

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

Southwest Power Pool, Inc.	)	Docket Nos. ER24-1658-000
	)	ER24-1658-001

**COMMENTS OF POWEREX CORP.**

Pursuant to Rules 212 and 214 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 214, as well as the Commission’s April 8, 2024, Errata Notice Extending Comment Period issued in the above-captioned proceeding, Powerex Corp. (“Powerex”) respectfully submits comments in support of the tariff proposal filed on March 29, 2024, by Southwest Power Pool, Inc. (“SPP”), to establish the centralized Day-Ahead and Real-Time unit commitment and dispatch market in the Western Interconnection, to be known as SPP’s Markets+ (“Markets+”).<sup>1</sup>

**I. EXECUTIVE SUMMARY**

For more than two decades, the Western Interconnection has relied on a bilateral market and contract-path transmission scheduling framework for most wholesale energy transactions, representing a notable exception to the broad development and adoption of organized markets by the rest of the U.S. wholesale electricity industry. But increasing reliability challenges, accelerating load growth, greater transmission congestion, and an

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<sup>1</sup> *Southwest Power Pool, Inc.*, Submission of Tariff to Establish Markets+, Docket No. ER24-1658-000 (Mar. 29, 2024) (“Markets+ Tariff Filing”); *see also Southwest Power Pool, Inc.*, Amended Filing - Submission of Tariff to Establish Markets+, Docket No. ER24-1658-001 (Apr. 5, 2024). Due to a technical issue with the Commission’s online submission system that required resolution by Commission support staff, this filing was recorded as having been submitted after 5:00 p.m. Eastern Time on April 29, 2024. Inquiries with Commission support staff before the 5:00 p.m. filing deadline confirmed that filings submitted after the deadline would be deemed timely. To the extent necessary, Powerex also requests any necessary waivers to ensure these comments are deemed timely filed.

expansion of variable generation resources across the Western grid have made it clear in recent years that the *status quo* is no longer tenable. In direct response to region-wide reliability concerns, the Western Power Pool, together with a substantial and diverse set of entities, sought and obtained Commission approval in 2023 for the creation of the Western Resource Adequacy Program (“WRAP”)—a resource adequacy framework that is expected to usher in groundbreaking regional collaboration to face common challenges.

Markets+ builds on the creation of the WRAP. Like the WRAP, Markets+ has been designed by Westerners, for Westerners, through an open, inclusive, and consensus-driven process facilitated by SPP. In line with the geographic span of the WRAP, the Markets+ Tariff was conceived and developed by a broad and diverse set of stakeholders, including entities that represent load across 10 Western states and a Canadian province, in collaboration with state utility commissions, public interest organizations, and various other stakeholders. With an independent, inclusive, and robust governance structure as its “starting point,” the development of the Markets+ Tariff proceeded at an intensive pace through issue-focused design teams made up of senior technical personnel and executives from across the broad footprint.

The Markets+ Tariff draws upon Commission-approved organized market design elements, and with technical support from SPP staff, the Markets+ stakeholder groups worked to identify solutions to address region-specific considerations in a manner that aligns with Commission policy. Each of the Markets+ design elements were then vetted in the region through an inclusive, year-long development period to ensure the Tariff includes elements that address the diverse needs of potential regional participants and stakeholders. This approach—and the associated time dedicated to it—reflects the

commitment of interested parties to develop a full proposal within a timeframe that would allow careful review and consideration by the broadest possible set of potential participants, including governmental and other publicly owned entities. These collective efforts resulted in a proposed tariff that was approved by a vote of 91.11%.<sup>2</sup> This strong consensus is the culmination of a transparent and responsive stakeholder process, through which the Markets+ Participant Executive Committee (“MPEC”) voted on nearly 100 items with an average consensus of 97.59%.<sup>3</sup>

Markets+ represents a historic breakthrough for the West: a once-in-a-generation opportunity for a substantial geographic portion of the Western Interconnection to move forward together into a full flow-based organized market structure, largely similar to the organized market structures prevalent throughout the Eastern Interconnection. Also in alignment with Eastern organized market structures—yet differing from the other organized market frameworks in the West—Markets+ will have a common resource adequacy requirement in the form of mandatory WRAP participation for participating load, as well as a corresponding Must Offer Obligation for making supply available for market commitment and dispatch. Building on the WRAP as the foundation for market participation, Markets+ will enable centralized unit commitment and dispatch of all available resources on an hourly and sub-hourly basis, with increased transfers enabled by the flow-based modeling of transmission limits that will reduce the cost of electricity to consumers and help protect reliability in the region.

