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August 31, 2022

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: ***Northwest Power Pool d/b/a Western Power Pool***
Docket No. ER22-___-000
Submission of Tariff to Establish Western Resource Adequacy Program

Dear Secretary Bose:

Pursuant to section 205 of the Federal Power Act ("FPA"), 16 U.S.C. § 824d, and section 35.12 of the Federal Energy Regulatory Commission's ("Commission") regulations, 18 C.F.R. § 35.12, Northwest Power Pool ("NWPP") d/b/a Western Power Pool ("WPP"), as authorized by its Board of Directors, submits for filing a tariff[1] to establish a Western Resource Adequacy Program ("WRAP") in the Western Interconnection. As discussed in more detail below, the Western Interconnection faces a looming resource adequacy shortfall as traditional thermal generation continues to retire, large amounts of intermittent renewable resources replace that dispatchable generation, drought conditions persist in a region with considerable reliance on hydroelectric generation, and extreme weather events increase in frequency and magnitude, all impacting the bulk power system. The WRAP is a voluntary, proactive, industry-initiated and led effort developed by a diverse set of Participants, including several public and non-public utilities, a federal power marketer, and a Canadian entity, to meet the growing resource adequacy challenge and enhance reliability in the region. The WRAP is a planning and compliance framework that seeks to take advantage of and maximize regional diversity in resources and load to enhance reliability for all customers across the WRAP footprint. To WPP's knowledge, this is the first-of-its-kind regional resource adequacy construct to be developed outside of a Commission-approved regional transmission organization ("RTO") or independent system operator ("ISO").

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[1] Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff").

WPP respectfully requests that the Commission: (1) establish an extended, thirty-day public comment period for the Tariff proposed herein; (2) accept the proposed Tariff as just and reasonable effective January 1, 2023;[2] and (3) issue an order accepting the Tariff as expeditiously as possible but by no later than December 12, 2022, to provide potential WRAP Participants certainty as to program design and rates to facilitate their commitment to the program as soon as practicable.

I. EXECUTIVE SUMMARY

A. The Challenge

The electric grid across the country, and specifically in the Western Interconnection, is experiencing a dramatic transformation. Historically, the resource mix throughout the West was dominated by hydroelectric resources supplemented with thermal generation. State and local mandates, as well as consumer preferences for cleaner, renewable energy sources, has led to a massive shift away from traditional, baseload thermal generation toward intermittent renewable resources. Increasingly frequent extreme weather events and drought conditions are further stressing the electric grid. The shift toward cleaner resources brings both benefits and challenges—benefits in pollution and carbon emissions reductions and favorable economics, but challenges because these resources are intermittent, not dispatchable, and lack the predictability of thermal resources.

Commission Chairman Glick observed these realities during his opening comments at the Commission's June 2021 Western Interconnection resource adequacy technical conference, where he noted that "we're in the midst of a very dramatic transformation in the electric sector,"[3] which presents challenges for utility system operators who "need to continue to provide reliable electric service with a remarkabl[y] different set of generation resources than I think they were used to."[4] He further observed that "the western interconnection in particular, may not in the near term have sufficient resources for [] region-wide extreme heatwaves to satisfy electric demand during certain hours."[5]

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[2] To the extent necessary, WPP requests a waiver of the Commission's notice requirements set forth in section 35.3 of the Commission's regulations, 18 C.F.R. § 35.3, to permit WPP to submit this Tariff more than 120 days prior to the requested effective date, as explained in more detail *infra* Section VI.

[3] *Technical Conference to Discuss the Resource Adequacy Developments in the Western Interconnection*, Transcript, Docket No. AD21-14-000, at 5:8–9 (June 23, 2021) ("Technical Conference Transcript").

[4] Technical Conference Transcript at 5:13–16.

[5] Technical Conference Transcript at 6:6–9.

Commissioner Danly echoed concerns regarding resource adequacy, noting that he has "been for a while very concerned about resource adequacy in the west, not just in California, but throughout the entire region."[6] Commissioner Clements agreed, noting a sense of urgency and that the urgency "has changed in the last year, even in the last six months."[7] And that was more than a year ago.

Numerous studies conducted over the past few years validate the concerns expressed by the Commissioners and demonstrate an emerging problem—that the Western Interconnection will soon face a resource adequacy shortfall. These studies paint a challenging picture of resource adequacy for the region, including a potential capacity deficit of thousands of megawatts ("MWs") by the mid-2020s if nothing is done to address resource adequacy on a regional basis.

B. The Solution

While there are obvious challenges, there are also some benefits to be drawn from the current situation. As Chairman Glick observed during the technical conference, the Western Interconnection has significant regional diversity that can be tapped to bolster resource adequacy and reliability: "there's incredible wind in the north intermountain west, hydro in the Pacific northwest, and solar in the desert southwest, and from their perspective on different demand profiles across the geographic footprint."[8] This filing represents the culmination of a multi-year effort to leverage that regional diversity in resources and demand to maximize reliability and resource adequacy for the long-term.

In 2019, numerous WPP members,[9] including investor-owned utilities, public power, and the Bonneville Power Administration ("Bonneville"), came together to launch an effort to understand the capacity problem in the region and identify potential solutions. WPP was asked to lead and facilitate the effort and it quickly grew to its current number of twenty-six participating entities, collectively representing an estimated peak Winter load

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6 Technical Conference Transcript at 8:4–6.

7 Technical Conference Transcript at 9:23–25.

8 Technical Conference Transcript at 6:21–25.

9 WPP is a membership organization. In this transmittal letter, references to "members" are to WPP members, "Participant" or "prospective Participant" refer to those entities that are participating in the effort to develop the WRAP and that are potential future Participants of the WRAP once it is approved by the Commission. Importantly, because the WRAP Tariff has not yet been approved, no entity has officially committed to participating in the WRAP. WPP intends to seek commitment from entities later this year, assuming Commission approval of the WRAP Tariff and a prompt Commission order as requested in this letter.

of approximately 65,000 MW and an estimated peak Summer load of approximately 72,000 MW across ten states and one Canadian province. Working through WPP, these entities examined existing regional resource adequacy programs across the United States and elsewhere and, when possible, identified best practices and borrowed design elements to implement a regional resource adequacy construct tailored to the unique needs and existing market structures in the Western United States. Throughout the process, WPP and its participating utilities have engaged in extensive outreach, coordination, and negotiation with state regulators, including considerable engagement with and facilitation by the Western Interstate Energy Board ("WIEB").[10]

Importantly, the proposal contained in this filing does not establish an RTO or ISO, or otherwise implement a centralized capacity market. Instead, the proposed WRAP is a voluntary resource adequacy planning and compliance framework where Participants who are the Load Responsible Entities ("LREs")[11] choose to join the program, but once

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[10] The WIEB is an organization of eleven Western states and two Western Canadian Provinces. Each state governor and provincial premier appoints a member to WIEB, whose purpose "is to provide the instruments and framework for cooperative state efforts to 'enhance the economy of the West and contribute to the well-being of the region's people,'" by "promoting energy policy that is developed cooperatively among member states and provinces and with the federal government." *WIEB – Western Interstate Energy Board - About*, Western Interstate Energy Board, https://www.westernenergyboard.org/western-interstate-energy-board/ (last visited Aug. 31, 2022).

[11] Tariff § 1, Definition of Load Responsible Entity ("LRE"): An LRE is an entity that (i) owns, controls, purchases and/or sells resource adequacy supply, or is a Federal Power Marketing Administration or an International Power Marketing Entity, and (ii) has full authority and capability, either through statute, rule, contract, or otherwise, to:

(a) submit capacity and system load data to the WRAP Program Operator at all hours;

(b) submit Interchange Schedules within the WRAP Region that are prepared in accordance with all NERC and WECC requirements, including providing E-Tags for all applicable energy delivery transactions pursuant to WECC practices and as required by the rules of the WRAP Operations Program;

(c) procure and reserve transmission service rights in support of the requirements of the WRAP Forward Showing Program and Operations Program; and

committed, they are obligated to comply with its requirements or face charges for non-compliance. When WPP members took up the WRAP initiative back in 2019, the group's unanimous consensus was that resource adequacy needs to be addressed from a regional perspective, and that the challenge was urgent and should not be delayed while other regional efforts to develop expanded markets were ongoing. Simply put, there was broad agreement that the WRAP should be stood up utilizing existing industry and regulatory structures without awaiting the outcome of the nascent market development efforts currently underway in the Western Interconnection. The proposed WRAP is focused on resource adequacy and does not replace or supplant the resource planning processes used by states or provinces or the regulatory requirements of the Commission, North American Electric Reliability Corporation ("NERC"), or Western Electricity Coordinating Council ("WECC"). The program is designed to be supplemental and complementary to those processes and requirements.

Accordingly, the WRAP leverages the existing bilateral market structure in the West to develop a resource adequacy construct with two distinct aspects: (1) a Forward Showing Program through which WPP forecasts Participants' peak load and establishes a Planning Reserve Margin ("PRM") based on a probabilistic analysis to satisfy a loss of load expectation ("LOLE") of not more than one event-day in ten years, and Participants demonstrate in advance that they have sufficient qualified capacity resources (and supporting transmission) to serve their peak load and share of the PRM; and (2) a real-time Operations Program through which Participants with excess capacity, based on near-term conditions, are requested to "holdback" capacity during critical periods for potential use by Participants who lack sufficient resources to serve their load in real-time. Importantly and as noted above, the WRAP is *voluntary*, but any Participant that executes the Western Resource Adequacy Program Agreement ("WRAPA") becomes *obligated* to comply with the binding aspects of the Forward Showing Program and Operations Program, with potential financial "deficiency" and "delivery failure" charges for failing to meet program requirements. The charges are designed at a level to encourage Participants to make every effort to be in full compliance through their respectively owned or purchased resources, rather than leaning on the WRAP, to meet their needs.

To WPP's knowledge, the WRAP represents the first-of-its-kind regional resource adequacy program operating outside of a Commission-approved RTO or ISO. However, in developing the WRAP, WPP and its members examined Commission policies and requirements regarding RTO and ISO capacity programs and governance structures to guide the development of the WRAP in a manner consistent with the Commission's expectations for just and reasonable and not unduly discriminatory or preferential program design and administration. Guided by Commission precedent and with significant

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(d) track and bilaterally settle holdback and delivery transactions.

Subject to the above-mentioned criteria, an LRE may be a load serving entity, may act as an agent of a load serving entity or multiple load serving entities, or may otherwise be responsible for meeting LRE obligations under the WRAP.

engagement by stakeholders, WPP has committed to transition to a fully independent Board of Directors if the WRAP Tariff is approved, and has devised a robust, diverse, and inclusive stakeholder process to aid the independent Board in its decision making, including a strong role for state authorities to be involved in WRAP design and Tariff changes. WPP has also developed a funding mechanism, set forth in Schedule 1 of the WRAP Tariff, to ensure that WPP remains revenue neutral and that the WRAP does not inappropriately subsidize other WPP programs and services or vice versa. WRAP costs will be paid solely by Participants who voluntarily agree to join the WRAP by executing a WRAPA.

C. Public Engagement to Develop the WRAP

In addition to the extensive weekly engagement by participating entities, the components of WRAP have been developed using a significant robust stakeholder process. Early in the development of WRAP design, WPP utilized a twenty-eight-person stakeholder advisory committee comprised of non-participant industry leaders from many different sectors. The committee provided comments and feedback on conceptual and detailed design proposals and were engaged several times throughout the development of a written proposal for WRAP design.

Special outreach was made to Western regulators. This outreach focused primarily on governance proposals and included several workshops with state regulators throughout 2021. During this period, WPP had extensive engagement with state representatives to define the role of the WRAP Committee of State Representatives ("COSR"). These discussions were facilitated by WIEB and included multiple meetings and exchanges of proposals. WIEB and state representatives spent significant time in their review of various proposals put forth by WPP and participating members and provided robust and thoughtful feedback that has informed the contents of the WRAP design and governance with respect to the role of COSR in the larger scheme of WRAP governance. Multiple public webinars on these proposals were also provided for stakeholders. Key elements of the role and rights of the COSR resulting from these discussions include: (1) a designated representative of the COSR on the Program Review Committee ("PRC"), the broad stakeholder body that reviews proposed Tariff and Business Practice Manual changes before they are considered by the Board of Directors; (2) attendance of a designated representative of the COSR in all meetings of the Resource Adequacy Participant Committee ("RAPC"), the committee composed of a representative from each Participant LRE; (3) an enhanced process for COSR engagement in RAPC decision-making; and (4) a commitment by WPP to work with COSR to conduct a full review of governance structures and procedures, including the role of the COSR, in the event WPP seeks to expand the WRAP to include market optimization or transmission planning services. As a result of these efforts, the governance framework of WRAP achieved a high degree of support and consensus from state representatives who supported the discussions.

D. Implementation of the WRAP

The rights and obligations of WPP and WRAP Participants are governed by the WRAPA. The WRAPA contains provisions obligating WPP to provide all services under the Tariff and for Participants to comply with all Tariff requirements and pay their share of WRAP administrative costs. The WRAPA also contains provisions governing amendments to the WRAPA, termination of a Participant's WRAPA, and the ability of a Participant to withdraw from the program (including on an expedited basis if certain events arise). The *pro forma* WRAPA is set forth in Attachment A of the Tariff.[12]

WPP is currently administering a "non-binding" phase of the WRAP for informational purposes only that begins with the Winter 2022/2023 Season, with the goal of moving to a binding phase beginning in Summer 2025. However, because some WPP members and potential Participants are less ready to move to a fully binding program than others, the WRAP Tariff contemplates a three-year transition period, by which individual Participants elect during which Season they plan to become subject to the binding program. Under the transition plan, the WRAP will not be fully binding on all Participants until 2028, but it is important to note that even the non-binding phase offers significant benefit to the region. Specifically, during the non-binding phase, Participants are submitting nearly all of the same information that they will submit during the binding phase, SPP and WPP are calculating PRM and other regional data and performing the same analyses that will be performed during the binding phase and, for the first time, region-wide resource adequacy information and insight will be available to aid Participants in making procurement decisions to shore up their capacity, even in advance of having binding obligations. Some level of capacity sharing during this transition will be available even to non-binding Participants to assist them in satisfying their load serving needs, further enhancing regional reliability.

