

**UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY  
COMMISSION**

)  
Southwest Power Pool, Inc. ) Docket No. ER24-1658  
Submission of Tariff to Establish Markets+ )

**COMMENTS OF RENEWABLE NORTHWEST**

Pursuant to Rules 211, 212, and 214 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure,<sup>1</sup> Renewable Northwest<sup>2</sup> (“RNW”) offers these comments in response to Southwest Power Pool, Inc.’s (“SPP”) March 29, 2024 filing of its Tariff to Establish Markets+ (“Tariff”), which proposes to establish a real-time and day-ahead market structure for Western Interconnect market participants. RNW has previously filed to intervene. RNW has engaged in the tariff formation through the stakeholder process at SPP since it started in early 2023.<sup>3</sup> RNW appreciates both the opportunity to submit its comments on the Markets+ Tariff and SPP’s request for an extended comment period, which allowed for development of comments on such a substantial filing. In general, RNW supports establishment of markets in the Western Interconnect to offer reliable and economic access to diverse renewable energy generating resources in support of regional decarbonization policies, and offers specific areas of concerns and potential complications around market operations in the Northwest

---

<sup>1</sup> 18 C.F.R. § 385.211, 212 & 214 (2023).

<sup>2</sup> Renewable Northwest is a non-profit 501(c)(3) regional advocacy group that works to facilitate the expansion of responsibly developed renewable energy resources in the Northwest. Renewable Northwest’s members include renewable energy project developers and manufacturers, public and consumer interest groups, and others. The common goal of Renewable Northwest’s members is to promote the development of a cost-effective, reliable, and clean energy system for the betterment of the Northwest economy and environment.

<sup>3</sup> Renewable Northwest is a member of the Market Design Working Group, Market Rates Task Force, and the Market Participant Executive Committee.

for the Commission's consideration as it reviews and weighs in on the tariff. In particular, RNW requests that the Commission consider potential seams arising from the development of multiple markets in the west, and that the Commission direct SPP to take certain actions to address seams as described below.

## **I. COMMENTS**

RNW supports the development of electricity markets in the Western Interconnect - real-time and day-ahead - and sees them as an important step in supporting the region's decarbonization policies in a way that ensures continued regional reliability at the most reasonable rate to the customers. The region, and the Northwest specifically, has already seen the benefits of a real-time market with the existing Western Energy Imbalance Market ("WEIM") through enhanced reliability in extreme weather events and in cost saving benefits.<sup>4</sup> As the region moves towards a two-market setting, being mindful to not erode any of those benefits or unnecessarily increase the frictions between markets, transmission operators, and Balancing Authority Areas ("BAA") will be essential. The West is not unique in the challenges facing it - increasing load growth, the need to improve and expand transmission, integrating more diverse renewable energy resources, and increasing frequency of extreme weather events that challenge the system's reliability - but minimizing frictions and inefficiencies in the movement of electricity around the region is essential for optimization and reliability.

---

<sup>4</sup> The most recent WEIM Benefits Report from January 2024 shows the cumulative economic benefits of the market totaling \$5.05 billion since it started in November 2014. California ISO, Western Energy Imbalance Market Benefits Report, Fourth Quarter 2023 (Jan. 31, 2024), available at <https://www.westerneim.com/Documents/iso-western-energy-imbalance-market-benefits-report-q4-2023.pdf>.

## A. Seams Issues are not Novel in the West

The National Regulatory Research Institute (“NRRI”) defines seams as “inefficiencies that prevent the economic transfer of capacity and energy between neighboring wholesale electricity markets or between control areas” that can include interfaces between two or more markets that “result in operational and planning inefficiencies known as seams issues.”<sup>5</sup> FERC has weighed in on various seams issues over the years as RTOs and ISOs have formed and evolved in their footprints and functions, with the intent to address reliability concerns, reduce inefficiencies, limit gaming opportunities through market power, and limit impacts to customers, among other reasons.<sup>6</sup>

In the Western Interconnect, the lack of neighboring markets or RTOs/ISOs has equally meant a lack of seams agreements, although there are many forms of cooperation between neighboring entities to overcome the frictions and inefficiencies introduced by having multiple entities in charge of electricity balancing and delivery. However, as two markets emerge in the Western Interconnection, with adjacent operational boundaries, RNW suggests it is the right time for Commission guidance on dealing with these new market seams that are developing. Indeed, market seams implicate other entities beyond the two market operators - the California ISO (“CAISO”) and SPP - and broad coordination will be important to ensure the “creation of ‘seamless’ markets and eliminate inefficiencies that inhibit economic transfers between the neighboring regions”<sup>7</sup> through operating agreements.

