public process, both of which give me confidence that that this is the right decision for Bonneville, its customers and the region. I am excited to close out this decision process and shift our full attention to readying the federal hydropower and transmission system to begin capturing the benefits of the EIM.

Preparing to join the EIM is part of Bonneville's broader grid modernization program, a key initiative of our strategic plan to improve reliability, maximize the value of federal hydropower and transmission assets, and maintain the agency's competitive edge in the evolving marketplace. Specifically, the EIM stands to deliver a range of benefits for both power and transmission operations. We expect Bonneville's participation will reduce our costs through greater efficiencies and increase our revenues by providing a new way to market surplus power and unused capacity.

The engagement of our customers and constituents over the last three years was critical to the success of this process and its outcome. I greatly appreciate the thoughtful and thorough input on our Draft EIM Close-out Letter, issued July 29, 2021. I especially appreciate the recognition of our dedicated staff, whose expertise enabled us to assess the EIM's potential impacts in great detail and equipped Bonneville with the best information to make this decision.

Most commenters on the Draft EIM Close-out Letter expressed support for Bonneville's EIM participation. The broad support reflects how far we've come over the years on many technical and policy issues that Bonneville and its customers agreed needed to be addressed. Commenters also expressed unresolved concerns and questions, all of which we have closely reviewed, assessed and considered. Our responses are detailed in the attached closeout document, but I'd like to cover a few recurring themes here.

One area of concern expressed by several commenters was the difference between the EIM benefits we assumed in ratemaking for the BP-22 Rate Case compared to our EIM benefits study supporting our decision to join the EIM. These commenters want Bonneville to work with stakeholders to develop metrics and methodologies to measure Bonneville's EIM performance and to ensure that EIM benefits are better reflected in future rates. As we mature our

participation in the EIM, I fully expect there to be benefits from the EIM and am committed to finding ways of passing those benefits on to customers through ratemaking just as we do with other marketing activities today. I look forward to further input from customers on this topic in future discussions ahead of BP-24.

From the outset of this EIM public process, governance has been a key consideration. Through our role in the Western EIM Governance Review Committee, Bonneville sought improvements to accommodate its status as a federal power marketing administration and ensure governance rules do not interfere with the agency's ability to meet its contractual and statutory obligations. This included advocating for expanding public power and power marketing administration voices at the Regional Issues Forum (RIF).

The adopted improvements to the governance structure include a joint authority model that represents a significant step forward beyond the original EIM governance model. The improvements also expand the scope of issues addressed by the RIF, formalizing direct communication among the RIF, EIM Governing Body and California Independent System Operator Board of Governors, and funding a market expert to support the EIM Governing Body. Bonneville will continue to advocate for governance improvements.

In the three years since Bonneville began assessing its participation in the EIM, discussions about other industry improvements emerged. Bonneville's participation in the EIM does not exclude its participation in these future efforts. In fact, we plan to take part in the development of other industry improvements and market opportunities, and will make decisions about future participation through additional public processes. We remain committed to participating in the development of these proposals and ensuring we take the best steps for our customers and the region.

For example, Bonneville is participating in the Western Resource Adequacy Program, an effort organized by the Northwest Power Pool. This is a first step at establishing common resource adequacy measurements and definitions. As described in my letter and draft decision posted August 20, 2021, Bonneville has proposed to participate in the next phase of this effort, Phase 3A, in which parties will test the design concepts, determine the program's viability and shape its final design.

In addition, discussions are underway about forming an organized day-ahead market in the West. Both the CAISO and Southwest Power Pool have presented initial concepts on how these markets would form. Bonneville continues to monitor and engage in discussions on these efforts. Joining the EIM, although independent of these other regional initiatives, will give us valuable experience and insights to inform new market discussions. I'm extremely proud of the Bonneville staff who devoted the last three years to our EIM assessment, enabled this decision and positioned the agency as a leader in potential future market enhancements.

Next steps

Today's decision represents an exhaustive body of work, but it does not conclude our engagement on Bonneville's EIM implementation or participation.

We are now turning our attention to completing the grid modernization projects that are critical to meeting the EIM Go Live date of March 2, 2022. Initial testing is underway and will provide valuable information on what needs to be adjusted before we begin market simulation testing in October. Parallel operations, which will take place from December 1, 2021 to February 28, 2022 will include opportunities for customers to test operations.

I'm confident in our team's ability to execute this work, just as they have done over the last two years to implement and test changes to our processes and systems. I'm committed to ensuring they have the resources they need to continue to succeed. We will keep you posted on this progress through existing forums, such as the Quarterly Business Review.

As we conduct this work, we will also hold additional workshops this fall and winter. These workshops will cover updates on the testing opportunities as well as settlements training. Staff will also cover any remaining implementation questions and provide an update on how Bonneville will approach EIM reporting.

I sincerely appreciate the engagement of our customers and stakeholders throughout this process. I also want to highlight the work of our federal partners, the U.S. Army Corps of Engineers and Bureau of Reclamation, whose work is central to how we operate and meet the market signal sent to individual hydropower projects. I also appreciate CAISO's support and its consideration and adoption of technical and governance enhancements, paving the way for greater public power participation.

For Bonneville, and I hope for our customers and other partners, this decision marks an important milestone in market advancement for the Northwest. Bonneville is committed to evaluating future opportunities to collaborate, improving our connectedness and sharing access to resources over a wider geographic footprint. I look forward to working with you all as we continue to move together on this journey of ensuring our region of a long-term sustainable, reliable, efficient and economic supply of power for generations to come.

Sincerely,

/s/ John L. Hairston

John Hairston

Administrator and Chief Executive Officer

Final Energy Imbalance Market Close-out Letter

September 2021

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ATTACHMENT A: Analysis of Revenues and Costs of Selling Into California

1 Introduction

The Bonneville Power Administration (Bonneville) has been considering whether to join the Western Energy Imbalance Market (EIM) since 2018. Bonneville established a five-phase public decision process in consultation with its customers and constituents to assess all of the important aspects of joining the EIM. Bonneville commenced the fifth and final phase of the public decision process when it published the Draft EIM Close-out Letter on July 29, 2021. The public had an opportunity to submit comments until August 23, 2021. See section 4, Bonneville’s EIM Decision Process, for a description of the decision process. Bonneville received 11 comments¹ through the public comment period. After consideration of public input and evaluation of Bonneville’s EIM Participation Principles, Bonneville has decided that it will join the EIM.

2 Purpose and Scope of this Close-out Letter

The purpose of this Final EIM Close-out Letter is to assess the status of the EIM and Bonneville’s EIM-related decisions to date and whether a decision to join the EIM is consistent with the EIM Participation Principles that Bonneville adopted in Phase II, to assess and respond to public comment on the Draft EIM Close-out Letter, and finally to determine whether to join the EIM. As Bonneville stated in its EIM Policy Record of Decision (ROD), “[i]f Bonneville decides to join the EIM, Bonneville will write a letter stating that proposed decision and setting out how that decision is consistent with Bonneville’s principles for joining the EIM that were established in Phase II.”²

The primary focus of this Final EIM Close-out Letter is on Bonneville’s EIM Participation Principles and whether a decision to join the EIM meets the principles. The Principles are as follows:³

1. Bonneville’s participation is consistent with its statutory, regulatory, and contractual obligations.
2. Bonneville will maintain reliable delivery of power and transmission to its customers.

¹ Bonneville received comments from Tacoma Power, Renewable Northwest (“RNW”), NW Energy Coalition (“NWECC”), Alliance of Western Energy Consumers (“AWEC”), Powerex Corporation (“Powerex”), Seattle City Light (“SCL”), Western Public Agencies Group (“WPAG”), Northwest Requirements Utilities (“NRU”), Public Utility District No. 1 of Snohomish County (“Snohomish”), Public Power Council (“PPC”), and Idaho Conservation League & Columbia Riverkeeper (“ICL-CR”).

² EIM Policy ROD at 33. The EIM Policy ROD can be accessed at: <https://www.bpa.gov/news/pubs/RecordsofDecision/rod-20190926-Energy-Imbalance-Market-Policy.pdf>.

³ *Id.* at 53-54.

3. Bonneville's participation is discretionary and Bonneville retains its ability to effectively exit the market in the event participation is no longer consistent with these principles.
4. Bonneville's participation is consistent with a sound business rationale.
5. Bonneville's participation is consistent with the objectives of Bonneville's Strategic Plan.
6. Bonneville's evaluation of EIM participation includes transparent consideration of the commercial and operational impacts on its products and services.

As part of this assessment, Bonneville has considered whether there have been any significant changes to the structure of the EIM or underlying facts since the earlier phases of this decision process. The assessment of changes is contained in section 5 of this letter.

The scope of this letter and what Bonneville sought comment on in Phase V was limited to the assessment of the EIM Participation Principles and Bonneville's proposed decision to join the EIM. In Phases II, III, and IV, Bonneville made various decisions related to its potential participation in the EIM. Bonneville characterized many of those decisions as final, and Bonneville does not intend to revisit those decisions unless a significant underlying fact that impacts the decision has changed. Bonneville has not identified any basis to reconsider its past EIM-related decisions and this letter sets out a description of those past decisions for the sole purpose of consolidating Bonneville's EIM-related decisions into a single document.

3 Energy Imbalance Market

The EIM is an intra-hour (or real-time) centralized energy market used to economically dispatch Participating Resources to balance supply, transfers between balancing authority areas (interchange), and load across the market's footprint. It does so while simultaneously ensuring generation and transmission limitations are respected. For balancing authorities in the EIM (EIM Entities), the EIM is integrated into the Energy Imbalance and Generation Imbalance services provided under the EIM Entities' respective Open Access Transmission Tariffs. In joining the market, EIM Entities revise the imbalance service provisions of their respective tariffs. They also change the method for charging or paying for imbalance services. Instead of using an index or opportunity cost, the EIM uses Locational Marginal Pricing (LMP) and Load Aggregation Points (LAP). An LMP is the marginal cost (\$/megawatt-hour) of serving the next increment of demand at a particular point consistent with existing transmission constraints and the performance characteristics of the resource. An LAP is a weighted average of multiple locational marginal price nodes used for the settlement of non-participating load imbalance in an EIM Entity's balancing authority area. The EIM is operated by the California Independent

System Operator (CAISO, also known as the Market Operator or MO), and is an extension of the CAISO's real-time market.

The EIM was introduced in the Pacific Northwest in 2014 through the joint efforts of PacifiCorp and the CAISO. Since then, many other regional balancing authorities have joined, including Idaho Power, Northwestern Energy, Portland General Electric, Puget Sound Energy, and Seattle City Light. A number of other regional utilities will be joining in the near future, including Avista Utilities (2022) and Tacoma Power (2022).

4 Bonneville's EIM Decision Process

In July of 2018, Bonneville embarked on a multi-year series of incremental decisions that would culminate in the ultimate decision whether to join the EIM with a projected Go Live of March 2, 2022. This series of decisions was designed to determine how Bonneville would participate in the EIM and how that participation would affect other parties doing business with Bonneville.

Bonneville developed a five-phase approach to making the incremental decisions. Through these phases, Bonneville has decided many details about how it would participate in the EIM and how to implement its participation in the EIM with regard to Bonneville's customers. The five phases of Bonneville's decision process are:

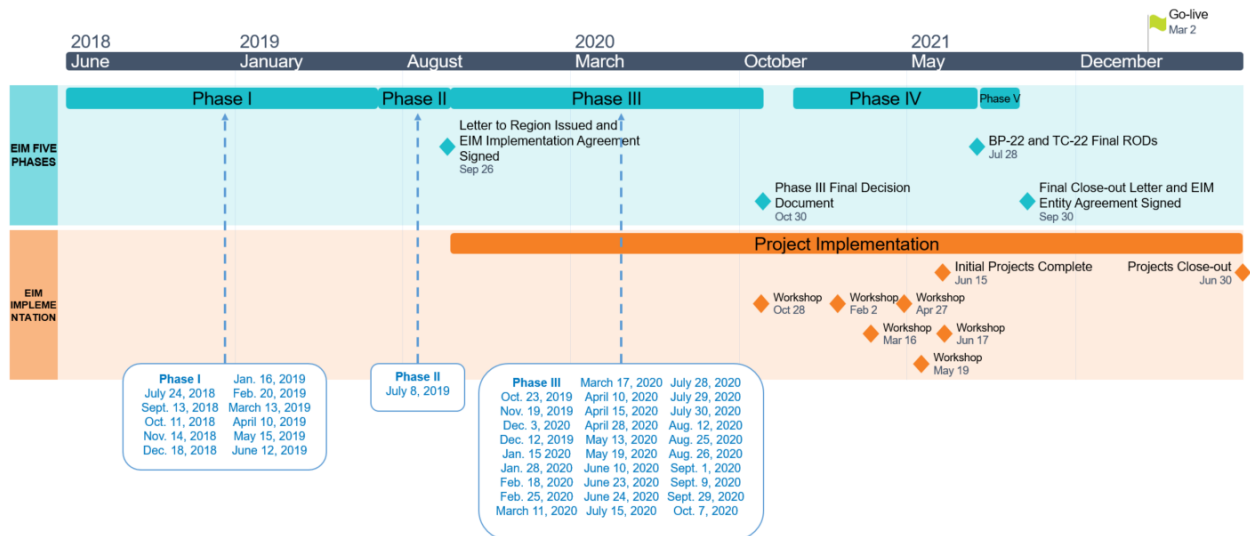
1. Phase I – Exploration from July 2018 through June 2019;
2. Phase II – Implementation Agreement, EIM principles, and some policy decisions from June 2019 through September 2019;
3. Phase III – Additional policy decisions from October 2019 through October 2020;
4. Phase IV – Rate and Tariff Proceeding from December 2020 through July 2021;
5. Phase V – Close-out Letter from July 2021 through September 2021.

Bonneville has engaged in a robust public process. During each phase of the process, Bonneville held workshops to discuss how it would operate and participate in the EIM. This included issues such as which federal hydro projects it planned to bid the output of into the EIM to how to allocate charges among Bonneville transmission customers. After each workshop, public comment was encouraged on the policy proposals to help shape Bonneville's policies for participating in the EIM. When possible, Bonneville made final decisions on these policy issues at the end of each phase, adopted in final decision documents and the final rates and tariff records of decision.

Bonneville held 41 workshops over the first three phases of its EIM decision process. In addition to these workshops, Bonneville ran an additional process to discuss how policies

and decisions from Phases III and IV would be implemented. The EIM implementation process included an additional six workshops.

The blue segment in the figure below shows the timeline of the five-phase EIM decision process and lists the dates of Bonneville’s public workshops to discuss various EIM-related topics. The orange segment shows Bonneville’s EIM project implementation timeline and public workshops in that process, which is related to but separate from the five-phase EIM decision process.



The following subsections describe each phase and list all of the decisions made in Phases II–IV of Bonneville’s decision process.⁴ As noted above, these decisions have already been made and are restated here for the purpose of consolidating Bonneville’s decisions in a single location. Bonneville is not revisiting decisions made in earlier phases.

4.1 Phase I – Exploration (July 2018 to June 2019)

Phase I was EIM exploration for Bonneville and its customers and constituents. During this phase, Bonneville and its customers and constituents were learning about the mechanics of the EIM and exploring details and nuances related to joining and participating in the EIM. During the exploration phase, from July 2018 through June 2019, Bonneville held monthly public meetings on particular topics related to the EIM. Bonneville sought informal comment from the public, and those comments were addressed verbally at subsequent public meetings or one-on-one with the commenter.

The topics discussed in the meetings during the exploration phase included the following:

1. Treatment of Transmission;

⁴ Note that Phase I was an exploratory phase and no decisions were made in Phase I.

2. Generation Participation Model (Federal Columbia River Power System);
3. EIM Governance;
4. Cost-Benefit Analysis;
5. Balancing Authority Area Resource Sufficiency;
6. EIM Settlements;
7. Use of Reliability Tools such as Operational Controls for Balancing Reserves (OCBR) and Oversupply Management Protocol (OMP);
8. Load Zone;
9. Market Power and Default Energy Bid (DEB);
10. Carbon Obligation in the EIM;
11. Relationship of the EIM to other Emerging Markets.

The materials presented at those meetings and comments received are posted at www.bpa.gov/goto/eim. In addition to the monthly public meetings, Bonneville staff met frequently with customers and constituents who requested meetings to discuss specific issues of interest to them during the exploration phase. No decisions were made during Phase I; however, valuable learning and discussion occurred to prepare Bonneville and its customers and constituents for Phase II.

4.2 Phase II - Implementation Agreement and High-Level Issue Analysis, Including Decisions on Overarching Principles for Joining the EIM, and Decisions on Several Policy and Legal Issues (June 2019 to October 2019)

4.2.1 Overview

Phase II was initiated with the publishing of the Phase II proposal on June 20, 2019. That proposal, along with public comments and Bonneville's responses, were contained in the EIM Policy ROD issued on September 26, 2019. The EIM Policy ROD included an EIM Implementation Agreement, a discussion of Bonneville's legal authority and business reasons for considering joining the EIM, principles that Bonneville would follow throughout the EIM decision-making process, and policy decisions on certain issues that had been discussed with customers and constituents during Phase I.

4.2.2 Phase II Decisions

Bonneville made the following decisions in Phase II.

4.2.2.1 Legal Authority

Bonneville set out its legal assessment and determined that joining the EIM is within the scope of its legal authority.⁵

4.2.2.2 Business Case

Bonneville assessed the benefits and costs of joining the EIM and determined that the business case supports joining the EIM.⁶

4.2.2.3 EIM Participation Principles

Bonneville adopted the six EIM Participation Principles listed above in section 2. Bonneville committed to ensuring it would only join the EIM if doing so would be consistent with these principles.⁷

4.2.2.4 Policy Decisions

Bonneville made policy decisions on the following topics:

1. Federal Generation Participation Model;
2. Transmission Usage – Interchange;
3. System Operations Tools;
4. Carbon Obligations and related considerations;
5. Market Power (LMPM and DEB);
6. Load Aggregation;
7. Resource Sufficiency – Balancing Authority Area Level.

4.2.2.4.1 Federal Generation Participation Model

Bonneville concluded that, if it joins the EIM, it will initially participate with the “Big-10” federal hydroelectric dams aggregated into three resource groups.⁸

4.2.2.4.2 Transmission Usage – Interchange

With respect to transmission usage in the EIM, Bonneville concluded that it will retain section 14(b) of the EIM Implementation Agreement, and will determine how to make transmission available for EIM Transfers.⁹ Bonneville will adopt the Interchange Rights Holder Methodology for making transmission available for EIM Transfers between balancing authority areas. Within Bonneville’s balancing authority area, transmission will continue to be available for balancing without advance reservation or donation.

⁵ EIM Policy ROD § 3.2.

⁶ *Id.* § 3.4.

⁷ *Id.* § 3.1.

⁸ *Id.* § 3.5.1.1.

⁹ *Id.* § 3.5.2.1.

4.2.2.4.3 System Operations Tools

Bonneville concluded it will maintain its current suite of operational tools used to manage the federal power and transmission systems if it becomes an EIM Entity.¹⁰

4.2.2.4.4 Carbon Obligations and Related Matters

Bonneville concluded that its policy on carbon in the EIM would be to opt out of selling directly into California via the EIM unless Congress grants Bonneville the authority to directly purchase allowances under California and other state carbon programs.¹¹

Bonneville also stated that if Congress authorizes Bonneville to purchase allowances and Bonneville therefore is able to sell directly into California in the EIM, Bonneville would evaluate whether direct sales to California were cost effective based on current circumstances at that time.¹²

An update on this issue is contained in section 5.2.3.

4.2.2.4.5 Local Market Power Participation/Default Energy Bid

Bonneville concluded that the enhancements to the CAISO's Local Market Power Mitigation (LMPM) procedures filed in the summer 2019 with the Federal Energy Regulatory Commission (FERC) for approval were sufficient to address Bonneville's concerns regarding the current LMPM procedures. Bonneville committed to continue to monitor the progress of the enhancements through FERC's approval process and CAISO's implementation process. Bonneville further noted that if the proposed enhancements were not approved or were substantially revised by FERC such that Bonneville's concerns were no longer addressed, Bonneville would seek to negotiate a Default Energy Bid (DEB) specific for Bonneville and would reconsider whether (or how) it would join the EIM if a negotiated DEB was unacceptable.¹³

An update on this issue is contained in section 5.2.5.

4.2.2.4.6 Load Aggregation

Bonneville concluded that it will initially have one Load Aggregation Point.¹⁴

4.2.2.4.7 Resource Sufficiency

Bonneville concluded that the CAISO's resource sufficiency requirements were not an impediment to Bonneville participating in the EIM.¹⁵ Modifying the CAISO's resource sufficiency rules, except as provided in section 14(h)(ii) of the EIM Implementation

¹⁰ *Id.* § 3.5.3.1.

¹¹ *Id.* § 3.5.4.1.

¹² *Id.* § 3.5.4.2.

¹³ *Id.* § 3.5.5.1.

¹⁴ *Id.* § 3.5.6.1.

¹⁵ *Id.* § 3.5.7.1.

Agreement, is not an appropriate approach to ensure Bonneville is compensated for capacity.¹⁶

4.2.3 EIM Implementation Agreement

An EIM Implementation Agreement is the first in a series of agreements necessary for EIM participation. The EIM Implementation Agreement sets forth a high-level project plan and schedule that includes the steps that a balancing authority and the CAISO must take in order for a balancing authority to participate in the EIM. Execution of an EIM Implementation Agreement does not obligate a balancing authority to participate in the EIM.

As part of the EIM Policy ROD, Bonneville made a decision to sign an EIM Implementation Agreement concurrent with execution of the ROD.¹⁷ As summarized below, since execution of the EIM Implementation Agreement, Bonneville and the CAISO have been working on the technical systems and processes necessary for Bonneville to participate in the EIM.

The EIM Implementation Agreement included a section (section 14) of principles and commitments specific to Bonneville. These are also discussed below in section 4.2.3.2.

4.2.3.1 Summary of EIM Integration Efforts

As of the publication of this Final EIM Close-out letter, Bonneville and the CAISO have completed the work necessary to identify and configure the data associated with the federal power and transmission systems that will be modeled and used for EIM participation. Moreover, the software, systems, and processes necessary for bidding, base scheduling, operations, and settlements have been developed and are being tested. Metering setup, EIM Transfer design, and interchange configuration for EIM operation and settlements has also been completed. Bonneville has also scoped post Go Live actions and organizational responsibilities to provide ongoing support and enhancement of EIM participation.

Presently, Bonneville is implementing a comprehensive internal training program and targeted external training for its customers. Bonneville also continues to test its systems and processes for market preparedness. This testing includes connectivity, integration, and functional testing of systems and processes for EIM participation.

Future work will focus on putting all these systems together in various comprehensive testing phases. The CAISO and Bonneville have scheduled “Day-in-the-Life” testing during the month of September 2021. This will assure Bonneville’s ability to perform sequentially all the functions and processes necessary to participate in the EIM. In October and November of 2021, Bonneville and the CAISO will then progress into “Market Simulation”

¹⁶ *Id.*

¹⁷ *Id.* § 4.2.1.

testing using structured and unstructured scenarios to test the robustness and integration of the systems and processes necessary for market participation. In December of 2021, Bonneville and the CAISO will transition to “Parallel Operations” testing where Bonneville will be testing its systems using duplicated live production data feeds into the test environment, which will culminate in the CAISO certifying Bonneville’s market readiness to FERC.

4.2.3.2 Bonneville-Specific Provisions in the EIM Implementation Agreement

Section 14 of the EIM Implementation Agreement contains several provisions specific to Bonneville in terms of principles or commitments. Each of these principles or commitments, and the resolution of the commitments where applicable, are addressed below.