During the non-binding phase of the WRAP, the region will receive the first ever regional resource adequacy metrics, enabling Participants and regulators to begin making more informed decisions about the regions needs and adequacy future. Importantly, given the lead-time involved in constructing new resources and making long-term procurements, including regulatory requirements, some Participants need additional time to augment their current capacity to comply with WRAP requirements, which for some may require engagement with their respective regulators and stakeholders. By beginning the binding program in 2025 and allowing Participants the option of a three-year, non-binding transition, the WRAP provides the flexibility needed to keep the region moving forward toward a regional resource adequacy construct while providing the benefits of greater regional coordination, analysis, and insight during the non-binding and transition phases

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[12] Certain prospective Participants have informed WPP that they will require provisions to accommodate their unique status as a federal agency or as a Participant with load and/or resources outside of the United States. Any such non-conforming WRAPAs will be submitted to the Commission for review in subsequent filings.

of the WRAP. Without a reasonable transition, there is concern that some Participants and/or their regulators or governing bodies may not opt to join (or authorize joining) the WRAP and become exposed to its obligations and charges.

Though the WRAP is not intended to become binding until 2025, WPP requests that the Commission accept the WRAP Tariff as just and reasonable effective January 1, 2023. The WRAP effort is currently funded on a voluntary basis by the entities that are participating in the development effort, but that funding expires at the end of 2022. The development of the program is also governed informally by an agreement among those parties. WPP, its members, and other regional stakeholders would benefit greatly from initiating operations under the formal governance structure and funding mechanism set forth in the Tariff. Therefore, WPP requests that the Commission accept the Tariff effective January 1, 2023, so that the governance structure can apply to ongoing efforts to develop the WRAP Business Practices and consider additional refinements to program design.

WPP respectfully requests that the Commission accept the WRAP Tariff as a just and reasonable solution to a significant and well-recognized problem. Where possible, the WRAP has borrowed from design elements and governance aspects of Commission-authorized RTOs and ISOs, and has been tailored to address the unique needs and market structures within the Western Interconnection. In addition, WPP and its members agree that it is imperative for the region to stand up a resource adequacy program as soon as practicable, which has resulted in the WRAP Tariff submitted in this filing, but they have also committed to evaluate the program and to work with stakeholders continuously to identify potential future improvements that can be made to the program as well as opportunities for continued regional grid coordination. Failure to approve the program would perpetuate the capacity uncertainty that persists in the Western Interconnection and send Participants and the region back to the drawing board, further delaying the move to greater regional coordination that the WRAP represents.

II. BACKGROUND

WPP is a non-profit, mutual-benefit corporation based in Portland, Oregon. It was formed in 1941 by six investor-owned utilities operating in the Pacific Northwest. Over time, the membership grew to include both investor-owned and public power utilities, federal power marketing administrations, and Canadian entities. Having evolved from its informal origins of three engineers on loan from member utilities in 1941 to a fully staffed independent organization, WPP strives to help its customer organizations achieve maximum benefits of coordinated operations.

The Northwest Power Pool Agreement provides for a voluntary association of major generating utilities serving the Northwestern United States, British Columbia, and Alberta. Smaller, principally non-generating utilities in the region participate indirectly through the member system with which they are interconnected. The staffing and governance functions supporting the committees of the Northwest Power Pool Agreement were folded into WPP (then “NWPP”), a non-profit corporation, in 1999. Today, WPP

provides numerous member services including administering a Reserve Sharing Group ("RSG"), a frequency response sharing group, an Operating Committee to foster communication and coordination among members to achieve reliable operation of the interconnected system efficiently and economically, an operational planning study group, a transmission planning committee, the NorthernGrid regional transmission planning process, and robust operational training programs for members. More details regarding WPP's business and services are provided in the accompanying affidavit of Ms. Sarah E. Edmonds, President and Chief Executive Officer, included as Attachment A[13] to this filing.

Beginning in early 2019, WPP coordinated a broad coalition of its members and regional stakeholders to study collectively the emerging challenge of ensuring resource adequacy and reliability in the region given the dramatic changes in resource mix and demand and changes in the frequency, magnitude, and duration of extreme weather-related events and their impacts on the regional electric system. Those efforts led additional parties outside of the Northwest Power Pool Agreement footprint to join the discussion, resulting in a larger WRAP footprint that spans from the Pacific Northwest to the Desert Southwest and eastward across the Rocky Mountains, causing the organization to rebrand from NWPP to WPP in early 2022. The collective, multi-year efforts of WPP staff and members resulted in the WRAP Tariff submitted in this filing.

Currently, WPP is not a Commission-jurisdictional public utility as it does not provide any services that involve transmission of electric energy in interstate commerce or sale of electric energy at wholesale in interstate commerce.[14] However, certain aspects of the WRAP, including its binding resource adequacy requirements and charges for non-compliance, arguably invoke the Commission's jurisdiction and it has long been the consensus of WPP members and regional stakeholders that the WRAP should be filed with the Commission. Accordingly, WPP is submitting the WRAP Tariff today for Commission acceptance under FPA section 205. Upon acceptance of this filing, WPP will serve as the public utility with a Tariff on file at the Commission, obligated to enforce the terms of the Tariff at all times.

Under the Tariff, WPP serves as "Program Administrator" for the WRAP, responsible for ensuring that all Tariff requirements are fulfilled. While WPP will serve as the Commission-jurisdictional public utility with the WRAP Tariff on file, building out the technical capability to perform certain functions under the WRAP on the necessary timelines would be costly to future Participants. Accordingly, the Tariff authorizes WPP to engage one or more "Program Operators" with existing technical expertise to assist WPP in meeting the Tariff requirements and to leverage industry experience to perform the

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[13] *See* Attachment A, Affidavit of Sarah E. Edmonds ("Edmonds Aff.").

[14] 16 U.S.C. § 824(b)(1).

functions necessary to operate the WRAP. WPP has engaged Southwest Power Pool, Inc. ("SPP")[15] to serve as Program Operator under an agreement between WPP and SPP.[16]

III. DESCRIPTION OF AND JUSTIFICATION FOR KEY WRAP ELEMENTS

In addition to this transmittal letter describing the various elements of the WRAP design and governance, WPP provides affidavits from several individuals discussing various aspects of the WRAP design and Tariff in more detail. Ms. Edmonds discusses WPP's role in administering the WRAP, the role of the Program Operator, governance changes and stakeholder process, transition to a binding program, and withdrawal and termination provisions. Mr. William K. Drummond, Chair of the WPP Board of Directors, explains the purpose and reasoning behind the proposed WRAP. Mr. Antoine Lucas, SPP Vice President of Engineering, discusses SPP's role as Program Operator. Mr. Charles G. Hendrix, SPP Manager of Reliability Assurance, provides an overview of the design and operation of the WRAP Forward Showing Program. Mr. Charles C. Cates, SPP Manager of Operations Engineering Analysis and Support, provides an overview of the WRAP Operations Program, the real-time portion of the WRAP. Mr. Ryan L. Roy, WPP Director of Technology, Modeling, and Analytics, describes the process of settling transactions in the WRAP. And, finally, Ms. Rebecca D. Sexton, WPP Director of Reliability Programs, discusses WRAP cost allocation and recovery of WRAP administrative costs.

A. The Need for the WRAP and the Unique Circumstances of the West that Guided the WRAP's Development and Design

As noted above and as explained in more detail by Mr. Drummond,[17] the electricity system in the Western Interconnection is in a state of rapid transition, as significant retirements of traditional, fossil-fuel generation resources have occurred or are anticipated and intermittent renewable resources seek to interconnect to the grid in growing numbers.

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15 As the Commission is aware, SPP is a Commission-authorized RTO operating the transmission system and administering day-ahead and real-time energy markets across a fourteen-state footprint in the Midwest and South-Central United States from Texas to the Canadian Border. In addition to its RTO role and responsibilities, SPP also operates the Western Energy Imbalance Service Market ("WEIS Market") in the Western Interconnection and serves as Reliability Coordinator across a portion of the Western Interconnection. More information about SPP can be found in Attachment C, Affidavit of Antoine Lucas ("Lucas Aff.") accompanying this filing.

16 During an earlier design phase of the WRAP, SPP served as the "Program Developer" assisting WPP and members in designing the WRAP and its various elements and scoping the software and other technical capabilities to operate the WRAP. *See* Lucas Aff. ¶ 5.

17 Attachment B, Affidavit of William K. Drummond ¶¶ 4-7, 12 ("Drummond Aff.").

The system is also experiencing load growth and anticipating future load growth, fueled significantly by increased energy usage by data centers and agricultural operations. Increased electrification of certain sectors of the economy is expected to drive load growth further. Under the current construct, each utility plans for its own resource adequacy needs, with little regional coordination, no standardization of PRM calculations, capacity accreditation, or metrics, and little visibility into the resource needs, capacity surpluses, and resource planning of other utilities in the region. This current utility-by-utility approach fails to send appropriate investment signals, making it difficult to understand whether, where, and when new capacity is needed within the region.

A number of groups, including Bonneville, the Pacific Northwest Utilities Conference Committee, the Northwest Power and Conservation Council, consulting firm Energy & Environmental Economics, NERC, and WECC have conducted various studies and analyses to determine how anticipated resource mix and demand changes in the Pacific Northwest and larger WPP region will affect utilities' ability to meet customer needs reliably. Despite some differences in assumptions and methodologies, these studies collectively demonstrate that the region faces a looming capacity challenge. Specifically, these studies each conclude that the region may already be experiencing capacity shortages at times and by the mid-2020s may face a capacity deficit of thousands of MWs if the status quo continues. While Mr. Drummond describes these studies in more detail in his affidavit,[18] the upshot is that traditional baseload generation continues to retire in significant numbers—with additional anticipated retirements numbering in the thousands of MWs over the course of the decade—and intermittent renewable resources are continuing to replace those retiring firm resources at a growing pace.

Given the present, utility-specific resource adequacy planning in the West, there is no regional focus or regional metrics to enable planners to see the "big picture" in terms of demand and load growth and available capacity to meet those needs beyond each utility's individual system. Such a paradigm can result in either under- or over-procurement of capacity by individual utilities because of a lack of information and transparency into regional needs and availability of capacity. Such an approach also fails to capitalize on regional diversity by failing to maximize for the benefit of the entire region, for example, the significant wind resource potential in the Northern part of the WPP region and considerable solar potential in the South, and the differences in annual peak demand (e.g., Winter in the North and Summer in the South).

The WRAP is designed to address these challenges by establishing regional metrics and requirements and providing a wide-angle view into resource adequacy and load needs of the region. The WRAP is intended to leverage the regional diversity referenced by Chairman Glick during the June 2021 technical conference (and discussed above) to improve resource adequacy and reliability region-wide. The WRAP is also tailored to the unique needs of the Western Interconnection by recognizing and not interfering with existing self-supply and bilateral market structures that dominate the Western United States

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[18] Drummond Aff. ¶¶ 18-22.

electric system. By relying on the existing bilateral market structure, the WRAP respects both the jurisdictional status of key potential Participants like federal power marketing administrations and other public power entities by respecting their existing frameworks for procuring and providing energy and capacity, while at the same time recognizing that most of the footprint remains vertically integrated and retail regulated. In this manner, the WRAP is designed more like the resource adequacy constructs in RTOs like SPP and much of the Midcontinent Independent System Operator, Inc. footprint, as opposed to the centralized capacity markets in some Eastern RTOs. The region has long relied on a bilateral market to procure its resources, and previous efforts to establish an RTO or other centralized market structure have not succeeded. Potential WRAP Participants are already sophisticated participants in the bilateral markets of the West, and the WRAP obligations will simply be layered on top of the existing market structure, to enhance resource adequacy in the region while minimizing disruption to existing business structures and arrangements.

As discussed in more detail below, the WRAP is just and reasonable. It is designed to address an impending capacity challenge in a manner that is tailored to the unique commercial, regulatory, and operating environment of the Western Interconnection. It respects and incorporates existing arrangements to accommodate broad participation by diverse Participants, including investor-owned utilities, cooperatives and municipals, and federal power marketing administrations. The aspects of the program, where possible, are modeled after existing successful programs in other regions. The Commission should promptly issue an order accepting the WRAP Tariff as just and reasonable effective January 1, 2023, to enable WPP and its future Participants to unlock the benefits of the program in time to meet the coming resource adequacy challenges.

B. Role of WPP, the Program Operator, and the Independent Evaluator

As noted above, WPP will be responsible for maintaining the WRAP Tariff on file with the Commission and will serve as the Program Administrator.[19] WPP staff will support the Board of Directors in overseeing all aspects of the WRAP, provide all legal, regulatory, and accounting support for the WRAP (including making any filings with the Commission as authorized by the Board of Directors), and provide all necessary logistical support to the Board and the stakeholder process.[20]

As currently structured, WPP is a mutual benefit corporation and Internal Revenue Code section 501(c)(6) tax-exempt organization with a limited staff providing professional and management services to participants in its various service offerings. To aid WPP in carrying out its responsibilities to implement the WRAP, the Tariff authorizes WPP to contract with one or more Program Operators to perform, on a contractual basis, the

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[19] *See* Tariff §§ 2.1, 2.2.

[20] Tariff §§ 2.1.1-2.1.3.

technical operations of the WRAP under the oversight of WPP and its Board of Directors, subject to a Program Operator agreement between WPP and the Program Operator(s).[21] As noted above, WPP has engaged SPP to be Program Operator for the launch of the WRAP.

As Mr. Lucas explains in his affidavit, under SPP's Program Operator agreement with WPP, SPP will be responsible for performing planning studies, establishing PRMs, administering the Forward Showing Program twice per year, applying capacity accreditation rules, monitoring the regional operational adequacy requirements in real-time under the Operations Program, and analyzing financial charges for non-compliance with the Forward Showing Program.[22] SPP is also responsible for maintaining the technical systems necessary to administer the Forward Showing Program and Operations Program. As Ms. Edmonds explains, utilizing a Program Operator to perform specific WRAP functions maximizes efficiency by leveraging existing industry expertise in resource adequacy rather than replicating that expertise in-house.[23]

Given the unique relationship between WPP and the Program Operator (upon which WPP relies to fulfill its Tariff obligations), there is a possibility, however remote, that the Program Operator may become unable or unwilling to continue in its role, leaving WPP with little or no immediate capability to perform some or all of the WRAP requirements. To address this possibility, the Tariff contains a provision advising Participants that WPP may need to take certain actions to address Program Operator unavailability. Specifically, the Tariff specifies that if the Program Operator becomes unavailable, WPP will engage with Participants as soon as practicable to determine what actions to take, which could include making a filing with the Commission to suspend or waive one or more Tariff provisions until a replacement Program Operator can assume all affected Program Operator functions.[24] This provision, while unique, is just and reasonable because it provides advanced notice to Participants of the possibility that WPP may seek waiver or suspension of the Tariff in the unlikely event that the Program Operators becomes unavailable. WPP and SPP have negotiated provisions in their Program Operator agreement to minimize the possibility that SPP may become unavailable, including advanced (minimum of eighteen-Month) notice provisions for termination of the WPP-SPP contract.