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<sup>2</sup> Markets+ Tariff Filing, at P 68 (citing MPEC Minutes, Southwest Power Pool, Inc., at Tab 9.b (Jan. 23-24, 2024), available at <https://spp.org/Documents/71018/MPEC%20Meeting%20Minutes%2020240123.zip> (follow document titled “20240123-24 MPEC eBallot Report”)).

<sup>3</sup> *Id.* at P 60.

Apart from these notable advantages in market design, perhaps the greatest achievement of the Markets+ initiative has been the cultivation of a broad and diverse base of substantive involvement in and support for Markets+, including among entities that have historically not been supportive of a Western organized market, or that have struggled to achieve consensus on governance, transmission, and other market design issues. For the first time, a substantial portion of the West has a clear path to “crossing the finish line” and adopting a full flow-based day ahead and real-time organized market. Powerex urges the Commission to issue an order by July 31, 2024, accepting the proposed Tariff as just and reasonable, without modification or condition.

Powerex submits these comments based on its decision to participate in Markets+ at inception.<sup>4</sup> As such, these comments will primarily address (1) the benefits of Markets+ to the region and its participants, and (2) specific Markets+ design features that enable and facilitate those benefits.

## **II. BACKGROUND**

The adoption of organized wholesale electricity markets that has occurred across much of the United States has long eluded the Western Interconnection. A complex set of historical, structural, and legal issues in the West have made it challenging to gain broad support for an ISO or RTO. Many of these issues relate to the region’s large storage hydroelectric generation assets, its substantial geographic distances between major load centers, and its federally and municipally owned utilities with unique legal

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<sup>4</sup> Letter from Tom Bechard, Pres. and Chief Exec. Off., Powerex Corp., to Barbara Sugg, Pres. And Chief Exec. Off., Southwest Power Pool, Inc. (Nov. 4, 2022), available at <https://powerex.com/sites/default/files/2022-11/Powerex%20Commits%20to%20Markets%2B.pdf>.

mandates that fall outside the Commission's general jurisdiction over "public utilities" under the Federal Power Act.

Incremental steps forward over the last decade facilitated the region's ability to collaborate on the development of Markets+. First, several Western entities took the first step of participating in organized markets through the real-time Western Energy Imbalance Market ("WEIM") and the Western Energy Imbalance Service ("WEIS") markets. Both the WEIM and the WEIS largely applied the rules of existing markets that were originally designed in (and for) other regions, but nevertheless provided Western entities with a low-risk opportunity to gain familiarity with organized markets by transacting relatively small volumes of incremental real-time imbalance energy. It quickly became clear, however, that a fundamentally new governance framework would be required before WEIM and WEIS participants would expand their participation to (1) an urgently needed resource adequacy program, and (2) a day-ahead market that would provide unit commitment across a broader region, largely replace the much larger quantities of energy traded bilaterally in the day-ahead timeframe, and serve as the basis for settlement of forward transactions. Such a governance framework required not only an independent board, but a process that allowed stakeholders to lead the design of the initial market, as well as its evolution over time.

The first successful initiative to adopt an independent governance framework and a stakeholder-driven development process was the WRAP. The initial design of the WRAP was led by stakeholders, under a decision-making framework that provided for broad representation from all industry sectors, with facilitation and technical advice from the Western Power Pool as program administrator and SPP as program operator. The

WRAP's success in creating broad buy-in among stakeholders and achieving consensus on a tariff filed with and approved by the Commission demonstrated that this stakeholder-driven approach was the way forward on regional initiatives.

Markets+ follows in the WRAP's footsteps, representing the second major regional initiative in the West to be guided by independent governance and an open stakeholder-led development process. Beginning in 2022, utility executives and other stakeholders came together, established committees staffed by senior personnel, and, with SPP providing technical expertise and facilitation, set to work developing a market design and tariff that aligns with prior FERC-approved market elements, while also meeting the unique needs and circumstances of the West.

Like the WRAP, the Markets+ Tariff represents a carefully calibrated package, reflecting the necessary give-and-take of a diverse group of potential participants and stakeholders. These participants and stakeholders share the goal of developing a market that not only adheres to well-established market-design principles that will support competitive and equitable market outcomes, but that also supports participation by the broadest possible set of market participants.