---

<sup>5</sup> National Regulatory Research Institute, Electric Transmission Seams: A Primer White Paper (Feb. 2015), available at <https://pubs.naruc.org/pub/FA86CD9B-D618-6291-D377-F1EFE9650C73>.

<sup>6</sup> As seen in Citizens Power & Light Corporation, 48 FERC 61,210 at 61,777 (1989); American Electric Power Company, Docket Nos. EC98-40-000 & ER98-2770-000; Central and South West Corporation, Docket No. ER98-2786-000; American Electric Power Service Corp., Docket No. ER03-262-001.

<sup>7</sup> Seams White Paper for Organization of MISO States (OMS) and SPP Regional State Committee (RSC) Liaison Committee at 5 (Nov. 2018), available at [https://www.spp.org/documents/59006/spp-miso\\_rsc\\_oms\\_response\\_spp\\_miso\\_final\\_v3.pdf](https://www.spp.org/documents/59006/spp-miso_rsc_oms_response_spp_miso_final_v3.pdf).

The current configuration of electricity management in the majority of the Western Interconnect relies on 39 separate Balancing Authority Areas.<sup>8</sup> The presence of two real-time markets - CAISO's WEIM and SPP's Western Energy Imbalance Service ("WEIS") - have provided significant benefit to these BAAs and their customers through improved efficiency and cost savings.<sup>9</sup> Much of this benefit comes from the smoothing of the seams between these BAAs and other authorities, such as different transmission owners and operators.

### **B. The Northwest Wholesale Electricity System Has Many Existing Seams, Relies on Bilateral Transactions, is Moving Incrementally towards Regional Collaboration through Markets; Potential for Complicated Seams with Two Market Overlay**

While seams abound in the Western Interconnect, the Northwest has a particular set of complicating factors with the presence of the region's Power Marketing Agency ("PMA") - the Bonneville Power Administration ("BPA"). BPA was established in 1937 to market the power of the Northwest's Federal Hydroelectric system and has evolved since then to provide power and transmission services to the region. It also plays a role in the conservation of fish species as part of dam management. BPA is authorized to provide low-cost power to its public power customers while also providing the backbone transmission infrastructure for the Northwest states of Washington, Oregon, Montana, and Idaho and connecting to California and Canada.<sup>10</sup> BPA is the

---

<sup>8</sup> This WECC map includes 38 BAAs without the inclusion of the Avangrid BAA.

[https://www.wecc.org/Administrative/BalancingAuthorities\\_JAN17.pdf](https://www.wecc.org/Administrative/BalancingAuthorities_JAN17.pdf)