1. *Statutory, Regulatory, and Contractual Requirements.* This provision provides that Bonneville’s EIM implementation and participation is consistent with its statutory, regulatory, and contractual requirements. As discussed in section 7.1, Bonneville has determined that it can participate in the EIM in a manner consistent with its statutory, regulatory, and contractual commitments.
2. *Voluntary Market Participation.* This provision provides that Bonneville’s EIM participation will be predicated on rules allowing voluntary market entry and exit; voluntary submission of bids, offer volumes, and pricing; voluntary donation of transmission for EIM Transfers; and the ability to voluntarily forego EIM Transfers in one or more operating intervals consistent with the CAISO and Bonneville tariffs.

While loads and resources in an EIM Entity balancing authority area are subject to imbalance charges and other market adjustments, participation in the EIM is still voluntary as set forth in the CAISO’s tariff and its agreements with EIM Entities and Participating Resources. First, participants with Participating Resources are under no obligation to submit bids into the market or submit bids at a certain price, and can unilaterally choose to no longer be a Participating Resource with no fee or penalty. Second, transmission customers are under no obligation to donate transmission. Finally, an EIM Entity can unilaterally choose to forego EIM Transfers for a specified period of time, or stop participating in the EIM altogether and withdraw with no exit fee or penalty.

3. *Reliability and Operation of the Federal Power and Transmission Systems.* This provision affirms Bonneville’s authority over matters relating to reliability and operation of the Federal Columbia River Power System and Federal Columbia River Transmission System. EIM participation will not change Bonneville’s responsibility to operate the federal power and transmission systems in a

reliable manner. Moreover, as set forth in the EIM Policy ROD, Bonneville will retain its existing reliability tools during market participation.¹⁸

4. *Federal Generation Participation.* This provision proposed to allow Bonneville to utilize the CAISO's resource aggregation models for EIM participation. In the EIM Policy ROD, Bonneville made a decision to aggregate its system into three aggregation zones (Lower Columbia, Upper Columbia, and Snake River) for EIM participation.¹⁹ Bonneville and the CAISO have set up their respective systems and processes to utilize these three aggregation zones for Bonneville's "Big-10" projects. Schedule 1 of the Participating Resource Agreement between Bonneville and the CAISO will specifically identify Bonneville's resource aggregation models.
5. *Automation Support.* This provision states that the CAISO will provide technical support as Bonneville works to automate many of the interactions with existing EIM interfaces during the implementation phase. Bonneville identified the following interactions for potential automation: declaring contingency events, manual dispatches, load biasing, and setting EIM transmission interface operating limits. Bonneville appreciates the CAISO's collaborative effort to develop and deliver new automation to address Bonneville's real-time integration needs. As described in section 5.2.9.3, this effort has resulted in four new interfaces to the CAISO's EIM operations portal that will benefit Bonneville and other market participants.
6. *Greenhouse Gas Attributes.* This provision provides that if Bonneville allows FCRPS energy to be delivered directly to California in the EIM, those deliveries would be consistent with California's Cap and Trade program and may include Bonneville's status as an Asset Controlling Supplier (ACS). The CAISO has continued to recognize Bonneville's ACS status, which Bonneville may utilize if it makes a decision to participate in the EIM.
7. *Base Schedule Submission Timeframes.* This section covers the CAISO's process to change the market closing timeline for financially binding hourly resource plans from T-40 to T-30, which the CAISO did by initiating a stakeholder process in September 2020.²⁰ The CAISO Board of Governors adopted the policy proposal

¹⁸ *Id.* § 3.5.3.

¹⁹ *Id.* § 3.5.1.

²⁰ For more information of the CAISO stakeholder process, see <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Western-EIM-base-schedule-submission-deadline>.

and authorized a FERC filing, which the CAISO made on January 27, 2021²¹ and amended on March 25, 2021.²² FERC issued an order accepting the CAISO's proposed edits on April 30, 2021.²³

8. *Consideration of Other EIM Enhancements.* This section includes four potential enhancements that Bonneville has proposed in the CAISO policy-making process. While Bonneville stated that its participation was not expressly contingent upon these enhancements, it believes they are important enhancements to the EIM that should be considered by the CAISO. These enhancements include:

a. *Improving the accuracy of hourly resource plans.* This section's focus is on certain market design enhancements that would improve the accuracy of hourly resource plans and, in turn, help EIM Entities meet their respective resource sufficiency obligations.

As part of the Market Enhancements for Summer 2021 Readiness Initiative, the CAISO has proposed, adopted, and filed with FERC certain enhancements to improve the accuracy of the resource sufficiency evaluation.²⁴ Additionally, the CAISO has committed to undertake a policy initiative to comprehensively review and enhance the resource sufficiency evaluation in 2021 for implementation before the summer of 2022.²⁵ The CAISO initiated this process, the "EIM Resource Sufficiency Evaluation Enhancements Initiative," in June of 2021.

b. *Permit resource sufficiency obligation transfers, e.g., bid range transfers.* This section focuses on allowing an EIM Entity to bilaterally negotiate a transfer of capacity to another EIM Entity to help the latter Entity meet its resource sufficiency obligations.

²¹ CAISO, FERC Docket No. ER21-955-000, Transmittal Letter (Jan. 27, 2021), available at <http://www.caiso.com/Documents/Jan27-2021-TariffAmendment-EIM-Enhancements-Real-Time-Settlements-and-BaseScheduleTimelines-ER21-955.pdf>.

²² CAISO, FERC Docket No. ER21-955-001, Transmittal Letter (Mar. 25, 2021), available at <http://www.caiso.com/Documents/Mar25-2021-Amendment-TariffChanges-EIM-Enhancements-Real-TimeSettlements-BaseScheduleEnhancements-ER21-955.pdf>.

²³ CAISO, 175 FERC ¶ 61,096, at P 27 (2021).

²⁴ For more information regarding the CAISO's summer readiness initiative, see <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Market-enhancements-for-summer-2021-readiness>.

²⁵ See CAISO, FERC Docket No. ER21-1536, Transmittal Letter at 3-4 (Mar. 26, 2021), available at <http://www.caiso.com/Documents/Mar26-2021-Tariff-Amendment-2021SummerReadiness-ER21-1536.pdf>. The CAISO commits to a further, more comprehensive process on resource sufficiency later in 2021 in its FERC filing.

This policy enhancement has been deferred, allowing the CAISO to focus on reliability matters for the summer of 2021. Prior to deferment, the CAISO had recognized this as a potential future market enhancement.

- c. *Improve the flexible ramping sufficiency test.* This section focuses on enhancements improving the flexible ramping sufficiency test, such as the incorporation of variable energy resource forecasts into the flexible ramping requirement computation.

An enhancement to improve the flexible ramping sufficiency test is in the implementation stage and will be included in one of the CAISO's future software releases. Additionally, as discussed above, the CAISO has committed to undertake a policy initiative to comprehensively review and enhance resource sufficiency. As stated above, CAISO initiated its EIM Resource Sufficiency Evaluation Enhancements Initiative in June of 2021 to further address this item.

- d. *Increase transparency of data required for validation of EIM settlement statements.* This section focuses on exploration of appropriate methods for the CAISO to share additional market data with EIM Entities to allow them to fully validate the EIM settlement statements they receive from the CAISO.

The CAISO initiated a Real-Time Settlement Review stakeholder initiative in August of 2020.²⁶ A component of that initiative focused on improving the quality and transparency of the CAISO's settlement process through the publication of metrics such as 1) Imbalance Energy and Financial Value Settlement; 2) Real-Time Congestion Comparison; and, 3) Real-Time Offset Comparison.²⁷ The CAISO provides these metrics today in its Market Performance and Planning Forum.²⁸

²⁶ See <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Real-time-settlement-review>.

²⁷ *Draft Final Proposal, Real-Time Settlement Review*, at 5-8, available at <http://www.caiso.com/InitiativeDocuments/DraftFinalProposal-Real-TimeSettlementReview.pdf>.

²⁸ For example, see <http://www.caiso.com/Documents/Presentation-MarketPerformance-PlanningForum-Mar4-2021.pdf>, slide 62. While Bonneville is pleased with the CAISO's effort to provide better quality and transparent market settlement information, this is an area where Bonneville encourages the CAISO to continue improving. For example, Bonneville believes that the CAISO should provide more information regarding the Imbalance Energy and Financial Value Settlement metric.

4.3 Phase III – Additional Policy Decisions (October 2019 to October 2020)

4.3.1 Overview

Phase III encompassed the policy development that occurred between October 2019 and the beginning of the BP-22 and TC-22 proceedings. This involved multiple workshops in which Bonneville discussed EIM policy details with customers and constituents, and used the feedback from those workshops to develop policy decisions and proposals on details of how Bonneville would participate in the EIM. Many of these policies required rate changes or tariff language and were thus further developed in the BP-22 or TC-22 processes (Phase IV).

Bonneville identified four discrete policy issues that did not implicate rate or tariff changes, and proposed its decisions on these issues in a Phase III Draft Decision Document.

Bonneville received public comments on those proposed decisions and issued a Phase III Final Decision Document addressing comments and providing Bonneville’s final decisions on the four Phase III issues.²⁹

4.3.2 Phase III Decisions

Bonneville made the following policy decisions in Phase III.

4.3.2.1 Sub-Allocation of Balancing Authority Area Resource Sufficiency Requirements

Bonneville determined that it will not adopt any sub-balancing authority area allocation of resource sufficiency requirements for the start of EIM participation.³⁰

4.3.2.2 Non-Federal Resource Participation

Bonneville determined that it will not include in its Tariff language a delay of the application process for non-federal Participating Resources.³¹

4.3.2.3 Metering Requirements

Bonneville determined that no further action is necessary for generators or loads in Bonneville’s balancing authority area to comply with the CAISO’s metering requirements if Bonneville decides to participate in the EIM.³²

²⁹ Phase III Final Decision Document, *available at* <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/EIM%20Phase%20III%20Final%20Decision%20Document.pdf>.

³⁰ *Id.* § A.

³¹ *Id.* § B.

³² *Id.* § C.

4.3.2.4 EIM Losses

Bonneville stated that it will determine the loss factor/percentage used for EIM participation as an internal implementation issue if Bonneville decides to join the EIM.³³ Bonneville worked with the CAISO to establish the option to not settle Unaccounted for Energy (UFE),³⁴ which is included in the CAISO's Real-Time Settlements Initiative scheduled for late 2021 or early 2022 implementation. By not settling UFE, the effective loss factor/percentage is 0%. This is an appropriate path forward and allows Bonneville to avoid the UFE charge code entirely. Thus, Bonneville's EIM settlement would more closely align with its commercial and operational practices.

4.3.2.5 Phase V Timeline

In the Phase III Final Decision Document, Bonneville identified and explained a necessary adjustment to the timing of Phase V of the EIM decision process. When Bonneville originally set out the decision process timeline in Phase II, Bonneville had identified the timeframe for Phase V would be October 2021 to December 2021. However, after discussion with the CAISO about the timing necessary to begin operation in the EIM by March of 2022, Bonneville learned that it would need to complete its EIM decision process and sign its EIM Entity agreement two months sooner than originally expected, by October 1, 2021. Accordingly, Bonneville adjusted its Phase V timeline to July of 2021 through September 30, 2021.

4.4 Phase IV – Rate and Tariff Proceeding (December 2020 to July 2021)

4.4.1 Overview

The goal of Phase IV was to implement the policy decisions made in Phases II and III through the TC-22 Tariff Terms and Conditions proceeding and the BP-22 Rate Case proceeding. The TC-22 proceeding established EIM-related terms and conditions that are now part of Bonneville's Tariff and will apply to Bonneville's customers. The BP-22 rate proceeding established the EIM-related rates and cost allocations that will apply to Bonneville's customers. The EIM terms and conditions and the applicable rates associated with EIM participation would not become effective until after Bonneville decides to join the EIM.

4.4.2 Tariff Terms and Conditions Case (TC-22)

4.4.2.1 Overview

In the TC-22 proceeding, Bonneville established the EIM-related terms and conditions in the event that it would ultimately decide to join the EIM. In large part, Bonneville proposed to adopt the same EIM-related terms and conditions that other EIM Entities have

³³ *Id.* § D.

³⁴ The Unaccounted For Energy option is discussed further below in section 5.2.9.1.

employed. Bonneville substantively diverged from the terms and conditions of other EIM Entities in the following key ways:

- Allow entities to participate with aggregated resources that they market, but do not own or operate;
- Identify the Bonneville Variable Energy Resource Forecast as the baseline from which to measure imbalance for variable energy resources;
- Allow Transmission Customers to donate non-firm point-to-point transmission to the EIM;
- Modify the process for donations of transmission to accommodate Bonneville handling the downstream processes of managing the associated limits and EIM Transfer schedules;
- Clarify that, in the event of a contingency, Bonneville retains all corrective actions available to it today as well as the ability to request the Market Operator prevent EIM Transfers and suspend EIM Settlements during the contingency;
- Adjust outage-related provisions to refer to Bonneville’s current outage planning and coordination policy.

4.4.2.2 Tariff Case Decision

In the TC-22 Administrator’s Record of Decision (TC-22 Final Tariff ROD), the Administrator adopted staff’s proposal for the EIM-related terms and conditions to be added to the Tariff.³⁵

4.4.3 Rate Case (BP-22)

4.4.3.1 Overview

Bonneville’s decision to join the EIM affects rates in two ways. First, Bonneville, through Transmission Services, will become an EIM Entity Scheduling Coordinator (EESC). The EESC is the entity that interacts with the CAISO and is financially responsible for the imbalance caused by all non-participating loads, non-participating resources, and interchange in its balancing authority area. The CAISO will charge or pay Transmission Services for EIM activities relating to loads, resources, or interchanges in the Bonneville balancing authority area through a series of EIM “charge codes.” In the BP-22 rate proceeding, Bonneville developed rate proposals and rate schedule language to settle with its customers (including Power Services) for relevant EIM-related activity.

³⁵ Administrator’s Final Record of Decision, TC-22-A-03.

Second, Bonneville, through Power Services, will become a “Participating Resource Scheduling Coordinator” (PRSC). Power Services (as the PRSC) will be offering federal generation to the EIM as a Participating Resource. Like an EESC, a PRSC contracts directly with the CAISO. The CAISO will economically dispatch Power Services’ Participating Resources in the EIM consistent with the price curves and dispatch limits included in Power Services’ bids. These dispatches result in EIM charges or credits from the CAISO. The allocation of these charges and credits among Bonneville’s power rate cost pools and a forecast of the estimate of the net benefit to power rates for EIM participation for the FY 2022–2023 period are addressed in the BP-22 Rate Case.

4.4.3.2 Rate Case Decisions

In the BP-22 Administrator’s Record of Decision (BP-22 Final ROD), the Administrator adopted staff’s proposal for the allocation of EIM charge codes among customers.³⁶

In addition, the Administrator adopted in the BP-22 Final ROD, staff’s proposed allocation of EIM costs and benefits among Slice and Non-Slice cost pools.³⁷ The Administrator also adopted staff’s proposal to set EIM benefits equal to the EIM Start-up/Implementation costs functionalized to Power Services for the first 19 months of EIM participation.³⁸

4.5 Phase V – Close-out Letter (July 2021 through September 2021)

For Phase V, Bonneville assessed whether joining the EIM meets the EIM Participation Principles and whether any significant underlying facts or structure of the EIM have changed that require revisiting prior decisions. Bonneville commenced the fifth and final phase of the public decision process when it published the Draft EIM Close-out Letter on July 29, 2021. The public had an opportunity to submit comments until August 23, 2021. Bonneville received 11 sets of comments³⁹ through the public comment period. After consideration of public input and evaluation of Bonneville’s EIM Participation Principles, Bonneville has decided that it will join the EIM.

³⁶ Administrator’s Final Record of Decision, BP-22-A-02, at 8, 11. Staff’s rate assumptions and allocation proposals were adopted as part of a broader settlement of issues agreed to by most parties in the BP-22 rate proceeding. By adopting the outcome of Staff’s proposals, no party to the settlement agreed to Staff’s underlying rationale nor the policy positions supporting those proposals.

³⁷ *Id.* at 8.

³⁸ *Id.*

³⁹ Bonneville received comments from Tacoma Power, RNW, NVEC, AWEC, Powerex, SCL, WPAG, NRU, Snohomish, PPC, and ICL-CR.

4.6 Comments Received on Decision Process and Decision to Join EIM

Issue 4.6.1:

Whether Bonneville has engaged in a thorough public process to determine whether to join the EIM.

Commenters' Positions

Many commenters provided positive comments on Bonneville's public process in making the decision to join the EIM. Northwest Requirements Utilities (NRU) acknowledges that Bonneville invested a tremendous amount of time and effort in its "comprehensive decision-making process to determine whether to join the EIM."⁴⁰ NRU further notes that customer engagement in the decision process was crucial for both Bonneville and customers as Bonneville worked through the process.⁴¹ NRU also states that Bonneville has "done a thorough job of justifying its preliminary decision to join the EIM and offers no objections at this time."⁴²

Public Utility District No. 1 of Snohomish County (Snohomish) thanks Bonneville for staff's "responsiveness to questions, requests, and concerns from Snohomish, customer groups, and other stakeholders related to both the substance and process of this complex undertaking,"⁴³ as well as for Bonneville's "tireless efforts" on the EIM initiative.⁴⁴ Snohomish supports Bonneville's proposal to join the EIM in March 2022,⁴⁵ and states that "on balance we believe this represents an important step forward for BPA, its customers, and the region."⁴⁶

Seattle City Light (SCL) notes that the structured and measured approach that Bonneville has used in deciding whether to join the EIM "has allowed BPA and customers to become more familiar with the EIM and how it may affect participants directly and indirectly."⁴⁷ Further, SCL "believes that this decision is a sound strategic and business decision in light of regional dynamics and the evolving landscape of organized markets in the West and stands to position BPA favorably in both respects."⁴⁸

⁴⁰ NRU Comments at 1.

⁴¹ *Id.*

⁴² *Id.*

⁴³ Snohomish Comments at 1.

⁴⁴ *Id.* at 7.

⁴⁵ *Id.* at 1.

⁴⁶ *Id.* at 2.

⁴⁷ SCL Comments at 1.

⁴⁸ *Id.*

The Alliance of Western Energy Consumers (AWEC) acknowledges Bonneville's "commitment to communication throughout this process and willingness to incorporate stakeholder feedback."⁴⁹

The NW Energy Coalition (NWECC) strongly supports Bonneville joining the EIM and notes that its support is "further strengthened by the thorough and constructive approach Bonneville has taken to advising customers and stakeholders about benefits as well as the many complex aspects of the EIM, inviting and responding to our questions and concerns, and creating a comprehensive record to support the proposed decision."⁵⁰ NWECC "appreciate[s] the comprehensive effort Bonneville has made to assess and develop its participation in the EIM, and fully support[s] final approval to join" the EIM.⁵¹ Further, NWECC supports Bonneville joining the EIM "in order to further optimize the management of system reserves, operate the transmission system more reliably, integrate new renewable energy and other clean resources, provide a net contribution to Bonneville's balance sheet, and set the stage for further participation in expanding markets and programs in the Western Interconnection."⁵²

Tacoma Power "appreciates the extensive 5-phase public process BPA has gone through over the last three years" and believes the "public process has brought transparency around a whole host of issues" related to Bonneville joining the EIM.⁵³ Tacoma Power expresses thanks and appreciation to Bonneville for the "thorough process, consideration of comments and the thoughtfulness that went into where we are today in this journey."⁵⁴ In addition, Tacoma Power gives "full support" to Bonneville's decision to join the EIM.⁵⁵

The Western Public Agencies Group (WPAG) notes the numerous public meetings Bonneville has held over the past three years to discuss the EIM, and states that it believes Bonneville's "deliberate, transparent, and incremental approach to making this decision has largely been a success and can serve as a model for future important decisions."⁵⁶ On a related note, WPAG states that they are "encouraged by the way BPA staff has been able to come up to speed on the varied aspects of the EIM" over the past three years.⁵⁷

⁴⁹ AWEC Comments at 1.

⁵⁰ NWECC Comments at 1.

⁵¹ *Id.* at 2.

⁵² *Id.* at 1.

⁵³ Tacoma Power Comments at 1.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ WPAG Comments at 1.

⁵⁷ *Id.* at 1.

Powerex and Renewable Northwest (RNW) did not comment on Bonneville's public process, but they both state that they support Bonneville's decision to join the EIM and begin participation in March 2022.⁵⁸

Idaho Conservation League and Columbia Riverkeeper (ICL-CR) provided the only comment that asserts Bonneville's decision process was inadequate.⁵⁹ ICL-CR states that various questions were raised in an earlier phase of the decision process regarding Bonneville's responsibility to provide notice of the availability of surplus power to preference customers and stated it did not appear that these questions were ever addressed.⁶⁰ ICL-CR specifically criticizes Bonneville for shortening the length of Phase V of the decision process.⁶¹ Likewise, ICL-CR provided the only comment that does not support Bonneville joining the EIM.⁶²

Evaluation of Positions

Many customers commend Bonneville on conducting a thorough public process to determine whether to join the EIM. Bonneville appreciates that positive feedback, as it is of utmost importance to Bonneville that the agency collaborate with customers and constituents on important decisions, such as joining the EIM. By working together, Bonneville genuinely believes it reaches better outcomes for Bonneville and the region it serves.

One commenter, ICL-CR, stated that Bonneville's process has been inadequate, and specifically criticizes Bonneville for shortening the length of Phase V of the decision process. While it is unfortunate that ICL-CR is dissatisfied with Bonneville's decision process, Bonneville has provided an extensive amount of time and opportunity for the public to provide input on this decision. Bonneville has been conducting this public process for over three years, and has held more than 45 public workshops over the course of that time. ICL-CR has not submitted any comments or questions at any point in Bonneville's EIM process, until this final phase of the process.

In regard to adjusting the time period for Phase V of Bonneville's decision process, Bonneville learned of the need for this schedule adjustment and alerted the public of that change during Phase III of the decision process. When Bonneville originally set out the decision process timeline in Phase II, Bonneville had identified the timeframe for Phase V as October 2021 to December 2021. However, through discussion with the CAISO about the timing necessary to begin operation in the EIM by March 2022, Bonneville learned that

⁵⁸ Powerex Comments at 1; RNW Comments at 1.

⁵⁹ ICL-CR Comments at 2, 7.

⁶⁰ *Id.* at 2.

⁶¹ *Id.* at 7.

⁶² *Id.* at 1.

it would need to complete its EIM decision process and sign its EIM Entity Agreement two months sooner than originally expected, by October 1, 2021. Accordingly, Bonneville adjusted its Phase V timeline to July 2021 through September 2021, and informed the public of this schedule adjustment in the Phase III decision document published on October 30, 2020.

ICL-CR's suggestion that Bonneville failed to respond to various questions is addressed in section 7.1.

Conclusion

Bonneville has conducted a thorough and robust public process that lasted more than three years and included more than 45 public meetings. Bonneville received numerous comments throughout the process, which Bonneville considered and addressed. Bonneville's decision to join the EIM is informed and shaped by the thoughtful input and comments it received throughout the public process.

5 Assess Changes

5.1 Overview

Throughout the EIM Policy ROD, Bonneville committed to consider updated information and changes in policies, rules, and structure of the EIM for consistency with its EIM Participation Principles.⁶³ The commitment to review new and updated information ensures that as Bonneville prepares to make its final decision to join the EIM it has flexibility to "modify" any of its prior decisions "to address new facts and circumstances."⁶⁴ Bonneville also decided that it would "review the legal and business implications of any significant changes in underlying facts or in the way the EIM operates during Phase V, when it assesses whether all decisions are consistent with the legal and business principles, as well as the other principles discussed in [the EIM Policy ROD]."⁶⁵

This section of the Final EIM Close-out Letter identifies the major or notable "new facts" or "circumstances" that have occurred since the EIM Policy ROD was developed. A brief description of each event or fact is provided along with Bonneville's assessment of whether the noted change requires additional evaluation in light of Bonneville's principles. To the extent any of these changes relate to those principles, Bonneville describes why it believes

⁶³ See EIM Policy ROD at 38 ("If that information materially changes by Phase V of this decision-process, due to decisions Bonneville makes or other aspects outside of Bonneville's control, Bonneville will consider that updated information as it evaluates whether joining the EIM is consistent with its legal and business principles."); see also *id.* at 40.