The breadth of the Markets+ participation roster is notable, as evidenced by the April 12, 2024, letter to SPP supporting the filing of the Markets+ tariff.<sup>5</sup> The 26 signatory entities expressed their view that Markets+ governance structure achieves the objective of having "both an initial market design, and a market development process, that durably delivers fair and equitable results for all participants."<sup>6</sup> Signatories stressed their

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<sup>5</sup> Letter from Western Stakeholders, to Barbara Sugg, Pres. And Chief Exec. Off., Southwest Power Pool, Inc. (Apr. 12, 2024), available at <https://www.spp.org/media/2078/spp-marketsplus-letter-2024-04-12.pdf>.

<sup>6</sup> *Id.*

confidence that the market could achieve these lofty goals, as well as the need for such confidence, given their collective conclusion that Markets+ will “fundamentally reshape how energy is bought and sold in the West.”<sup>7</sup>

### **III. COMMENTS**

#### **A. Markets+ Will Efficiently Dispatch Resources, Maximize Transmission Use, and Strengthen the Benefits of the WRAP**

Markets+ will largely replace the existing bilateral framework for day-ahead and real-time transactions. This alone can be expected to yield substantial benefits through centralized unit commitment and dispatch of all available resources in the footprint, with optimization occurring on an hourly and sub-hourly basis. Markets+ will also eliminate the contract-path transmission scheduling conventions and instead use a full flow-based transmission model to manage transmission constraints throughout the Markets+ footprint, including on transmission interfaces between Balancing Authority Areas (“BAA”). Markets+ also will require all load-responsible entities to meet a common resource adequacy standard by participating in the WRAP, and SPP proposes a Markets+ Must Offer Obligation linked to the WRAP’s supply requirements and holdback obligations. The application of a common resource adequacy program and a full flow-based transmission model make Markets+ very similar to the comprehensive organized markets found in the Eastern Interconnection. They also make Markets+ substantively different—and in Powerex’s view, significantly more advanced—than the other organized markets that exist or are being developed in the West.

The following sections provide greater detail on two specific aspects of Markets+ that will significantly improve reliability and reduce costs: (1) leveraging and reinforcing

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<sup>7</sup> *Id.*

the WRAP, and increasing the benefits of that program; and (2) replacing contract-path scheduling limits for transfers between BAAs with flow-based modeling of transmission across the full Markets+ multi-BAA, multi-Transmission Service Provider (“TSP”) footprint.

### **1. The Markets+ Design Leverages and Expands the WRAP’s Benefits**

Markets+ will significantly reinforce and expand the benefits of the WRAP. The Markets+ tariff requires load-responsible entities to participate in the WRAP<sup>8</sup> and to make a prescribed quantity of supply available in the market through a Must Offer Obligation that is directly linked to each participant’s WRAP supply and WRAP obligations.<sup>9</sup>

The Markets+ design will also materially improve the delivery framework in the WRAP operational program for Markets+ participants. The WRAP design enhances reliability by providing participants access to the surplus supply of other WRAP participants. Today, this access to surplus supply is limited by the existing timelines of Western bilateral markets and the existing contract-path based delivery mechanisms that currently govern wholesale trading in the West. In other words, the maximum quantity of WRAP supply available to other participants must be effectively “locked in” during the pre-schedule timeframe, which is between one and three days in advance, when actual system conditions are still subject to considerable uncertainty (particularly during critical periods). Further, delivery of supply to participants experiencing challenging conditions must occur through the current contract-path scheduling framework, potentially limiting the delivery of supply that would otherwise be available to support reliability where it is

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<sup>8</sup> See Markets+ Proposed Tariff, App’x 3 to Attachment A (Attestation Regarding Resource Adequacy and Participation in the Western Resource Adequacy Program (WRAP)).

<sup>9</sup> See Markets+ Proposed Tariff § 5.1.



most needed. Markets+, in contrast, will greatly improve upon the operational performance of the WRAP by making WRAP supply (through the Must Offer Obligation) available through each operating hour, and by making the full flow-based capability of the transmission grid available to support service to load.

The Markets+ model's ability to provide greatly improved access to WRAP supply up to and throughout the operating hour will enhance access to the diversity benefits of WRAP participation, particularly during critical periods when system conditions are most challenging and reliance on assistance from neighbors is most crucial. Improved confidence in the ability to receive assistance during critical events is a major factor in encouraging WRAP participants, including Powerex, to commit to the transition from the current non-binding phase of the WRAP to fully binding operations. The Commission's acceptance of Markets+ would provide that confidence.