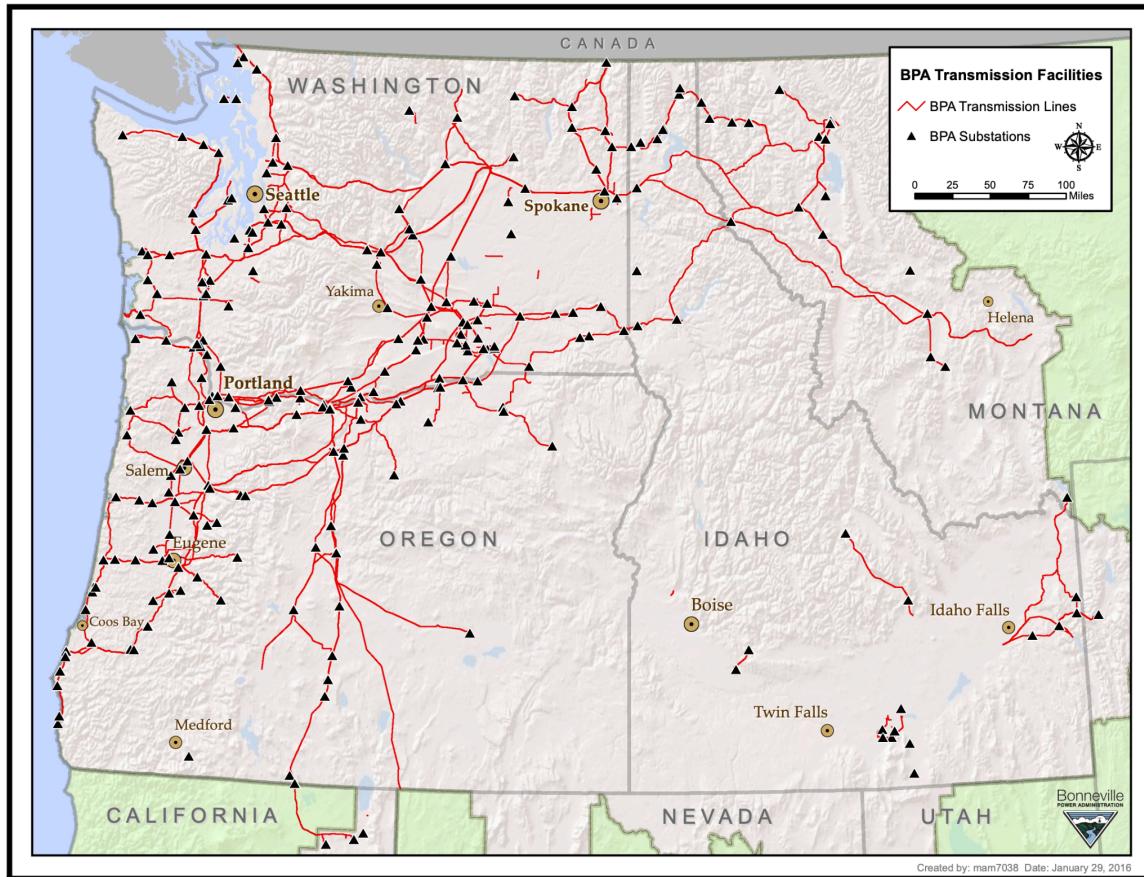
<sup>9</sup> The Brattle Group, The Need for Intertie Optimization: Reducing Customer Costs, Improving Grid Resilience, and Encouraging Interregional Transmission (Oct. 2023), available at <https://www.brattle.com/wp-content/uploads/2023/10/The-Need-for-Intertie-Optimization-Reducing-Customer-Costs-Improving-Grid-Resilience-and-Encouraging-Interregional-Transmission-Report.pdf>.

<sup>10</sup> Much of this was established in the Pacific Northwest Consumer Power Preference Act of 1964, P.L. 88-552, but this Act is just part of a suite of statutes that form BPA's foundational statutes and govern day-to-day decisions. These also include the Bonneville Project Act of 1937, P.L. 75-329, codified at 16 U.S.C. Ch. 12B, the Federal Columbia River Transmission System Act of 1974, P.L. 93-454, and the Pacific Northwest Electric Power Planning Act of 1980, P.L. 96-501 (commonly referred to as the Northwest Power Act). These statutes are collected in a volume published by BPA and available at <https://www.bpa.gov/-/media/Aep/power/provider-of-choice/gi-BPA-Statutes.pdf>.

In the context of the Day-Ahead Market decision, BPA Staff has issued a preliminary statutory review and legal opinion on BPA's legal authority to join a day-ahead market. BPA, Day-Ahead Market Policy Paper Attachment 2 (Apr. 2024), available at

main transmission service provider in the region, owning and operating an estimated 75% of the region's transmission capacity.<sup>11</sup> Importantly, this federal transmission backbone (Figure 1) includes interties, some of which are jointly owned and managed with other investor-owned utilities ("IOU").<sup>12</sup>

**Figure 1. BPA's Transmission Facilities Map<sup>13</sup>**



This layer of BPA transmission provides not only an incredibly important service to the region, but also a source of questions and uncertainty around transmission management in a

<sup>11</sup> <https://www.bpa.gov/-/media/Aep/projects/day-ahead-market/2024/03-dam-march-policy-paper-attachment-2-preliminary-legal-assessment.pdf>.

<sup>12</sup> Oregon Department of Energy, Regional Transmission Organization Study: Oregon Perspectives at 9 (Dec. 2021), available at <https://www.oregon.gov/energy/Data-and-Reports/Documents/2021-Regional-Transmission-Organization-Study.pdf>.