⁶⁴ See *id.* at 40.

⁶⁵ *Id.* at 48.

the new fact or circumstance does or does not require revisiting the prior EIM-related decisions.

5.2 Notable Changes

5.2.1 Governance Developments

The EIM Policy ROD contained a full analysis of the EIM governance structure and concluded that “[t]he current EIM governance structure is not a barrier to Bonneville joining the EIM, but Bonneville will continue to seek improvements in collaboration with its customers.”⁶⁶

In early 2020, the CAISO Board of Governors (BOG) and EIM Governing Body initiated the Governance Review Committee (GRC). The GRC was charged with a full review of the EIM governance structure in view of market expansion, as well as development of a governance framework for a potential Extended Day Ahead Market (EDAM). The GRC is made up of 14 representatives from across the EIM footprint (including California). Bonneville and the Northwest are well represented with active GRC members.

The EDAM stakeholder initiative was put on hold to allow the CAISO to address more immediate changes needed to prepare for reliable operations for summer 2021. As such, the scope of the GRC work for the time being was limited to consider appropriate changes to the governance structure of the EIM only. The GRC took multiple rounds of comments in the process of developing a comprehensive straw proposal for changes to EIM governance.

The approved GRC proposal contains six parts: 1) delegation of authority; 2) selection of EIM Governing Body members; 3) EIM Governing Body meetings and engagement with stakeholders; 4) other potential areas for EIM Governing Body involvement, which include the annual policy initiative roadmap, Department of Market Monitoring, Market Surveillance Committee, EIM Governing Body market expert, and funding technical assistance for the Body of State Regulators; 5) EIM Governing Body mission statement; and 6) other topics. The GRC presented parts 2 through 6 of its proposal⁶⁷ to the EIM Governing Body and BOG, which approved the proposals on May 6. These proposals were generally supported by all stakeholders and included definite improvements to the governance structure, such as, expanding the scope of issues addressed by the Regional Issues Forum (RIF), formalizing direct communication between the RIF and the EIM Governing Body and BOG, and funding a market expert to support the EIM Governing Body.

⁶⁶ *Id.* at 92.

⁶⁷ *Western EIM Governance Review, Governance Review Committee Part One Draft Final Proposal*, CAISO (Apr. 12, 2021), available at <http://www.caiso.com/InitiativeDocuments/PartOneDraftFinalProposal/EIMGovernanceReview.pdf>.

The first part of the GRC's proposal on delegation of authority was more controversial, and the GRC held an additional process to refine its proposal before submitting it to the EIM Governing Body and BOG. Its refined proposal was unanimously approved by the EIM Governing Body and BOG in a joint meeting on August 20, 2021. Under the prior EIM governance structure, the BOG delegated authority to the EIM Governing Body that established the EIM Governing Body's role in deciding different types of issues. Each issue to be decided was designated early in the process as subject to the EIM Governing Body's primary authority, advisory authority, or no authority. The EIM Governing Body had primary authority over issues that were EIM-specific. Under primary authority, the EIM Governing Body would issue a decision that was then put on a consent agenda for the BOG, with the BOG having ultimate authority to approve or remand the EIM Governing Body's decision. The EIM Governing Body had advisory authority over issues that were generally applicable to the CAISO and the EIM. Under advisory authority, the EIM Governing Body could provide advice for the BOG to consider. Issues that did not impact the EIM did not go to the EIM Governing Body. The EIM Governing Body and the BOG met separately, and there was limited interaction between the two entities.

The GRC's adopted proposal⁶⁸ for joint authority is a significant change from the prior structure. Under joint authority, the EIM Governing Body and BOG will meet together to decide all rules applicable to the EIM Entity balancing authority areas, EIM Entities, or other market participants within the EIM balancing authority areas in their capacity as participants in the EIM. The EIM Governing Body and BOG will each vote separately—with a majority of each required to approve a proposal—but the joint meeting will allow for sharing perspectives and enhances the influence of the EIM Governing Body on the outcome of issues. While the CAISO asserts that California law requires the BOG to retain ultimate approval authority, the joint authority model represents a significant step towards a better governance model.

Bonneville supported the GRC's proposals and believes that joint authority is a significant improvement in the governance structure. None of the GRC's proposals impaired the previous governance structure. For purposes of deciding whether or not to join the EIM, Bonneville holds to the governance analysis in the EIM Policy ROD and believes that the EIM governance structure is not a barrier to Bonneville joining the EIM.⁶⁹

⁶⁸*Western EIM Governance Review, Governance Review Committee Part Two Draft Final Proposal*, CAISO (July 19, 2021), available at <http://www.caiso.com/InitiativeDocuments/Decision-EIM-Governance-Review-Committee-Part-Two-Draft-Final-Proposal-July-19-2021.pdf>.

⁶⁹ EIM Policy ROD at 92.

Issue 5.2.1.1:

Whether governance-related events or conditions present a barrier to joining the EIM.

Commenters' Positions

No commenters view EIM governance as a barrier to Bonneville joining the EIM. Several commenters express concerns with the EIM governance's lack of independence and potential California bias.⁷⁰ They appreciate the progress made by the GRC within the constraints of existing California law.⁷¹ AWEC and NRU encourage Bonneville to continue pursuing governance improvements.⁷² NRU asserts Bonneville must analyze the benefits of joining alternate markets.⁷³ AWEC and WPAG emphasize the importance of the EIM's voluntary nature and limited scope.⁷⁴ PPC requests clarification that the GRC's proposal represents an improvement to the existing EIM governance structure rather than progress towards independent governance.⁷⁵

Evaluation of Positions

The commenters are correct that the GRC's governance improvements do not change California law, which continues to require that the California governor appoint BOG members with a duty towards California interests.⁷⁶ We also agree that the EIM's voluntary nature allows Bonneville to mitigate concerns with a California-centric bias. Bonneville will have the ability to limit—or exit without penalty from—EIM participation, and to consider the relative benefits of alternate markets. Therefore, in the 2019 EIM Policy ROD, Bonneville determined that “[t]he current EIM governance structure is not a barrier to Bonneville joining the EIM”⁷⁷

Since evaluating the governance structure in the EIM Policy ROD, the EIM governance structure has significantly improved. Bonneville played an active role in achieving these improvements through Senior Vice President of Power Services Suzanne Cooper's active participation on the GRC. During the GRC process, Bonneville maintained collaborative engagement with our customers to advance and develop the improvements to the governance structure. Joint authority is a very positive development for enhancing collaboration and decision-making between the EIM Governing Body and the BOG, and is the best step forward at this time to advance the EIM governance within the constraints of current California law. The CAISO's General Counsel advised the GRC that the joint

⁷⁰ NRU Comments at 4; AWEC Comments at 2; PPC Comments at 9; WPAG Comments at 1-2.

⁷¹ *Id.*

⁷² AWEC Comments at 2; NRU Comments at 4.

⁷³ NRU Comments at 4.

⁷⁴ AWEC Comments at 2, WPAG Comments at 2.

⁷⁵ PPC Comments at 9.

⁷⁶ Cal. Pub. Util. Code §§ 337, 345.5.

⁷⁷ EIM Policy ROD at 92.

authority outcome is as far as EIM governance can go without changing California state law. Further, the EIM Governing Body now has immediate access to a Governing Body Market Expert to provide additional independent expertise to assist the EIM Governing Body's analysis of any issue. The RIF was also modified to allow it to discuss issues in active CAISO stakeholder processes, and to create a standing agenda item for the RIF to advise joint meetings of the EIM Governing Body and BOG. Together with the move to joint authority, the modifications to the RIF will establish a stronger foundation for dialogue between stakeholders, the EIM Governing Body, and the BOG. This regular dialogue should promote consensus building across the EIM market, serve to strengthen the quality of the decisions made, and help ensure that stewardship of the EIM will be on behalf of the interests of all participants and the communities they serve.

Conclusion

The EIM governance structure is not a barrier to Bonneville joining the EIM. Bonneville will continue to actively participate in the EIM governance to ensure that the EIM continues to provide a fair and robust market.

5.2.2 CAISO Summer 2020 Heat Events

In August and September of 2020, extreme heat waves spread across a significant portion of the western interconnection. On August 14, stage two and stage three energy emergencies were declared, which resulted in load shedding in the CAISO balancing authority area. Energy emergencies were also declared on August 15, 17, and 18. Additionally on September 6, an EIM mirror resource with Arizona Public Service was cut to 0 MW and without a corresponding adjustment to the underlying interchange schedule this can result in a significant Area Control Error excursion. While all western markets experienced significant price excursions, markets—including the EIM—continued operating effectively throughout both periods. Nonetheless, these high profile events warranted significant scrutiny by regulators and stakeholders and resulted in identification of several areas in which the CAISO markets were not functioning as designed. Policy enhancements have been identified, adopted and implemented to address these design elements.

The CAISO, California Public Utilities Commission (CPUC), and California Energy Commission (CEC) jointly conducted a root cause analysis of the energy emergencies and load shedding events. The root cause analysis identified three major causes: extreme weather conditions, deficiencies in resource adequacy and planning processes, and day-ahead market practices. To address these findings, the CAISO developed a number of changes for its day-ahead and real-time markets, including meaningful enhancements to EIM operations. Specifically for the EIM, CAISO added an uncertainty factor to the EIM

resource sufficiency evaluation requirement and required use of automated updates to the mirror resource schedules at CAISO intertie scheduling points.⁷⁸

The changes made by the CAISO are intended to address its summer readiness for 2021 and the CAISO has recognized that additional market design changes may be needed going forward. The CAISO has initiated a stakeholder process for further enhancements to the EIM resource sufficiency evaluation. Bonneville has been an active participant in the 2021 summer readiness process and will continue to participate in CAISO's ongoing processes to help ensure that the CAISO market structure functions appropriately for all participants and does not raise reliability risks.

Other aspects of the summer readiness proposals are outside the scope of this Final EIM Close-out Letter. One such aspect is the CAISO's changes to its transmission scheduling priorities in its day-ahead and real-time markets for transactions intending to wheel through the CAISO's balancing authority area. Bonneville and multiple other parties disagreed with the CAISO's proposed tariff changes. However, FERC approved the CAISO's proposal for transmission scheduling priorities and its post-Hour Ahead Scheduling Process (HASP) to allocate transmission capacity for one year (to sunset May 31, 2022). The CAISO has also begun a stakeholder process to explore long-term solutions (the External Load Forward Scheduling Rights Process Initiative). The CAISO's transmission scheduling priorities and post-HASP transmission capacity allocation process have no direct impact on the EIM and thus are outside the scope of this Final EIM Close-out Letter.

The 2020 events and the resulting deficiencies that have been identified in the EIM resource sufficiency evaluation do not rise to the level of a significant change from Bonneville's earlier assessment of the EIM. The CAISO's summer readiness changes to the EIM resource sufficiency evaluation are steps in the right direction and the ongoing policy initiative for the EIM resource sufficiency evaluation should lead to further improvements in the EIM. Ultimately, if Bonneville joins the EIM, and similar market structure issues become apparent, CAISO's ability to correct the identified issues will be closely monitored by Bonneville, and may affect how or whether Bonneville participates in the EIM.

⁷⁸ CAISO, FERC Docket No. ER21-1536, Transmittal Letter at 3-4, 27-31.

Issue 5.2.2.1:

Whether the summer heat events of 2020 and CAISO's response to such events present a barrier to joining the EIM.

Commenters' Positions

AWEC recognizes the importance of Bonneville participating in the ongoing stakeholder processes coming out of the summer 2020 events. AWEC states that "continued examination and review of the market outcomes are essential to ensure the EIM is functioning properly and not harming BPA customers."⁷⁹ PPC notes that Bonneville's description of the process coming out of the summer 2020 events did not "address the lack of EIM specific analysis conducted after these events." PPC thinks this is important context to include along with the other discussion offered by BPA.⁸⁰

Evaluation of Positions

Bonneville agrees with AWEC that it is essential for Bonneville to stay engaged in the ongoing summer readiness stakeholder processes and continue to focus on how the EIM is affected by the market enhancements and any future events within the CAISO markets.

Bonneville also agrees with PPC that the lack of EIM specific analysis following directly after the summer 2020 events is important context for this discussion. The CAISO's initial analysis was focused on resource adequacy requirements and parties within California. Bonneville and other EIM entities continued to push for additional analysis of EIM operations during the summer 2020 events with specific interest on how the resource sufficiency test worked when the CAISO was in stage 2 and 3 emergency status. Through continued dialogue, the CAISO did eventually produce significant EIM specific analysis leading to the resource sufficiency improvements described above and to the ongoing resource sufficiency stakeholder process seeking further improvements to the EIM.

The experience of EIM entities and the lessons learned from the summer 2020 heat wave event are very good examples of why it will be an ongoing effort to evaluate market performance to ensure that Bonneville and its customers do not face unintended consequences. Bonneville will approach EIM participation with continued vigilance, participating in all relevant stakeholder processes and always recognizing that if market conditions become untenable Bonneville may need to exercise its rights to withdraw from the market on a temporary or permanent basis.

⁷⁹ AWEC Comments at 2.

⁸⁰ PPC Comments at 9.

Conclusion

The summer 2020 events and the CAISO response to the events do not present a barrier to Bonneville's participation in the EIM, but it does emphasize the need for Bonneville's continued vigilance in monitoring market conditions to ensure that the EIM operates as intended.

5.2.3 Greenhouse Gases

5.2.3.1 Context

With respect to greenhouse gas (GHG) and carbon policy matters, one of the decisions made in the EIM Policy ROD was to opt out of marketing directly into California through the EIM unless Congress grants Bonneville the authority to directly purchase carbon allowances under state clean energy programs such as California's Cap and Trade program.⁸¹ The ROD went on to state that "[i]f Congress authorizes Bonneville to purchase allowances and Bonneville therefore is able to sell directly into California in the EIM, Bonneville will evaluate whether direct sales to California are cost effective based on current circumstances at that time."⁸²

On December 20, 2019, after the EIM Implementation Agreement and EIM Policy ROD were signed, Congress authorized Bonneville to purchase carbon allowances.⁸³ As a result, Bonneville's next step was to evaluate whether the agency should sell power into California through the EIM. The analysis compared the revenues and costs associated with marketing power into California or not doing so and considered the uncertainty associated with the potential impacts to GHG emission reduction and clean energy programs in the region, such as Washington's Clean Energy Transformation Act. Bonneville will discuss this analysis in the following sections of this letter; the analysis itself is contained in Attachment A.

5.2.3.2 Discussion

5.2.3.2.1 Carbon and California Energy Imports

The EIM Policy ROD contains extensive background on the GHG issues associated with participation in the EIM and Bonneville's decision of whether to sell into California.⁸⁴ Bonneville incorporates that discussion by reference, and will not repeat it here.

5.2.3.2.2 Carbon Compliance for EIM Imports into California

Under California's Cap and Trade program administered by the California Air Resource Board (CARB), any entity that imports electricity into California from another state must purchase carbon allowances to cover carbon emissions associated with the electricity

⁸¹ EIM Policy ROD at 144.

⁸² *Id.* at 148.

⁸³ Further Consolidated Appropriations Act of 2020, Pub. L. No. 116-94, 133 Stat. 2,534 (2019).

⁸⁴ *See* EIM Policy ROD at 140-49.

imported. CARB considers the PRSC⁸⁵ to be the entity with the compliance obligation under California's Cap and Trade program for imports into the state via the EIM, meaning the PRSC is responsible for acquiring the allowances to cover any carbon associated with the EIM import. Entities participating in the EIM must indicate a GHG adder cost in their bid that reflects the cost of purchasing any allowances associated with the import. Alternatively, there is an option that the PRSC can choose to not have Participating Resources deemed delivered to California, thus not incurring a compliance obligation with California's Cap and Trade program.

5.2.3.2.3 Carbon Costs and Benefits of Sales to California through the EIM

In centralized markets (including the EIM), there is no explicit link between specific resources and specific loads. The market optimizes all resources and all loads across the entire market footprint and dispatches them based on least-cost taking into account all identified constraints. However, given that the EIM extends CAISO's real-time market to states outside of California, CAISO needed a way to differentiate between resources serving load within California (and thus are subject to California's Cap and Trade program) and resources serving load outside of California. So the CAISO created an algorithm with a "deeming" construct, meaning that the resources with the lowest GHG bid adder are "deemed" to serve California loads. If "deemed delivered" to California in the EIM, the EIM participant would get paid the GHG shadow price, which is equal to its GHG adder (if the resource is the marginal resource "deemed delivered" to California), or higher (if a resource with a higher GHG adder is the marginal resource).

For an entity that is an ACS, like Bonneville, there is a potential additional impact. The effect of the CAISO's deeming methodology is that states may assume for GHG accounting purposes that the low-carbon resources are backfilled by unspecified resources. Because states attribute emissions to unspecified resources, it is possible Bonneville's ACS emissions factor will increase because some states may consider a higher portion of Bonneville's fuel mix to be made up of unspecified power. Bonneville will continue to work with CARB and CAISO to determine the real impact that deeming deliveries to California in the EIM may have on Bonneville's ACS emissions factor.

As discussed in the EIM Policy ROD, there are unintended consequences with the CAISO's deeming construct.⁸⁶ However, as stated in the EIM Policy ROD, Bonneville can always "opt out of selling directly into California in the EIM . . ."⁸⁷ For now, Bonneville has analyzed the carbon costs and benefits of sales to California in Attachment A. At this time, selling into California via the EIM appears to be cost-effective. Based on the E3 analysis, the benefits of selling into California in the EIM appear to far outweigh the costs. To the extent

⁸⁵ The PRSC is discussed above in section 4.4.3.1.

⁸⁶ See EIM Policy ROD at 145-47.

⁸⁷ *Id.* at 147.

this conclusion does not hold true in actual operations, Bonneville can decide to stop selling to California in the EIM at any time. Accordingly, Bonneville will opt to sell into California when conditions warrant, and will monitor the costs and benefits of doing so.

5.2.3.2.4 Considerations for Washington Clean Energy Transformation Act, Washington Cap-and-Trade, and Other State Programs

Both in comments to the Letter to the Region in 2019 and during the EIM implementation workshops, several commenters raised concerns with the impacts of selling to California on other state GHG emission reduction and clean energy laws. In particular, commenters point to Washington’s Clean Energy Transformation Act (CETA) and new cap-and-trade legislation. The impacts to customers under these laws from Bonneville participating in the EIM and selling directly into California in the EIM at this time are uncertain. Currently there are significant uncertainties associated with how EIM transactions will be treated under Washington’s CETA and cap-and-trade programs. However, customers will not need to mitigate for unspecified power under CETA until 2030, which provides time for more development and understanding of the interaction between CETA and other state carbon reduction and clean energy policies and how EIM transactions are accounted for under the different state programs. Washington’s cap-and-trade program, by allocating free allowances to utilities for forecasted emissions, should provide direct allowances to customers in order to cover the compliance for these emissions. Additional discussion of these potential impacts can be found in Attachment A. Bonneville staff will continue to assess the impacts of its participation in the EIM and CAISO’s GHG deeming algorithm when selling into California, and the interaction of those impacts with other state GHG emissions reduction policies. Bonneville will incorporate findings into how Bonneville participates in the EIM and its ongoing evaluation of whether sales into California are reasonable.

Issue 5.2.3.3:

Whether Bonneville should continue to evaluate the impacts that its EIM participation may have on the carbon content of its system mix and commit to reporting on this topic.

Commenters’ Positions

Various commenters believe Bonneville should continue evaluating the impact EIM participation may have on the carbon content of Bonneville’s system mix. NRU states, “BPA must take into account the potential impacts participation in the EIM will have on the carbon content of its system mix. Utilizing the EIM to supplement federal resources may appear financially beneficial at the BPA rate level but could result in negative financial impacts at the local level that eclipse the savings from BPA due to increased compliance costs or penalties for failure to comply with carbon reduction or mitigation mandates.”⁸⁸

⁸⁸ NRU Comments at 3-4.

WPAG states: “We understand that BPA believes that, from a revenue standpoint, BPA would be better off making its EIM resources available for sale into California notwithstanding the GHG impacts doing so will have on its system. However, for many of BPA’s preference customers this may be beside the point. . . . With the rise of new carbon legislation, like CETA in Washington, the value of preference to BPA’s preference customers has renewed life in that it provides priority to the low-cost, low/no carbon power of the federal system.”⁸⁹ PPC states, “PPC members are not only concerned with the benefits and costs in the strict financial sense as evaluated by BPA, but also with the impact that changes to BPA’s system mix have on their own green goals and regulators’ requirements.”⁹⁰ Snohomish states, “Given BPA customers’ interest in maintaining high environmental performance, it is important to us to fully understand the impacts of EIM participation on BPA’s ACS emissions factor”⁹¹ AWEC states, “BPA customers will rely on BPA as [a] critical source of low-carbon energy in order to meet state standards.”⁹²

Some commenters believe Bonneville should commit to regular reporting on this topic. PPC states, “[M]onitoring and discussing potential impacts on the BPA’s system mix with customers on an ongoing basis will be so important.”⁹³ Snohomish states, “We believe it is important for BPA to monitor the potential ACS impact of its EIM participation on an ongoing basis to help inform its EIM bidding strategy, and we request that BPA commit in the final closeout letter to report the results of that monitoring quarterly.”⁹⁴ AWEC raised a desire to know “the frequency with which BPA will monitor and share the results of its evaluation of this topic with stakeholders.”⁹⁵

Evaluation of Positions

Bonneville supports more frequent reporting to customers on the impacts of participating in the EIM to the carbon content of Bonneville’s system mix and will explore what frequency and level of reporting would be useful to Bonneville and its customers. Bonneville understands that a major driver for this is the Washington state cap-and-trade program, passed in May 2021 and expected to begin in 2023. The Washington law was passed only a few months ago and details of the program, including how EIM imports will be accounted for, will be settled by rulemaking over the coming year. As these details emerge, it will help determine what type of reporting will be useful. Accordingly, Bonneville cannot commit to a specific type of reporting at this time as it relates to EIM dispatch and changes in carbon content of Bonneville’s system

⁸⁹ WPAG Comments at 2.

⁹⁰ PPC Comments at 9.

⁹¹ Snohomish Comments at 4.

⁹² AWEC Comments at 2.

⁹³ PPC Comments at 9.

⁹⁴ Snohomish Comments at 3.

⁹⁵ AWEC Comments at 2.

mix. Bonneville understands customers' desires for this type of information and will commit to providing it in a meaningful form and with appropriate frequency.

Conclusion

Bonneville commits to provide reporting on carbon content of Bonneville's system mix in a meaningful form and with appropriate frequency, but details of reporting are dependent on outside factors that are yet to be determined.

Issue 5.2.3.4:

Whether Bonneville should continue to monitor evolving state GHG policies that apply to its customers and continue evaluating how those policies may interact with its EIM participation.