Finally, in a continuing effort to seek refinement and improvement of the WRAP, WPP proposes to engage an Independent Evaluator to conduct an annual review of the

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[21] Tariff § 2.2.

[22] *See* Lucas Aff. ¶ 7.

[23] *See* Edmonds Aff. ¶ 33.

[24] Tariff § 8.4.

performance of the WRAP.[25] Importantly, as the WRAP is not an organized market, the Independent Evaluator will not function as a "market monitor" but instead will analyze prior-year program performance, accounting and settlement, and program design, and make recommendations for improvements.[26] The Independent Evaluator will not monitor individual Participants or day-to-day operations, and will not possess any decision-making authority.[27] Instead, its role is informative and advisory only.

The proposed division of responsibilities among WPP, the Program Operator, and the Independent Evaluator are just and reasonable and should be accepted. Using a Program Operator enables WPP to take advantage of existing industry expertise and capabilities, avoids duplication, and enables the expeditious provision of such a program at least cost to Participants. As independent Program Administrator, WPP will remain responsible for overseeing the Program Operator and ensuring that all rights, obligations, and functions under the Tariff are fulfilled. The Independent Evaluator provides a further check on the functioning of the WRAP and facilitates improvement in WRAP design and administration.

C. Forward Showing Program

1. Overview of Forward Showing Program

As Mr. Hendrix explains in his accompanying affidavit, WRAP's Forward Showing Program "employs the same basic elements that for decades have been used first in multi-utility capacity sharing agreements and then as the foundation of regional resource adequacy constructs."[28] Mr. Hendrix identifies these basic elements, which the Commission has accepted in its approvals of regional resource adequacy arrangements, as:

i) "administratively determined reserve margins designed to meet system planning objectives, such as avoidance of lost load;"[29]

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25 *See* Tariff §§ 5.1-5.3.

26 *See* Tariff §§ 5.2-5.3.

27 Tariff § 5.4.

28 Attachment D, Affidavit of Charles G. Hendrix ¶ 5 ("Hendrix Aff.").

29 Hendrix Aff. ¶ 5; *see Plan. Res. Adequacy Assessment Reliability Standard*, 134 FERC ¶ 61,212, at P 31 (2011) ("[T]he Commission is acknowledging that the one day in ten years criterion is a well-established and common criterion for assessing resource adequacy. The use of a known and understood criterion should result in consistent, transparent and understandable resource adequacy analyses within the RFC region, and thus meets the reliability goal of establishing a common criterion to assess resource adequacy."); *see, e.g.*, *Midwest Indep. Transmission Sys.*

ii) "common understandings on measurement of peak load;"[30]

iii) "common understandings on definition and accreditation of resources that count toward meeting the reserve margins;"[31] and

iv) "financial consequences for failure to demonstrate sufficient resources, such as deficiency charges."[32]

Taken together, these are central, recurring elements of agreements among load serving entities to "rely on one another's capacity resources for the mutual benefit of assuring reliable service to their respective loads."[33]

As Mr. Hendrix summarizes, the proposed WRAP includes these same basic elements, i.e.,

i) "procedures for establishing Planning Reserve Margins designed to meet an LOLE of one event-day in ten years;"[34]

ii) "common methods for calculating monthly peak load forecasts, with a 50% chance of being exceeded, during defined Summer and Winter Seasons;"[35]

Operator, Inc., 122 FERC ¶ 61,283, at P 108 (2008) (accepting the Midwest ISO's proposal to use the one day in ten years standard as reasonable and consistent with industry standard); *Devon Power LLC*, 110 FERC ¶ 61,313, at P 8 (2005) (noting that the ISO-NE uses as a regional planning criteria the one day in ten years criterion).

30 Hendrix Aff. ¶ 5.

31 Hendrix Aff. ¶ 5.

32 Hendrix Aff. ¶ 5; *see, e.g.*, *Muns. of Groton v. FERC*, 587 F.2d 1296 (D.C. Cir. 1978) (affirming FERC acceptance of deficiency charge for regional resource adequacy construct).

33 Hendrix Aff. ¶ 5.

34 Hendrix Aff. ¶ 6.

35 Hendrix Aff. ¶ 6.

iii) "principles and procedures for establishing the Qualified Capacity Contribution [("QCC")] . . . of qualifying resources and supply contracts;"[36] and

iv) "deficiency charges tailored to incent parties *not* to be deficient, with the charges tied to the cost of installing a new peaking plant, and adjusted to reflect the higher value of capacity when the region is short of the targeted reserve margin."[37]

The WRAP's Forward Showing Program includes important features related to the fact that WPP is not an ISO or RTO. First, the Commission has relied on RTO/ISO central energy markets as the basis to require load serving entities to comply with the RTO/ISO's resource adequacy rules,[38] but the WRAP proposal does not include a central energy market, which raises questions about WRAP's ability to require load serving entities to participate. WRAP instead is designed to accommodate and encourage load serving entity participation as (or through) LREs. Second, the WRAP has a distinct Forward Showing requirement for transmission service. In an ISO or RTO, load serving entities purchase Network Integration Transmission Service directly from the ISO or RTO to move power from their resources to their loads. WPP is not a transmission service provider, and LREs therefore need to demonstrate in their Forward Showing Submittal ("FS Submittal") that they have secured transmission in a sufficient quantity to provide reasonable assurance that they will be able to move power from resources to loads during the Season addressed by their Forward Showing. Third, WPP working with regional stakeholders developed rules to address transmission limitations on the transfer of capacity *within* the WRAP Region by allowing for distinct Subregions with distinct PRMs. The Forward Showing Program accordingly provides for the determination of these separate PRMs, allows Participants to commit Subregion-to-Subregion transmission service in their FS Submittals, and requires Participants to provide certain other information that is then used in the Operations Program to establish any required Energy Deployments within or between Subregions.

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36 Hendrix Aff. ¶ 6.

37 Hendrix Aff. ¶ 6.

38 *See, e.g.*, *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274, at P 1113 (2006), *order on reh'g*, 119 FERC ¶ 61,076, *order on reh'g*, 120 FERC ¶ 61,271 (2007), *aff'd*, *Sacramento Mun. Util. Dist. v. FERC*, 616 F.3d 520 (D.C. Cir. 2010) (holding that load serving entity participation was properly required "in situations where one party's resource adequacy decisions can cause adverse reliability and costs impacts on other participants in a regionally operated system, it is appropriate for us to consider resource adequacy in determining whether rates remain just and reasonable and not unduly discriminatory;" and finding such a situation "where an interconnected transmission system is operated on [a] regional basis as part of an organized market for electricity . . . [making] all users of the system . . . interdependent, particularly with respect to reliability.").

2. Forward Showing Submittal

As detailed in the Tariff, each Participant must submit a FS Submittal seven months before the start of each Binding Season showing the peak load of the loads for which it is responsible,[39] which determines, along with the Forward Showing Planning Reserve Margin ("FSPRM"), the FS Capacity Requirement the Participant must satisfy. The Participant also must show the capacity provided by the resources and contracts the Participant provides or secures to meet that requirement. In addition, the FS Submittal also must demonstrate satisfaction of the Forward Showing Program's separate FS Transmission Requirement.

The Binding Seasons in the WRAP are both a Summer Season and a Winter Season, reflecting, as Mr. Hendrix explains, that the expected WRAP Region includes both Summer-peaking and Winter-peaking areas.[40] The FS Submittal also must include an attestation by a senior official of the Participant (defined in the Tariff as a Senior Official Attestation) that it has reviewed the FS Submittal, and that the statements in the submittal are true, correct, and complete. As Mr. Hendrix notes, requiring an attestation from a senior official, who likely has important organizational responsibility and accountability and will not sign such an attestation lightly, provides a meaningful check on the reliability of the Participant's FS Submittal,[41] The Commission has frequently approved reliance on such attestations.[42]

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[39] If transmission constraints would prevent delivery of capacity from the Participant's identified resources to part of the Participant's loads, then it generally must submit a separate FS Submittal for that load.

[40] *See* Hendrix Aff. ¶ 11.

[41] *See* Hendrix Aff. ¶ 10.

[42] *See, e.g.*, *Midcontinent Indep. Sys. Operator, Inc.*, 169 FERC ¶ 61,137, at P 33 (2019) (finding MISO's proposal to require attestation from the market participant that the necessary coordination, authorization, accounting, metering, and other approvals are in place, address the requirement to secure and maintain necessary agreements with a distribution utility for delivery of energy from the transmission system.); ISO-New England, Inc. Transmission, Markets and Services Tariff §§ III.13.1.2.3.2.1 (requiring an affidavit of a corporate officer attesting to the accuracy of the delist bid content); New York Independent System Operator, Inc. Market Administration and Control Area Services Tariff, Attachment H § 23.4.5.7.9.2 (3.0.0) (requiring units subject to NYISO's MOPR that wish to claim the competitive entry exemption to certify and acknowledge that they are eligible for the exemption through attestations).

3. Peak Loads

Participants are responsible for preparing their own peak load forecasts, but they must do so in accordance with important Tariff requirements, as highlighted by Mr. Hendrix, i.e., "(i) the forecast probability, i.e., the likelihood the forecast will be exceeded, is 50%; (ii) the Participants must meet a separate FS Capacity Requirement each Month during a Binding Season, so peak load values are needed for each Month; and (iii) for fairness and consistency, load forecasts must abide by certain common requirements."[43]

These requirements are reasonable. First, using a forecast with a 50% chance of being exceeded, i.e., a "P50 Peak Load" forecast, "strikes a reasonable balance between reducing uncertainty and increasing cost, and also is appropriate for a shorter-term forecast: the FS Deadline for a season is seven Months before the start of the season."[44] Second, setting different FS Capacity Requirements each Month within a Binding Season "enhances Participant flexibility to meet their FS Capacity Requirement, thus facilitating program participation, while still helping ensure that the actual resource adequacy needs (which will predictably vary during the season) are at all times satisfied."[45] Third, a Participant's choice of the assumptions to use in its load forecast can reduce its forecast, and correspondingly reduce the resources the Participant must show, which "serve as a source of mutual support for all Participants during times of greatest capacity need."[46] Given Participants' "mutual interest in ensuring both reliability and commonality in their separate peak load forecasts," the Tariff requires each submitted load forecast include: "(i) a base monthly peak derived from a recent historic period; (ii) adjustments for known additions and removals of load during the forecast window; and (iii) a specified load growth factor."[47] This approach improves commonality among "what typically would be key points of judgment or discretion in a peak load forecast."[48]

4. Forward Showing Planning Reserve Margin

WPP, with support from the Program Operator, will be responsible for developing the proposed FSPRM values for each Month of a forthcoming Binding Season. The FSPRM values each Participant must use in their FS Submittals will be those approved by

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43 Hendrix Aff. ¶ 12.

44 Hendrix Aff. ¶ 13.

45 Hendrix Aff. ¶ 14.

46 Hendrix Aff. ¶ 16.

47 Hendrix Aff. ¶ 16.

48 Hendrix Aff. ¶ 16.

the Board, no later than nine Months before the deadline for Participants to provide their FS Submittals for the Binding Season. As is common for reserve margins used in regional resource adequacy constructs, the FSPRM "will be determined using a probabilistic analysis to satisfy a LOLE of no more than one event-day in ten years."[49] Mr. Hendrix describes in his affidavit the steps that will be used to determining the FSPRM, including how to do so for individual Months.[50]

Because the WRAP allows for different Subregions within the larger WRAP Region, there can be different FSPRM values for different Subregions. Notably, the Tariff assigns ultimate responsibility to the Board to determine the need for designation of Subregions, and states the guiding considerations.

5. Qualifying Capacity Contribution—Resources

The Tariff establishes the governing standards for determining the contributions, known as the QCC different types of resources can make towards satisfying a Participant's FS Capacity Requirement. The adopted standards are similar to those the Commission has accepted for other regional resource adequacy programs.

For resources that use conventional thermal fuels the Resource QCC will use an Unforced Capacity methodology, in which "resource-specific testing and capability requirements will determine an installed capacity value, and that value will be adjusted downward to account for the likelihood of forced outages."[51] The forced-outage calculation will use historic performance during Capacity Critical Hours ("CCH"), which are "those hours during which the WRAP Region's net capacity need is expected to be above the 95th percentile," and thus are "the times when the region is most likely to need the capacity provided by the resources Participants put forth in their FS Submittals."[52]

The Tariff lays out a multi-step process for using an Effective Load Carrying Capacity ("ELCC") methodology to determine the QCC for Variable Energy Resources ("VERs"), i.e., wind and solar. As Mr. Hendrix explains, an ELCC method "take[s] account of the synergistic portfolio effects within and among VER types at different resource penetration levels, which influence the extent to which the resource adequacy

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49 Hendrix Aff. ¶ 18.

50 Hendrix Aff. ¶¶ 18-21.

51 Hendrix Aff. ¶ 25.

52 Hendrix Aff. ¶ 23.

program region can rely on those VER categories to meet overall capacity needs."[53] To calculate ELCC values, the Tariff requires determination of an aggregate ELCC quantity for all resources of a given VER type in an identified VER Zone. The Tariff requires those VER Zones to be delineated "based on factors such as geography, performance, meteorological considerations, and penetration."[54] To determine the aggregate ELCC quantity for a VER type in a VER Zone, the Tariff requires two LOLE studies to be performed—one with all resources except the VER type being studied, and one with all resources, including that VER type—and, in each case, requires Pure Capacity[55] to be added or subtracted to every hour in the Binding Season as needed to produce an LOLE of one event-day in ten years. The hourly Pure Capacity value found in the second study is then subtracted from the hourly Pure Capacity value found from the first study, and the result indicates the ELCC of that VER type in that VER Zone. "To assure a sound result," Mr. Hendrix explains, the final ELCC aggregate value is only set after running that same process for every year in a multi-year period. The Tariff then requires that aggregate amount to be allocated among the VERs of that VER type in the VER Zone based on each resource's average historical performance during CCHs, so long as three years of historic or synthesized forecast data is available for those hours.