<sup>13</sup> BPA, Northwest AC Intertie (NWACI) Frequently Asked Questions, available at <https://www.bpa.gov/-/media/Aep/transmission/ptp-service/nwaci-faq-1-18-24.pdf>.

<sup>14</sup> Available at <https://www.bpa.gov/-/media/Aep/about/publications/maps/bpa-tlines-small.pdf>.

potential two-market system for the Northwest. BPA's recent staff recommendation letter<sup>14</sup> indicated an early leaning towards the Markets+ offering, while several IOUs - which also use and rely on BPA's transmission service - have indicated a leaning towards CAISO's EDAM. RNW suggests that this new market seam, which could also implicate the management of the interties, should be addressed sooner rather than later.

Indeed, the importance of intertie management was not only stressed in the recent Brattle study on Intertie Optimization,<sup>15</sup> but also was highlighted in the recent cold snap of January 2024 which tested the Northwest's electricity and gas systems, and showed, again, the importance of the interties and the ability to access geographically diverse resources in real-time. Through the participation in the WEIM (Figure 2), the interties were able to meet the real-time demand over the weekend of January 12-16, 2024, and especially on the first day of the cold-snap which saw real-time loads far exceed the day-ahead forecasts.<sup>16</sup> Even with outages and derates on the interties, which saw more MW move through the east to west interties through Idaho, there was a significant reliance on moving the needed MW to ensure reliability in the region.<sup>17</sup>

---

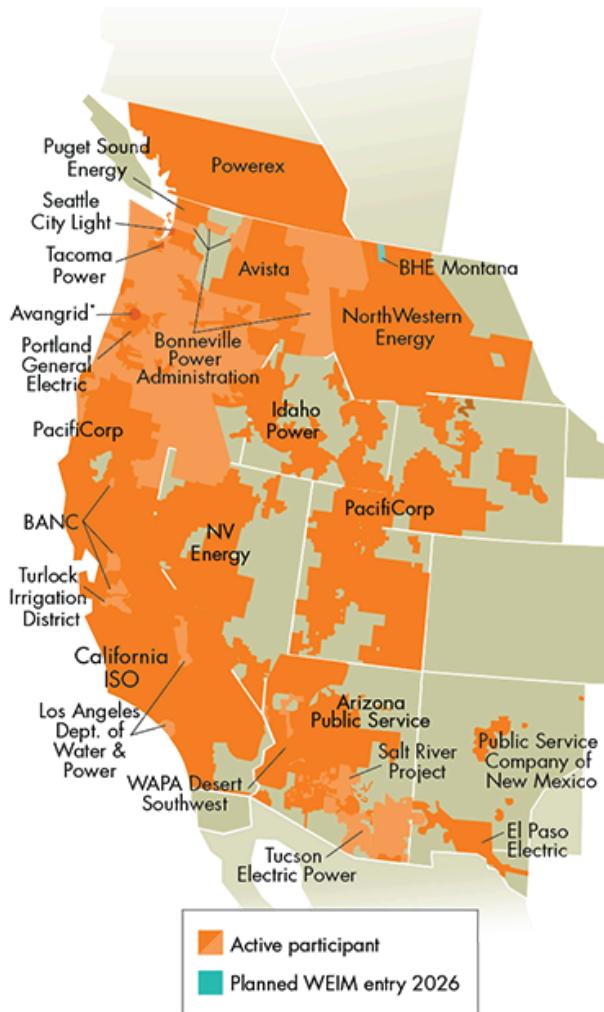
<sup>14</sup> BPA, Day-Ahead Market Policy Paper Attachment 1 (Apr. 2024), available at <https://www.bpa.gov/-/media/Aep/projects/day-ahead-market/2024/02-day-ahead-market-attachment-1-staff-recommendation.pdf>.

<sup>15</sup> The Brattle Group, *supra* note 9.

<sup>16</sup> CAISO, Winter Conditions Report for January 2024 (Mar. 6, 2024), available at <https://www.caiso.com/Documents/WinterMarketPerformanceReportforJan2024.pdf>. A discussion of load conditions starts on page 14 and of WEIM Transfers on page 36.

<sup>17</sup> There are several post-event studies that look at the complexity of the January event, from the electricity and gas supply side of the region. The full event analysis is much more complex than portrayed here, where we have focused on the intertie element of that period.