Commenters' Positions

AWEC states, "Understanding how EIM sales affect these regulatory obligations [*i.e.*, Washington and Oregon regulations that will apply to BPA's customers] and the cost of compliance will be a critical addition to the current analysis that shows significant benefit to California sales in the absence of fully implemented state regulatory structures in the Region. Further, it will be important to understand whether costly seams issues will arise between California's carbon pricing regime and the dissimilar regulations that are likely to be implemented in Washington, and perhaps Oregon."⁹⁶

RNW states, "BPA should continue to evaluate and monitor state policies to ensure that its EIM participation is compatible with state greenhouse gas and decarbonization policies."⁹⁷

Evaluation of Positions

Bonneville agrees it is important to continue monitoring evolving state GHG policies and how they may interact with the EIM. However, this is not solely a Bonneville issue. Bonneville encourages customer and constituent participation in state rulemaking and other state policy-making decisions and related CAISO stakeholder processes that will ultimately determine how EIM purchases are accounted for under these state GHG policies. For example, it is important to provide input on how states will account for EIM imports/exports into their state under these policies and programs. These issues are not specific to Bonneville but rather impact all utilities directly or indirectly participating in the EIM.

Conclusion

⁹⁶ AWEC Comments at 2-3.

⁹⁷ RNW Comments at 1.

Bonneville will continue monitoring evolving state GHG policies and their interaction with the EIM, and Bonneville encourages its customers, constituents, and other EIM entities to do the same.

Issue 5.2.3.5:

Whether Bonneville’s GHG analysis fully accounts for the potential impact to Bonneville’s ACS emissions factor of allowing EIM sales to California.

Commenters’ Positions

Snohomish states, “[I]t is our understanding that under CAISO’s methodology, energy from a resource may be deemed delivered to California *even if the resource is not dispatched upward in the EIM*. This potential outcome and its uncertain impact on BPA’s ACS emissions factor seems to be outside of the scope of BPA’s analysis”⁹⁸

Evaluation of Positions

Bonneville’s GHG analysis provides a reasonable estimation of the potential impact to Bonneville’s ACS emissions factor of allowing EIM sales to California. Snohomish is correct that under CAISO’s EIM GHG accounting methodology, energy from a resource may be deemed delivered to California even if the resource is not dispatched upward in the EIM. This circumstance could potentially result in the amount not dispatched upward in the EIM being backfilled by an unspecified EIM import. What allowed Bonneville to account for this effect was a key assumption in the E3 analysis (that underlies Bonneville’s GHG analysis) that sales into the EIM were offset by an equal amount of purchases to ensure energy neutrality. As such, the amount of EIM purchases assumed in the analysis accounts for any potential backfilling that may occur if Bonneville’s resources were to be deemed delivered to California but not dispatched upward in the EIM.

Bonneville agrees that the potential impact to Bonneville’s ACS emissions factor of allowing EIM sales to California cannot fully be analyzed ahead of actual EIM operations and, as stated above, Bonneville will carefully monitor the true impacts to Bonneville’s ACS emissions factor on an ongoing basis as well as impacts related to other emerging carbon and clean energy programs and make business decisions as to whether to continue to sell directly into California in the EIM accordingly.

Conclusion

Bonneville has provided a reasonable estimation of the potential impact to Bonneville’s ACS emissions factor of allowing EIM sales to California; however, this issue cannot fully be analyzed ahead of actual EIM operations. Therefore, as stated above, Bonneville will

⁹⁸ Snohomish Comments at 4.

carefully monitor the true impacts to Bonneville's ACS emissions factor on an ongoing basis.

5.2.4 Update on Flexible Reserve Product

In the EIM Policy ROD, Bonneville recognized that in addition to the EIM, other CAISO market enhancements are needed to fully compensate for the value of the flexibility, capacity, and green attributes of the federal hydro system.⁹⁹ One of these enhancements was the creation of a day-ahead flexible reserve product. At the time of the EIM Policy ROD, the CAISO was in the early stages of its Day-Ahead Market Enhancements stakeholder initiative, which included several enhancements to its day-ahead market, including a flexible reserve product. Some aspects of the Day-Ahead Market Enhancements proposal proved to be technically complicated and faced strong opposition from some California stakeholders. The CAISO has restructured its proposal and dropped several aspects that were causing complications, but the one remaining aspect of the proposal is the creation of a day-ahead flexible reserve product.

Efforts to create this new product were delayed due to the emphasis on summer readiness, but the CAISO moved this proposal forward in late July of 2021 with plans to implement any changes by the fall of 2022. While this issue is related to the day-ahead market rather than the EIM, and therefore does not directly impact Bonneville's decision to join the EIM, Bonneville notes that it is still a strong supporter of having a day-ahead flexible capacity product to address uncertainty between the day ahead and fifteen minute market that will complement the real-time flexible ramping product, improve reliability for California and provide another avenue for Bonneville to gain value for the surplus flexibility and capacity of the federal hydro system.

5.2.5 Update on Hydro Default Energy Bid

In the EIM Policy ROD, Bonneville committed to continue to monitor the progress of the enhancements through FERC's approval process and CAISO's implementation process. FERC approved these changes and they are now reflected in the CAISO's tariff. The hydro Default Energy Bid (DEB) reflects the value of both existing bilateral markets and is commensurate with an entity's hydraulic storage timeframe to access those markets. At this time, Bonneville continues to be satisfied with the status and availability of the hydro DEB.

5.2.6 Pandemic

Beginning in Phase III, through the entirety of Phase IV, and through Phase V, the world has faced the COVID-19 pandemic. This pandemic has caused many changes to the way people communicate in almost all sectors of business as well as in personal lives. In response to

⁹⁹ *Id.* at 23-27.

the pandemic, Bonneville changed its policies on public meetings such that all public meetings occur virtually rather than in person.

While the virtual format was an adjustment, Bonneville has been able to continue conducting its business throughout the pandemic. Bonneville held 25 public meetings via WebEx and held numerous other meetings with various customers and constituents via WebEx or telephone to discuss EIM-related matters. While the pivot to virtual communications was unexpected, Bonneville has been able to maintain meaningful engagement with customers and constituents. Thanks to technology, Bonneville has stayed on track with its EIM decision process. In addition, technology has enabled Bonneville to stay on track with its EIM implementation work as well as its collaboration with its customers and constituents. Though the pandemic has been a terrible event, it has not presented a reason for Bonneville to reconsider any of the EIM-related decisions previously made.

5.2.7 BP-22 Rate Proceeding Decisions

As noted above in section 4.4, Bonneville issued the BP-22 Final ROD on July 28, 2021. Among other decisions made in that BP-22 Final ROD, the Administrator decided the allocation of EIM charges and credits among customers as well as an estimate of EIM benefits to be included in power rates for FY 2022 and 2023. In regard to EIM surplus power benefits, the Administrator adopted staff's recommendation that, for the first 19 months of EIM participation, EIM credits should be set to equal the forecasted costs of EIM Start-up/Implementation costs functionalized to Power customers.¹⁰⁰ That value, as estimated in the BP-22 Final ROD, is \$3.4 million.

At the time Bonneville developed the EIM Policy ROD business case, Bonneville had not developed its proposal for estimating EIM surplus benefits in rates for the BP-22 rate period. Bonneville staff developed that proposal in its Initial Proposal for the BP-22 rate proceeding and the Administrator adopted Bonneville staff's proposal for EIM benefits as part of the BP-22 Final ROD and settlement.¹⁰¹ While Bonneville's decision to set EIM surplus power benefits equal to EIM costs is a "new fact or circumstance" in that it was not

¹⁰⁰ Administrator's Final Record of Decision, BP-22-A-02, at 8; *id.* at Appendix A (Settlement), Attachment 1, § 3; Traetow *et al.*, BP-22-E-BPA-33, at 15.

¹⁰¹ PPC contends Bonneville should "clarify" that the Administrator did not opine on the policy rationale behind Staff's testimony when adopting Staff's recommendation for EIM benefits as part of a non-precedential settlement package on power rates. PPC at 10. BPA has clarified in this Final Close-out Letter that the Administrator adopted Staff's initial proposal on all EIM issues, including EIM benefits, without reference to the policy rationale behind those decisions. Although adoption of the settlement did not establish any precedent or policy beyond the FY2022-2023 rate period, and no party agreed with Staff's proposed policy position as part of the settlement, the explanation and rationale in Staff's testimony in BP-22 continues to reflect Bonneville's reasoning why projected benefits over the course of participation in the EIM through future years is different than benefits for the FY2022-2023 rate period.

known at the time of the EIM Policy ROD, Bonneville does not view this decision as requiring a revision to its business case.¹⁰² As discussed more fully in the evaluation below in section 7.4, Bonneville finds that the business case from the EIM Policy ROD continues to support Principle 4: Bonneville’s Participation Is Consistent with a Sound Business Rationale.

5.2.8 TC-22 Tariff Decisions

As noted above in section 4.4, Bonneville issued the TC-22 Final Tariff ROD on July 28, 2021. The Administrator decided to adopt the EIM-related terms and conditions in the Tariff, which would enable Bonneville to implement the EIM in its balancing authority area should it ultimately decide to join. Bonneville was able to adopt terms and conditions consistent with its principles. As such, the Tariff terms and conditions do not constitute a significant change requiring additional evaluation.

5.2.9 Market Improvements Resulting from Bonneville and the CAISO’s Implementation Work

During Bonneville and the CAISO’s collaborative implementation work to prepare Bonneville for EIM participation, there have been market improvements identified that are being implemented. These improvements will help Bonneville and other market participants.

1. *Avoiding Unaccounted For Energy Charges:* Bonneville staff worked with the CAISO to gain a greater understanding of the Unaccounted For Energy settlement and its applicability in the EIM. During those discussions, the parties agreed that while this charge should apply to full market participation, it is not necessary to the EIM. The CAISO subsequently proposed in a stakeholder initiative to give EIM participants an option that, if selected, results in the participant not being exposed to the charge.¹⁰³ The proposal was accepted by the EIM Governing Body and CAISO Board of Governors. The CAISO filed the necessary tariff revisions on

¹⁰² PPC in its comment takes issue with the description of the Administrator’s decision in the Draft Close-out Letter regarding EIM benefit levels. PPC at 10. First, PPC notes that the “new fact and circumstance” of the BP-22 rate case was Bonneville Staff’s recharacterization of the business case benefit level and not the “rate level” adopted in the BP-22 case. *Id.* Bonneville disagrees with PPC’s characterization of Bonneville’s staff position in the rate case and Bonneville points PPC to Staff’s rate case testimony for its response. *See* Traetow *et al.*, BP-22-E-BPA-33, at 15-20; Traetow *et al.*, BP-22-E-BPA-43, at 1-25.

¹⁰³ *See* <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Real-time-settlement-review>.

January 27, 2021,¹⁰⁴ and amended them on March 25, 2021.¹⁰⁵ FERC issued an order accepting the CAISO's proposed edits on April 30, 2021.¹⁰⁶

2. *Low Side Metering Model*: Bonneville, like most EIM Entities, will join the EIM with a mix of high-side and low-side meters for generators in its balancing authority area. During Bonneville's implementation work, Bonneville staff determined, and the CAISO concurred, that low-side generation meters did not need to be compensated as long as the basis for base scheduling, operating, and metering those generators were all carried out with low-side values. Bonneville has integrated this result into its EIM design, reducing the exposure to imbalance settlements. Bonneville continues to pursue the installation of high-side meters as the transition benefits Bonneville beyond EIM participation.
3. *New EIM Operations Automated Program Interfaces*: Because of the size and complexity of Bonneville's system and the degree of operations automation, the ability to implement automated interfaces for Bonneville's EIM operations actions into the CAISO's Balancing Authority Area Operations Portal was crucial to the success of Bonneville's implementation design. Bonneville staff and the CAISO defined the business requirements and design to meet Bonneville's operations automation needs. The CAISO subsequently worked with its software vendor to develop and deliver four application program interfaces (API) to integrate Manual Dispatch, Load Conformance, Telemetry Following Manual Dispatches, and Contingency Flag actions. Prompts for these new APIs were developed by Bonneville's staff and folded into Bonneville's market participation design, simplifying the job of keeping the market in sync with operations actions. The CAISO plans to release these APIs to the EIM community for testing in Summer 2021 and for use in the production environment later in 2021. Collectively, these actions will enhance the operational resiliency and reliability for all EIM Entities.

6 EIM Participation Agreements

In order for Bonneville to join the EIM as an EIM Entity and Participating Resource, it will have to sign six agreements with the CAISO that allow Bonneville to participate on an ongoing basis as an EIM Entity with Participating Resources. These agreements include:

¹⁰⁴ See *CAISO*, FERC Docket No. ER21-955-000, Transmittal Letter (Jan. 27, 2021), available at <http://www.aiso.com/Documents/Mar25-2021-Amendment-TariffChanges-EIM-Enhancements-Real-TimeSettlements-BaseScheduleEnhancements-ER21-955.pdf>.

¹⁰⁵ See *CAISO*, FERC Docket No. ER21-955-001, Transmittal Letter (Mar. 25, 2021), available at <http://www.aiso.com/Documents/Jan27-2021-TariffAmendment-EIM-Enhancements-Real-Time-Settlements-and-BaseScheduleTimelines-ER21-955.pdf>.

¹⁰⁶ *CAISO*, 175 FERC ¶ 61,096, at P 27 (2021).

6.1 EIM Entity-Related Agreements

- i. *EIM Entity Agreement*: This is the foundational agreement for Bonneville, as a balancing authority, to participate in the EIM. It requires that Bonneville abide by the terms and conditions in the CAISO's tariff regarding the EIM, including, but not limited to, Section 29. The agreement also identifies how Bonneville's transmission system will be utilized by the EIM.
- ii. *EIM Entity Scheduling Coordinator Agreement*: This agreement identifies Bonneville as its own EIM Entity Scheduling Coordinator for EIM participation. As a Scheduling Coordinator, Bonneville will submit EIM Entity base schedules and financially settle with the CAISO.
- iii. *EIM Entity Meter Services Agreement*: This agreement sets forth the general terms and conditions regarding how Bonneville, as the EIM Entity Scheduling Coordinator, will comply with the metering standards and requirements set forth in Section 10 of the CAISO's tariff applicable to EIM Entity Scheduling Coordinators.

6.2 Participating Resource-Related Agreements

- i. *Participating Resource Agreement*: This is the foundational agreement for Bonneville to participate in the EIM with the federal generation resources.¹⁰⁷ It requires that Bonneville abide by the terms and conditions of the CAISO's tariff regarding participating resources in the EIM, including, but not limited to, Section 29. Schedule 1 of the agreement sets forth the Overlapping Resource Aggregation paradigm that Bonneville will use to participate with the federal resources in the EIM.
- ii. *Participating Resource Scheduling Coordinator Agreement*: This agreement identifies Bonneville as the Participating Resource Scheduling Coordinator for the federal generation resources. As a Participating Resource Scheduling Coordinator, Bonneville will submit bids and base schedules, and financially settle with the CAISO on behalf of participating federal generation resources.
- iii. *Participating Resource Meter Services Agreement*: This agreement sets forth the general terms and conditions regarding how Bonneville, as the Participating Resource Scheduling Coordinator for federal generation resources, will comply

¹⁰⁷ The federal generation resources that Bonneville will participate in the EIM with are owned and operated by either the U.S. Army Corps of Engineers or Bureau of Reclamation. Bonneville markets the output of these resources pursuant to various statutes and regulatory requirements.

with the metering standards and requirements set forth in Section 10 of the CAISO's tariff applicable to EIM Entity Scheduling Coordinators.

Each of these participation agreements allows Bonneville to unilaterally terminate them by providing the requisite amount of notice identified in the particular agreement without an exit fee or charge. Each agreement also explicitly memorializes the CAISO's acknowledgement of Bonneville's non-jurisdictional status with the Federal Energy Regulatory Commission and respects Bonneville's intention to remain as such. There are also certain terms and conditions that were modified from the CAISO's "pro forma" template agreement, such as the governing law and forum clause, to recognize Bonneville's status as a federal entity. Bonneville also notes that each of these agreements contains a section that explicitly references Section 22.9 of the CAISO's tariff, which provides that any potential conflicts between the CAISO tariff or the agreement and Bonneville's status as a federal entity will be resolved in favor of Bonneville's federal entity status.

Finally, given that each of these agreements are non-conforming to the CAISO's template agreements, the CAISO has advised that it intends to file each agreement with the Federal Energy Regulatory Commission.

7 Assessment of EIM Participation Principles

7.1 Principle 1: Bonneville's Participation Is Consistent with Its Statutory, Regulatory, and Contractual Obligations.

Bonneville's EIM participation must be consistent with its statutory, regulatory, and contractual obligations. As noted above, in the EIM Policy ROD Bonneville set out its legal analysis establishing that Bonneville has the legal authority to join the EIM.¹⁰⁸ In addition, Bonneville met with preference customers to discuss how Bonneville will provide notice to preference customers that it has surplus power available if it joins the EIM. Bonneville set out the method by which it will provide notice in the EIM Policy ROD and after discussion with preference customers Bonneville has determined that method is sound.

None of the Notable Changes described in section 5.2 above require Bonneville to reconsider its original assessment that participation in the EIM is within Bonneville's statutory authorities. Bonneville's participation in the EIM would not impair Bonneville's performance under its existing contracts. Bonneville has identified several legacy contracts with its co-owners of the Northwest AC Intertie that do not contemplate the existence of EIM. Bonneville's participation in the EIM is not barred by these contracts. However, the way in which the CAISO and existing EIM Entities have structured and modeled the Northwest AC Intertie in EIM will, in certain, limited circumstances, result in EIM charges

¹⁰⁸ EIM Policy ROD § 3.2.

and credits being allocated to Bonneville, rather than to the Northwest AC Intertie owner whose transmission is being used. Bonneville is working with the contract holders to address this issue.

Issue 7.1.1:

Whether Bonneville should reconsider its original assessment that participation in the EIM is consistent with its statutory requirements to provide preference and priority to federal power.

Commenters' Positions

Tacoma Power concurs that Bonneville's decision to join the EIM is consistent with Bonneville's statutory authorities.¹⁰⁹

ICL-CR contends that Bonneville's decision to join the EIM violates Bonneville's first EIM Participation Principle.¹¹⁰ Specifically, ICL-CR questions how Bonneville can satisfy its preference obligations under statute in the EIM.¹¹¹ ICL-CR argues that the EIM does not permit Bonneville sufficient time to provide notice to regional customers of the availability of surplus power for sale.¹¹² ICL-CR contends Bonneville has not sufficiently explained how it intends to comply with its preference and priority obligations in the context of the EIM.¹¹³

Evaluation of Positions

ICL-CR argues Bonneville's decision to join the EIM does not conform to its statutory obligations to provide to its customers preference and priority to federal power.¹¹⁴ Bonneville addressed its compliance with its preference obligations in the EIM Policy ROD.¹¹⁵ There, Bonneville explained that the EIM is a voluntary market, one in which Bonneville is not obligated to supply any particular amount of power.¹¹⁶ This makes Bonneville's decision to join the EIM different than a traditional power sale that would automatically implicate the preference provisions of law. As Bonneville explained in the EIM Policy ROD:

For example, a short- or long-term power sale would commit Bonneville to sell energy or capacity to a specific entity for an identified amount and period. In that instance, the federal supply of energy would be diminished, and the

¹⁰⁹ Tacoma Power Comments at 1.

¹¹⁰ ICL-CR Comments at 1.

¹¹¹ *Id.* at 1-3.

¹¹² *Id.* at 2-3

¹¹³ *Id.* at 3.

¹¹⁴ *Id.* at 2-3.

¹¹⁵ EIM Policy ROD at 58-63.

¹¹⁶ *Id.* at 61.

statutory restrictions regarding public and regional preference noted by NRU and others would be triggered.

The EIM provides Bonneville with an opportunity to sell additional energy, but it includes no obligation to do so. Thus, the decision to join the EIM does not, in and of itself, impair Bonneville from giving preference or its ability to offer surplus. Bonneville's position is that, before it offers additional capacity for sale into the EIM, it will follow its statutory obligations, including the preference and surplus requirements.¹¹⁷

Bonneville also explained in the EIM Policy ROD the mechanics of how it would provide notice to its regional customers of their rights to preference. Specifically, Bonneville explained:

On the specific mechanics of the notice, Bonneville intends to generally continue the regional notice format the agency has used for over 20 years. Since the advent of modern markets, Bonneville has provided notice to its preference customers regarding the availability of short-term surplus power using a combination of: (1) annual letters providing notice of surplus availability and how regional customers can exercise their rights; (2) product-specific letters/emails when Bonneville is preparing to sell a new type of product to a non-preference customer; and (3) a standing daily notification on Bonneville's website regarding the availability of surplus and instructing regional customers on how to obtain it if they are interested. Bonneville is unaware of any instance during the past 20 years where regional preference customers took issue with the format of Bonneville's notice requirements. The regional and daily notice format has been an efficient and effective way for Bonneville to participate in the short-term market while also notifying regional customers that Bonneville may have surplus power available for sale on a daily basis.¹¹⁸

ICL-CR contends that Bonneville never addressed commenters' questions raised in the EIM Policy ROD, such as when Bonneville would earmark power being bid into the EIM, when preference customers could claim such power, and how preference obligations interplay with the resource sufficiency requirements of the EIM.¹¹⁹ ICL-CR also claims Bonneville simply asserts that joining the EIM is legal under its statutory obligations, "without considering the mechanics of how it will fulfill these same obligations while gaining the

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 62.

¹¹⁹ ICL-CR Comments at 2.

benefits of the EIM.”¹²⁰ ICL-CR notes that Bonneville “agreed these questions should be addressed,” but asserts Bonneville never followed through.¹²¹

Bonneville disagrees with ICL-CR’s characterization of the EIM Policy ROD and Bonneville’s actions. Bonneville did address both the substance and the mechanics of preference notifications in the EIM Policy ROD as described in the above quotations. In addition, Bonneville did follow through with its commitment to “more fully discuss” Bonneville’s notice paradigm by meeting with the group of stakeholders that raised this issue (*i.e.*, Bonneville’s power preference customers), in which Bonneville explained its current practices for providing notices for surplus sales. During this meeting, Bonneville made itself available to “hear[] other ways of achieving the same notice objectives.”¹²² None were provided. It is Bonneville’s understanding that Bonneville’s explanation of its current practice satisfied preference customers’ concerns, based on the fact that no preference customer has raised the issue of preference in their comments on this Final EIM Close-out Letter.

ICL-CR, however, questions whether it is “even possible” for Bonneville to sell surplus into the real-time market while giving sufficient notice to preference and regional customers that surplus power is available.¹²³ ICL-CR states that the current notice paradigm around “weekly, daily, and hourly surplus sales may be sufficient” but asserts “this system cannot be extended to real-time sales without a more robust explanation of its methodology.”¹²⁴ Citing Bonneville’s regional statutory notice requirements, and the definition of “surplus” energy and capacity under Public Law No. 88-552 (the Regional Preference Act), ICL-CR claims Bonneville must offer surplus power to preference customers at some price before allowing it to be sold into the EIM.¹²⁵

Bonneville disagrees that its current notice paradigm will provide inadequate notice to regional customers of its sales to the EIM. As ICL-CR notes, Bonneville’s current practice is to issue a standing notice that Bonneville may, from time to time, have surplus power available to sell. Customers are directed to contact Bonneville for additional information on the availability of such power and pricing. Bonneville believes this construct will similarly work with the EIM. Specifically, Bonneville will have a standing notice of Bonneville’s intent to offer (at its discretion) surplus FCRPS energy (capability) into the EIM. The EIM currently requires Participating Resources submit bids to the CAISO by T-

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² EIM Policy ROD at 63.

¹²³ ICL-CR Comments at 2.

¹²⁴ *Id.*

¹²⁵ *Id.* at 3.