Furthermore, the Markets+ design ensures protection for WRAP deliveries to WRAP participants that are not Markets+ participants. Two features of Markets+ particularly ensure this protection: First, WRAP deliveries from the Markets+ footprint to WRAP participants outside of the Markets+ footprint will be "high priority exports" and treated on an equivalent basis to Firm demand within the Markets+ footprint in the event of a supply deficiency. Second, the Markets+ framework fully upholds the priority of Open Access Transmission Tariff ("OATT") transmission service from each respective TSP, meaning that a WRAP delivery to a non-Markets+ WRAP participant on Firm OATT transmission will retain its Firm priority through the operating hour.

As described above, the Markets+ design comprehensively supports the WRAP. This design will bolster participation in and the durability of the WRAP, facilitating the

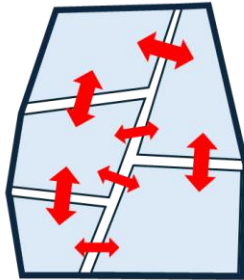
inception of WRAP binding operations. While Markets+ expands the benefits of the WRAP for entities that elect to participate in Markets+, it fully upholds the existing benefits of the WRAP for entities that do not participate in Markets+.

## **2. Markets+ Unlocks Flow-Based Transmission Use Within the Footprint, Including for Transfers Between BAAs.**

An integral part of the Markets+ design is the use of a security-constrained economic dispatch optimization to schedule and dispatch generation to meet load, which includes modeling the physical power flows resulting from that dispatch on the transmission network. This flow-based modeling approach allows for close monitoring of power flows on individual transmission elements under the actual circumstances of a particular dispatch interval. This is a major improvement over transmission limits applied under the contract-path framework, which must accommodate a wide range of potential operating conditions, and hence are generally set at a conservative level and then fixed ahead of each operating hour.

Like markets in the Eastern Interconnection, Markets+ will utilize flow-based transmission modeling across the entire Markets+ footprint, largely eliminating the application of scheduling limits, including on transfers between one BAA and another. This is a major step forward in the elimination of contract-path scheduling limits in the West, although contract-path scheduling limits continue to be enforced as additional constraints on transfers between BAAs in the California Independent System Operator, Corp.'s ("CAISO") WEIM and its Extended Day-Ahead Market ("EDAM").

### Organized Market Design Currently Implemented in the West



- Applies contract-path scheduling limits to transfers between BAAs and between TSPs
- These contract-path limits are typically set ahead of each hour and then fixed for the entire hour
- Result: Conservative contract-path scheduling limits that can strand transmission capability

### Markets+



- Contract-path scheduling limits are largely eliminated, including between BAAs and between TSPs
- Generation can be dispatched until flows approach actual operating limits of individual transmission elements
- Result: Full capability of consolidated Markets+ transmission grid is available to support market transactions
- “Service Flow Constraints” enable limited “carve out” of transmission capability from Markets+, where applicable

The benefits of increasing the ability to flow power from one region of the West to another cannot be overstated. Indeed, it is widely recognized that the West will need tens of billions of dollars of new investments to expand and upgrade transmission facilities, a process that may take decades. However, eliminating contract-path scheduling limits and relying instead on flow-based modeling will safely and *immediately* increase the transfers on the existing transmission infrastructure, without incurring costs that would otherwise be necessary to physically upgrade the system.

The increased transfers that can be unlocked through flow-based transmission modeling, including between BAAs (which is part of the Markets+ design), will yield both reliability benefits and economic benefits. As the Commission is aware, the Northwest region experienced reliability challenges in January 2024, with many entities declaring energy emergencies and requiring large quantities of power to be delivered from the

Southwest. A flow-based transmission framework likely could allow for more transfers from the Southwest to the Northwest during this type of event, alleviating some of the reliability challenges that were experienced. Even outside of reliability events, the ability to safely increase transfers will allow more lower-cost resources to displace the use of higher-cost resources, reducing the cost of electricity to consumers.

### **B. Markets+ Has Cultivated Broad and Diverse Support by Carefully Designing Workable Approaches to Critical Issues**

As explained above, the development of Markets+ was rooted in the highly successful stakeholder-led approach that underpinned the design and development of the WRAP. As an active participant in the Markets+ development effort, Powerex witnessed first-hand the unprecedented level of involvement by a wide array of differently situated entities from all corners of the West. Entities made deep investments in the form of their most seasoned experts' and executives' time, and sustained this investment through several months of near-continuous working sessions.

This extended, open, consensus-driven design process fostered mutual respect and trust, as well as a shared understanding of diverse perspectives, interests, and priorities. This process ultimately helped the West achieve what has eluded it for decades: finding solutions to seemingly intractable problems that previously derailed numerous efforts to create an organized market.