**Figure 2. WEIM Footprint<sup>18</sup>**



Again, the interties currently fall in the footprint of the WEIM, and have the potential to fall under two market footprints in the future. This bifurcated management future will certainly impact the regional exchange of electricity and implicate entities beyond the two market operators. Especially as Markets+ will not serve as a transmission service provider, and the OATTs of individual transmission owners and operators will still exist - including around the interties - RNW suggests that any seams conversations and coordination around transmission

<sup>18</sup> Available at <https://www.westerneim.com/Pages/About/default.aspx>.

services include robust discussions that focus on ensuring the continued reliability of the interties and also guard against any deterioration of the reliability benefits currently enjoyed from the optimization of the interties due to the WEIM.<sup>19</sup>

### **C. The Commission has History of Reviewing and Offering Guidance on Managing Seams between Markets**

The Commission's history of issuing guidance and decisions on seams dates back to 1996 with the issuance of Order 888. Then in 1999 the Commission issued Order 2000, establishing characteristics and functions around wholesale competition and ISOs and RTOs with the intent of (1) improving efficiencies of transmission grid management, (2) improving grid reliability, (3) removing transmission discriminatory practices, (4) improving market performance, and (5) lightening regulatory touches with the introduction of an RTO. Following the issuance of these orders, dockets dived into implementation intricacies and explored how to manage the interactions between neighboring entities - with an eye to maintaining these above intentions - in the form of seams agreements. While many of these decisions have been related to RTOs and ISOs, the issues raised and addressed in those decisions primarily concern wholesale electricity markets operated by RTOs and ISOs. Markets in the West, including EDAM and the proposed Markets+, use the RTO/ISO LMP market design as a template, and issues related to RTO/ISO market seams are as relevant in the West as they were and continue to be in the East.

### **D. The Northwest Expects Similar Seams with Some Additional Complexity**

As SPP has stated in its filing, it is offering a market operator service in its Markets+ product. It will not perform all the functions of an RTO, and will not consolidate the region's transmission OATTs. The region's numerous BAAs will still operate and maintain their functions. This is also true of the Northwest interties - they will maintain their current ownership,

---

<sup>19</sup> The Brattle Group, *supra* note 9.

and presumably their current management agreements, although it is anticipated that OATTs will need to be updated when entities enroll in a day-ahead market. There has been much discussion over the implications of this reality, with differing opinions on the potential complications introduced into the market operations or implications for other entities, like BAAs, to accommodate these complexities.<sup>20</sup>

While this is not an insurmountable complexity, the region would benefit from early discussions in order to guard against potential, perhaps unexpected, reliability issues. To date, there has not been a fulsome analysis of the day-to-day operational and potential reliability and cost impacts of having a transmission system owner in one market, and those using the transmission service in another market - and to determine potential adverse impacts. Additionally, given that the region contains non-FERC jurisdictional entities - which may follow FERC guidance but without any binding requirements to comply - including the Northwest's largest transmission owner and operator, early and transparent conversations around the practicalities of this issue will benefit all regional stakeholders. Seams are not a new topic, but there are new elements in the Northwest to include in these seams conversations which should not be minimized in their consideration, especially around the treatment and transparency of transmission services.

#### **E. SPP Recognizes Seams in Filing, Cites Prior Commission Decision on Prematurity of Seams Guidance**

SPP is well versed in the management of seams and currently manages a busy seams portfolio with its neighbor MISO.<sup>21</sup> For the Markets+ process, there is a dedicated working group

---

<sup>20</sup> One such complexity raised is the potential for a market participant to be in a different market than its BAA. Given the number of BAAs in the region, which will be maintained, there is potential for this “market layer” reality.