75.¹²⁶ Preference customers, therefore, must contact Bonneville prior to T-75 to assert their preference rights to the energy Bonneville intends to bid into the EIM.¹²⁷ Specific information on the amount of surplus capability and its price would be discussed between Bonneville and its counterparty at the time of the negotiation. After T-75, FCRPS energy capability that is not otherwise in demand for a regional need would be “surplus” in that it would “otherwise be wasted because of a lack of a market” and may be sold into the EIM at Bonneville’s discretion.¹²⁸ This explanation, which is an elaboration on Bonneville’s original EIM Policy ROD description, should address ICL-CR’s concerns that Bonneville “la[y] out how it will uphold its preference obligations within the tight timeline of real-time market transactions.”¹²⁹

ICL-CR also points to the regional surplus requirement that Bonneville provide 30 days prior notice of the execution of a contract for deliveries outside of the Pacific Northwest.¹³⁰ The Preference Act provides in relevant part:

At least 30 days prior to the execution of any contract for the sale, delivery, or exchange of surplus energy or surplus peaking capacity for use outside the Pacific Northwest, the Secretary shall give the then customers of the Bonneville Power Administration written notice that negotiations for such a contract are pending, and thereafter, at any customer’s request, make available for its inspection current drafts of the proposed contract.¹³¹

Bonneville has met this obligation. Sales of energy into the EIM are effectuated through an EIM Participating Resource Agreement with the CAISO.¹³² Regional customers have known since at least the issuance of the EIM Policy ROD in September 2019 that Bonneville was

¹²⁶ The term “T-75” refers to the time before an operating hour. Thus, T-75 means 75 minutes before the operating hour. For instance, if Bonneville were considering bidding into the EIM beginning at 1:00pm, Bonneville’s bids would need to be submitted to the CAISO by 11:45 am (75 minutes before 1:00 pm).

¹²⁷ Bonneville may further adjust its bids if needed to meet its other firm power obligations. Thus, for instance, if Bonneville’s firm power commitments unexpectedly spiked after T-75, Bonneville has multiple ways of adjusting its EIM Base Schedules and bids to ensure that its firm power obligations are met first.

¹²⁸ See 16 U.S.C. § 837(c)-(d):

See also 16 U.S.C § 839f(c).

¹²⁹ ICL-CR Comments at 3.

¹³⁰ *Id.*

¹³¹ 16 U.S.C. § 837a (2016).

¹³² See EIM Policy ROD at 10.

intending to execute the Participating Resource Agreement upon its decision to enter the EIM.¹³³ Further, Bonneville shared drafts of the proposed Participating Resource Agreements with customers that requested to see these agreements.¹³⁴

More generally, though, Bonneville believes that the EIM contains several built-in market features that provide an inherent regional “vetting” that comports with the intent of the regional preference requirements. One of these built-in protections is that Bonneville must come to each operating hour in load and resource balance and provide to the EIM sufficient flexibility to meet any imbalance in Bonneville’s balancing authority area that may occur within the hour. This demonstration will show that Bonneville has sufficient resources available to assure an adequate power supply to meet its firm power obligations.¹³⁵

If Bonneville’s power is dispatched in the EIM, it is highly likely that Bonneville’s federal power will be used to serve the imbalance needs of the Bonneville balancing authority area (if any) due to hydro power’s natural price advantages and geographic proximity. Any additional federal flexibility will be made available to serve the imbalance needs of other EIM Entities. This occurs as a consequence of how the market is structured and how the Locational Marginal Prices (LMP) are calculated. Two of the factors in the LMP are losses and congestion. The impacts of losses and congestion on federal generation will generally be at their lowest when these generators are serving the imbalance needs of the Bonneville balancing authority area. Thus, as a practical matter, if federal generation is dispatched, it will first serve imbalance in the Bonneville balancing authority area, and hence regional power customer demand will be met consistent with regional preference.¹³⁶

To the extent Bonneville’s resources are dispatched to serve out-of-region imbalance, it would occur because the regional price for Bonneville’s power is below Bonneville’s bid. In other words, the EIM would only dispatch Bonneville’s power outside of the region when there is no need within the region at the price Bonneville offered (as adjusted by congestion and losses). This conforms with the provisions of regional preference wherein power is “surplus” when there is “no market in the Pacific Northwest at any rate

¹³³ See *id.* at 50.

¹³⁴ The purpose and structure of the Participating Resource Agreements were shared publicly in November 2018. See <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/20181113-Nov-14-2018-EIM-Stakeholder-Mtg.pdf>. In addition, in August 2021, Bonneville shared drafts of the actual EIM Participating Resource Agreement with public customers that requested such agreements.

¹³⁵ It is understood that the Base Schedule will include Bonneville loads/resources as well as the loads/resources of other entities within Bonneville’s balancing authority area. Nonetheless, Bonneville will be required to demonstrate, on a forecast basis, that sufficient resources have been scheduled to serve the projected load and any associated projected imbalance.

¹³⁶ The converse of this is also true. If the EIM dispatches federal generation *down* (*i.e.*, reduces generation within Bonneville’s bid range), it would do so because the EIM has located generation outside of Bonneville’s BAA that can more economically serve Bonneville’s BAA imbalance.

established for the disposition of such energy”¹³⁷ A key tenet of preference is that it provides a priority right to supply, not price.¹³⁸ Thus, the “established rate” for surplus power is the price Bonneville sets, which would be Bonneville’s bid in cost, adjusted by congestion and losses. If the FCRPS is being dispatched to serve the imbalance of an EIM Entity that is located outside of the region, it is because there was no market within the region at the price Bonneville proposed.

Taken together, Bonneville finds that its long-standing notice paradigm and its sharing of the EIM agreements with customers, coupled with the EIM market structure, all support Bonneville’s finding that its decision to join the EIM is consistent with the preference and priority obligations under its statutes.

Moreover, Bonneville does not see, and ICL-CR does not suggest, another way for Bonneville to provide its customers with an opportunity to exercise their preference rights in the context of modern markets. ICL-CR notes in its comments that it would likely be “impossible” for Bonneville to ascertain whether in-region demand for potential surplus power exists before selling it to the EIM.¹³⁹ If ICL-CR’s position were the statutory requirement, then Bonneville agrees that it would likely be impossible for Bonneville to sell in virtually any day-ahead or real-time market, leaving untold amounts of federal power wasted and surplus revenue lost. Bonneville’s firm power customers would be left to make up the difference for this lost revenue through higher power rates.

However, ICL-CR’s position is not what Bonneville must do to meet its statutory obligations. The critical elements of Bonneville’s statutory duties are to provide notice to regional utilities that surplus transactions may occur and provide those entities an opportunity to assert their preference rights.¹⁴⁰ That Bonneville has been doing for many years now, and past practice is informative of the success of this approach. For many years, Bonneville has engaged in hundreds of thousands of surplus energy transactions, both within and outside of the region. During this period, Bonneville has provided its customers with a steady flow of net secondary revenue while also providing them with their statutory preference rights. Importantly, Bonneville has received few, if any, concerns from preference customers with the static notice approach. Bonneville sees no reason to deviate from its established notice practice here. Overall, the EIM is a small market compared to

¹³⁷ Northwest Power Act § 9(c), 16 U.S.C § 839f(c) (2016).

¹³⁸ The Ninth Circuit explained: “[we have] rejected the premise that preference customers were entitled to purchase not just available power, but the cheapest available power.” The preference provisions of the Bonneville Project Act and Northwest Power Act “protect the preference customers’ access to power supply; they do not speak directly to price.” *Golden Nw. Aluminum, Inc. v. Bonneville Power Admin.*, 501 F.3d 1037, 1046 (9th Cir. 2007) (internal citations omitted).

¹³⁹ ICL-CR Comments at 3.

¹⁴⁰ *See, e.g.*, 16 U.S.C. § 837a (2016) (describing notice of potential transactions); 16 U.S.C. § 832c(b) (2016) (noting that power sales are subject at “all times” to preference and priority.)).

Bonneville's normal surplus marketing. Using the notice paradigm for the EIM that has worked successfully for many years for Bonneville's general marketing is consistent with Bonneville's statutes and, importantly, a sound business decision.¹⁴¹

Finally, Bonneville notes that the likelihood of Bonneville EIM transactions implicating preference would appear to be exceedingly rare. While preference to federal power applies at "all times,"¹⁴² it only becomes a factor in a power transaction when Bonneville is faced with two or more *competing* applications for power.¹⁴³ Here, it is doubtful that a preference customer's request for power would ever compete with Bonneville's EIM offers. Bonneville notes that it supplies and satisfies all of its firm power customers' firm power net requirement obligations under existing firm power contracts. As such, Bonneville understands there are few (if any) preference eligible entities that have a need for or ability to use the near (real-time) instantaneous availability of the type of surplus power (energy) Bonneville will be bidding into the EIM. It would be incumbent on a preference eligible entity to have the means by which to accept the surplus energy offered by Bonneville on the same terms and conditions as the EIM. Should a preference eligible entity have the means by which to accept and use that same offered surplus energy (at the same price) then by all means Bonneville would sell it to them.

Ultimately, it is Bonneville's duty to find markets to dispose of FCRPS capability¹⁴⁴ – a duty Bonneville has been achieving in both local and regional markets for many years. As with Bonneville's previous forays into modern markets, the EIM will be another way for Bonneville to maximize the value of the federal power system in order to meet its federal obligations in a manner consistent with, among other laws, preference. The notice approach described above enables Bonneville to provide its customers with preference, but in a way that also allows Bonneville to meet its other statutory duties, such as providing the widest possible diversified use of electric power at the lowest possible rates, consistent

¹⁴¹ See *Ass'n of Pub. Agency Customers, Inc. v. Bonneville Power Admin.*, 126 F.3d 1158, 1171 (9th Cir. 1997):
[A]lthough Congress did not prescribe the parameters of the Administrator's authority, it granted [Bonneville] an unusually expansive mandate to operate with a business-oriented philosophy. Accordingly, it seems particularly wise to defer to the agency's actions in furthering its business interests, especially when the agency is responding to unprecedented changes in the market resulting from deregulation.

¹⁴² 16 U.S.C. § 832c(a) (2016).

¹⁴³ See *Alcoa v. Cent. Lincoln Peoples' Util. Dist.*, 467 U.S. 380, 393 (1984) ("But the preference system merely determines the priority of different customers when the Administrator receives 'conflicting or competing' applications for power that the Administrator is authorized to allocate administratively.") (internal citations omitted); see also *Bonneville Project Act* § 4(b), 16 U.S.C. § 832c(b) (2016).

¹⁴⁴ See, e.g., 16 U.S.C. § 832a(a) (2020):

The Administrator shall, as in this chapter provided, make all arrangements for the sale and disposition of electric energy generated at Bonneville project not required for the operation of the dam and locks at such project and the navigation facilities employed in connection therewith.

with sound business principles, and to operate in a manner that ensures Bonneville remains self-funding.¹⁴⁵

Conclusion

Bonneville’s decision to join the EIM is consistent with its statutory obligations to provide its customers with preference and priority to federal power.

Issue 7.1.2:

Whether Bonneville must consider assessing its resource portfolio and reducing its surplus before selling into the EIM.

Commenter’s Position

ICL-CR contends that if Bonneville has surplus power to sell, it must first attempt to sell it in the region before allowing it to be used outside of the Pacific Northwest.¹⁴⁶ Additionally, ICL-CR argues that Bonneville should consider reducing its surplus, rather than selling into the EIM, and ICL-CR contends Bonneville has already met its obligation to provide an “adequate, reliable power supply for the region.”¹⁴⁷ ICL-CR also comments that Bonneville must consider its obligation to provide an “efficient, economical” power supply and its obligation to provide “equitable treatment” for fish and wildlife, and “other purposes of the system and its facilities.”¹⁴⁸

Evaluation of Positions

ICL-CR argues that Bonneville is attempting to “solve” its problem of having “too much hydro” by trying to sell into the EIM.¹⁴⁹ ICL-CR contends, though, that Bonneville is

¹⁴⁵ See Transmission System Act, § 9(1)-(3), 16 U.S.C. § 838g(1)-(3) (2016). See also Northwest Power Act, § 7(a)(1), 16 U.S.C. §839e(a)(1) (2016); Flood Control Act of 1944, 16 U.S.C. §825s (2016).

¹⁴⁵ See *Dep’t of Water & Power of City of Los Angeles v. Bonneville Power Admin.*, 759 F.2d 684, 693 (9th Cir. 1985) (*LADWP*)

While market forces at times in the past may not have threatened BPA’s Congressional mandate, BPA has presented reliable evidence that without a policy which carefully allocates Intertie access, it will experience significant revenue shortfalls in coming years. To the extent that the IAP is designed to mitigate projected deficits, therefore, the policy is not only statutorily authorized but statutorily mandated.

See also 16 U.S.C. § 832f (2016) (Bonneville rate schedules designed to recover Bonneville’s costs); H.R. Rep. No. 590, 1964 U.S. Code Cong. & Ad. News at 3343 (statute designed to put Bonneville back on sound financial ground); 16 U.S.C. § 838g(2) (2016) (rate schedules to be based upon Bonneville need to recover operating and capital costs); 16 U.S.C. § 839e(a)(1) (2016) (rates to be designed consistent with sound business principles and with need to recover Bonneville costs); H.R. Rep. No. 976, Part I, 1980 U.S. Code Cong. & Ad. News at 6001 (Bonneville must be self-supporting and must maintain financial independence subject to Congressional oversight).

¹⁴⁶ ICL-CR Comments at 4.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

“statutorily obligated to reduce the surplus” before finding additional markets for its power, particularly because Bonneville’s surplus generation is “negatively impacting the anadromous fish Bonneville is also charged with protecting, mitigating, and enhancing.”¹⁵⁰

ICL-CR’s comment misstates Bonneville’s statutory authorities and, indeed, fundamentally misunderstands the operation of the federal power system. First, in regards to ICL-CR’s concerns with anadromous fish, even before federal power is produced and marketed by Bonneville, it is subject to non-power constraints that apply to federal dam operations throughout the FCRPS. Thus, Bonneville’s marketing of firm power (whether for surplus or firm requirements power needs) occurs within the operations that address its fish and wildlife obligations.

Second, ICL-CR’s statement that “BPA is statutorily obligated to reduce the surplus” before finding marketing opportunities is unfounded.¹⁵¹ No such obligation exists in Bonneville’s statutes. To the contrary, Bonneville is the designated “marketing agent” for all federal projects in the Pacific Northwest.¹⁵² In that role, Bonneville is tasked with ensuring that power produced at these projects is disposed of consistent with preference¹⁵³ and, in addition, sold in a manner to (1) encourage the widest possible diversified use of electric power at the lowest possible rates to consumers, consistent with sound business principles; (2) having regard to the recovery of the cost of producing and transmitting such electric power, including the amortization of the capital investment allocated to power over a reasonable period of years; and (3) at levels to produce such additional revenues as may be required, in the aggregate with all other revenues of the Administrator, to pay bond debt supported by Bonneville.¹⁵⁴ Importantly, in none of Bonneville’s foundational statutes is Bonneville called to “reduce . . . surplus.”

Third, ICL-CR misunderstands the nature of Bonneville’s surplus in contending that Bonneville should be looking to “reduce the surplus” rather than sell more energy. Surplus power comes in two general forms – firm and non-firm. Firm surplus power is power that is available assuming critical (*i.e.*, lowest on record) water conditions, and is generally sold on a long-term basis. Non-firm surplus power (also called secondary) occurs when water levels are above critical and is generally available on a short-term basis. Secondary surplus power is a natural by-product of a hydro-power system. Federal dams by their nature produce on average substantial amounts of non-firm surplus power, typically from April into June. This type of power is weather dependent and variable.

¹⁵⁰ *Id.*

¹⁵¹ *See id.*

¹⁵² Transmission System Act § 8, 16 U.S.C. § 838f (2016) (“The Administrator is hereby designated as the *marketing agent* for all electric power generated by federal generating plants in the Pacific Northwest, constructed by . . . the Bureau of Reclamation or the United States Corps of Engineers . . .”) (emphasis added).

¹⁵³ *See* 16 U.S.C. § 832c(a); 16 U.S.C. § 839c(a).

¹⁵⁴ *See* Transmission System Act § 9(1)-(3), 16 U.S.C. § 838g(1)-(3) (2016); *see also* Northwest Power Act § 7(a)(1), 16 U.S.C. §839e(a)(1) (2016); Flood Control Act of 1944, 16 U.S.C. §825s (2016).

When available, secondary power is used for multiple purposes, including balancing the electrical grid and meeting variations in Bonneville's customers' loads. Furthermore, secondary power may be sold to offset the costs of the federal system, including the costs associated with funding programs for fish and wildlife. Without it, Bonneville would have to acquire power from the energy market, increasing its power customers' costs.

This leads to Bonneville's fourth point: ICL-CR misstates Bonneville's reasons for wanting to join the EIM. ICL-CR asserts Bonneville has a "problem" of too much hydro power, and is looking to solve that "problem" by entering the EIM to reduce its surplus.¹⁵⁵ In the EIM Policy ROD, Bonneville explained its concerns with the declining value of its surplus in bilateral markets and the importance of seeking out new markets for its power.¹⁵⁶ The EIM is specifically designed to efficiently and economically sell variable amounts of power for short-term periods (*i.e.*, *non-firm* or *secondary* power). Bonneville views the EIM not as simply an additional way of getting rid of the agency's surplus power, but a market that will help maximize the value of Bonneville's unused secondary and non-firm power. Indeed, Bonneville's ability to market its surplus or non-firm power on shorter time frames marries well with markets such as the EIM that have evolved around integrating other resources that produce power intermittently, such as wind. It is thus reasonable for Bonneville to manage its non-firm surplus by making it available to help solve energy imbalance that results when more load is being supplied by various types of resources that produce firm and non-firm power.

ICL-CR also contends Bonneville's decision to seek out markets for its surplus is an admission that the agency's generation portfolio "extends well beyond its statutory responsibilities 'to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply.'"¹⁵⁷ Bonneville strongly disagrees that stating it has surplus power is an "admission" that Bonneville has excess generation. As Bonneville explained above, secondary power is a perennial part of a hydro system. Among its other benefits, secondary energy is used to balance the grid, meet customer demand, and is sold on the market to offset Bonneville's costs. Secondary energy is, therefore, an essential part of ensuring the region has an "adequate, efficient, economical, and reliable power supply." The EIM will support these activities by providing Bonneville another market in which to optimize its resources by both selling and buying power to balance the federal system.¹⁵⁸ ICL-CR's comment provides no facts stating otherwise.

ICL-CR also claims Bonneville has not "adequately considered the potential to reduce its energy supply within the region and ensure the region's power supply is as economical as

¹⁵⁵ ICL-CR Comments at 4.

¹⁵⁶ EIM Policy ROD at 6.

¹⁵⁷ ICL-CR Comments at 4.

¹⁵⁸ See EIM Policy ROD at 95-100.

possible.”¹⁵⁹ Bonneville does not understand how “reducing its energy supply” could help to ensure the region of an economic power supply. A central benefit of selling surplus energy is to offset Bonneville’s other fixed costs. If Bonneville sells less power, but has the same amount of firm power load obligations and fixed costs, the result is higher overall costs to Bonneville’s remaining power customers as Bonneville spreads its fixed costs over fewer megawatts sold. Surplus power is, thus, critical to providing Bonneville’s customers with an “economic” power supply.

ICL-CR also raises comments on the merits of the Columbia River System Operations Environmental Impact Statement (CRSO EIS).¹⁶⁰ Those comments are not within the scope of this Final EIM Close-out Letter, and are not relevant to the question of whether Bonneville has the statutory authority to participate in the EIM.

Finally, ICL-CR contends Bonneville has “more than accomplished” its goal of ensuring an “adequate, reliable power supply for the region” through the development of the FCRPS, Columbia Generating Station (CGS), conservation, and the integration of renewables.¹⁶¹ However, ICL-CR claims Bonneville has not assessed whether “this portfolio” is “efficient and economical” especially considering Bonneville’s other obligations to fish and wildlife.¹⁶² ICL-CR argues Bonneville must “complet[e] this kind of assessment” before joining the EIM, and failing that, Bonneville is acting inconsistent with its “statutory obligations to provide an ‘efficient, economical’ power supply, and its obligation to provide equitable treatment for fish and wildlife, and other purposes of the system and its facilities.”¹⁶³

This comment identifies no statutory faults with Bonneville’s decision to join the EIM. ICL-CR asserts that Bonneville must “assess” whether its generation portfolio is “efficient and economical.”¹⁶⁴ Bonneville has no such duty. The FCRPS and CGS make up the Federal Base System resources that Bonneville, by statute, must sell to its preference and other regional customers.¹⁶⁵ Bonneville’s acquisition of conservation and conservation measures are also directed by statute.¹⁶⁶ ICL-CR cites language from the general purpose provisions of the Northwest Power Act, specifically “to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply.”¹⁶⁷ This provision recites a

¹⁵⁹ ICL-CR Comments at 4.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ See 16 U.S.C. §§ 839a(10), 839e(b)(1), 839e(f).

¹⁶⁶ See, generally, 16 U.S.C. § 839d(a)(1).

¹⁶⁷ See 16 U.S.C. § 839(2):

The purposes of this chapter, together with the provisions of other laws applicable to the Federal Columbia River Power System, are all intended to be construed in a consistent

congressional purpose that the Northwest Power Act is meant to facilitate, but it does not establish that purpose as an obligation Bonneville must fulfill. While Bonneville’s administration of its specific Northwest Power Act responsibilities is part of a framework that Congress envisioned would assure an adequate, efficient, economical, and reliable power supply for the region, it is the Northwest Power and Conservation Council, not Bonneville, that has a specific statutory duty to plan towards this congressional purpose.¹⁶⁸ Importantly, the statutory purpose contains no requirement that Bonneville perform any type of “assessment” on its existing resources nor any directive that such an “assessment” be conducted before Bonneville decides to join a new market like the EIM.

ICL-CR also suggests that “consistency” with Bonneville’s obligation to provide equitable treatment for fish and wildlife¹⁶⁹ depends on Bonneville assessing whether the region’s power supply is efficient and economical before entering the EIM. As noted above, if any entity bears a statutory responsibility for such an assessment, it would be the Council. Bonneville’s equitable treatment responsibility, however, contains no requirement for an assessment of this type and ICL-CR’s comment is too vague and indefinite to discern a basis for the alleged need or relevance of such an assessment with respect to the equitable treatment obligation.

The CRSO EIS and associated ROD show that the operations and management actions selected in that decision provide for the equitable treatment of fish and wildlife.¹⁷⁰ And as

manner. Such purposes are also intended to be construed in a manner consistent with applicable environmental laws. Such purposes are:

* * * *

to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply;

¹⁶⁸ See 16 U.S.C. § 839b(h)(5) (“The Council shall develop a program . . . [which] shall consist of measures to protect, mitigate, and enhance fish and wildlife affected by the development, operation, and management of such facilities while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply.”); *see also* Northwest Power and Conservation Council, Findings on Recommendations and Responses to Comments for the 2020 Addendum to the 2014 Fish and Wildlife Program 173-76 (Oct. 2020), available at https://www.nwcouncil.org/sites/default/files/2020-9_findings_oct2020.pdf.

¹⁶⁹ See 16 U.S.C. § 839b(h)(11)(A):

The Administrator and other federal agencies responsible for managing, operating, or regulating federal or non-federal hydroelectric facilities located on the Columbia River or its tributaries shall —

(i). exercise such responsibilities consistent with the purposes of this chapter and other applicable laws, to adequately protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by such projects or facilities in a manner that provides equitable treatment for such fish and wildlife with the other purposes for which such system and facilities are managed and operated;

¹⁷⁰ Several examples demonstrating Bonneville’s consideration and fulfillment of its equitable treatment responsibility in the context of the CRSO EIS include, but are not limited to, the following: (1) the purpose and need statement for the EIS, *see* CRSO FEIS § 1.2, available at <https://www.nwd.usace.army.mil/CRSO/Final->

explained more fully in section 8 below, federal system operations and facilities will also not change as a result of Bonneville's participation in the EIM. Therefore, Bonneville's entrance into the EIM does not create any system operations or management actions that were not already examined in the CRSO EIS, including for compliance with equitable treatment.