The Tariff establishes that the QCC for Energy Storage Resources ("ESRs") (such as batteries) will be determined based on an ELCC methodology like that used for VERs. The Tariff clarifies that ESRs will be modeled for this purpose at the level of their usable capacity that can be sustained for a minimum duration of four hours. This does not require a nameplate rating that assumes a minimum four-hour run time, only that "a resource with a nameplate rating that assumed a shorter run time will have its Resource QCC scaled to reflect the capability that can be sustained for four hours."[56]

For Demand Response resources, the Tariff specifies that their Resource QCC will be determined by multiplying the load reduction in MWs by the number of hours the resource can demonstrate load reduction capability divided by five (which also sets the maximum duration at five hours). Similar to ESRs, capability of less than five hours is allowed, but will be scaled to five hours. The Tariff further specifies that Demand Response resources must meet certain testing requirements; must be controllable and

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53 Hendrix Aff. ¶ 26.

54 Tariff § 16.2.5.2.1.

55 As Mr. Hendrix explains, Pure Capacity is "hypothetical capacity that performs fully and consistently with no interruption or outage." Hendrix Aff. ¶ 27.

56 Hendrix Aff. ¶ 29.

dispatchable by the Participant or by the host utility; and must not already be used as a load modifier in the Participant's load forecast.

The Tariff also details an extensive process to determine the QCC for hydro storage resources, which was developed based on many years of experience in the region with this resource type. The methodology considers ten years of historic data on numerous identified project metrics, assesses the resource's ability to increase generation during CCHs, and determines the resource's QCC as the average contribution during the CCH for each Winter Season and Summer Season over the previous ten years. The Tariff also describes alternative approaches if ten years of historic data is not available. For this type of resource, the Participant will calculate the QCC subject to review and validation, and the Tariff specifies numerous data series that the Participant is required to provide WPP so that WPP can perform that validation.

For Run of River Qualifying Resources, WPP will determine QCC based on the monthly average performance of such resource during CCH.

For resources that do not fall in the above categories, and that either are not dispatchable, or require the purchaser of energy from the resource to take energy as available from the resource, WPP will determine QCC based on the monthly average performance of such resource during CCH. The Tariff specifically identifies a qualifying facility as defined under the Public Utility Regulatory Policies Act of 1978 as one example of such a resource.

6. Qualifying Capacity Contribution—Contracts

The Tariff also sets forth governing principles to determine the Qualifying Capacity Contribution of different types of supply agreements. The general rule is that, to qualify, capacity supply agreements must be resource specific—a requirement that the Commission has accepted for other regional resource adequacy programs.[57] The Tariff makes clear that, for the WRAP, "resource-specific" means the contract must include:

> (i) an identified source;
> (ii) an assurance that the capacity is not used for another entity's resource adequacy requirements;
> (iii) an assurance that the seller will not fail to deliver in order to meet other obligations; and

[57] *See, e.g.*, *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 102 (2015) (declining to require change from individual resource approach to portfolio approach in resource adequacy program).

(iv) affirmation of NERC Priority 6 or 7 firm point-to-point transmission service rights or network integration transmission service rights from the identified resource to the point of delivery/load.

Mr. Hendrix explains that this requirement "is vital," because "[r]esources committed through the WRAP must be available at the times of greatest capacity need," which are also "the times when neighboring areas likely also need capacity, and when the demands on resources are greatest."[58] The "resource-specific" requirement accordingly helps ensure that a resource relied upon for the WRAP is not also being relied upon at the same time to meet conflicting resource needs.[59]

The Tariff provides "limited exceptions" to the resource-specific requirement and as Mr. Hendrix notes, "those exceptions are constrained by important protections."[60] A system supply contract can qualify even if it does not satisfy the general requirement, noted above, for an identified source, but "the system capacity that is the subject of the agreement must be deemed surplus to the seller's estimated needs."[61] As Mr. Hendrix explains, the "surplus" requirement is "critical, since it serves as the intended effective substitute for commitment of an identified resource."[62] Given the importance of this requirement, if the seller is not a Participant (meaning WPP does not have detailed information on the seller's load and resources), "the surplus status will need to be demonstrated through a Senior Official Attestation, with the non-Participant seller's written assent."[63]

The only other exception to the resource-specific rule is for Legacy Agreements, i.e., agreements entered before October 1, 2021. That date reflects when Participants endorsed the principle that capacity supply agreements would need to be resource-specific to qualify under the WRAP. A Participant that entered a supply agreement *after* that date knew that the agreement would not qualify under WRAP if it was not resource-specific, while a Participant that entered a capacity supply agreement *before* that date could have had reasonable doubt regarding the extent to which qualifying agreements would need to

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58 Hendrix Aff. ¶ 38.

59 *See* Hendrix Aff. ¶ 38.

60 Hendrix Aff. ¶ 39.

61 Tariff § 16.2.6.2.

62 Hendrix Aff. ¶ 39.

63 Hendrix Aff. ¶ 39.

be resource-specific.[64] But the exception here is narrow. A Legacy Agreement that does not identify the source will only qualify if it is possible for WPP to *presume* a source. In practice, this will require the written assent of the supplier under the Legacy Agreement.[65] This ability, working with the seller, to presume a resource, "still advances the basic resource adequacy objective," based on the underlying facts, even if the contract does not name a resource.[66]

7. Forward Showing Transmission Requirement

In addition to showing its Portfolio QCC at the required level, each Participant also must demonstrate in its FS Submittal that it has firm transmission service rights sufficient to deliver a MW quantity equal to at least 75% of the MW quantity of its FS Capacity Requirement.[67] The FS Transmission Requirement must be met with NERC Priority 6 or NERC Priority 7 firm point-to-point transmission service or network integration transmission service, from the Participant's Qualifying Resources or from the delivery points for the resources identified for its Net Contract QCC (or for its RA Transfers) to such Participant's load.[68]

The minimum standard of 75% reflects a reasonable balance on the firm transmission deliverability metric for initial implementation of the WRAP given the seven Month deadline for making the Forward Showing.[69] A 100% standard that would require Participants to show full transmission service seven Months ahead of the Binding Season could serve as a barrier to initial participation.[70] And that standard is not essential for reliability, given that most Participants' experience has been that a certain amount of transmission service that is not available seven Months ahead of the Binding Season can be obtained on a shorter-term basis.[71]

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64 *See* Hendrix Aff. ¶ 40.

65 Hendrix Aff. ¶ 40.

66 Hendrix Aff. ¶ 40.

67 Tariff § 16.3.1.

68 Tariff § 16.3.1.

69 *See* Hendrix Aff. ¶ 42.

70 *See* Hendrix Aff. ¶ 42.

71 *See* Hendrix Aff. ¶ 42.

Moreover, the 75% standard for the Forward Showing *does not* mean a Participant is relieved of 25% of its firm transmission service responsibilities on the Operating Day. A Participant assigned responsibility for an Energy Deployment to another Participant on the Operating Day faces a Delivery Failure Charge if it does not fulfill that Energy Deployment obligation.[72] The Tariff expressly warns that a Participant will not be relieved of responsibility for a Delivery Failure Charge if the Participant's failure to obtain or maintain firm transmission service caused or contributed to an Energy Delivery Failure.[73]

8. Forward Showing Exceptions

As discussed in the following section of this transmittal, the WRAP adopts a significant Deficiency Charge to provide each Participant a strong incentive to demonstrate, seven Months before each Binding Season, that it has made the required Forward Showing for every Month of that Season. At the same time, as Mr. Hendrix observes, the WRAP recognizes that there may be special circumstances when a Participant, due to conditions clearly beyond its control, is unable to make the required showing, warranting an exception.[74] The exceptions are narrow and limited, however, "to avoid possibly undermining the program's paramount reliability objectives."[75]

There is one such narrow exception allowed as to the FS Capacity Requirement, and four narrow exceptions allowed as to the FS Transmission Requirement. As to the FS Capacity Requirement, a Participant can obtain an exception if its Portfolio QCC falls short *due solely* to a catastrophic failure of one or more Qualifying Resources that the Participant is unable to replace on commercially reasonable terms as a result of the timing and magnitude of the catastrophic failure.[76] But this exception is carefully limited. Participants are expected to plan for resource failures and other contingencies; and they are expected to respond to and mitigate such contingencies.[77] Accordingly, a resource failure provides relief from the Forward Showing requirement *only* if it is a catastrophic failure *and* its timing and magnitude are such that the Participant is unable to secure, as of the FS

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72 *See* Tariff § 20.7.

73 *See* Tariff § 20.6; *see also* Cates Aff. ¶ 29; Hendrix Aff. ¶ 43.

74 *See* Hendrix Aff. ¶ 45.

75 Hendrix Aff. ¶ 33.

76 *See* Tariff § 16.2.4; Hendrix Aff. ¶ 34.

77 Hendrix Aff. ¶ 34.

Deadline, replacement of the lost resource on commercially reasonable terms.[78] To obtain an exception, the Participant's request must include complete information on the nature, causes, and consequences of the catastrophic failure, must describe the Participant's specific, concrete efforts prior to the FS Deadline to secure replacement Qualifying Resources—*and* must be supported by a Senior Official Attestation.[79] If the exception is granted, moreover, the Participant must submit a monthly exception check report demonstrating that either the circumstances necessitating the exception have not changed, or that the Participant has secured replacement Qualifying Resources and no longer requires the exception.[80] In other words, the Participant will need to continue to show that replacement resources are not available on commercially reasonable terms if it wants to maintain the exception. Reinforcing the importance of this ongoing check, if the Participant fails to submit a required monthly report, it will be assessed a Deficiency Charge unless it cures that failure within seven days.[81]

As to the FS Transmission Requirement, exceptions are limited to conditions that are beyond the Participant's control; are carefully circumscribed; and require a formal request on or before the FS Deadline with pertinent details, supported by a Senior Official Attestation.[82] The Tariff sets out the four different exceptions—(i) Enduring Constraints; (ii) Future FIRM ATC Expected; (iii) Transmission Outages and Derates; and (iv) Counterflow of a Qualifying Resource, and details the conditions and limits on each.[83] Mr. Hendrix reviews and explains each of these four exception types.[84] Mr. Hendrix emphasizes that these exceptions "are not intended to undermine the reliability of the WRAP;" and he reports that "WPP and the Participants agreed, through the task force process that developed these exceptions, that if the transmission exceptions are impacting the WRAP Region's reliability, they will be reconsidered through a formal reevaluation of the exception process."[85] Moreover, the FS Transmission Requirement and exceptions are

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78 *See* Tariff § 16.2.4; Hendrix Aff. ¶ 34.

79 Tariff §§ 16.2.4; Hendrix Aff. ¶ 34.

80 Tariff § 16.2.4.

81 *See* Hendrix Aff. ¶ 34.

82 *See* Tariff § 16.3.2; Hendrix Aff. ¶ 45.

83 *See* Tariff §§ 16.3.2.1, 16.3.2.2, 16.3.2.3 &16.3.2.4.

84 Hendrix Aff. ¶¶ 47-50.

85 Hendrix Aff. ¶ 45.

not intended to replace transmission facility planning, although implementation of, and experience with, the FS Transmission Requirement and requested exceptions "should send signals to transmission facility owners and planners on the need for additional transmission as the WRAP helps identify transmission constraints on capacity transfers during CCH."[86]

9. Forward Showing Deficiencies and Deficiency Charges

As previously noted, Participants must provide their FS Submittals on or before the FS Deadline, which is seven Months before the start of the applicable Binding Season. WPP, with support from the Program Operator, will review and validate the Participants' FS Submittals within sixty days after the FS Deadline and notify Participants of any deficiencies. Participants will then have sixty days from WPP's notification to cure the deficiency before Deficiency Charges are assessed. This approach, and the forward timing built into the resource adequacy demonstrations for each season, is designed to facilitate and promote identification and correction of any deficiencies to help ensure that the required resources are arranged and in place for the relevant season.[87]

Just as the peak loads and FSPRM can vary each Month of a Binding Season, deficiencies will also be determined separately for each Month. In particular, deficiencies (if any) will be calculated for a Participant as to both its FS Capacity Requirement and its FS Transmission Requirement, and whichever deficiency value is the higher of the two will set the Participant's Monthly Deficiency for that Month.[88] On the capacity side, the deficiency is any shortfall in the Participant's Portfolio QCC relative to its FS Capacity Requirement, after accounting for any approved exception and any RA Transfer (which can reduce or increase the Participant's required resource showing—depending on whether the Participant is a buyer or seller in the RA Transfer).[89] Similarly, on the transmission side, the deficiency is any shortfall in the Participant's Demonstrated Transmission relative to its FS Transmission Requirement, after accounting for any approved exceptions (which can reduce or eliminate a deficiency).[90]

Any deficiencies that are not cured by the sixty-day deadline will result in a Deficiency Charge. The Deficiency Charge is the product of the Monthly Deficiency times

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86 Hendrix Aff. ¶ 45.

87 *See* Hendrix Aff. ¶ 53.

88 *See* Tariff § 17.1.

89 *See* Tariff § 17.1.

90 *See* Tariff § 17.1.

a Cost of New Entry ("CONE") value and a CONE Factor.[91] CONE values are typically based on the annual revenue requirement of a hypothetical capacity resource. However, Participants in the WRAP could theoretically pay multiple Deficiency Charges over a twelve-Month period, since there are separate Forward Showings required for two Binding Seasons within a year, and deficiencies will be calculated for each Month in a Binding Season.[92] To address this concern, the adopted approach uses an annual-based CONE value for the Participant's largest Monthly Deficiency in the first Binding Season of a year (which the Tariff defines as the Summer Season), and a monthly based CONE value for any smaller Monthly Deficiencies of that Participant in the other Months of the Summer Season.[93] To preserve a strong incentive for a Participant to minimize the number of its deficiencies over a Season, the monthly based CONE value is doubled (i.e., multiplied by 200%).[94] Doubling the monthly based CONE value thus provides a strong deterrent against repeated deficiencies, while still maintaining the Deficiency Charges far below what a Participant would pay if it was subject to an annual-based CONE value for each of its multiple deficiencies over a year.[95] If an annual-based CONE Deficiency Charge is assessed in a Summer Season, and the Participant then has a higher-MW deficiency in the ensuing Winter Season, the Participant will be assessed an annual-based CONE Deficiency Charge on the increment of greater Winter Season deficiency above the Summer Season deficiency, which thereby equates to the Participant paying a single annual-based CONE Deficiency Charge on its highest deficiency over the course of the year (i.e., the Winter Season deficiency). To preserve the rule that a Participant pays a monthly based CONE Deficiency Charge on any lower deficiency levels during the year, the Participant must pay a monthly based CONE Deficiency Charge on the Summer Season deficiency that had formerly been its highest deficiency.