The approval of Markets+ will enable virtually all entities in the West to join a full day-ahead and real-time organized market, with some entities electing to participate in the CAISO's EDAM and WEIM, and others choosing to participate in Markets+. But if Markets+ does not come to fruition, the outcome may be that a large portion of the West may not participate in any day-ahead organized market at all, prolonging the bilateral

market and contract-path frameworks and their associated limitations. This is because there are many elements of the initial Markets+ design, as well as the governance framework through which that design will evolve over time, that are supported by and workable for numerous entities that may otherwise remain in the *status quo* indefinitely. In the sections below, Powerex discusses what it sees as some of the key issues where the Markets+ development process successfully “threaded the needle” and found uniquely workable and consensus-driven solutions.

### **1. Governance**

As SPP noted in its filing, the Markets+ governance structure builds on the success of SPP’s governance structure by engaging dozens of Western stakeholders during the market development process to successfully identify regional issues, inform themselves about best practices, and achieve consensus-driven results. Critically, and similar to the WRAP, the Markets+ governance model was carefully designed to facilitate broad Western participation in a market of which administration could be relied on to be fair and equitable—a cornerstone element of any highly functioning market.

The initial and ongoing development of Markets+ entails three principal elements. *First*, the initial design of Markets+ as well as its ongoing development occurs at the most detailed level through stakeholder-led work groups and task forces. This leverages the deep technical and policy expertise of the stakeholder community to find consensus-driven solutions to specific issues.

*Second*, proposals developed at the working group level are subject to the review and approval of the Markets+ Participants Executive Committee, with review and feedback provided by the Markets+ States Committee. Distinct from the market design efforts, the Markets+ Nominating and Governance Committee nominates independent

members of the Markets+ Independent Panel (“MIP”) (discussed below) and considers any changes to the governance framework.

*Third*, all proposals approved by the stakeholder-based committees discussed above are reviewed and voted on by the MIP. The MIP is the highest level of decision-making authority for Markets+, and its members are independent of any market participant.

SPP’s independent Board of Directors provides ultimate oversight as further assurance that the administration of the market is independent, just and reasonable, and not unduly discriminatory or preferential. Oversight of operations and market performance is evaluated and reported on by SPP’s existing market monitor.

Collectively, the Markets+ governance framework is a comprehensive, inclusive, and stakeholder-driven approach to the initial and future market design, with an independent panel and independent board helping to ensure just and reasonable results and equitable market outcomes across many interests, both now and in the future.

## **2. The Markets+ Transmission Model Ensures Fair and Equitable Treatment for Participants, and Is Designed to Support Critical Ongoing Investment Decisions**

Markets+ is designed to maximize the volume of transmission capability that will be available to support market transactions. Markets+ achieves this goal by incorporating design elements that address the OATT investments on which Western market participants currently rely and by properly ensuring commensurate compensation for Markets+ transmission use. In so doing, the Markets+ model adopts tried-and-true mechanisms of existing, Commission-approved organized markets, with the additional elements necessary to address unique challenges in the Western region.

Three features of the Markets+ design are particularly notable in this regard. *First*, the Markets+ approach is designed to maximize the OATT transmission capability that will be available to support market transactions. The transmission assets of every participating TSPs are “opted in” unless and to the extent a specific transmission transfer quantity is explicitly removed for specific circumstances on a month-ahead basis. In addition, Markets+ enables the utilization of additional connectivity using Firm OATT rights on non-participating systems when those rights are contributed by a Markets+ participant, a feature developed and utilized in the WEIM.

*Second*, Markets+ is designed to carefully balance the elimination of hurdle rates in its market solution, including design features that protect against shifts in the funding of transmission facilities supporting the market. The Markets+ transmission design is the product of substantial input from Western TSPs and their customers and is the model that has the best potential to work for West. By maximizing the elimination of hurdle rates and deploying carefully balanced mechanisms that provide revenue to TSPs who would otherwise encounter material declines in transmission revenue, the Markets+ design provides protection from cost shifts among transmission customers in a wide Western footprint. This issue has proved to be one of the most challenging regional market design puzzles to solve over the past two decades. The Markets+ design cuts through the differences between the Western region’s diverse TSPs and their customers, finally achieving a long-needed and broad consensus on this topic.