<sup>21</sup> 106 FERC ¶ 61,110 (Feb 10, 2004): When the Kansas Corporation Commission and others protested that SPP’s service territory would be too small to fulfill scope and configuration requirements or to address reliability concerns, FERC required SPP to “have on file with the Commission a seams agreement with [MISO]” in order to

Comments of Renewable Northwest, FERC Docket ER24-1658  
April 29, 2024

Page 9 of 15

on Seams issues, and the issue has been flagged as an area for further work and discussion. In SPP's filing letter, it states that:

*...in the context of this filing, SPP is acting only in the capacity of Market Operator for Markets+. SPP is not taking on responsibilities for administering open access transmission service, Balancing Authority operations, transmission planning or operation, or any other function that might normally require comprehensive agreements with neighboring entities performing similar functions. As such, SPP has not identified immediate seams issues of concern related to Markets+. That said, Markets+ will likely share seams with WEIS, WEIM, and EDAM... at this junction, as the Commission has noted [in the EDAM decision], the issue of seams is premature.<sup>22</sup>*

SPP correctly notes that its role as a Market Operator for Markets+ is more limited than, for example, its role as Market Operator for the SPP RTO. However, it is important to note that seams issues identified and addressed in prior FERC proceedings revolve primarily around market operations. Issues such as loop flow and congestion management at market seams arise from market-based unit commitment and dispatch, which is conducted by the Market Operator. Market seams coordination may not be solely the responsibility of SPP the Market Operator, and in fact given the large number of BAA and transmission operators that will continue to operate independently, it will be broadly shared responsibility. There is a need for seams coordination discussions that involve SPP as Market Operator, CAISO as Market Operator, and other entities operating transmission systems and BAAs within those markets.

As there are now two Market Operators with tariffs filed at FERC, based on previous Commission decisions, this is the appropriate moment to provide seams agreement direction and guidance. While the seams agreements are not needed for tariff approval, and while they do not necessarily eliminate the adverse impact of seams, they have been a condition, suggestion, or stipulation of Commission decisions in an effort to mitigate those impacts and to ensure the tariff

---

<sup>22</sup> "ameliorate concerns about adequate scope." MISO and SPP then developed a Joint Operating Agreement ("JOA") in compliance with FERC requirements, sufficient to provide a structure for seams management.

<sup>22</sup> SPP Markets+ Tariff at 54, Docket No. ER24-1658 (Apr. 5, 2024).

remains just and reasonable.<sup>23,24</sup> The exact placement of those seams is still to be determined as the footprint develops, but RNW suggests it is reasonable to provide timelines for having agreements in place or other Commission guidance in order to address any potential inefficiencies in a timely manner.

RNW would like to thank SPP for calling out a key regional issue it identified in its discussion of seams - the lack of uniform congestion management in the region.<sup>25</sup> This issue is inextricably linked with intertie management, as flagged above, and we agree wholeheartedly with SPP that this is a barrier to efficient market operation, reliability, and reasonable costs to rate-payers. Indeed, the lack of uniform congestion management arguably makes seams agreements all the more important to reduce friction and inefficiencies. In the face of a lack of uniform congestion management practices, RNW suggests that including uniform congestion management as part of any seams discussions and agreements would be of great benefit to the region.

In fact, it is worth flagging SPP's experience on congestion management as it is detailed in its Joint Operating Agreement with MISO and as included in its tariff. Many of the elements of the JOA are based on Market Operator functions; because the Markets+ tariff would establish SPP as a Market Operator in the west, its ability and expertise addressing seams with MISO should translate well to seams agreements and discussions in the Northwest.<sup>26</sup>

---

<sup>23</sup> 100 FERC ¶ 61, 137 in Docket No. EL02-65-000, et al. (July 31, 2002) and 105 FERC ¶ 61, 25 in Docket No. ER03-262-001, et al. (November 25, 2003): In response to concerns about seams between MISO and PJM, FERC ordered them to form a “functional common market,” to file reliability plans with NERC, and to address loop flow and connectivity problems resulting from the new proposed configuration. MISO & PJM developed a JOA in compliance with FERC requirements.

<sup>24</sup> Docket No. ER10-941: When Entergy Services, Inc. requested approval for SPP to serve as its Independent Coordinator of Transmission (ICT), FERC encouraged Entergy and SPP to “remove seams between their transmission systems” by negotiating and executing a seams agreement, which FERC ultimately accepted conditionally.

<sup>25</sup> Section IV(C)3 of SPP's filing letter, Docket No. ER24-1658 (Apr. 5, 2024).

<sup>26</sup> The Joint Operating Agreement between SPP and MISO is contained in SPP's OATT as posted on SPP's OASIS, under the heading “Tariff” and the subheading “Rate Schedules and Seams Agreement Tariff”, *available at <https://spp.itariff.biz:8443/viewer/viewer.aspx>*.