The Tariff defines the CONE value as the annual capital and fixed operating costs to install a hypothetical new peaking gas plant.[96] This approach is reasonable, because such a plant is representative of a traditional marginal capacity resource, i.e., a resource that can be brought into commercial operation in a relatively short time, and that would run

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91 *See* Tariff § 17.2.

92 *See* Hendrix Aff. ¶ 55.

93 *See* Tariff § 16.2; Hendrix Aff. ¶ 57.

94 *See* Tariff §§ 17.2.2 & 17.2.4.

95 *See* Hendrix Aff. ¶ 57.

96 Tariff § 17.2.5.

predominantly at peak, given traditionally higher fuel costs.[97] The Commission has accepted gas peaking plant CONE values for similar purposes in other RA programs.[98] The Tariff prescribes standards and principles to govern the initial calculation and updating of the CONE value, i.e., it must be based on publicly available information relevant to the estimated annual capital and fixed operating costs of a hypothetical natural gas-fired peaking facility; it does not consider net revenue from the sale of capacity, energy, or ancillary services; and it does not consider variable operating costs necessary for generating energy.[99] WPP, with support from the Program Operator, will calculate the CONE based on these Tariff-prescribed parameters, and the resulting value must be set forth in the Business Practice Manuals.[100] This requirement means that the proposed CONE value will need to go through the full stakeholder process described by Ms. Edmonds in her affidavit, including development through the multi-sector PRC, a supermajority House and Senate approval vote by the RAPC, and approval by the independent WPP Board of Directors.[101]

This process for setting and changing the CONE value is reasonable, since it will be used only to set a Deficiency Charge that, if the charge operates with the intended deterrent effect, will rarely if ever be assessed.[102] The Tariff's requirement to base the CONE calculation on publicly available data, and the extensive stakeholder and WPP Board review and approval process, provide further assurance that the CONE values will be reasonable for their limited purpose.[103]

The Deficiency Charge also includes a CONE Factor, which adjusts the charge based on the WRAP Region's aggregate level of Portfolio QCC relative the aggregate FS Capacity Requirement. Specifically, the CONE Factor equals 125% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is 1% or less (including if the Region is in surplus); 150% if the aggregate capacity deficiency of the

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97 *See* Hendrix Aff. ¶ 59.

98 *PJM Interconnection, L.L.C.*, 167 FERC ¶ 61,029, at P 59 (2019); *ISO New England Inc.*, 161 FERC ¶ 61,035, at P 36 (2017).

99 Tariff § 17.2.5; Hendrix Aff. ¶ 59.

100 Hendrix Aff. ¶ 59.

101 Hendrix Aff. ¶ 59.

102 *See* Hendrix Aff. ¶ 60.

103 *See* Hendrix Aff. ¶ 60.

WRAP Region as a whole for a Binding Season is between 1% and 2%; 175% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is between 2% and 3%; and 200% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is above 3%.[104] This same sliding scale is used to set separate CONE Factors for the Summer Season and Winter Season.[105] The CONE Factor thus appropriately reflects the potential higher value of capacity as the region becomes tight on capacity, and helps preserve the key design principle that a Participant should never see payment of the Deficiency Charge as an economic alternative to procuring resources that meet the WRAP QCC requirements.[106]

As Mr. Hendrix emphasizes, "the distinguishing feature of this charge is that it is designed to be a deterrent; its purpose is to ensure Participants provide a compliant FS Submittal." Because "Participants have control over whether they submit a deficient Forward Showing . . . it is reasonable to expect that Participants will submit compliant Forward Showings."[107] But if an issue is found with one or more of the Participant's identified resources, "the desired outcome is that the Participant identifies and provides a Qualifying Resource, and not that it pays a monetary charge."[108] The Deficiency Charge is specifically designed to have that deterrent effect and—ideally—never be charged.

D. Operations Program

1. Overview of Operations Program

Among the WRAP's many benefits, as explained by Mr. Cates in his accompanying affidavit, the WRAP offers two "benefits expected from a broad regional resource adequacy program."[109] The first is "applying common resource adequacy requirements and metrics across a broad area [to] take advantage of greater resource diversity and load diversity[, which enables] more efficient and cost-effective resource adequacy planning."[110] The second is affording Participants in the program responsible for serving

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104 Tariff § 17.2.8.

105 Tariff § 17.2.8.

106 *See* Hendrix Aff. ¶ 61.

107 Hendrix Aff. ¶ 62.

108 Hendrix Aff. ¶ 62.

109 Attachment E, Affidavit of Charles C. Cates ¶ 6 ("Cates Aff.").

110 Cates Aff. ¶ 6.

load "the opportunity to tap into that diversity at times when their load/resource balance is under extreme stress and other Participants are in comparatively better shape."[111] The Operations Program, Mr. Cates explains, is "WRAP's platform for the program to provide its Participants resource adequacy assistance when it is needed."[112]

RTOs and ISOs with resource adequacy programs that have centrally dispatched energy markets typically rely on those energy markets "as the mechanism by which market participants realize the benefit of pooled capacity when, due to adverse or unexpected conditions, their own load exceeds their own resources."[113] But there can be other reasonable approaches "[to] deliver[ ] this basic benefit of a regional resource adequacy program."[114] Mr. Cates articulates how the Operations Program "meets this need in a very straightforward fashion." Specifically:

(i) "tracking each Participant's current load/resource balance leading up to each Operating Day;"[115]

(ii) "identifying the infrequent occasions when one or more Participants is expected to be in a deficit position in an Operating Day;"[116]

(iii) "calculating the degree to which the remaining Participants are in a surplus position;"[117] and

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111 Cates Aff. ¶ 6.

112 Cates Aff. ¶ 6.

113 Cates Aff. ¶ 7; s*ee also* Cates Aff. ¶ 7. Every ISO or RTO for which the Commission has accepted a regional resource adequacy program has also had a centrally dispatched energy market. *See, e.g.*, *PJM Interconnection, L.L.C.*, 106 FERC ¶ 61,253, at P 45, *order on reh'g*, 109 FERC ¶ 61,094 (2004) (holding that the preexisting reserve rules in a control area being integrated into the PJM region cannot be maintained because they "do not provide the individual [load serving entity] commitments . . . needed for loads in [that control area] to participate in the PJM market on the same basis as other [load serving entities] in PJM").

114 Cates Aff. ¶ 7.

115 Cates Aff. ¶ 7.

116 Cates Aff. ¶ 7.

117 Cates Aff. ¶ 7.

(iv) "apportioning responsibility among the Participants in surplus to provide the assistance (in the form of Holdback Requirements and Energy Deployments) needed by the Participants that are in deficit."[118]

As Mr. Cates explains, the Operations Program implements these steps "in a way that advances several beneficial design principles."[119]

First, it proceeds from the Forward Showing. As he explains, "[t]here is no need to reinvent the wheel on how to calculate whether or the extent to which a Participant is in surplus or deficit on the Operating Day; the Forward Showing already provides that template."[120] All that the Operations Program needs to add is a "method for updating each Participant's expected load, resources and outages relative to the Forward Showing to determine the Participant's expected surplus or deficit position on the Operating Day."[121] WPP's proposed Sharing Calculation meets that need for a clear, common, predictable method by specifying "which operational changes [in the Participant's load/resource balance] to consider relative to the Participant's Forward Showing."[122] The Forward Showing and the Operations Program are therefore closely integrated—indeed, they "speak the same language"—yielding benefits of ease of administration, transparency, and predictability.[123]

Second, the Operations Program "provid[es] necessary support as a last resort, not as a first resort."[124] Even if it appears that a Participant "will be in a deficit position on the Operating Day, [each] Participant still bears the primary responsibility for resolving that deficit by the Operating Day."[125] To that end, even though a forecast on the Preschedule Day that the Participant will be in deficit on the Operating Day triggers a Holdback Requirement, "the Participant *still* will get *no* Energy Deployments on the Operating Day *unless* it provides affirmative written notice to WPP 120 minutes before the relevant hour on the Operating Day that the Participant will be in a deficit position on that hour and

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118 Cates Aff. ¶ 7.

119 Cates Aff. ¶ 8.

120 Cates Aff. ¶ 8.

121 Cates Aff. ¶ 8.

122 Cates Aff. ¶ 8.

123 *See* Cates Aff. ¶ 9.

124 Cates Aff. ¶ 9.

125 Cates Aff. ¶ 9.

requires an Energy Deployment."[126] As Mr. Cates emphasizes, "[t]his rule embodies the program's expectation that the Participant will attempt to resolve its deficit through a transaction outside the program before calling on the program to meet that need."[127]

Third, the Operations Program is implemented on the scheduling timeframe, setting the applicable WECC scheduling day for an Operating Day as the Operations Program's Preschedule Day—when Holdback Requirements are set.[128] As explained by Mr. Cates, this is critical, as it closely aligns the Operations Program with how bilateral transactions are conducted in the West.[129] By requiring successive Sharing Calculations (identifying both positive and negative results) in the days leading up to the Preschedule Day, the Operations Program increases regional reliability through centralized assessments on a multi-day ahead horizon that serve to identify potential reliability issues, provide broader visibility into developing reliability events and provide a platform on which to address those issues through opportunities to use regional diversity of both demand and supply.[130]

2. Operations Program Timeline

The Operations Program focuses on a period of days—known as the Multi-Day-Ahead Assessment, and currently anticipated to be seven days—leading up to the Operating Day.[131] This advance period culminates in the Preschedule Day, which is the scheduling day on the WECC scheduling calendar for the Operating Day at issue. Each day of that period, WPP conducts a forecast of expected conditions on the Operating Day, focused on "a calculation as to each Participant, known as the Sharing Calculation, whether the Participant will be in a surplus or deficit relative to its forecasted resource adequacy needs anticipated for the approaching Operating Day."[132]

Mr. Cates illustrates the Multi-Day-Ahead Assessment with the following figure in his affidavit, which includes highlights of the activities occurring on the different days of the period:[133]

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126 Cates Aff. ¶ 9 (emphasis in original).

127 Cates Aff. ¶ 9.

128 *See* Cates Aff. ¶ 10.

129 Cates Aff. ¶ 10.

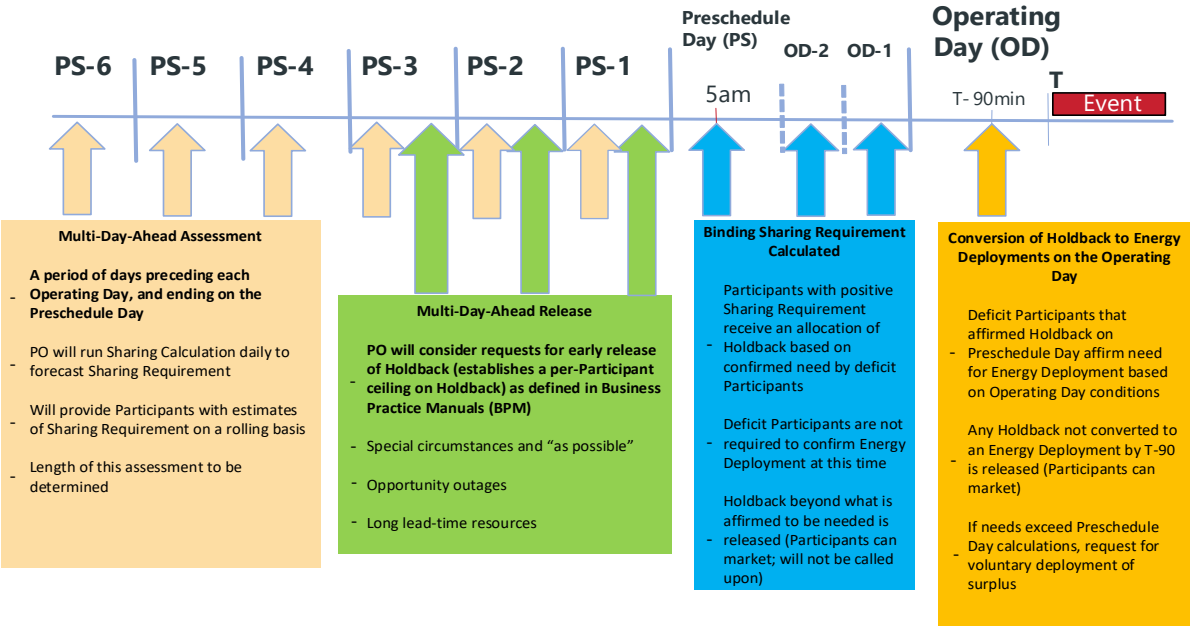
130 Cates Aff. ¶ 10.

131 Tariff § 18; Cates Aff. ¶ 11.

132 Cates Aff. ¶ 11.

133 Cates Aff. ¶ 11, Figure 1.

Operations Program Timeline



3. *Sharing Calculation*

As Mr. Cates explains, "the Operations Program defines when a Participant can call upon assistance from the other Participants during stressed periods, and how much assistance it may request."[134] The Tariff defines a "Sharing Calculation" as "the technical means to answer those questions."[135] The Sharing Calculation does this by "comparing the load and resource conditions the Participant was required to show in the Forward Showing Program with the load and resource conditions the Participant is expected to face during the relevant Operating Day."[136] Specifically, the Sharing Calculation:

> [T]akes into account the load forecast for the Operating Day, changes for the Operating Day (compared to the Forward Showing for the relevant Month) in Variable Energy Resource ("VER") performance, Run-of-River Qualifying Resource performance, forced outages, and Contingency Reserves. The Sharing Calculation also recognizes when a Participant used Regional Diversity Transmission to meet part of its FS Capacity Requirement,

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134 Cates Aff. ¶ 12.