*Third*, the Markets+ design provides for equitable allocation of congestion rent, consistent with existing OATT principles. This represents a major victory in the West, as the fair allocation of congestion rent has been a notable and controversial topic in the

West for decades, including during the January 2024 winter weather event. The Markets+ congestion model is directly tied to OATT transmission investment, ensuring that the many entities (like Powerex) who have invested in Firm and Conditional Firm Point-to-Point transmission rights that span multiple years and fund key physical investments in transmission corridors will receive congestion rent associated with the facilities they directly or indirectly fund (through Firm transmission payments). This structure provides the hedge that will secure such participants' transmission investments. This key element of the Markets+ design allowed Powerex to properly evaluate the financial impacts of joining Markets+ and ultimately support it, knowing the physical schedules that have been relied on for decades will be largely replaced with centralized dispatch under a flow-based model. As a result, the Markets+ congestion rent distribution approach will not only achieve equitable outcomes for existing firm transmission holders, but it also will support continued and, perhaps even expanded, transmission investment.

### **3. The Markets+ Design Adopts Price Formation Based on Commission Policy and Industry Best Practices**

To attract participation from a diverse array of differently situated entities, a market proposal must provide all participants with confidence that the terms of transactions conducted through that market will be fair and equitable, favoring no entity or group of entities over others. The Markets+ commitment to the equitable treatment of all participants is reflected in the price formation practices underpinning the proposed Tariff. Specifically, the Markets+ design adopts price formation best practices, including fast-start pricing, robust graduated scarcity pricing, and workable market power mitigation (also discussed in Section II.B.4, *infra*). Each of these elements represents improvements over other organized markets in the West and will lead to more efficient



price signals, as they have in the organized markets in the Eastern Interconnection, where they have been almost universally adopted. The fulsome incorporation of price formation best practices is a key distinguishing feature which has made Markets+ successful in attracting interest from a wide cross-section of stakeholders in the West.

#### **4. The Markets+ Design Has Been Developed to be Workable for Energy Limited Resources, Including Northwest Hydro**

The Markets+ model for hydro participation strikes a careful balance supported not only by Northwest hydro stakeholders, but also by the broader array of Markets+ stakeholders. The Western region is the home to the most substantial set of clean energy-limited resources in the nation, in the form of both hydro facilities with storage and run-of-river hydro projects. Reliability across the region is particularly dependent on the dozens of large and efficient storage hydroelectric facilities, many of them operated by governmental entities in the U.S. and Canada under a complex array of environmental, operational, and other legal restrictions—with many restrictions not easily modeled or addressed in any existing organized market framework. The challenge of developing an organized market that is workable for storage hydro was well understood by Markets+ developers—the stakeholders themselves—from the outset.

As a result, Markets+ development included extensive discussions to design a market that would be workable for the Northwest's energy-limited resources. The result is a unique framework that leverages the WRAP's groundbreaking forward-showing requirement, opening the door to active hydro generation participating in a full day-ahead and real-time market.

Leveraging approaches that have been adopted in other Commission-approved markets, Markets+ implements three key elements in a manner specifically designed to

protect customers from the exercise of seller market power, while addressing the fundamental nature of the operations and management of both large- and small-scale energy-limited hydroelectric facilities:

- The Markets+ **Must Offer Obligation** contains requirements that ensure sufficient supply is offered into the market but incorporates provisions that permit operators to manage their fuel limitations across the day. This design ensures hydro resources will not be subjected to water management challenges as a result of obligations across every hour. At the same time, the Must Offer Obligation is a quantity requirement, not a facility-specific requirement. This will enable hydro operators to dynamically shift which facilities are used to meet the requirement, which is essential to water management activities.
- The Markets+ **Seasonal Hydro Offer Curve (“SHOC”)** provides a formulaic approach for calculating reference levels used in market power mitigation procedures for storage hydro resources, building from and improving on a similar design approved by the Commission for application in the WEIM. This approach is consistent with the Commission’s recognition that hydro opportunity costs are uniquely determined based on complex estimations of forward operational limitations and projected market activity.<sup>10</sup>
- The Markets+ adoption of a **Conduct & Impact Mitigation** framework also recognizes that SHOC, while a good framework, is necessarily a simplification and imperfect when applied to generation from complex hydro systems, whose

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<sup>10</sup> See, e.g., *California Indep. Sys. Operator Corp.*, 168 FERC ¶ 61,213, at P 36 (2019).

operators can be expected to identify opportunity cost inputs that may reflect numerous considerations that are not able to be included in a standardized formula. By implementing the “Conduct & Impact” approach, the Markets+ framework recognizes that opportunity costs may deviate from the relatively simple SHOC formula and such framework will avoid mitigating entities that may, from time to time, have valid offers apart from those validated by the SHOC formula, when there is no material impact to the market.