## **F. The Region Would Benefit from Commission Guidance on Timeline and Indicators for Seams Collaboration**

The Northwest is not unique in having its own set of complexities when it comes to the wholesale electricity system, some of which we have discussed above. Given the diversity of potential market participants - including non-jurisdictional entities central to the Northwest's power and transmission system - RNW suggests that Commission guidance on how to approach these complexities would be beneficial.

Should the Commission determine that it is still premature to direct operating agreements between CAISO and SPP, or other implicated entities, around the seams of their two markets, RNW suggests that guidance from the Commission on what would be an appropriate timeline and milestones in market development would be useful for the region as it navigates this next step in moving towards greater electricity market participation.

In any event, we believe the Commission, at a minimum, must require a process to (1) evaluate markets seams issues as market configuration becomes more clear; (2) report back to the Commission on potential adverse consequences of market seams; and (3) develop, file, and implement seams agreements to address any adverse consequences prior to market start and ensure the tariff remains just and reasonable at go-live.

### ***1. Emergence of two Real-Time and Day-Ahead Markets in Western Interconnect Raises Questions on How to Limit Inefficiencies and Frictions at Intersections of Markets, Limiting Cost Impacts to Customers***

The intent of these comments is to guard against potential impacts that can result from introducing unnecessary friction to the Northwest through the operation of two markets - hence our request that the Commission take a proactive stance on seams. Again, while the challenges posed by a multiple-market scenario are not insurmountable, it is not entirely clear how to go about limiting potential inefficiencies and preventing deterioration of the benefits the region

currently enjoys with the EIM - especially as seen in the NW intertie - on reliability and benefits to customers. Our intent is to highlight the need to limit impacts on customers and ensure that the potential benefits presented by markets - even two markets - are fully enjoyed by the region's customers, not just individual market participants which include non-jurisdictional entities.

## ***2. Public Interest Determination for Continued Regional Reliability and Cost; Need for FERC Guidance***

RNW greatly appreciates the role that state-level regulatory bodies play in ensuring that the public interest is met by regulated utility planning and procurement activities. The Commission is another body for ensuring entities under its jurisdiction are meeting those standards of supporting the public interest through protections related to reliability and costs to customers. The diversity of entities discussing and eventually deciding about market participation in the region and determining the footprint of those markets is unprecedented, and the market-development process implicates a large group of stakeholders beyond those decision-making bodies. For example, there are still outstanding questions around what potential issues could be introduced with the BPA entering one market while its transmission customers might split between the markets. The Commission's guidance and consideration of these issues would greatly benefit the region to ensure that we are moving in a direction that will meet the public interest criteria around reliability and cost to customers.

## **II. CONCLUSION**

Renewable Northwest again appreciates the opportunity to submit comments on SPP's Tariff to Establish Markets+. We commend SPP staff for the amount of work and diligence in working with stakeholders to create the proposed Tariff. RNW fully supports the development of real-time and day-ahead markets in the Western Interconnect and the important role markets can

play to facilitate the region's decarbonization in a reliable and economic way. To ensure the continued reliability of the region's electricity system and to limit any introduction of new frictions that could challenge reliability or create undue economic pressure - at the ultimate expense of customers - RNW requests that the Commission require a process to (1) evaluate markets seams issues as market configuration becomes more clear; (2) report back to the commission on potential adverse consequences of market seams; and (3) develop, file, and implement seams agreements to address any adverse consequences prior to market start. These steps will especially be important to the Northwest's power and transmission system given the conditions discussed above to ensure continued system reliability and just and reasonable costs to customers.

Respectfully submitted this 29<sup>th</sup> day of April 2024,

/s/ Diane Brandt  
Diane Brandt  
Renewable Northwest  
421 SW 6th Ave Suite 1400  
Portland, OR 97204  
Phone: 503-223-4544  
[diane@renewablenw.org](mailto:diane@renewablenw.org)

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Portland, OR this 29<sup>th</sup> day of April 2024.

/s/ Diane Brandt

Diane Brandt  
Renewable Northwest  
421 SW 6<sup>th</sup> Avenue, Suite 1400  
Portland, OR 97204  
503-223-4544  
[diane@renewablenw.org](mailto:diane@renewablenw.org)