135 Cates Aff. ¶ 12; *see* Tariff § 20.1.

136 Cates Aff. ¶ 13.

> and factors in an explicit uncertainty element relating to the load, VER, and run-of-river forecasts.[137]

The end result of the Sharing Calculation "compares what each Participant should have available to them, as seen in the Forward Showing Program, to what is actually available in the particular Operating Day."[138] If the result is positive, then the Participant "is forecasted to be in surplus for the Operating Day;" if negative, the Participant "is forecasted to be in deficit for the Operating Day."[139] As Mr. Cates observes, a negative result implies that the Participant has effectively exhausted its entire FSPRM, "due, for example, to unexpectedly high loads and/or unexpectedly reduced resource performance."[140] Given this, a negative result for any Participant for any hour of the Operating Day, which the Operations Program defines as a Sharing Event, is "indicative of high stress on the system."[141]

Since the Sharing Calculation also shows which Participants are in a surplus position, and the extent of their surplus, the Sharing Calculation "will help determine not only which Participants need assistance, but also which Participants will provide assistance, and how much assistance those Participants are expected to provide."[142] The Operations Program's rules concerning Holdback Requirements and Energy Deployments, described in the following two sections of this transmittal "provide the specific allocation methods for determining these obligations."[143]

4. Holdback Requirement

As Mr. Cates explains, the Operations Program's Holdback Requirement "effectively sets aside a portion of capacity held by Participants that are net positive [for a given Sharing Event] for expected use [in the form of an Energy Deployment] by the Participants that are net negative" for that same event.[144] Mr. Cates reviews the Tariff's proposed Holdback Requirement formula, and observes that, "the Holdback Requirement

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137 Cates Aff. ¶ 13.

138 Cates Aff. ¶ 14.

139 Cates Aff. ¶ 14.

140 Cates Aff. ¶ 14.

141 Cates Aff. ¶ 14.

142 Cates Aff. ¶ 15.

143 Cates Aff. ¶ 15.

144 Cates Aff. ¶ 16.

is allocated to each net positive Participant based on their proportion of the program-wide net positive amount," with the result that "all Participants in a surplus position are expected to aid Participants in a deficit position, and Participants in a relatively greater surplus position are expected to provide relatively more assistance."[145]

The Operations Program also includes important limits on the MW amount of Holdback Requirement that can be assigned to Participants, with the objective of promoting planning certainty, and avoiding undue restrictions on Participants' use of their own capacity. In particular, "the Holdback Requirement set on the Preschedule Day cannot be increased."[146] This is important not only for the level of the Holdback Requirement itself, but also because "the level of a Participant's Holdback Requirement (for a given Sharing Event) also caps their responsibility for Energy Deployments during the hours of the Operating Day covered by that Sharing Event."[147]

In addition, WPP will also estimate Holdback Requirements (if any) during each day of the Multi-Day-Ahead Assessment.[148] During that period leading up to the Preschedule Day, WPP can establish limits on the level of the Preschedule Day's Holdback Requirement "by applying the same considerations [that would justify a] release of a Holdback Requirement [that has already been set on a Preschedule Day]."[149] Those conditions are that "WPP will review Holdback Requirements after they are set on the Preschedule Day, and can release all or part of a Holdback Requirement so long as no Participant is then calculated to have a negative Sharing Calculation for the hour(s), and WPP determines that there is a low probability of a Sharing Event for the Hour."[150]

5. Energy Deployment

In the Operating Day, any Holdback Requirement set on the Preschedule Day, "will be converted, to the extent it is still needed, to an Energy Deployment."[151] As explained above, each Participant in a deficit position must confirm to WPP, by no later than 120 minutes before the applicable hour, the quantity of Energy Deployment it requires for that

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145 Cates Aff. ¶ 18; *see* Tariff § 20.2.1.

146 Cates Aff. ¶ 19; *see* Tariff § 20.2.2.

147 Cates Aff. ¶ 19; *see* Tariff § 20.4.2.

148 Tariff § 20.2.2.

149 Cates Aff. ¶ 19.

150 Cates Aff. ¶ 21; *see* Tariff § 20.2.2.

151 Cates Aff. ¶ 22.

hour, and "if confirmation is not provided by [that] deadline, the Participant is deemed to waive all Energy Deployment deliveries for that hour."[152]

The Operations Program assigns Energy Deployments "in one of two ways, depending on whether the allocation is in a Subregion that has a central transmission hub that permits energy deliveries to that hub from any point in the Subregion."[153] If a Subregion has a central transmission hub, then the total Energy Deployment needed for an hour "will be allocated to each Participant that has a Holdback Requirement based on the ratio of that Participant's final Holdback Requirement to the sum of all Participants' final Holdback Requirements."[154] But if there is no such hub, WPP will determine Energy Deployment assignments based on an optimization that: (i) "uses receipt and delivery point information provided by Participants;"[155] (ii) "prioritizes use of transmission service and holdback voluntarily offered by Participants on the Preschedule Day or under the Forward Showing Program;"[156] and (iii) "matches and allocates provision and receipt of Energy Deployments within categories specified by the Tariff."[157]

6. Operations Program Transmission Service Requirement

The Operations Program also has an explicit transmission requirement.[158] In the Forward Showing Program, Participants need to show that they have arranged NERC Priority 6 or 7 firm transmission service covering at least 75% of their aggregate transmission needs from resources to loads. If they do not make that showing, and they do not have a valid exception, they face an assessment of Deficiency Charges.[159]

The Operations Program applies that requirement "to transmission needed to satisfy in full the Participant's FS Capacity Requirement."[160] The 75% rule is based in part on "allowing Participants the seven months between the FS Deadline and the start of the

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152 Cates Aff. ¶ 22; *see* Tariff § 20.4.2.

153 Cates Aff. ¶ 23.

154 Cates Aff. ¶ 24; *see* Tariff § 20.4.1.1.

155 Cates Aff. ¶ 25.

156 Cates Aff. ¶ 25.

157 Cates Aff. ¶ 25; *see* Tariff § 20.4.1.2.

158 Tariff § 20.6.

159 *See supra* Section III.C.9.

160 Cates Aff. ¶ 29; *see* Tariff § 20.6.

Binding Season to complete their firm transmission arrangements," which is a condition that "no longer applies once Participants are in the Binding Season."[161] By affirming "the requirement to secure 100 percent of the needed capacity," the Operations Program Tariff provisions "eliminate[ ] any implication that Participants only need to obtain the 75% that is required at the time of the forward showing."[162] While there is no requirement for Participants "to make a further demonstration of transmission as they enter the Binding Season," if a Participant has an Energy Delivery Failure, WPP will "review [] whether a failure to secure the required firm transmission service rights contributed to the Energy Delivery Failure," which would support assessing a Delivery Failure Charge.[163] As Mr. Cates observes, the Tariff therefore "puts Participants on notice that they are expected to comply with this transmission service requirement."[164]

In sum, the proposed Operations Program embodies a thoughtful approach, and considerable collaborative effort by WPP, SPP, Participants, and other stakeholders, to establish a platform other than an ISO/RTO energy market to deliver one of the central benefits of a regional resource adequacy program, i.e., "the opportunity [for Participants] to tap into [the program's load and resource] diversity at times when their load/resource balance is under extreme stress and other Participants are in comparatively better shape."[165] The Commission should accept this stakeholder-driven approach as just and reasonable.

E. Settlement of WRAP Charges and Payments

1. Overview

WRAP settlements reflect first and foremost the fundamental design principle—and fact—that the WRAP is not a central market for either capacity or energy.[166] The Tariff prescribes how WPP is to calculate the quantity of their resources Participants should hold back—and not sell to others—on the day before the Operating Day; the quantity of energy a Participant needing assistance on an Operating Day will buy within the program; the quantity a Participant providing assistance will sell; and the prices a buyer will pay and

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161 Cates Aff. ¶ 29.

162 Cates Aff. ¶ 29.

163 Cates Aff. ¶ 29; *see* Tariff § 20.6.

164 Cates Aff. ¶ 29.

165 Cates Aff. ¶ P 6.

166 *See* Attachment F, Affidavit of Ryan L. Roy ¶ 5 ("Roy Aff.").

a seller will receive for Holdback Requirements and Energy Deployments.[167] Importantly, however, the implementing transactions will be entirely bilateral between program Participants. WPP is not a settlement entity or a party to any of the transactions, nor is WPP operating a market for the conduct of these transactions.[168]

In the same vein, the WRAP prescribes just and reasonable pricing for Holdback Requirements and Energy Deployments that is designed: (i) to encourage Participants to invoke the program's compelled sales of capacity and energy by other Participants only when they cannot resolve their anticipated resource adequacy shortfalls through bilateral or market purchase transactions outside the program; and (ii) to fairly and fully compensate Participants that meet Holdback Requirements and deliver Energy Deployments.[169]

2. Pricing

WPP proposes to base WRAP pricing on the maximum import bid pricing that the Commission accepted, without change, last year for the California Independent System Operator Corporation ("CAISO").[170] CAISO's pricing proposal set the maximum price bids for imports into CAISO from resources located in the portions of the Western Interconnection that are outside CAISO—the same territory WRAP is expected to serve. CAISO proposed to calculate its Maximum Import Bid Price "by taking the greater of the Mid-Columbia ("Mid-C") or Palo Verde index prices, multiplying the index by an hourly shaping ratio, and multiplying that number by 110%."[171] CAISO argued it was just and reasonable to base its import pricing on the Palo Verde and Mid-Columbia index prices "because they are the primary liquid trading hubs for bilateral transactions in the Western Interconnection and provide representative electric prices for the bilateral market outside CAISO's balancing authority area;" [172] explained and justified the details of its hourly shaping ratio;[173] and explained that the 110% multiplier is just and reasonable "because it accounts for the difference between published electric price indices and individual

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167 Roy Aff. ¶ 5; *see* Tariff §§ 20.2 (Holdback Requirements), 20.4 (Energy Deployments), 21.2 (Settlement Price Calculation).

168 Roy Aff. ¶ 5.

169 Roy Aff. ¶ 6.

170 *See Calif. Indep. Sys. Operator Corp.*, 175 FERC ¶ 61,076, at PP 42-44 (2021) ("*CAISO*").

171 *CAISO* at P 7 (footnotes omitted).

172 *CAISO* at P 8.

173 *CAISO* at P 7 n.16.

transactions."[174] In all events, bid prices can be no higher than CAISO's "hard" price cap of $2,000/megawatt hour ("MWh") on energy offers. CAISO explained that it was proposing the Maximum Import Bid Price to address concerns that certain import bids "could exercise system-level market power by bidding at prices above [the] $1,000/MWh [soft cap] but under the $2,000/MWh hard energy bid cap."[175]

Adopting CAISO's approved pricing, WPP proposes to base the Total Settlement Price on a Day-Ahead Applicable Price Index with an Hourly Shaping Factor identical to CAISO's hourly shaping ratio, and to use a 110% multiplier.[176] While WPP will specify the particular applicable price indices in its Business Practice Manuals, WPP anticipates specifying the Mid-Columbia and Palo Verde indices, as WPP agrees with CAISO's characterization of those as "the primary liquid trading hubs for bilateral transactions in the Western Interconnection and provide representative electric prices for the bilateral market outside CAISO's balancing authority area."[177]

As explained by Mr. Roy in his accompanying affidavit, this pricing structure supports the design objective that WRAP should be a resource of last resort—not a resource of first resort.[178] If WRAP's dictated pricing was, by design, consistently lower than the price that a Participant would have to pay a resource in the WRAP Region to compete with the price such a resource could get by selling into the day-ahead market, then Participants would be incented to invoke WRAP's compelled sales of Holdback and Energy Deployments as a less expensive alternative to purchasing from WRAP Region resources through bilateral transactions outside the WRAP.[179] As Mr. Roy explains, if the Operations Program were to use solely a day-ahead price index to set the price for Holdback Requirements and Energy Deployments, that approach would transfer all the operational and price risk to the Participant in surplus that is assigned those obligations.[180] The surplus Participant would have to manage the operational and load/resource balance impacts of the Holdback Requirement, and would be exposed to the difference between the day-ahead index and the real-time index if the Participant that is in deficit declined some or all of the Energy Deployment on the Operating Day. That approach, Mr. Roy emphasizes, would essentially provide the Participant in deficit with a free option for its energy needs on the

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174 *CAISO* at P 9.

175 *CAISO* at P 5 (footnote omitted).

176 *See* Tariff § 21.2.6.

177 *CAISO* at P 8.

178 *See* Roy Aff. ¶ 7.

179 *See* Roy Aff. ¶ 7.

180 *See* Roy Aff. ¶ 7.

Operating Day—which is entirely inconsistent with the WRAP objectives described above.[181] To avoid that scenario, the proposed pricing incorporates a reasonable premium over the index price, and includes a component that permits recovery of opportunity costs.[182]

Under the Tariff, WPP will apportion the Total Settlement Price—calculated pursuant to the method accepted for CAISO—into a component to compensate Participants for satisfying Holdback Requirements and a component to compensate Participants for delivering Energy Deployments.[183] In particular, compensation for Energy Deployments will be no higher than 80% of the Total Settlement Price, and what remains from the Total Settlement Price will be marked as compensation for the Holdback Requirement.[184] This method recognizes that while there are good options for energy price indices, there currently is no distinct capacity price index that would be a good candidate for pricing WRAP Holdback Requirements.[185] In other words, the price for the Energy Deployment component can readily be set using the price for the hour at issue from a real-time energy price index, but nothing prevents that price from consuming most or all of the Total Settlement Price. Capping that component at 80% thus ensures that there is at least some significant share of the Total Settlement Price that can be treated as compensation for the Holdback Requirement.[186]

To ensure fair compensation for all costs reasonably associated with meeting WRAP sale obligations, the pricing proposal also includes compensation for reasonable opportunity costs, in the form of a Make Whole Adjustment. The Make Whole Adjustment is applied if the compensation otherwise provided via the Total Settlement Price and its components "is less than the estimated revenues the selling entity would have received had such entity not been subject to a Holdback Requirement and had sold a day-ahead block of energy with a MW value equal to the maximum amount of Holdback Requirement for the hours in the block."[187] As Mr. Roy explains, this is a textbook example of an opportunity cost, i.e., the revenues from a legitimate, available sale opportunity the seller must forego

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181 Roy Aff. ¶ 7.