The potential for Markets+ to gain participation from Northwest hydro comes at a critical time in the region, with its growing reliability challenges and potential to greater utilize the strengths of regional hydro systems to secure enhanced regional diversity benefits. It is in this context that Markets+ Tariff proposes a suite of three critical components, which together ensure sufficient supply is made available to protect reliability and drive competitive outcomes, while protecting against seller market power in a manner that considers the unique water management challenges faced by operators of the region’s complex storage hydro systems.

#### **5. Markets+ Provides for Accurate, Transparent, and Workable GHG Pricing and Accounting**

The Markets+ design reflects the cost of GHG emissions in the dispatch and pricing of resources located in a jurisdiction with a GHG pricing program, as well as of external resources with output attributed to serving load in a GHG pricing jurisdiction. Powerex supports the GHG design in Markets+ for the following reasons.

*First*, Markets+ incorporates Commission-approved GHG design elements already implemented in other markets. The Markets+ design improves upon these elements by limiting the output of a resource that can be attributed to serve load in a GHG zone to the

quantity of surplus supply of the resource (*i.e.*, beyond any native load obligations). This reduces the potential for “GHG leakage” that can occur when an excessive quantity of clean resource output is inaccurately attributed to serving load in a GHG area.

*Second*, Markets+ enables resources located outside of a GHG zone that are owned or committed to serving load in a GHG zone to ensure their output is attributed to the load that owns or has procured the output of the resource. This is a critical design feature, ensuring that the Markets+ GHG design does not conflict with resource plans or forward contracts, or otherwise discourage forward-contracted clean energy supply from participating in Markets+. This design element also allows entities to meet statutory obligations requiring that their supply be used to serve certain preference customers.<sup>11</sup>

*Third*, the Markets+ GHG design recognizes and respects states and regions that have not adopted a GHG pricing program (*e.g.*, a cap-and-trade program). Markets+ is designed to ensure that GHG costs are considered only in the dispatch of resources that are located in (or attributed to) a GHG zone, and that market prices set by resources that are not located in or attributed to a GHG zone will not include any GHG costs.

*Fourth*, the Markets+ framework provides the foundation for identifying and reporting on the supply that serves a particular load or a particular jurisdiction. This goes beyond incorporating state GHG pricing programs and can provide the reporting and transparency necessary to support other types of programs or regulatory frameworks to reduce GHG emissions.

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<sup>11</sup> For instance, the Bonneville Power Administration is required to provide preference and priority in sales of federally generated power to customers in the Pacific Northwest. See, *e.g.*, 16 U.S.C. § 832c(a).

## **6. Markets+ Provides for Efficient, Reliable, and Fair Resolution of Regional Seams Issues**

Across the past several months, a handful of entities have resisted the creation of a second organized market in the West, complaining that a second market would create detrimental seams. The Commission should look past such comments.

Seams have existed in the West for decades, particularly at the interfaces between TSPs and at the interfaces between BAAs. Contrary to any suggestion otherwise, the dozens of seams created by TSP and BAA boundaries across the West will not be eliminated by a move to organized markets—whether it is a single West-wide market, two markets, or more than two. Indeed, the only realistic prospect for genuinely eliminating seams in the West is through TSP and BAA consolidation, potentially with the formation of an RTO at some future point. That is not the scenario on the table now, however. The more relevant question at present—for both Western market participants and for the Commission—is how best to manage these TSP-to-TSP seams and BAA-to-BAA seams in an as efficient, reliable, and fair manner as possible.

If not effectively addressed, seams issues can hinder the efficient and reliable operation of markets and also drive inequitable outcomes. With this in mind, and to address reliability, efficiency, and equity concerns of a broad array of potential Western participants, Markets+ has created inclusive and representative forums for stakeholder input on seams issues. Together with robust, independent governance, Markets+ provides a structural model that can be relied upon to support fair, efficient, and reliable seams management. And the trajectory of the Markets+ development to date bears this out: as an example, Markets+ working groups' collaboration with SPP created an innovative flow-based transmission platform designed to greatly reduce the TSP and BAA

seams within the Markets+ footprint, resulting in strong approval from all constituent groups.