Conclusion

Bonneville's decision to join the EIM is consistent with its statutory, regulatory, and contractual obligations, and therefore, satisfies Bonneville's first EIM Participation Principle.

7.2 Principle 2: Bonneville Will Maintain Reliable Delivery of Power and Transmission to Its Customers.

As an EIM Entity, Bonneville must still retain the responsibility for the operation of the federal power and transmission systems. Joining the EIM does not obviate Bonneville's responsibility regarding system reliability. If Bonneville were to determine in the future that EIM participation impaired its ability to maintain the reliability of the federal power or transmission systems, it would stop participating in the EIM and address the reliability issue. In fact, participation in the EIM is expected to help system reliability in terms of managing transmission constraints on Bonneville's transmission system.¹⁷¹

None of the Notable Changes described in section 5.2 above require Bonneville to reconsider its ability to maintain reliable delivery of power and transmission to customers. Bonneville will retain all of its currently available tools to maintain reliability. In the event that the EIM produces results that would impair reliability, Bonneville will have the ability to suspend EIM Transfers and settlements in its balancing authority area.

[EIS/](#) ("Comply with environmental laws . . . including those specifically addressing the CRS such as requirements under the Northwest Power Act 'to adequately protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by such projects or facilities in a manner that provides equitable treatment for such fish and wildlife with the other purposes for which such system and facilities are managed and operated.'"); (2) *id.* § 2.4.2.1 at 2-33 (discussing decades of overhauls to system operations, management, and configuration, including the results of such actions, as providing equitable treatment for fish); (3) *id.* § 5.2.1 ("[T]he entire CRSO EIS process is an exercise in providing equitable treatment on a system-wide basis by using alternatives and analysis that balance the various system purposes, including fish and wildlife, power, navigation, flood risk management, and the other authorized purposes of the CRS"); (4) *see generally id.*, Appendix T; and (5) CRSO EIS ROD § 5.5.1 (summarizing adherence to equitable treatment).

¹⁷¹ Bonneville's system operations tools are discussed in the EIM Policy ROD at Section 3.5.3.

7.3 Principle 3: Bonneville’s Participation Is Discretionary and Bonneville Retains Its Ability to Effectively Exit the Market in the Event Participation Is No Longer Consistent with These Principles.

In regard to resource participation, the EIM is a voluntary market. Owners/operators of resources inside the Bonneville balancing authority area can choose whether to participate or not. Those that choose to participate, including Bonneville on behalf of the federal generating resources, must execute a Participating Resource agreement with the CAISO. Moreover, even owners/operators that sign a Participating Resource agreement with the CAISO are not required to submit bids for any particular market interval. Stated another way, the EIM does not impose “must-run” requirements on any resources within an EIM balancing authority area. Bonneville recognizes that in some cases, if it chooses not to bid federal generation into the EIM, there may be a reduction in dispatch benefits. Furthermore, Bonneville, in its role as an EIM Entity, may choose to separate from or exit the EIM.

The voluntary nature of the EIM is an essential feature from Bonneville’s perspective. None of the Notable Changes described in section 5.2 above affect the voluntary aspects of the EIM.

Issue 7.3.1:

Whether Bonneville should set particular conditions in which Bonneville would exit the EIM.

Commenters’ Positions

Bonneville received several comments requesting that Bonneville establish performance metrics or set clear expectations of what successful EIM participation would look like. AWEC has requested that Bonneville establish meaningful performance metrics and evaluate EIM participation based upon those metrics.¹⁷² Similarly, PPC asserts that Bonneville should establish clear expectations for what successful EIM participation looks like and exit the market if those expectations are not achieved.¹⁷³ NRU states that Bonneville should closely monitor real-time operations and ensure that Bonneville’s participation is in the best interest of preference customers.¹⁷⁴ WPAG emphasizes that Bonneville must be willing to stop participating and potentially exit the market if it is no longer in Bonneville’s or its customers’ interests for Bonneville to participate.¹⁷⁵

Evaluation of Positions

¹⁷² AWEC Comments at 3.

¹⁷³ PPC Comments at 7.

¹⁷⁴ NRU Comments at 1-2.

¹⁷⁵ WPAG Comments at 2.

Bonneville appreciates the comments and feedback on this issue. Bonneville agrees that EIM participation must be in Bonneville's and its customers' best interests. As discussed in more detail in section 7.4 below, Bonneville will evaluate the benefits of ongoing participation in the EIM, like it does for any other market opportunity. If overall costs of EIM participation outweigh the benefits over the long term, Bonneville will reevaluate whether continued participation remains in Bonneville's and its customer's long-term interests.

While Bonneville agrees with the development of metrics for continued monitoring of its EIM participation, Bonneville does not believe establishing a set of specific evaluation criteria or metrics is prudent at this time. Through participation, Bonneville will learn where operational benefits are realized. Creation of a set of specific criteria or metrics at this time, as requested, could lead to stakeholders focusing only on those specific criteria and not considering costs and benefits of market participation as a whole. As an EIM Entity, Bonneville will consider how the EIM is helping Bonneville to maintain the operational integrity of the system versus the ongoing costs of processes and systems necessary to enable EIM participation. Likewise, as a Participating Resource, Bonneville will consider the marketing and operational benefits of participating versus the ongoing costs of participating, including lost opportunity costs. Bonneville has already committed to sharing the CAISO quarterly benefits analysis. Also, it is worth noting that the costs and benefits to Bonneville as an EIM Entity and Participating Resource will fluctuate over time.

Finally, as mentioned above, the EIM is a voluntary market with specific procedural safeguards that Bonneville could utilize should it determine that EIM participation is no longer in its best interests or otherwise conflicts with Bonneville's statutory obligations. This is a fundamental aspect of the EIM design. Should the design change in a manner not compatible with voluntary participation or Bonneville's statutory authorities, Bonneville is able to exit the market.

Conclusion

As described in Principle 4 below, Bonneville will work with stakeholders to develop metrics to measure EIM performance as operational experience is gained. In addition, Bonneville will monitor its EIM performance and changes in EIM market design to ensure they continue to comport with Bonneville's EIM Participation Principles. The EIM is a voluntary market. The EIM currently includes effective means of exiting the EIM at Bonneville's discretion, and Bonneville will continue to ensure such terms remain in place while Bonneville is participating in the EIM.

7.4 Principle 4: Bonneville's Participation Is Consistent with a Sound Business Rationale.

Bonneville's decision to join the EIM is based on a reasoned business decision. Bonneville conducted a business case, which considered both quantitative and qualitative benefits to power and transmission as well as the strategic value of joining the EIM. The business case was discussed in detail in the EIM Policy ROD.¹⁷⁶

Bonneville has considered the business case from the EIM Policy ROD and concludes it still satisfies Principle 4. This conclusion is based on a re-evaluation of the major components of that business case. The business case from the EIM Policy ROD included both a quantitative comparison of the costs and benefits of joining the EIM as well as a qualitative assessment of the operational benefits of the EIM.¹⁷⁷ For the quantitative benefits estimate, Bonneville performed a high level cost-benefit analysis that considered the following:

- Costs of joining the EIM (Startup/Ongoing Costs)
- Power quantitative benefits

Based on this high-level quantitative assessment, Bonneville concluded that the EIM participation would provide a net positive benefit to Bonneville. Even this assessment, though, only showed a partial picture of the value of EIM participation. The value to Transmission Services of EIM participation was more difficult to quantify, in that it is expected to occur through more efficient use of the federal transmission system, less costly redispatch, and other operational benefits.¹⁷⁸ These benefits were omitted from the cost-benefit analysis. In the EIM Policy ROD, Bonneville illustrated how these qualitative benefits of EIM functionality could be translated into quantitative transmission benefits through avoided transmission builds or more economic redispatch to alleviate constraints.¹⁷⁹ These illustrative Transmission benefits further strengthen the business case for joining the EIM.

Two years have passed since the original business case was developed. For this Final EIM Close-out Letter, Bonneville performed a high-level review of the assumptions from the original EIM business case analysis to determine whether the business case continues to present a reasonable basis for EIM participation. This follows from Bonneville's commitment in the EIM Policy ROD to consider revisiting the business case "if there are fundamental changes in facts or market rules."¹⁸⁰ Throughout the Spring of 2021,

¹⁷⁶ EIM Policy ROD § 3.4.

¹⁷⁷ *Id.* at 95.

¹⁷⁸ *Id.* at 100-01.

¹⁷⁹ *Id.* at 101-07.

¹⁸⁰ *Id.* at 114-15; *see also id.* at 109.

Bonneville held a series of workshops on EIM to consider, among other issues, whether updates to the business case were required.¹⁸¹ This evaluation considered the overall reasonableness of the main components of the quantitative business case, namely, (1) the costs of joining EIM; and (2) the dispatch benefits attributable to Power Services from joining the EIM. Bonneville concluded that no additional review was needed for the Transmission Services qualitative component of the business cases. Bonneville's conclusions from the evaluation of the quantitative components of the EIM business case are provided below.

Costs of Joining EIM (Startup/Ongoing)

In the EIM Policy ROD business case, Bonneville estimated that startup costs for joining the EIM would be in the range of \$29.7 million to \$35.1 million.¹⁸² Ongoing annual costs were estimated at approximately \$6.9 million.¹⁸³ These estimates were prepared in 2019. Bonneville has reviewed these cost estimates and has concluded they remain within a reasonable range. An updated estimate of the start-up costs showed that they are still within the original range, although costs have shifted amongst the cost categories. Bonneville employee and contract employee costs are lower than originally projected while non-labor costs (including contract costs) are higher than originally anticipated due to the staffing and support strategy that Bonneville pursued for start-up. An estimate of the ongoing costs produced in May 2021 showed on-going costs at around \$7.1 million, or roughly a 2.9% increase, which is within a reasonable range of the original projection.¹⁸⁴ Further, the CAISO has not announced any new major additional operational or technological requirements since the 2019 estimate was prepared. Moreover, Bonneville has not identified any major new systems or infrastructure for EIM participation. The 2019 estimate appears reasonable and, therefore, will continue to be used in assessing the business case.

Power Quantitative Dispatch Benefits

Quantitatively, the EIM will benefit Bonneville through the more efficient dispatch of federal generation, otherwise known as "dispatch benefits." EIM participation through voluntary bids can result in benefits through the economic optimization of generation

¹⁸¹ EIM Workshop, March 16, 2021, at 43-45, available at <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/March-2021-EIM-Workshop.pdf>; EIM Workshop, April 27, 2021, at 14, available at <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/April-2021-EIM-Workshop.pdf>; EIM Workshop, May 19, 2021, at 52-55, available at <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/May-2021-EIM-Workshop.pdf>; EIM Workshop, June 17, 2021, at 14, available at <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/June-2021-EIM-Workshop.pdf>.

¹⁸² EIM Policy ROD at 96.

¹⁸³ *Id.* at 97.

¹⁸⁴ EIM Implementation Workshop, May 19, 2021, at 54.

movements with market prices. The bid curves submitted by Participating Resources enable the EIM to “increase[] [generation] when doing so will make more revenue for that resource, and . . . decrease[] [generation] when it would save that resource money.”¹⁸⁵

To estimate these dispatch benefits, Bonneville used analysis performed by E3, an industry-recognized expert energy consulting firm,¹⁸⁶ combined with a number of Bonneville-specific adjustments,¹⁸⁷ to isolate the dispatch benefits for the Federal Columbia River Power System for the operational period of 2016–2018, assuming Bonneville had been in the EIM.¹⁸⁸ Scenario and sensitivity analyses were also run to test the effects of different operations and pricing on benefit levels.¹⁸⁹ In the EIM Policy ROD, Bonneville estimated that, had it been in the EIM during the test year, gross EIM benefits could have ranged between \$24.4 million to \$47.1 million.¹⁹⁰ Applying these gross benefits to the estimated costs resulted in a scenario net EIM benefit range to Bonneville of between \$29.2 million and \$33.5 million.¹⁹¹ A full explanation of the business case ranges is included in the EIM Policy ROD.

In the Spring 2021 workshops, Bonneville identified three areas it would test to determine whether the dispatch benefits from the EIM Policy ROD business case remained reasonable. These three areas were as follows:

- FCRPS Capability – This assessment considered whether the spin capability assumed in the study period (2016–2018) was consistent with more recent observed spinning capability in the FCRPS (2019–present).¹⁹²
- EIM Market Price Volatility – This assessment compared recent EIM price volatility to the study period (2016–2018) standard deviation changes to ensure consistency.¹⁹³
- Market Fundamentals – This assessment considered whether any rules had fundamentally changed EIM participation thereby changing the value proposition of joining the EIM.¹⁹⁴

¹⁸⁵ EIM Policy ROD at 97.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* at 98.

¹⁸⁸ *Id.*

¹⁸⁹ *Id.* at 99.

¹⁹⁰ *Id.* at 100.

¹⁹¹ *Id.*

¹⁹² EIM Workshop, March 16, 2021, at 44.

¹⁹³ *Id.*

¹⁹⁴ *Id.*

Additionally, as part of its overall review of the EIM Policy ROD business case, Bonneville considered the outcomes it reached in the BP-22 Rate Case. Specifically, Bonneville considered its decision to adopt Bonneville staff's proposal to hold the surplus power benefits associated with EIM participation equal to Power Services' share of EIM Start-up/Implementation costs (approximately \$3.4 million).¹⁹⁵

After considering the foregoing areas of evaluation, Bonneville finds that the EIM business case produced in the EIM Policy ROD remains reasonable and Bonneville does not intend to conduct an updated EIM business case. This decision is informed by the following considerations.

First, the FCRPS capability has not fundamentally changed since the original business case assessment was performed. While there have been some new operational constraints, such as those produced by the Columbia System River Operations Review Environmental Impact Statement (CRSO EIS) ROD, those limitations do not fundamentally change the flexibility of the federal system or Bonneville's ability to participate in the EIM.¹⁹⁶

Second, the market price estimates from the EIM Policy ROD business case have not fundamentally changed. Bonneville evaluated observed average annual EIM prices from the original business case (2016–2018) with an updated data set (2016–2020).¹⁹⁷ This comparison showed no material changes in EIM price volatility and confirmed that the EIM prices from the original EIM business case remain within a reasonable range.

Third, EIM market fundamentals have not substantially changed since the original EIM business case. The EIM has seen some market improvements, such as revisions to the Default Energy Bid parameters and prospective changes to the timing of the final EESC base schedule submission from T-40 to T-30. These changes, though, simply allow the EIM to function more efficiently and reliably, and do not fundamentally alter the market's rules, operations, or construct.

Finally, Bonneville has considered its decision in the BP-22 rate proceeding to adopt Bonneville staff's proposal to hold EIM projected benefits equal to EIM Start-up/Implementation costs for the FY 2022–2023 rate period. During the EIM Implementation workshops held in the Spring of 2021, some commenters questioned the validity of the quantifiable Power-related EIM business case benefits in light of Bonneville staff's proposal to assume EIM benefits equal to EIM costs in Power rates for the BP-22 rate

¹⁹⁵ Administrator's Final Record of Decision, BP-22-A-02, at 8; *see also* Traetow *et al.*, BP-22-E-BPA-33, at 15-20.

¹⁹⁶ EIM Workshop, May 19, 2021, at 52.

¹⁹⁷ *Id.* at 53.

period. Bonneville understands the concerns raised by these commenters, but continues to believe its EIM business case remains sound.

The purpose of the EIM business case is to evaluate the threshold question of whether joining the EIM is in Bonneville's overall business interest. Preparing for EIM participation requires significant pre-investment of time, money, and effort. To determine whether Bonneville should even begin to commit the necessary resources for participation, Bonneville, with help from E3, looked back at historic years (2016–2018) and considered what would have occurred had Bonneville been in the EIM during that period. Based on this historic look, the EIM business case showed that Bonneville would likely have received additional economic value had it been in the EIM, and that value is within a range that would make investing in the EIM worth Bonneville's time and effort. This analysis, thus, answered the basic business question of whether joining the EIM, in light of its attendant costs, was in Bonneville's overall business interest. What the EIM business case analysis did not show, however, was the actual EIM benefits to be included in rates for any particular year. This omission was intentional because the EIM business case is not the projection of future EIM credits or benefits for a particular rate period. That type of forecast would depend on translating the activities of EIM participation (bidding in federal system capability) into a rate case-level projection.

For the BP-22 Rate Case, Bonneville staff proposed not to develop that projection. Rather, in the context of secondary sales—that is, surplus sales—Bonneville staff assumed that the EIM benefits would equal the forecasted EIM Start-up/Implementation costs of EIM as a matter of policy.¹⁹⁸ Bonneville staff explained the multi-faceted policy rationale for this approach in their testimony.¹⁹⁹ The key factor in this proposal, though, was the point that the EIM is a new market, one in which Bonneville had no participation experience. While Bonneville will be well positioned with its systems and personnel to participate at the time of Go Live, it will be important to gain experience with actual market dispatches to understand how EIM dispatches impact the revenue and cost streams that feed into rate case projections. Developing rates assuming a stated level of EIM-related credits without any EIM experience was not, in Bonneville staff's view, a prudent business step to take in the first year of EIM participation.²⁰⁰ Instead, Bonneville staff found that it was more consistent with sound business principles to “take it slow” in the BP-22 rate period by limiting EIM benefits to projected costs in order to give Bonneville staff time to better understand the systems, processes, charge codes, and rules of the EIM.²⁰¹

¹⁹⁸ Traetow *et al.*, BP-22-E-BPA-33, at 17.

¹⁹⁹ *Id.* at 16-21; *see also* Traetow *et al.*, BP-22-E-BPA-43, at 1-18.

²⁰⁰ Traetow *et al.*, BP-22-E-BPA-43, at 10-14.

²⁰¹ *Id.* at 13.

Bonneville does not view the decisions reached in the BP-22 Rate Case, which were founded on Bonneville staff's proposed policy consideration of whether it would be prudent to assume in ratemaking substantial credits in the introductory year of Bonneville's participation in a new market, as being deleterious to its decision that its EIM business case remains sound. Bonneville still concludes that the EIM will provide substantial quantifiable benefits to Bonneville and, ultimately, its customers. How those benefits are manifested in projections used for ratemaking will require additional data, experience, and discussions with customers and constituents over the coming months. Bonneville looks forward to exploring these issues with its customers and constituents, and commits as part of this Final EIM Close-out Letter to further discuss how to potentially translate EIM dispatch benefits into rate case projections.

Issue 7.4.1:

Whether Bonneville's decision to join the EIM satisfies Principle 4: Bonneville's Participation Is Consistent with a Sound Business Rationale.

Commenters' Positions

Powerex agrees that there are likely positive benefits for Bonneville's power business line with EIM participation.²⁰² Powerex questions, however, whether similar benefits would accrue to transmission customers.²⁰³ RNW is similarly encouraged by Bonneville's commitment to continue discussion on how to translate EIM dispatch benefits into rate case projections.²⁰⁴ RNW recommends that such benefits flow to the appropriate power service and transmission customers, and RNW recommends that, as Bonneville learns more about the EIM, Bonneville should ensure transmission customers are not being harmed, and are fully realizing the benefits of the EIM.²⁰⁵

NWEC concludes that joining the EIM should result in a "net contribution" to Bonneville's balance sheet.²⁰⁶

AWEC contends that Bonneville's proposal in the BP-22 to set EIM benefits equal to costs "eroded customer confidence" in Bonneville's decision to join the EIM.²⁰⁷ AWEC notes that AWEC members and customers that were formerly supportive or neutral are now "less supportive of, or even opposed to the effort."²⁰⁸ AWEC agrees that Bonneville should

²⁰² Powerex Comments at 1.

²⁰³ *Id.*

²⁰⁴ RNW Comments at 1.

²⁰⁵ *Id.*

²⁰⁶ NWEC Comments at 1.

²⁰⁷ AWEC Comments at 3.

²⁰⁸ *Id.*

develop an EIM benefits metric and looks forward to working with Bonneville to develop that mechanism.²⁰⁹

NRU makes a similar comment, noting Bonneville's BP-22 proposal was "rudimentary" and that after Bonneville gains experience in the EIM, Bonneville should be "well equipped to include a better net benefits calculation from participation in the BP-24 rates."²¹⁰ NRU recommends that EIM benefits and costs be allocated to power rates in the same way as net secondary revenues.²¹¹

PPC comments Bonneville should develop a mechanism for the "equitable accounting of benefits and risks in rates."²¹² PPC explains that Bonneville's BP-22 framework is inconsistent with PPC's self-created principles for evaluating the EIM, Bonneville's strategic plan, PPC's view of the Regional Dialogue contract, and sets a poor precedent for evaluating future market opportunities.²¹³ PPC notes it has consistently requested Bonneville include in power rates a risk-adjusted level of expected benefits from EIM participation.²¹⁴ PPC requests Bonneville commit in the Final EIM Close-out Letter to developing a mechanism, in coordination with preference customers, for including secondary sales benefits from EIM participation in the BP-24 and subsequent rate cases.²¹⁵ PPC recommends that the mechanism Bonneville develops should be consistent with its business case assessment and the analysis used in rate setting.²¹⁶ Bonneville should also commit to provide an "ongoing BPA-calculated assessment of the benefits of EIM participation" with regular report outs to customers.²¹⁷ PPC requests Bonneville to address in the Final EIM Close-out letter how the "system operations proposed by Oregon in its motion for preliminary injunction and any associated costs would impact BPA's evaluation of its expected participation in the EIM."²¹⁸

Seattle City Light recommends Bonneville "formally commit to re-examining estimating and allocating of EIM-related costs and revenue in future rate cases."²¹⁹

Snohomish comments that, while it accepted Bonneville's approach in BP-22 as part of a settlement, it is very important that moving forward Bonneville develop a mechanism to

²⁰⁹ *Id.*

²¹⁰ NRU Comments at 3.

²¹¹ *Id.*

²¹² PPC Comments at 4.

²¹³ *Id.*

²¹⁴ *Id.* at 3.

²¹⁵ *Id.* at 4-5.

²¹⁶ *Id.* at 5.

²¹⁷ *Id.*

²¹⁸ *Id.* at 10.

²¹⁹ SCL Comments at 1.

pass expected EIM benefits through to power rates.²²⁰ Snohomish appreciates Bonneville's statement that it will "further discuss how to potentially translate EIM dispatch benefits into rate case projections" but Snohomish requests Bonneville commit in the Final EIM Close-out Letter to develop a mechanism to include the undiscounted EIM benefits in power rates.²²¹

WPAG notes that Bonneville should work expeditiously to develop a mechanism for quantifying and then crediting to power rates the benefits Bonneville receives from EIM participation.²²²

ICL-CR contends that Bonneville should have consulted with the Council on its proposed decision to enter the EIM.²²³ ICL-CR argues that the Council's new 8th Power Plan could weigh "significantly" on Bonneville's business case due to the Council's forecast of 200 GW of new renewable generation.²²⁴ ICL-CR notes that this analysis was not available when E3 did its analysis, a point raised by WPAG in its prior comments.²²⁵ ICL-CR contends Bonneville should consider these new results and compose a "new cost/benefit analysis" in light of this new data.²²⁶

Evaluation of Positions

As described above, Bonneville concludes that joining the EIM satisfies Principle 4: Bonneville's Participation Is Consistent with a Sound Business Rationale, and that Bonneville's original business case remains sound. ICL-CR's comment challenges Bonneville's business case, contending that Bonneville should have consulted with the Council on its decision.²²⁷ ICL-CR contends that the Council's 8th Power Plan forecasts new renewable generation in the region and that this new generation is "dramatically different" than the forecast used by the consulting firm E3 in the initial cost/benefit analysis.²²⁸ ICL-CR argues Bonneville should have considered these new results before finalizing its decision and should compose a new cost/benefit analysis.²²⁹

Bonneville disagrees that the Council's development of the 8th Power Plan and that Plan's projections of renewable generation requires Bonneville to revisit its business case. First, ICL-CR's claim that Bonneville should have "consulted" with the Council on its decision to

²²⁰ Snohomish Comments at 2.