182 *See* Roy Aff. ¶ 7.

183 *See* Tariff § 21.2.3; *see also* Roy Aff. ¶¶ 12-13.

184 *See* Tariff §§ 21.2.3, 21.2.4; *see also* Roy Aff. ¶ 15.

185 *See* Roy Aff. ¶ 15.

186 Roy Aff. ¶ 15.

187 Tariff § 21.2.5.

in order to make the sale required by the Tariff.[188] As Mr. Roy explains, "day-ahead sales are commonly made in the form of multiple hour blocks during the Operating Day; [indeed,] the on-peak (sixteen hour) and off-peak (eight hour) blocks are among the most liquidly traded products in the day-ahead energy markets for both Mid-C and PV."[189] A Holdback Requirement assignment on the Preschedule Day that includes any of the hours of a customary day-ahead block sale prevents the Participant assigned that requirement from making that block sale.[190] Allowing a Make Whole Adjustment for these legitimate opportunity costs thus helps ensure a Participant receives a just and reasonable price based on the Participant's costs. The Make Whole Adjustment also helps ensure that Participants facing a resource adequacy shortfall are not incented to use WRAP Holdback Requirements as a significantly less expensive alternative to buying day-ahead energy at the block pricing that sellers commonly demand.[191]

The Tariff pricing proposal adds further rules to ensure just and reasonable prices for the different scenarios that can arise when the WRAP Region separates into different Subregions that place different values on the transactions at issue.[192] First, if the seller and buyer are based in the same Subregion (for example, the Subregion for which Mid-C can successfully serve as a central hub), their settlement prices will be based on a price index applicable to that Subregion (for example the Mid-C price index).[193] "Using instead a price index better suited to a different Subregion (for example, the [Palo Verde] price index) would result in prices that do not reflect the competitive conditions, or the fair value of energy, in the Subregion where the transaction is occurring."[194]

Second, if the seller and buyer are located in different Subregions, the Tariff directs using the higher priced index for components of the settlement pricing because "a seller that can deliver into different Subregions through bilateral sales that are not under the

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188 Roy Aff. ¶ 17; *see also ConocoPhillips Co.*, 175 FERC ¶ 61,226, at P 16 (2021) ("WECC Soft-Cap Guidance Order") ("The Commission has long recognized opportunity costs as a legitimate component of just and reasonable rates.") (citing *Cal. Indep. Sys. Operator Corp.*, 163 FERC ¶ 61,211, at P 11 (2018) (approving "default energy bid formulas for hydro resources [in CAISO] with storage take into account these resources' opportunity to sell energy outside of CAISO)).

189 Roy Aff. ¶ 17.

190 Roy Aff. ¶ 17.

191 Roy Aff. ¶ 17.

192 *See* Tariff § 21.1.4.

193 *See* Roy Aff. ¶ 18.

194 Roy Aff. ¶ 18.

WRAP would have the ability in those sales to capture the price difference between Subregions in the bilateral market."[195] But if the WRAP Operations Program assigns a Holdback Requirement to that seller, then the seller (i.e., a WRAP Participant) "becomes obligated to deliver into the Subregion with the lower priced index [and] it has foregone the ability to make a bilateral sale in the Subregion with the higher priced index—which is a lost opportunity cost that is appropriately recognized in the Tariff's pricing provisions."[196]

Third, if a Participant *other than* the buyer and seller is involved in the transaction because it is providing transmission service rights between the two Subregions, the seller receives the applicable index price for the Subregion where the resource used to meet the Holdback Requirement or Energy Deployment is located, and the separate Participant that provided Subregion to Subregion transmission receives the difference between each Subregion's Total Settlement Price or zero, whichever is greater.[197] This approach ensures that a party that provided Subregion to Subregion transmission is fairly compensated for the value it provides by making resources from a lower-price Subregion available to purchasers located in a higher-price Subregion.[198]

3. Protections against the Potential Exercise of Market Power

The WRAP design leverages the Commission's well-established existing rules and procedures to constrain the potential exercise of market power. As previously noted, the WRAP design presented in this filing does not create a central market or capacity auction; Participants instead will engage in bilateral transactions among themselves or with non-Participants to obtain the resources they need. Commission-jurisdictional entities that engage in such bilateral wholesale transactions will be subject to Commission regulation to the same extent they would be if they entered the same bilateral wholesale transaction for a non-WRAP purpose. Likewise, such entities will need to obtain, or have in place, market-based rate authority to engage in such transactions to the same extent they would require market-based rate authority if they conducted the same bilateral wholesale transaction for a non-WRAP purpose.[199]

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[195] Roy Aff. ¶ 19.

[196] Roy Aff. ¶ 19.

[197] Roy Aff. ¶ 20.

[198] Roy Aff. ¶ 20.

[199] *See generally* 18 C.F.R. part 35, Subpart H.

The Forward Showing Program rules will not prescribe any transactions that must occur between Participants.[200] Participants will need to show at the FS Deadline Portfolio QCC for each Month of the applicable Binding Season in an amount at least equal to their FS Capacity Requirement for each Month. And their Qualifying Resources and Net Contract QCC will need to meet the standards established by the WRAP, as discussed elsewhere in this transmittal, to ensure their FS Submittal is not deficient. But how and where each Participant obtains those resources or contracts is entirely up to the Participant and occurs outside the Forward Showing Program.[201]

To be sure, the Forward Showing Program rules can *affect* the demand and supply for resources—Mr. Roy cites as examples "setting the FS Planning Reserve Margin at a particular level or . . . adopting rules that govern which type of resources will qualify to meet the FS Capacity Requirement."[202] But those effects will occur within the existing framework of Commission regulation, market-power mitigation, and market-based rate authority. They will not—and need not—change that framework.[203]

The Operations Program likewise relies on bilateral transactions conducted under existing authorities. As explained above, and by Mr. Cates in his affidavit, the Operations Program is intended to be a last resort, not a first resort, for Participants that are facing the prospect of a resource adequacy shortfall on an upcoming Operating Day. Participants are expected and encouraged to resolve their potential shortfalls through bilateral purchases outside the WRAP, before they invoke the Operations Program provisions that require other Participants to sell them capacity to make up for that shortfall. As noted above, bilateral transactions will occur in the existing framework of Commission jurisdiction and market-based rate authority to the extent applicable, in the same manner as transactions that are not for a WRAP purpose.[204]

When the need for an Energy Deployment under the Operations Program *does* arise, the Tariff—not the seller or buyer—prescribes the quantity and the price. The Participant assigned responsibility for an Energy Deployment does not have a choice to refuse to provide that Energy Deployment. If it has a valid justification for an inability to deliver the Energy Deployment, it can seek a waiver, which may or may not be granted, based on

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200 A Participant that pays a Capacity Deficiency Charge is not thereby purchasing a resource or entering a power purchase contract.

201 Roy Aff. ¶ 22.

202 Roy Aff. ¶ 22.

203 *See* Roy Aff. ¶ 22.

204 Roy Aff. ¶ 23.

WPP's (and potentially, the Board's) review.[205] Among its other benefits, this process protects against the possibility of a seller attempting to engage in economic withholding.[206] Likewise, the fact that the seller has no ability to set or influence the compensation prescribed for an Energy Deployment (and the associated Holdback Requirement) forecloses opportunities for the exercise of market power. WRAP thus does not allow the potential opportunities for the exercise of seller market power presented by organized capacity and energy markets, i.e., the risk that a seller may submit an offer into the market above its marginal costs (and thus above a competitive level). The settlement price prescribed by the WRAP Tariff for the Participant-to-Participant sales required by the Tariff is not determined by any offers submitted by any WRAP Participant.[207]

The settlement price is instead set by the same type of pricing methods—use of liquid price indices and legitimate opportunity costs—the Commission has found just and reasonable, including as a means of preventing the exercise of market power. First, the Commission has previously accepted index-based pricing for sales by Commission-jurisdictional public utilities in WPP's RSG. Several of these RSG members are also active in the development of the WRAP, and are potential Participants in the WRAP.[208] An index-based price is as reasonable for these sellers' sales of Energy Deployment and Holdback as it is for those same sellers' sales of reserves. Second, as noted above, the Total Settlement Price proposed for WRAP is essentially identical[209] to the Maximum Import Bid Price the Commission accepted last year for CAISO, including the same 10% premium and the same Hourly Shaping Factor.[210] The Commission accepted that proposal in part as a check on the potential exercise of market power.[211] Third, the WRAP Operations Program transaction pricing is also permissible under the Commission's guidance order on just and reasonable pricing options for WECC transactions above the $1,000/MWh "soft" offer price cap.[212] The WECC guidance order permits, among other options, (i) reliance

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205 Roy Aff. ¶ 24; *see* Tariff § 20.7.3.

206 Roy Aff. ¶ 24.

207 Roy Aff. ¶ 24.

208 Roy Aff. ¶ 25.

209 The only difference is that CAISO uses *the higher of* the Mid-C and Palo Verde indices, while WRAP will use whichever of those two indices is applicable to the WRAP Subregion.

210 *CAISO* at PP 42-44.

211 *CAISO* at P 5.

212 *See* WECC Soft-Cap Guidance Order.

on a liquid price index, and (ii) use of opportunity costs.[213] As noted, WRAP's Total Settlement Price uses liquid price indices, and has the same 10% premium and Hourly Shaping Factor that the Commission found just and reasonable for CAISO. WRAP's Make Whole Adjustment, moreover, is—as Mr. Roy affirms—a "textbook example of an opportunity cost payment, e.g., a verifiable alternative sales opportunity available to the seller at issue that the seller is required to forego because the Tariff requires the seller to enter a different sale at a lower price."[214] Under that adjustment, a seller will receive (to the extent the adjustment exceeds other WRAP Tariff-identified compensation) the payment for a standard block energy market transaction that it was prevented from making because it was assigned a Holdback Requirement on the Preschedule Day for one or more hours (during that standard block) on the Operating Day.[215]

As Mr. Roy summarizes, "it is fair to say" that WRAP's reliance on bilateral transactions and the Commission's existing framework for market-based rates, WRAP's design that prevents sellers from exercising control over price, quantity, or the Tariff-triggered obligation to make the sale, and WRAP's chosen methods to set the price for the required bilateral transactions, "all help assure that the WRAP will be consistent with the Commission's policies to promote wholesale competition and guard against the exercise of market power."[216]

4. Credit

Unlike RTOs and ISOs that set and enforce credit requirements for the markets they operate, WPP does not operate markets and does not serve in a counter-party or intermediary role in any WRAP transactions. WPP also faces limited adverse consequences from non-payment of the transactions WPP invoices, as discussed below. Finally, WPP is simply not equipped to set credit requirements, monitor Participant creditworthiness or adverse conditions, or enforce credit requirements, and there has not been strong Participant interest in WPP taking on those substantial additional responsibilities.

Accordingly, WPP will not require Participants to provide credit protection for the transactions that WPP will invoice, i.e., Schedule 1, Forward Showing Program Deficiency

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213 *Id.* at PP 16-19 (opportunity cost approach), 20-25 (price index approach).

214 Roy Aff. ¶ 26.

215 *See* Tariff § 21.2.5; Roy Aff. ¶ 26.

216 Roy Aff. ¶ 27.

Charges,[217] or Operations Program Deficiency Charges.[218] For the Deficiency Charges, if a Participant assessed such charges does not pay, that non-payment reduces the revenue WPP is otherwise obligated to distribute to Participants that had no deficiencies for the relevant time period.[219] WPP thus does not face, with respect to these Deficiency Charges, a mismatch between revenues and disbursements that would leave WPP short.

For Schedule 1, Participant non-payment *could* result in a WPP shortfall, because WPP collects the revenues it needs to cover its monthly costs on an ongoing basis under Schedule 1. However, WPP is proposing an alternative means to recoup such shortfalls. As described below,[220] WPP proposes to assess on Participants the shortfalls WPP experiences when a Participant defaults on payment of its invoice for Schedule 1 charges.[221] WPP can employ such Default Allocation Assessments within a reasonably short time after a Participant's non-payment of its invoice, which means that WPP has a remedy by which it can avoid suffering an extended period of shortfalls. Given this available remedy, WPP does not have a compelling reason to also adopt a credit requirement.[222]

As explained above, Participants will settle bilaterally any Holdback Requirement and Energy Deployment transactions required by the Operations Program. The Tariff makes clear that the affected Participants will be responsible for establishing credit with one another for such transactions, and that neither WPP nor the Program Operator "shall be involved in the calculation of credit or credit limits."[223] The Tariff describes options for

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217 *See* Tariff § 17; *supra* Section III.C.9.

218 *See* Tariff § 20.7; *supra* Section III.D.6.

219 *See* Tariff §§ 17.2.10 & 20.7.4.3.

220 *See infra* Section III.G.1.

221 *See* Tariff §§ 6.4.2 & 6.4.3.

222 WPP *could* establish a credit requirement to limit the financial impact *on Participants* from defaults by Schedule 1 customers. But that option does not appear to be cost effective in this instance. WPP's *total* annual administrative costs to be recovered under Schedule 1 are expected to be in the range of $9-11 million, and the amount at risk from any given Participant's default on its Schedule 1 obligations would be far below that. Thus, the cost of any such default, discounted by the likelihood of occurrence of a significant default, seems likely to be well below the costs WPP would incur—and Participants would pay—for WPP to stand-up and maintain a credit management service. *See* Attachment G, Affidavit of Rebecca D. Sexton ¶ 5 ("Sexton Aff.").

223 Tariff § 7.1.2.

Participants to establish credit with a third-party service provider who will manage individual letters of credit or collateral, calculate remaining credit and provide input into the process of invoicing for Holdback and Energy Deployment.[224] The Tariff also provides that a Participant need not deliver energy to a Participant with a negative Sharing Calculation result if that Participant "has not made good faith and commercially reasonable efforts to obtain sufficient credit with [the] delivering Participant."[225] This provision gives Participants a means to avoid at least some of the adverse consequences they might otherwise face from a Participant's non-payment of charges for Holdback Requirements or Energy Deployments.