Looking more broadly across the entire Western Interconnection, many seams are likely to be managed in an efficient, reliable, and fair manner only when agreements can be negotiated between two or more similarly situated market operators. Both SPP and the CAISO have experience addressing and managing seams. Going forward, the creation of Markets+ as a “peer” to the CAISO’s EDAM/WEIM platform appears to offer the best prospect for equitably resolving both long-standing and new seams issues. This includes the reliable, efficient, and equitable resolution of which entities receive the priority to flow on multi-state transmission facilities during critical periods and how congestion rent is allocated on such facilities—two issues that the West has struggled with for decades, and which can only be equitably resolved through peer-to-peer collaboration and negotiations.

The many seams that will continue to exist across the West can be managed in an efficient, equitable, and reliable manner, just as they are in the RTOs in the Eastern Interconnection. It may be beneficial—in this context, at the inception of two distinct regional day-ahead market platforms—for the Commission to explicitly encourage SPP and the CAISO to begin meaningful engagement that will ensure timely outcomes at the interfaces between their respective future organized market footprints.

#### **IV. CONCLUSION**

The creation of Markets+ will enable virtually all of the West to be a participant in a full day-ahead and real-time organized market. But it is the Markets+ governance and design that have galvanized a large group of Western entities, including Powerex, to

move forward, when they otherwise may have maintained “*status quo*” wholesale market participation indefinitely.

There has not been an initiative in the West in which so many senior technical and leadership personnel were not only personally involved, but dedicated extensive time every week to ensure forward momentum while also ensuring each and every topic was comprehensively considered and calibrated. Governance and transmission—the two enduring and complex challenges that have stalled every previous attempt to create a market in the Western region—are solved here. The recent letter issued by Bonneville Power Administration, documenting its “staff leaning” towards Markets+ and the importance of numerous key tariff elements addressing governance and market design features, including accounting for the region’s hydro operations and transmission complexities, is very encouraging.<sup>12</sup> Further, the diverse support for Markets+ is reflected in the letter signed by 26 entities, representing 57 GW of load in 10 states and 1 province, endorsing and highlighting the importance of key Markets+ design elements.<sup>13</sup> These entities emphasize the importance of the Markets+ independent, inclusive, and robust governance structure, its common resource adequacy program, and its transmission design, as well as observe that Markets+ represents a first potential “clear path” toward full RTO participation in the region.<sup>14</sup>

The Markets+ Tariff is a once-in-a-generation collective effort. It reflects the thoughtful focus and innovative efforts of SPP and regional participants. While some

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<sup>12</sup> Letter from John L. Hairston, Admin. And Chief Exec. Off., Bonneville Power Admin., to BPA Customers, Constituents, and the Public (Apr. 4, 2024), available at <https://www.bpa.gov/-/media/Aep/projects/day-ahead-market/2024/01-bpa-dam-policy-letter-administrator-signed.pdf>.

<sup>13</sup> Letter from Western Stakeholders, to Barbara Sugg, Pres. And Chief Exec. Off., Southwest Power Pool, Inc. (Apr. 12, 2024), available at <https://www.spp.org/media/2078/spp-marketsplus-letter-2024-04-12.pdf>.

<sup>14</sup> *Id.*

proponents of EDAM/WEIM may suggest that SPP's filing of the Markets+ Tariff is premature or rushed, this is simply not the case. Rather, the Markets+ Tariff represents a well-designed and thoroughly considered package. The Tariff and market design are the products of extraordinary input from all fronts, with the participants in the development process focused on creating a path for an historic step forward to open a new market in the West that can respond to the complex and urgent challenges the region expects it will face in the coming years. Powerex respectfully requests that the Commission consider these comments and approve the Markets+ Tariff proposal as filed by SPP.

Respectfully submitted,

/s/ Deanna E. King\_\_\_\_\_

Frank Durnford  
Powerex Corp.  
1300-666 Burrard Street  
Vancouver, British Columbia  
Canada V6C 2X8  
(604) 891-7094  
Frank.durnford@powerex.com

Deanna E. King  
Bracewell LLP  
110 Congress Avenue, Suite 2300  
Austin, Texas 78701  
(512) 494-3612  
Deanna.king@bracewell.com

Tyler S. Johnson  
Bracewell LLP  
701 5th Avenue, #6200  
Seattle, Washington 98104  
(206) 204-6211  
Tyler.johnson@bracewell.com

*On behalf of Powerex Corp.*

Dated: April 29, 2024



**CERTIFICATE OF SERVICE**

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, I hereby certify that I have this day served a copy of the foregoing on all persons designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 29th day of April 2024.

/s/ Alexandra Zak

Alexandra Zak  
Bracewell LLP  
(202) 828-5810