²²¹ *Id.* at 2-3.

²²² WPAG Comments at 2.

²²³ ICL-CR Comments at 4.

²²⁴ *Id.*

²²⁵ *Id.*

²²⁶ *Id.*

²²⁷ *Id.*

²²⁸ *Id.*; note that the Council's name for this power plan is "2021 Northwest Power Plan."

²²⁹ *Id.*

join the EIM is incorrect. Bonneville's authority to market power is vested solely in the Administrator. The Council, in contrast, is statutorily directed to develop, implement, and amend its long-term (20-year) Power Plan and Fish and Wildlife Program. Congress did not grant the Council any authority over any of the Administrator's power marketing activities, except for determining whether to increase power amounts sold to Direct Service Industrial (DSI) customers for purposes of reserves.²³⁰ Given the near extinction of DSIs in the region, this section does not apply since Bonneville is not seeking to increase supply amounts to that class of customer. Thus Bonneville is not required to consult with the Council on its marketing decisions.

Second, ICL-CR is mistaken that the Council's 8th Power Plan constitutes a material change that requires Bonneville to reconsider its business case. As noted earlier, Bonneville committed in the EIM Policy ROD to revisit its decision made in Phase II of its decision process if there were "material changes" to underlying facts or information.²³¹ ICL-CR asserts that the projected increase of renewables, as described in the Council's draft 8th Power Plan, shows that a material change has occurred, and cites to the comments of WPAG from March 16, 2021, in support. However, ICL-CR misses that Bonneville has already considered and addressed the comments of WPAG and concluded that the projections used in its EIM business case remain sound. Stepping back, it is important to understand what the E3 study evaluated. The E3 study measured the incremental value Bonneville may have achieved during the operational years of 2016-2018 if the flexibility of the FCRPS (historical spinning capability) had been dispatched by the EIM (within operational and environmental requirements).²³² E3 used an industry standard approach for this valuation. As such, the focus of the E3 study was on maximizing the value of existing resources (*i.e.*, FCRPS) through dispatches on an inter-hour level. To establish that value, E3 used historic EIM prices over the 2016-2018 period.

The issue WPAG raised in its comment, which ICL-CR reiterates here, is whether the projected infusion of renewables in the region would result in a material change in the *energy prices* that E3 used to value the energy dispatched in the original study. Bonneville considered that issue in its May 19, 2021, workshop.²³³ During that workshop, Bonneville staff compared the standard deviation in energy prices from the original business case (using average EIM price data from 2016-2018) with updated standard deviation pricing (using average EIM price data from 2016-2020).²³⁴ Importantly, the updated evaluation by

²³⁰ See 16 U.S.C. § 839c(d)(3).

²³¹ EIM Policy ROD at 38, 40, 48.

²³² *Id.* at 97-100, Att. B at 2-3.

²³³ See May 19, 2021, EIM Workshop, available at <https://www.bpa.gov/Projects/Initiatives/EIM/Doc/May-2021-EIM-Workshop.pdf> ("May 19 EIM Workshop").

²³⁴ *Id.* at 53.

Staff considered actual EIM price data from the most recent EIM pricing runs. This comparison revealed that, even with the large influx of renewable generation over the past five years, the change in the standard deviation was negligible, resulting in staff's conclusion that they had "not observed material changes to any key inputs" of the business case.²³⁵

The publication of the Council's projections of future renewable growth does not change this conclusion. The 8th Power Plan, which as ICL-CR notes is still in draft form, only provides a projection of potential cost-effective resources over the next 20 years. But even if they were final, the Council's projections are designed to provide broad guidance on regional resource choices for the future, not intra-hour level estimates of projected future EIM prices that would be applicable to Bonneville's EIM dispatches. In other words, the Council's 8th Power Plan does not contain EIM dispatch pricing information that calls into question either Bonneville's original business case assessment from 2019 or the updated assessment Bonneville performed in May 2021.

Apart from the concerns ICL-CR notes above, no other commenter raises any substantive arguments opposing Bonneville's conclusion that Bonneville's decision to join the EIM is consistent with *Principle 4: Bonneville's Participation Is Consistent with a Sound Business Rationale*. Rather, many commenters recommend that Bonneville make a number of commitments going forward to ensure that Bonneville commits to include in rates the level of EIM benefits Bonneville expects to achieve in the EIM. For instance, AWEC, NRU, PPC, Seattle, and Snohomish raise general concerns with Bonneville's approach for EIM benefits in the BP-22 rate period.²³⁶ In addition, these parties strongly urge Bonneville to develop a methodology that translates the observed EIM benefits after Go Live into forecasts that can be used in ratemaking. While not objecting to Bonneville's business case, or challenging Bonneville's assessment that joining the EIM is a sound business decision, they request that Bonneville commit in the coming months to develop a methodology for quantifying EIM benefits that can be used in rates. PPC, in particular, identifies a number of commitments that it recommends Bonneville make in this Final EIM Close-out Letter to reassure customers that Bonneville will have measurable metrics from which to formulate rate-case forecasts.²³⁷

Bonneville appreciates the concerns raised by commenters on the EIM benefits calculation. It is clear from the feedback Bonneville has received that there is general apprehension with the approach Bonneville staff proposed in the BP-22 Rate Case for addressing the initial year of EIM participation. Further, commenters have expressed general concern that

²³⁵ *Id.* at 55.

²³⁶ AWEC Comments at 3; NRU Comments at 3; PPC Comments at 4-5; SCL Comments at 1; Snohomish Comments at 2; WPAG Comments at 2.

²³⁷ PPC Comments at 4-5.

additional customer engagement and buy-in be sought before proposing a follow-on methodology for determining and allocating EIM benefits in future rate processes. Bonneville agrees that the BP-22 approach to EIM benefits is not (and has never been) intended to be precedential. Bonneville further agrees that, going forward, Bonneville and its customers and constituents need to work together to gain a better understanding of how to translate observed EIM benefits into rate case forecasts. To that end, Bonneville commits as part of this decision to reflect in Bonneville staff's initial proposal for the next rate case the forecastable benefits of the EIM based in part on the results of Bonneville's early participation.

What those benefits may be and how they may be reflected in rates will be discussed with customers and constituents as part of the follow-on process Bonneville intends to conduct after joining the EIM. Bonneville emphasizes that it is not committing to any particular method or approach through this decision. Several commenters suggest various ways that EIM benefits may be included in rates,²³⁸ but Bonneville does not view this forum as the proper place to address those specific recommendations and issues. Rather, Bonneville commits to work with customers and constituents on finding ways of incorporating the benefits (and costs) of EIM in future rates.

Finally, PPC requests Bonneville to address in the Final EIM Close-out Letter how the "system operations proposed by Oregon in its motion for preliminary injunction and any associated costs would impact BPA's evaluation of its expected participation in the EIM."²³⁹

By way of context, the State of Oregon, the Nez Perce Tribe, and eleven environmental and fishing groups filed preliminary injunction motions alleging that the implementation of the Selected Alternative in the Columbia River System Operations EIS Record of Decision will result in irreparable harm to salmon and steelhead species listed under the Endangered Species Act. There is no decision on the preliminary injunction request yet. At this time, Bonneville does not have enough information to provide a detailed evaluation on how a potential court ruling on the preliminary injunction request would affect Bonneville's EIM participation. If granted, the preliminary injunction request would have impacts on Bonneville's overall secondary sales and revenues. Whether these broader limits constrict Bonneville's ability to bid FCRPS capability into the EIM is uncertain, but Bonneville's initial assessment is that the reserve minimums which Bonneville generally expects to bid into the EIM would continue to be available for EIM transactions. Thus, Bonneville does not view the prospect of the preliminary injunction as fundamentally affecting Bonneville's benefits from expected EIM participation.

²³⁸ See, e.g., NRU Comments at 3, PPC Comments at 4-5.

²³⁹ PPC Comments at 10.

Conclusion

Bonneville's business case supports Bonneville's decision to join the EIM and satisfies Bonneville's Principle 4: Bonneville's Participation Is Consistent with a Sound Business Rationale. Bonneville will work with stakeholders on developing an approach that translates EIM participation activity into forecasts for use in setting rates. Bonneville further commits to reflect in Bonneville staff's initial proposal for the BP-24 rate proceeding the forecastable benefits from EIM participation.

Issue 7.4.2:

Whether Bonneville should commit to address certain topics prior to the commencement of the BP-24 Rate Case.

Commenters' Positions

NRU supports the allocation of EIM costs and credits Bonneville adopted in the BP-22 Rate Case, but encourages Bonneville to be open to adjusting these allocations, particularly as it relates to transmission allocations, in BP-24 after gaining experience in the EIM.²⁴⁰

Seattle City Light requests Bonneville to formally commit to re-evaluating the BP-22 costs allocation mechanisms related to EIM costs and revenues in BP-24.²⁴¹

Powerex notes that the economic benefits to EIM participation for transmission are limited and raises concerns with the interaction between real-time contract path scheduling under Bonneville's OATT, EIM base schedules, and the resulting allocation of EIM charges and credits.²⁴² Powerex notes it will be important for Bonneville to identify and address any adverse impacts to transmission customers from EIM participation to ensure transmission customer's services are not undermined.²⁴³

PPC requests that Bonneville track the net secondary revenue benefits of Bonneville's participation in the EIM for the BP-22 rate period and then work with customers to identify a mechanism that includes those benefits as a credit for the BP-24 rates.²⁴⁴

Snohomish suggests Bonneville hold workshops leading up to the BP-24 Rate Case on compensating transmission donations.²⁴⁵ Snohomish suggests Bonneville include analysis on EIM transfer limits, congestion on EIM transfer paths, ATC analysis, and the potential for

²⁴⁰ NRU Comments at 3.

²⁴¹ SCL Comments at 1.

²⁴² Powerex Comments at 1.

²⁴³ *Id.*

²⁴⁴ PPC Comments at 5.

²⁴⁵ Snohomish Comments at 4-5.

transmission donations on these paths.²⁴⁶ Snohomish requests Bonneville to ask the CAISO to account for the portion of the Congestion Offset Charge Code that is attributable to EIM Transfer congestion.²⁴⁷ Snohomish also requests Bonneville hold a workshop on the allocation of EIM charges and credits between the Composite and Non-Slice cost pools, where empirical information based on actual EIM operations can be reviewed and commented on by customers.²⁴⁸ In addition, Snohomish requests Bonneville consider eliminating the persistent deviation penalty.²⁴⁹

Evaluation of Positions

Commenters request that Bonneville commit to addressing various EIM-related topics prior to and in the BP-24 rate proceeding. For instance, NRU, City of Seattle, and Snohomish request Bonneville revisit the EIM cost and benefit allocations proposals it adopted in the BP-22 Rate Case.²⁵⁰ Powerex requests Bonneville evaluate whether and how EIM participation is affecting transmission rights.²⁵¹ Snohomish recommends Bonneville hold specific workshops on transmission donation and its impacts on congestion and other EIM metrics.²⁵²

Bonneville agrees that a robust workshop process is appropriate for the run-up to the BP-24 rate proceeding. As many commenters note, Bonneville should have additional information about EIM participation and functionality by the time of initial workshops, though Bonneville notes that its actual experience in the EIM will be fairly limited when workshops typically commence (*e.g.*, spring 2022). Nonetheless, Bonneville agrees that many of the issues commenters identify should be discussed prior to BP-24, and Bonneville will work diligently to hold workshops that cover topics relevant and important to stakeholders. The specific requests for workshops on the topics in the comments will be addressed by Bonneville staff during the pre-rate case workshop process.

PPC also requests Bonneville to track net secondary benefits achieved in BP-22 and then work with customers to identify a mechanism for crediting BP-24 rates to reduce power customers' costs.²⁵³ As with the other requests for additional mechanisms and tracking, Bonneville believes this proposal should be made during pre-rate case workshops for BP-24. Bonneville notes, however, that this proposal appears to introduce a new level of

²⁴⁶ *Id.*

²⁴⁷ *Id.* at 5.

²⁴⁸ *Id.*

²⁴⁹ *Id.* at 6.

²⁵⁰ NRU Comments at 3; SCL Comments at 1; Snohomish Comments at 5.

²⁵¹ Powerex Comments at 1.

²⁵² Snohomish Comments at 4-5.

²⁵³ PPC Comments at 5.

complexity in ratemaking that presents implementation challenges. However, Bonneville is willing to discuss this proposal with customers.

Conclusion

Bonneville commits to engage stakeholders in workshops prior to BP-24 to address, among other matters, EIM implementation issues and performance. Bonneville will work with stakeholders to develop the list of topics to cover in these workshops.

Post Go Live Reporting

Bonneville has received requests for ongoing reporting on EIM performance after Bonneville begins participation in the EIM and, in response, Bonneville commits to providing ongoing reporting on EIM performance. The content of such reporting is a work in progress and will be better informed once Bonneville is participating in the EIM and has a more comprehensive understanding of the data that will be available. Bonneville is committed to continue working with customers and constituents to evolve reporting over time. Bonneville anticipates that the reporting will occur on a quarterly basis and will likely utilize the Quarterly Business Review technical workshops as the forum.

Issue 7.4.3:

Whether Bonneville should commit to specific reporting requirements in the Final EIM Close-out Letter.

Commenters' Positions

Many commenters advocate for Bonneville to commit to reporting out on data involving future EIM participation to better understand the benefits of EIM participation. AWEC comments that “[p]erformance metrics (including reasonable goals), transparency, monitoring, and evaluation between BPA and its Power and Transmission customers will be necessary on a forward-going basis to fully understand whether an appropriate cost/benefit balance is struck with EIM participation.”²⁵⁴ AWEC also “seeks understanding [of] the type of measures BPA will take should the agency fail to meet established performance metrics in order to ensure that the performance metrics are meaningful and will result in corrective actions.”²⁵⁵

NRU also supports Bonneville “establishing a clear set of metrics on which to measure performance in the market and commit to sharing and discussing those metrics with customers on a predetermined basis. The metrics should be inclusive of all aspects of

²⁵⁴ AWEC Comments at 1.

²⁵⁵ *Id.* at 1-2.

market participation and not limited to the financial aspects only.”²⁵⁶ As an example, NRU states that “reporting how often, or what percentage of the time, BPA meets sufficiency testing, could be an indicator on how well BPA is operationally integrating into the market and would help customers interpret financial outcomes.”²⁵⁷ NRU also asserts that “[o]nce established, preferably within six months of market entry, the set of metrics must be communicated to and vetted with customers.”²⁵⁸ NRU supports a “cadence and structure similar to the Quarterly Business Review where a high-level view is presented in summary fashion and then followed by a technical deep dive.”²⁵⁹

NWEC lists four specific topics that Bonneville should report out on in addition to financial and operational aspects of participation:

1) Protection and enhancement of fish and wildlife resources, focusing on “the interaction between EIM participation and the ongoing conduct of the flexible spill program”; 2) Customer side resources, specifically “development of customer side resources including energy efficiency, demand response, storage and self-generation (in particular, rooftop solar)”; 3) Support of state energy and climate policy, with the goal to “help inform compliance with [CETA, the CCA, and HB 2021] and other relevant state policies [to] help shape future policy additions and refinements”; and 4) western market and program development, to “help inform Bonneville’s participation in ongoing efforts to develop markets and programs in the Western Interconnection.”²⁶⁰

PPC proposes that Bonneville commit “to providing metrics and regular reporting on additional areas related to its EIM participation to help preference customers understand the impacts of BPA’s participation on their power products and transmission services.”²⁶¹ PPC also advocates for Bonneville to commit “to working with customers to develop an agreed upon set of metrics that will provide meaningful reporting,” and to “develop[] its own methodology for estimating benefits of EIM participation for the purposes of ratemaking and evaluating BPA’s participation.”²⁶² PPC specifically lists five metrics that should be developed and reported on: 1) Dispatches deemed delivered to California (quantity and associated premium costs); 2) ‘Unspecified’ purchases made through the EIM (quantity); 3) Resource Sufficiency (RS) Test trends; 4) Transmission donation and use

²⁵⁶ NRU Comments at 2.

²⁵⁷ *Id.*

²⁵⁸ *Id.*

²⁵⁹ *Id.*

²⁶⁰ NWEC Comments at 1-2.

²⁶¹ PPC Comments at 5.

²⁶² *Id.*

trends; and 5) Comparison of LAP/LMP to Mid-C index to understand impacts of Ancillary Service price changes.²⁶³

PPC also raises concerns “that no metrics will be shared” because “BPA has shared that there are challenges to committing to reporting on specific metrics.”²⁶⁴ In order to address concerns over Bonneville’s commercial information, PPC proposes “a confidential report (subject to a Non-Disclosure Agreement) provided to customer groups, or representatives that are not EIM participants, where no commercial conflicts with BPA exist” or “alternative metrics that address customers’ needs while protecting BPA bidding strategies.”²⁶⁵ PPC also raises “significant concerns with the use of the CAISO benefits report as the sole assessment of benefits BPA receives through EIM participation” as the “estimates are not accurate enough to be used in rate setting and should not be used in decision-making.”²⁶⁶

Seattle City Light comments that the CAISO’s benefits report “is not sufficient to account for costs and revenues” and “encourages BPA to establish a methodology for tracking costs and benefits associated with its EIM participation, and to publish this information regularly.”²⁶⁷

Snohomish comments that the CAISO benefits report is “helpful, but [not] sufficient” and suggests Bonneville report on the following four areas: 1) Net secondary revenue benefit; 2) Estimated impacts of participation on Bonneville’s ACS emissions factor; 3) Data related to transmission donations and EIM transfer limits and usage; and 4) Resource Sufficiency Evaluation results.²⁶⁸

Evaluation of Positions

Commenters generally support Bonneville’s proposal to report to customers and constituents on Bonneville’s EIM performance after joining the EIM. Commenters also support Bonneville’s recommendation that such reporting be conducted at least quarterly, if not more frequently.²⁶⁹

Many commenters also provide suggestions for topics for Bonneville to cover in its report. These include, among others, reports or data on:

²⁶³ *Id.*

²⁶⁴ *Id.* at 6.

²⁶⁵ *Id.*

²⁶⁶ *Id.*

²⁶⁷ SCL Comments at 1.

²⁶⁸ Snohomish Comments at 6-7.

²⁶⁹ NRU Comments at 2; PPC Comments at 5.

- Impacts of Bonneville’s EIM participation on flexible spill program, customer-side renewable resources and regional climate change polices.²⁷⁰
- Impacts of EIM dispatches on Bonneville’s ACS emission factor.²⁷¹
- Unspecified purchases made through EIM (quantity).²⁷²
- Resource sufficiency trends and performance.²⁷³
- Transmission congestion, congestion from EIM transfer limits, ATC analysis.²⁷⁴
- Comparison of LAP/LMP to Mid-C index prices.²⁷⁵

Apart from reporting data and market outputs, commenters also request Bonneville develop various metrics to measure Bonneville’s EIM performance. In this regard, several commenters explain that CAISO’s benefits reporting metric is insufficient²⁷⁶ and that Bonneville should develop its own metrics for assessing EIM results.²⁷⁷ Commenters note that without metrics, it will be difficult for stakeholders to assess whether Bonneville participation is adding value to Bonneville and its customers.²⁷⁸

Bonneville agrees with the comments that accurate, relevant, and transparent reporting is an important component of post-go live EIM implementation. To that end, Bonneville is committed to working with customers and constituents to develop both data reporting parameters and metrics for measuring the impacts of the EIM on Bonneville and its customers. What specific data Bonneville should share, its frequency, and what metrics Bonneville should use to gauge its EIM performance will be determined during the report-out development process Bonneville intends to engage in with customers and constituents. Bonneville believes that forum, which will involve an iterative process of proposals and customer feedback, will be the best place to evaluate commenters’ recommendations. Bonneville concurs with commenters’ views that developing common metrics and assessments for EIM participation will help Bonneville and its customers and constituents grow towards a collective understanding of how to view and measure the EIM’s benefits, costs, and performance. To help support this effort, Bonneville has set up an internal team specifically to develop proposals, take comments, and provide a robust customer and constituent engagement process where participant recommendations and suggestions on

²⁷⁰ NWECC Comments at 1-2.

²⁷¹ Snohomish Comments at 3-4, 6.

²⁷² PPC Comments at 5.

²⁷³ PPC Comments at 5; Snohomish Comments at 7.

²⁷⁴ PPC Comments at 5; Snohomish Comments at 4-5, 6-7.

²⁷⁵ PPC Comments at 5.

²⁷⁶ PPC Comments at 6; SCL Comments at 1; Snohomish Comments at 6; AWEC Comments at 3.

²⁷⁷ PPC Comments at 5; Snohomish Comments at 6; SCL Comments at 1; NRU Comments at 2.

²⁷⁸ PPC Comments at 5-6, 7; NRU Comments at 1-2.

EIM reporting and metrics can be thoroughly considered. Bonneville's intent is to use that upcoming process to discuss and work through the areas identified in the comments.

Conclusion

Bonneville will engage customers and constituents in a separate process to determine EIM reporting requirements. That process will engage customers and constituents to determine the type of EIM data to share and the frequency of communicating reports.

7.5 Principle 5: Bonneville's Participation Is Consistent with the Objectives of Bonneville's Strategic Plan

Bonneville's 2018–2023 Strategic Plan²⁷⁹ sets forth its high-level vision as well as specific goals and objectives to ensure its competitiveness and ability to continue meeting customers' and regional future needs. Bonneville's participation in the EIM will provide several benefits that are strongly supportive of the goals and objectives set forth in the Strategic Plan.

Participation in the EIM provides Bonneville an additional marketing opportunity to increase power revenues which is an explicit objective in the plan (Strategic Objective 3(a)).²⁸⁰ Bonneville believes that taking advantage of market opportunities like the EIM will help it to maximize the full value of the federal power system. Similarly, EIM participation will provide benefits to transmission operations and customers in that Bonneville will have better state awareness data and tools to manage the grid more efficiently and potentially address congestion, which is consistent with Strategic Objective 4(a).²⁸¹ As capacity on the federal transmission grid becomes scarcer, taking advantage of a more diverse resource mix to serve imbalance needs in Bonneville's balancing authority area using the EIM will be a benefit to Bonneville and its customers.

Participation in the EIM is also a key driver for Bonneville's Grid Modernization²⁸² Key Strategic Initiative, which is the core component of Strategic Goal 2 of the Strategic Plan.²⁸³ While EIM participation is by no means the sole driver of the program, several of the projects in the program are necessary for Bonneville to participate in the EIM.²⁸⁴ Development and implementation of projects within its grid modernization program will

²⁷⁹ 2018-2023 Strategic Plan, www.bpa.gov/StrategicPlan/StrategicPlan/2018-Strategic-Plan.pdf ("Strategic Plan").

²⁸⁰ *Id.* at 36-37.

²⁸¹ *Id.* at 47.

²⁸² See <https://www.bpa.gov/Projects/Initiatives/Grid-Modernization/Pages/Grid-Modernization.aspx>.

²⁸³ Strategic Plan at 23-32.

²⁸⁴ A roadmap of the Grid Modernization projects and those necessary or critical to EIM participation can be viewed at: <https://www.bpa.gov/Projects/Initiatives/Grid-Modernization/gridmod/Current-Grid-Mod-Roadmap.pdf>.

better position Bonneville to effectively manage the federal power and transmission systems as well as be competitive regionally in years to come.

Finally, another benefit to EIM participation is to provide Bonneville and its customers with experience in a voluntary, organized market context. Bonneville sees this as a critical first step to any potential further market expansions involving Bonneville. Bonneville expects markets to continue and evolve over time, thus participation in the EIM will provide Bonneville and its customers invaluable experience in understanding and helping to shape those markets.

7.6 Principle 6: Bonneville's Evaluation of EIM Participation Includes Transparent Consideration of the Commercial and Operational Impacts on Its Products and Services

To help ensure appropriate commercial and operational impacts on the products and services Bonneville sells to its customers, Bonneville has held numerous workshops to discuss potential policy changes to ensure it meets this principle. Bonneville will initially utilize the Federal Generation Participation Model to manage generation available to the EIM and the Interchange Rights Holder Methodology to make transmission that has already been purchased available to the EIM, as discussed further above. In addition, in response to commenter requests, Bonneville committed to consider the impacts of joining the EIM on its products and services, work through solutions, and engage the CAISO as appropriate.

On the Power side, Bonneville considered the impacts of EIM implementation on its two main firm power products: Load Following and Slice. Bonneville concludes that the EIM would not materially impact its Load Following customers. Bonneville will retain its role in supplying power to meet these customers' imbalance as part of the Load Following product. For customers served by Slice, Bonneville identified a number of EIM implementation issues that needed to be addressed to ensure effective implementation of its Slice product. Throughout Phases III and IV, Bonneville worked closely with Slice customers in the Slice Implementation Group to propose solutions to these issues. For example, Bonneville adjusted some timelines in the computer applications used to implement the Slice product in order to accommodate current EIM schedule submission timelines.

Bonneville addressed issues related to Slice/Block implementation in the BP-22 rate proceeding. Such issues included the allocation of Power revenues as well as an Intrachange Imbalance rate schedule in the BP-22 rate proceeding to address a potential mismatch in EIM settlement costs and credits between Bonneville and its Slice customers. Through the Intrachange Imbalance rate schedule—an allocation which is unique to Bonneville's implementation of the EIM—Bonneville has allowed customers a simple

mechanism to appropriately allocate imbalance charges and credits between counterparties, including those that are incurred in the execution of the Slice contract.

On the transmission side, EIM participation will not impact the types of transmission service (network integration and point-to-point) currently offered under Bonneville's Tariff. Bonneville will continue to offer these services after it joins the EIM. Operationally, participation in the EIM will provide Bonneville with more state awareness and congestion management tools, which, in turn, will help Bonneville better manage congestion and flows on the transmission system. Thus, from an operational perspective, EIM participation should benefit Bonneville's transmission contract holders. From an available transfer capability and revenue standpoint, Bonneville's transmission business line should not be adversely impacted by EIM participation. EIM Transfers (at balancing authority area interchanges) will rely on donated transmission that has already been purchased and will be scheduled using Energy Transfer System Resource (ETSR) tags. EIM flows occurring within the Bonneville balancing authority area will use real-time, unscheduled capability on the transmission system. Because these internal flows are providing the imbalance portion of load service of transmission customers within the Bonneville balancing authority area, Bonneville is already being compensated for EIM flows via transmission service contracts with those customers who have to reserve transmission for service to their loads.

Bonneville will continue to meet its commitments of providing the power and transmission products and services it has committed to provide to customers. Where technical or operational adjustments have been necessary to allow existing products to function as intended, Bonneville has worked through the issues with customers, seeking out and incorporating such adjustments. If Bonneville learns of any other issues with providing its products and services in the EIM setting, Bonneville will discuss these issues with customers and seek workable solutions with its customers and with the CAISO.

Issue 7.6.1:

Whether Bonneville will continue to work with customers to address concerns that arise and collaborate on future EIM-related issues.

Commenters' Positions

NRU states that Bonneville should remain transparent to customers through implementation efforts and after Go Live to demonstrate how market participation is going.²⁸⁵ RNW comments that it looks forward to participating in future EIM-related workshops.²⁸⁶

²⁸⁵ NRU Comments at 2.

²⁸⁶ RNW Comments at 1.

Evaluation of Positions

Bonneville understands that joining the EIM is a major undertaking for not only Bonneville, but for Bonneville's customers as well. Many of the issues Bonneville faces throughout EIM implementation as well as once Bonneville is participating in the EIM will likely impact customers. Bonneville is dedicated to remaining transparent throughout the EIM implementation efforts and after Go Live, and will continue having public workshops to communicate and collaborate with customers as EIM-related issues arise.

Conclusion

Bonneville will continue to work with customers to address concerns that arise and collaborate on future EIM-related issues.

8 NEPA Analysis

Consistent with the National Environmental Policy Act (NEPA), 42 U.S.C. 4321, *et seq.*, Bonneville has assessed the potential environmental effects that could result from its proposal to join the EIM (Proposal).

Bonneville's role is to market and transmit the power generated by the FCRPS projects in accordance with Bonneville's statutory directives to meet power customer loads and provide an adequate, efficient, economical, and reliable power supply. The FCRPS operations are managed with other project purposes and system-wide operating constraints, including operations to support Endangered Species Act (ESA)-listed fish. Bonneville's power marketing services and activities, and its actual power operations to meet load obligations, are conducted consistent with applicable Biological Opinions and its decision in the Columbia River System Operations Environmental Impact Statement (CRSO EIS) Record of Decision, dated September 2020. These actions also are undertaken within existing operating constraints and normal operating limits of FCRPS projects.

In the Draft EIM Close-out Letter, Bonneville indicated that it believed this Proposal was likely the type of action typically excluded from further NEPA review pursuant to U.S. Department of Energy regulations, 10 C.F.R. §1021, *et seq.*, which apply to Bonneville. Bonneville also indicated that it would complete its NEPA process and issue its NEPA documentation for this Proposal before issuing the Final EIM Close-out Letter. Bonneville has now completed its NEPA process and is issuing its NEPA documentation for this Proposal.

All public comments concerning NEPA compliance and/or potential environmental effects for this Proposal that Bonneville received during the public comment period for the Proposal were reviewed as part of this NEPA process.

Issue 8.1:

Whether Bonneville has properly conducted its environmental analysis for Bonneville's proposal to join the EIM.

Commenters' Positions

Comments received in a joint comment letter from Idaho Conservation League and Columbia Riverkeeper (ICL-CR) state that they “disagree with BPA’s current assessment of the action. Entering EIM is a major federal action worthy of full environmental consultation and review under NEPA.”²⁸⁷ To support this position, ICL-CR raise the following points:²⁸⁸

- Bonneville has not committed to selling only spinning reserves, nor has it defined how entering EIM would change its scheduling of FCRPS operations;
- “flexible ramping” of power generation could materially change hydraulics, reservoir elevations, or other environmental conditions;
- because of these potentially significant changes in FCRPS operations from entering the EIM, there would be potential impacts to species listed under the ESA, other fish and wildlife, recreation, irrigation, and navigation; and
- the Western Area Power Administration (WAPA) prepared an EIS in the late 1980s for a proposed new power allocation and marketing plan, and Bonneville’s proposal is similar to WAPA’s plan.

ICL-CR also express their disappointment that BPA did not finish its assessment of the proposed decision before the Draft EIM Close-out Letter was published.²⁸⁹

Evaluation of Positions

As described in the earlier sections of this Final EIM Close-out Letter, Bonneville’s participation in the EIM is entirely voluntary. That is, the EIM agreements allow Bonneville to unilaterally choose to not participate in the EIM on an hourly basis for whatever reason. This includes choosing not to participate at any given time due to other statutory, regulatory, or other legal obligations, which Bonneville fully intends to do. As a result, FCRPS projects would be expected to continue to operate within normal limits and existing constraints. Because of this, it is reasonable to conclude that Bonneville’s participation in the EIM would be conducted in a manner that would not be inconsistent with its statutory and regulatory obligations.

In the longer term, Bonneville could choose to altogether withdraw from the EIM with no exit fee or penalty, should the participation not prove to be consistent with the six principles identified for joining the EIM or for any other reason. In addition, the EIM

²⁸⁷ ICL-CR Comments at 5.

²⁸⁸ *Id.* at 5-6.

²⁸⁹ *Id.* at 5.

agreements recognize Bonneville's non-jurisdictional status and acknowledge Bonneville's federal entity status, whereby federal laws would prevail should there be a conflict with either the CAISO's tariff provisions or any of the terms of the agreements. Bonneville's Power Services bulk marketing team would continue making decisions about the extent to which the agency will participate with FCRPS generating resources and transmission rights in the EIM. Similarly, the Transmission Services team also would have a number of options to ensure reliability, such as the ability to temporarily separate from EIM as needed. Thus, Bonneville would continue to retain its authority over matters relating to the reliability and operation of both the Federal Columbia River Power and Transmission systems.

Bonneville has designed its participation in the EIM real-time market in such a way that there would not be a fundamental change in its operational ability to manage power generation aspects of the federal system. In addition, the amount of power dispatch expected from EIM's real-time market would be relatively small compared to the total dispatch from the federal system. Just as today, Bonneville would continue to develop a daily plan for meeting its power and other obligations based on the unique set of factors affecting operations that day. As part of this daily plan, Bonneville also would continue to coordinate with dam operators to routinely determine the generation levels of each dam, keeping in mind that the dams are hydraulically connected and that each dam has a range within which it can be operated while meeting non-power requirements such as fish spill and reservoir levels.

Bonneville also would offer the flexibility of the hydro projects with the greatest generation capability (Big 10) aggregated into three overlapping resources to the EIM as opposed to aggregating all Big 10 projects into one resource or treating each project as an individual participating resource. This aggregation approach would maximize FCRPS benefits and allow Bonneville to set up base schedules that provide generation plans that are consistent with current FCRPS operations, including balancing all hydraulic, operational, environmental, and other non-power objectives and constraints. While Bonneville would not be limited to offering only the spinning reserves of the Big 10 projects, Bonneville would continue to retain the operational ability to define generation plans for how the Big 10 generators would operate for any given hour for EIM and other purposes and at what levels, after accounting for all non-power constraints, similar to current operations. More specifically, the EIM software that would be used is designed to simultaneously honor all constraints such as generation ramp rates, minimum/maximum generation ranges, transmission limits, and several other constraints while dispatching any generation across the EIM footprint.

Thus, the operation of the FCRPS is not likely to significantly change as a result of EIM participation. The EIM would simply become an additional marketing tool for Bonneville to efficiently manage real-time operations while continuing to operate within all the FCRPS

constraints including hydraulics, elevations, navigation, recreation, and flood control, as well as all of its fish and wildlife obligations. In addition, the potential for fluctuations in the operation of the FCRPS projects within normal limits as a result of EIM participation is expected to be comparable to the current observed levels of fluctuation, both in terms of being within allowable ranges and being conducted with all operational constraints remaining unchanged. Accordingly, no significant environmental impacts are expected as a result of EIM participation, including those related to the resources that are of concern to the commenters.

Regarding the commenters' reference to WAPA's NEPA compliance for its power allocation and marketing plan in the late 1980s, a review of that plan reveals that it is distinguishable from Bonneville's proposal to join the EIM. In addition to marketing elements, WAPA's plan provided for the actual allocation of power from several federal dams within its service territory. WAPA's plan also established allocation priorities for different types of customers. In addition, these power allocations were to be made through contracts lasting 15 years, with those allocations locked in for at least 10 years.

In contrast, Bonneville's decision to join the EIM does not involve any allocation of power and does not establish any priorities related to serving its customers. Nor does it contain the type of long-term, far-reaching commitments that WAPA's plan involved. Instead, as discussed above, EIM participation simply serves as an additional marketing tool for Bonneville, with the ability to unilaterally choose whether or not to actually undertake EIM participation activities on an hourly basis. Because of these substantial differences as well as the lack of potential for significant environmental impacts from the Proposal as explained above, it is reasonable that Bonneville is utilizing the NEPA compliance approach that it is, and that this approach differs from the approach applied to WAPA's power allocation and marketing plan.

In evaluating this Proposal, Bonneville has also considered how California attributes greenhouse gas (GHG) emissions. While Bonneville's federal hydropower system and Columbia Generating Station are carbon-free sources of power, California attributes GHG emissions to the purchases of energy that Bonneville makes in the open market to meet its load and balance resources. If Bonneville sells its resources into California in the EIM, the emissions factor for Bonneville could increase due to California's GHG accounting methodology. However, this change in the emissions factor is not reflective of actual changes in dispatch of generation in BPA's system or across the footprint of the EIM. Instead, it is a "bookkeeping" matter and is not likely to result in reasonably foreseeable environmental impacts. In fact, since the inception of the EIM in 2014, overall the EIM has achieved benefits in terms of reduced GHG emissions over the EIM market footprint due to lower curtailment of renewables.

In summary, Bonneville's participation in the EIM would essentially involve a variety of power marketing activities similar to today using the existing transmission system and the existing FCRPS generation sources operating within normal limits. Changes to allow this participation would primarily be financial and administrative in nature, such as including additional billing of customers on EIM-related settlements, revising some existing business practices, and calibrating several systems and processes necessary for alignment of power and transmission systems data with the CAISO.

Accordingly, with Bonneville's participation in the EIM, the FCRPS projects would continue to operate consistently within applicable environmental laws and regulations, including compliance with the National Marine Fisheries Services and U.S. Fish and Wildlife Service 2020 ESA consultations and Biological Opinions on the operations and maintenance of the FCRPS, the CRSO EIS Record of Decision, and any related court orders. There would be no new generation projects developed as a result of EIM participation and there would be no physical changes to the transmission system that would be made beyond the areas previously disturbed or developed. As such, the more efficient movement of power using already existing facilities under EIM would not be expected to result in any significant environmental effects.

Conclusion

Bonneville has determined that the Proposal to join the EIM falls within certain classes of actions excluded from further NEPA review pursuant to U.S. Department of Energy NEPA regulations, which are applicable to Bonneville. More specifically, this Proposal falls within the following categorical exclusions identified in the Department of Energy NEPA regulations at 10 C.F.R. §1021, Subpart D: B4.4 *Power marketing services and activities* and B4.8 *Electricity transmission agreements*. Bonneville provided notice of its likely NEPA compliance approach and has provided for public input on potential environmental effects it should consider in the NEPA process before completing that process and making a decision on the Proposal. Bonneville has prepared a categorical exclusion determination memorandum that documents this categorical exclusion from further NEPA review, which is available at the Bonneville website:

www.bpa.gov/efw/Analysis/CategoricalExclusions/Pages/2021.aspx.

9 Conclusion/Final Decision to Join the EIM

In consideration of the information and analysis contained in this Final EIM Close-out Letter and the extensive public process that Bonneville has held, Bonneville has concluded that the decision to join the EIM is consistent with the six EIM Participation Principles. Accordingly, Bonneville will join the EIM.

Bonneville will sign the EIM Entity Agreement and related agreements and will proceed with the remaining EIM implementation steps including parallel operations. Bonneville will remain in contact with customers and provide regular updates as EIM implementation activities progress.

Bonneville expects to begin financially binding participation in the EIM, *i.e.* "Go Live," on March 2, 2022, and Bonneville will be in communication with customers before the Go Live date. Bonneville will issue a Tech Forum notice 14 days before parallel operations begin (7 days before Bonneville's EIM-related Tariff provisions take effect), and will provide another Tech Forum notice 7 days before the Go Live date.

ATTACHMENT A

ANALYSIS OF REVENUES AND COSTS OF SELLING INTO CALIFORNIA

1. How Deeming Delivery to California in the EIM Could Impact Bonneville’s EIM Benefits

Bonneville’s business case relied on E3 analysis to estimate reduced EIM gross dispatch benefits under a scenario where Bonneville did not deliver directly to California due to GHG-related concerns. This scenario was called the GHG Compliance Sensitivity, and it estimated reduced benefits of \$4.6 million per year.

E3’s GHG Compliance Scenario

- E3 modeled EIM participation where BPA did not receive higher, CA-delivered prices
- This scenario resulted in average annual revenue \$4.6M less than the base case

EIM Price Scenarios: GHG Compliance

- We model CAISO GHG Compliance as only affecting BPA prices when selling into EIM
 - Marginal GHG component is small relative to energy, congestion

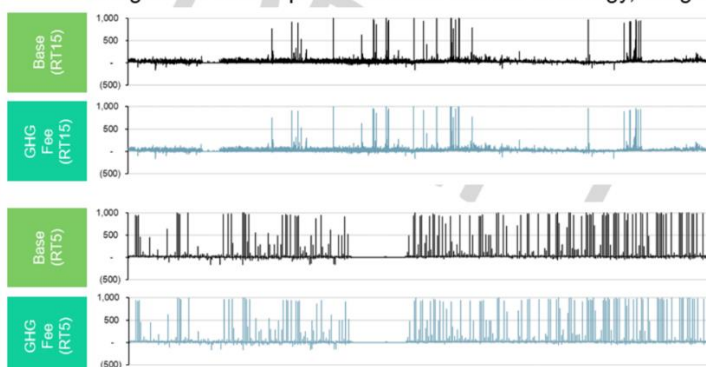


Table 9. Average and Annual Revenue from Dispatch Benefits for Sensitivities

Sensitivities	Average Revenue (\$ million)	Annual Revenue (\$ million)		
		2016	2017	2018
FRST-Only Participation	24.4	32.3	25.4	15.6
California GHG Compliance	34.6	45.6	34.5	23.8
Reduced Price Volatility	35.3	44.9	36.1	24.8
Higher Success Rate	47.1	59.4	47.8	34.0
NW Midpoint/Base	39.2	49.5	39.9	28.2



2. How Deeming Delivery to California in the EIM Could Impact Bonneville’s Non-EIM Net Secondary Revenue

The E3 analysis made several assumptions that are important in analyzing the impacts of Bonneville selling into California (CA) through the EIM. First, the E3 analysis assumed that any amount of headroom Bonneville bid into the EIM was dispatched in the EIM. In other words, there were not instances when Bonneville bid in more megawatts than were dispatched. Second, the E3 analysis assumed energy neutrality, which means that the amount of sales Bonneville made into the EIM were offset by an equal amount of purchases. The E3 analysis indicated Bonneville sales would increase by ~3,000,000 megawatt hours (MWh) and therefore Bonneville purchases would also increase ~3,000,000 MWh per year when joining the EIM. This assumed that Bonneville did not sell to California in the EIM.

Bonneville sales and purchases would increase an additional ~500,000 MWh per year (a total of ~3,500,000 MWh per year) when assuming that Bonneville sells to California in the EIM. Bonneville performed an internal analysis to estimate how these additional purchases would change the Bonneville ACS emission factor.

1. Original emission factor: CO ₂ e/MWh	0.0122 MT
2. New emission factor (BPA joins EIM: no sales to CA in the EIM): CO ₂ e/MWh	0.0261 MT
3. New emission factor (BPA joins EIM: sales to CA in the EIM): CO ₂ e/MWh	0.0284 MT
4. The change in the emission factor (2 - 1): CO ₂ e/MWh	0.0139 MT
5. The change in the emission factor (3 - 2): CO ₂ e/MWh	0.0023 MT
6. The change in the emission factor (3 - 1): CO ₂ e/MWh	0.0162 MT

This results in the following increases in Bonneville carbon compliance costs:

Scenario 1: Bonneville joining EIM with no sales to California in the EIM

The Bonneville carbon compliance cost increased ~\$945,000 per year.

- Bonneville extra-regional sales to California (outside the EIM) are ~4,000,000 MWh²⁹⁰ per year. The Bonneville carbon compliance cost for these sales would increase due to the slightly higher Bonneville ACS emission factor.
 - $\sim 4,000,000 \text{ MWh} * 0.0139 \text{ MT CO}_2\text{e/MWh} * \$17/\text{MT CO}_2\text{e} = \sim \$0.95 \text{ million per year}$

Scenario 2: Bonneville joining EIM with sales to California in the EIM

The Bonneville carbon compliance cost increased ~\$400,000 per year. This cost has two components:

²⁹⁰ The ~4,000,000 MWh per fiscal year is based on the BP-22 Rate Case Initial Proposal extra-regional sales methodology.

- Bonneville extra-regional sales to California (outside the EIM) are ~4,000,000 MWh per year. The Bonneville carbon compliance cost for these sales would increase due to the slightly higher Bonneville ACS emission factor.
 - $\sim 4,000,000 \text{ MWh} * 0.0162 \text{ MT CO}_2\text{e/MWh} * \$17/\text{MT CO}_2\text{e} = \sim \$1.1 \text{ million per year}$
- Bonneville sales to California increased by ~500,000 MWh per year when the E3 analysis assumed that Bonneville could sell to California in the EIM. These additional sales would increase the Bonneville carbon compliance cost but these costs are compensated through the GHG shadow price.

The table below summarizes the above results:

	Emissions Factor (MT CO _{2e} /MWh)	Carbon compliance cost for extra-regional sales to CA (~\$ million/yr)	Gross Benefits (~\$ million/yr)
Pre-EIM	0.0122 CO _{2e} /MWh	\$0.8	
BPA joins EIM: no direct sales to CA	0.0261 CO _{2e} /MWh	\$1.8	\$29
BPA joins EIM: with direct sales to CA	0.0284 CO _{2e} /MWh	\$2.0	\$33.6

The benefits of selling into California in the EIM appear to far outweigh the costs. And to the extent this conclusion does not hold true in actual operations, Bonneville can decide to stop selling to California in the EIM at any time.

3. Selling into California Could Impact Bonneville’s Customers under Other State Carbon Programs

Bonneville received many comments on the EIM Policy ROD from the public stating that the EIM GHG accounting issue was important to them, particularly its potential impact on their compliance with state laws in the region.²⁹¹ Several customers and customer groups have also communicated these concerns directly to Bonneville staff and management. In general, Bonneville customers have indicated that it is more important to them to consider the implications of Bonneville’s participation in the EIM (including but not limited to current GHG accounting design) to customers’ compliance with current and potential future GHG emissions reduction programs and clean energy standards in Washington and

²⁹¹ See EIM Policy ROD § 3.5.4.2.

Oregon, than it is to consider the impacts (assessed above) regarding Bonneville sales into California.

In 2019, Washington state passed the Clean Energy Transformation Act²⁹² that requires retail utilities to remove coal by 2026, be carbon neutral by 2030, and 100% carbon-free by 2045. Implementation plans detailing how utilities will meet their compliance obligations are due to the state starting in 2022, and in 2030 customers will need to mitigate for any unspecified power through purchasing unbundled RECs, doing “energy transformation projects,” or paying an administrative fee. CETA rulemakings are still ongoing and there is significant uncertainty around how utilities will demonstrate compliance with the law and how participation in the EIM will be treated for purposes of compliance with the law.

In April 2021, Washington state passed legislation establishing a cap-and-trade program. The program begins in 2023 and covers electricity that is imported into the state, including via an organized market. The legislation leaves to the rulemaking process the question of how to treat EIM imports into the state. Thus it is not yet determined how Washington will regulate EIM imports under the program. Additionally, if Washington were to propose a method of regulating EIM imports that involved the CAISO, it is likely that further processes would be needed by the CAISO to determine feasibility of implementation. Under the program, Washington utilities will be allocated free allowances that should cover most if not all forecasted emissions. Bonneville’s Washington customers are keenly focused on the CETA rulemakings and compliance obligations, and are expected to be similarly focused on cap-and-trade.

In addition, Oregon has also been aggressively pursuing GHG emissions reduction policies. While focus in the past has been on establishing a cap-and-trade program in Oregon, during the 2021 legislative session that focus shifted to creating a clean energy standard.

Given the current uncertainties associated with how these programs will treat EIM purchases, Bonneville may reevaluate the results of the analysis contained in this Attachment at a later time as more information becomes available. As stated in this Final EIM Close-out Letter, Bonneville can decide to stop selling to California through the EIM at any time.

²⁹² Clean Energy Transformation Act, Wash. Rev. Code § 19.405.