F. WRAP Governance and Stakeholder Process

1. WPP Independent Board of Directors

All aspects of the WRAP will be overseen by WPP's independent Board of Directors,[226] which will be installed after the Commission approves the WRAP Tariff as just and reasonable and a critical mass of Participants execute the WRAPA and commit to participation in the WRAP. Currently, WPP's Board is a self-perpetuating hybrid Board with no requirement for independence from WPP members. While WPP is unaware of any Commission precedent setting forth governance requirements for a stand-alone regional resource adequacy program like the WRAP, WPP examined the Commission's policies addressing the governance of ISOs and RTOs set forth in Order Nos. 888[227] and 2000,[228]

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224 Tariff § 7.1.2.

225 Tariff § 7.1.2.3.

226 Tariff § 3.1.

227 *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 75 FERC ¶ 61,080, at 31,730-31 (setting forth the independence standard for ISOs), 1991–1996 FERC Stats. & Regs., Regs. Preambles ¶ 31,036 (1996), *order on reh'g*, Order No. 888-A, 78 FERC ¶ 61,220, 1996–2000 FERC Stats. & Regs., Regs. Preambles ¶ 31,048, *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *reh'g denied*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in part & remanded in part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

228 *Regional Transmission Organizations*, Order No. 2000, 89 FERC ¶ 61,285, 1996–2000 FERC Stats. & Regs., Regs. Preambles ¶ 31,089, at 31,073-74 (setting forth the independence principle for RTO governing boards) (1999), *order on reh'g*, Order No. 2000-A, 90 FERC ¶ 61,201, 1996–2000 FERC Stats. & Regs., Regs.

and determined that setting up an independent board of directors would be an important step toward ensuring—and providing confidence to the Commission, Participants, and other interested stakeholders—that the WRAP administration will be independent, just and reasonable, and not unduly discriminatory or preferential. Accordingly, the WRAP Tariff requires that each member of the Board of Directors will at all times be financially independent of any Participant, consistent with the practices in Commission-authorized RTOs and ISOs.[229]

If the Commission approves the WRAP Tariff and a sufficient number of Participants representing a significant portion of regional load execute a WRAPA and join the WRAP, WPP's Bylaws will be amended to establish a nominating process for the independent Board of Directors. Consistent with expectations for filling future open Board seats, a nominating committee made up of stakeholders and interested parties from various classes, including WPP members who participate in other WPP-administered programs but not in the WRAP, is currently working with an executive search firm to identify a slate of candidates to fill the independent Board seats. The current WPP Board of Directors will vote on the proposed slate later this year. A transition process has been set up to allow two current WPP Board members that satisfy the Tariff's independence criteria to serve for a shorter term as non-voting advisors to the Board of Directors and one current WPP Board member that satisfies the Tariff's independence criteria to serve as a voting member of the future Board for a single three-year term, to promote institutional continuity.[230] Because the WPP Board governs all programs and services offered by WPP, and not just the WRAP, provisions addressing the selection and voting process for the Board of Directors will be included in the WPP Bylaws, which are not being filed with the Commission.[231] The key provision of interest to the Commission's jurisdiction—i.e., the independence requirement

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Preambles ¶ 31,092 (2000), *petitions for review dismissed sub nom. Pub. Util. Dist. No. 1 v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

229 *See, e.g.*, Southwest Power Pool, Inc. Bylaws, First Revised Volume No. 4 § 4.2.1 ("SPP Bylaws") (stating that "directors shall be independent of any Member"); Agreement of Transmission Facilities Owners to Organize the Midcontinent Independent System Operator, Inc. a Delaware Non-Stock Corporation, Appendix A ("MISO Transmission Owners Agreement") (setting forth numerous standards for board and staff independence).

230 *See* Edmonds Aff. ¶ 20.

231 Given the varied responsibilities of the WPP Board of Directors to govern WPP's non-Commission-jurisdictional services outside of the Commission-jurisdictional WRAP, and given the Commission's limited authority over general corporate governance matters, *see Cal. Indep. Sys. Operator Corp. v. FERC*, 372 F.3d 395, 398-404 (D.C. Cir. 2004), WPP is not planning to file its bylaws for Commission review.

to ensure fair and non-discriminatory WRAP administration—is set forth in the WRAP Tariff.[232] Ms. Edmonds discusses the nominating process and other aspects of Board independence in more detail in her affidavit.[233]

Consistent with its role as the independent overseer of the WRAP, the Board of Directors will have the sole authority to vote to amend the WRAP Tariff and approve the requisite filings under FPA section 205.[234] However, prior to the Board considering any WRAP Tariff or Business Practice amendment, such amendments must be examined through the stakeholder process discussed below.[235] The Board will generally meet in open session, but is authorized to meet in closed session as the discretion of the Chair, and it cannot vote on any amendments to the Tariff or Business Practices in closed session.[236] This closed meeting option is important to allow the Board of Directors flexibility to discuss certain sensitive matters in private (for example, personnel matters or ongoing litigation), while balancing the need for transparency in decision making on WRAP Tariff and Business Practice matters. The open meeting policy applies only to WRAP-related matters—nothing prevents the Board from meeting in private to discuss non-WRAP, non-Commission-jurisdictional matters involving other WPP programs and services.

To foster greater Board independence and consideration of diverse stakeholder views, the Tariff allows any stakeholder that is dissatisfied with the outcome of the stakeholder process to appeal such an outcome directly to the Board.[237] Board members also possess this right.[238] While arguably not applicable to the WRAP, this requirement is consistent with the Commission's Order No. 719 requirements that RTO/ISO boards

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232 *See* Tariff § 3.1.

233 *See* Edmonds Aff. ¶¶ 12-18. Ms. Edmonds explains that the nomination process is modeled largely after the procedures adopted by the Western Energy Imbalance Market operated by the California Independent System Operator, Corp. *Id.* ¶ 16.

234 Tariff § 3.1.

235 *See* Tariff § 3.3; *see also id.* § 3.3.4 (requiring Board-initiated amendments to be considered first through the stakeholder process)*; see infra* Section III.F.2 (describing the stakeholder process).

236 Tariff § 3.2.

237 Tariff § 3.3.1; *see Sw. Power Pool, Inc.*, 173 FERC ¶ 61,267, at P 67 (2020) ("SPP WEIS Order") (finding that the ability of stakeholders to appeal decisions to the Board of Directors "provide[s] avenues for stakeholders" to participate).

238 Tariff § 3.3.2.

consider diverse and minority viewpoints.[239] The Tariff also contains special provisions to address situations where the COSR disagrees with the outcome of the stakeholder process at the point of a RAPC vote, and requires further engagement between COSR and the RAPC if time permits.[240]

While the Tariff vests the Board with sole FPA section 205 rights, the Board is limited or prohibited from making certain changes to the WRAP design and WRAP Tariff. Specifically, Section 3.4 lists several actions that the Board of Directors cannot take, including but not limited to assuming control over Participant generation or transmission assets, administering open access transmission service or balancing authority service, or imposing any other requirements on Participants beyond financial charges under the Tariff.[241] The Board is also constrained from amending the Tariff to establish an organized market, including a capacity market, without supermajority support from the RAPC.[242] These limitations were established early on by entities involved in the WRAP development discussions, and are key to ensuring broad participation in the WRAP. It is important to note that nothing in these provisions prohibits WPP from initiating any of these actions *outside* of the WRAP and WRAP Tariff, but various WPP members have expressed that they do not want to obligate themselves to the WRAP and then, later on and without their control, the WRAP evolves into a different structure that was not contemplated at the time of WRAP formation and that alters the benefit of bargain that was struck to establish the WRAP.[243] Some potential WRAP Participants may not join the WRAP if these express limitations on Board authority to modify the Tariff to expand services are not included in the Tariff.[244]

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239 *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, 125 FERC ¶ 61,071 (2008), *as amended*, 126 FERC ¶ 61,261, *order on reh'g*, Order No. 719-A, 128 FERC ¶ 61,059, *reh'g denied*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

240 Tariff §§ 3.3.3, 4.3.3.

241 *See* Tariff §§ 3.4.1, 3.4.2, 3.4.4.

242 Tariff § 3.4.3. The supermajority voting provisions, which require an 80% vote of the RAPC, are set forth in Section 4 of the Tariff addressing the RAPC. *Id.* § 4.1.6.2.3.1.

243 *See* Edmonds Aff. ¶ 21 (describing the rationale for the limitations on Board authority).

244 Notably, if a supermajority of the RAPC votes to authorize the Board to take such actions, any individual Participant who voted against such action can exercise its right to withdraw from the WRAP on an expedited basis. *See* Tariff, Attachment A § 9.2.3; *see also infra* Section III.H.

Finally, another important condition on the Board's sole section 205 filing rights involves governance changes in the event that the Board does vote to expand the WRAP to include market optimization or transmission planning services. In such event, the Board is required to initiate a formal process with COSR and stakeholders to consider governance changes, and, in the event COSR does not agree with the outcome of the process, COSR can require WPP to file an alternative governance proposal that has support of 75% of the COSR.[245] This provision is similar to the so-called "jump ball" provisions that some RTOs have adopted for certain circumstances.[246] This protection for COSR was carefully negotiated between WPP and state representatives and is an important aspect of the WRAP proposal.

2. Stakeholder Committees

The WRAP Tariff is designed to provide for robust stakeholder discussion and consideration of WRAP design, Tariff, and Business Practice changes. The WRAP does not require any stakeholder membership fees or other threshold requirements. In addition to the COSR (discussed below),[247] there are two main stakeholder bodies that review proposals before they are presented to the Board: (1) the RAPC, the body composed of one representative from each WRAP Participant; and (2) the PRC, a broad stakeholder body providing representation from multiple stakeholder sectors. These committees enable the Board of Directors to consider the viewpoints of a wide array of stakeholder interests and ensure that the Board does not become isolated from stakeholder views.[248]

The stakeholder process is generally designed to proceed as follows.[249] First, any stakeholder can propose a Tariff or Business Practice change to the PRC. Second, the PRC

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245 Tariff § 3.5.

246 *See, e.g.*, SPP Bylaws § 7.2 (giving the SPP Regional State Committee the right to direct SPP to file certain Tariff changes in certain circumstances and reserving for the RTO the right to make a competing filing).

247 *See infra* Section III.F.3.

248 *See supra* note 229; *see also Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, 125 FERC ¶ 61,071 at PP 502-10 (adopting various RTO board "responsiveness" requirements) (2008), *as amended*, 126 FERC ¶ 61,261, *order on reh'g*, Order No. 719-A, 128 FERC ¶ 61,059, *reh'g denied*, Order No. 719-B, 129 FERC ¶ 61,252 (2009); Order No. 2000 at 31,074 (stating the importance of the board not becoming isolated).

249 *See* Edmonds Aff. ¶¶ 22-31 (describing the typical stakeholder process progression of a proposed change).

reviews and prioritizes all proposals, gathers public comments and comments from COSR, and evaluates the proposed change. Third, the PRC decides whether to recommend the proposed change to the RAPC or not. Fourth, the PRC presents the proposal, all comments and feedback received, and its recommendation to the RAPC. Fifth, the RAPC votes to recommend acceptance or rejection to the Board of Directors. Finally, the Board of Directors votes on the change. Any stakeholder may also appeal a RAPC decision to the Board of Directors for its consideration.

a. Resource Adequacy Participant Committee

The RAPC serves as the primary Participant-representative committee advising the Board of Directors on WRAP Tariff and Business Practices. As the Tariff explains, "[t]he RAPC shall be the highest level of authority for representation by Participants in the WRAP governance structure and shall represent the interests of Participants directly to the Board of Directors."[250] Each signatory to the WRAPA is entitled to appoint a RAPC representative. The RAPC considers all proposed amendments to the Tariff or Business Practices and votes to recommend approval or rejection to the Board of Directors.[251] The RAPC also has authority to advise the Board of Directors regarding the WRAP administration budget and allocations to Participants, including amendments to the WRAP Administration Charge that is paid by all Participants.[252] The RAPC also has special voting rights over several matters, such as modifying the limitations on the Board's authority to amend the Tariff to implement other programs such as organized markets;[253] sole authority to consider amendments to Schedule 1 of the Tariff addressing cost allocation and the WRAP Administration Charge, and exclusive authority consider changes to the WRAPA.[254] Reserving for RAPC the right to consider amendments to Schedule 1 and the WRAPA is just and reasonable because only Participants pay charges under Schedule 1 and only Participants execute, and agree to be bound by, the WRAPA.

While each Participant appoints only one RAPC representative, the RAPC votes are tallied using a "House and Senate" structure, where the Senate vote is pro rata—i.e., one-Participant, one-vote—and the House vote is weighted to reflect the Participant's share

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250 Tariff § 4.1.1.

251 *See* Tariff § 4.1.3.

252 *See* Tariff § 4.1.3.4.

253 *See* Tariff § 4.1.6.2.3.1; *see also supra* notes 242-244 and accompanying text.

254 *See* Tariff § 4.2.1 (stating that the PRC will consider all Tariff amendments, except for changes to Schedule 1 and the WRAPA, and amendments involving exigent circumstances, before those amendments are considered by the RAPC).

of regional peak load.[255] This voting structure is similar to the structure the Commission approved in SPP's WEIS Market for its Western Markets Executive Committee ("SPP WMEC").[256] For an action to be approved by RAPC, both the House and Senate votes must satisfy certain supermajority thresholds, based on the matter being considered. The requirement for supermajority votes is relatively standard in Commission-approved RTO stakeholder processes.[257] The voting thresholds are as follows:

- For actions that have been recommended for approval by the PRC, the voting threshold for RAPC approval is a 67% supermajority of both the House and Senate.[258] This lower threshold is appropriate because such actions will have already been considered and approved by the broadly representative PRC.

- For actions involving changes to the Board's authorities under Section 3.4 of the Tariff, the voting threshold for RAPC approval is an 80% supermajority of both the House and Senate.[259] This is because, as discussed above, the limitations set forth in Section 3.4 are key to several potential Participants' willingness to participate in the WRAP, and thus a high threshold vote ensures that there is critical mass for the WRAP to evolve into other offerings.

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255 Tariff § 4.1.6.2. The Tariff contains protections to ensure that changes in load do not result in a Participant receiving a de facto veto over actions by virtue of its share of regional peak load. *See id.* § 4.1.6.2.4 ("If at any time a single Participant's P50 load for voting purposes would result in that Participant possessing a veto over any votes taken under Section 4.1.5.2.3, such Participant's House vote shall be capped at 1% below the amount that would convey such a veto, such that no single Participant will possess a veto over any action taken under Section 4.1.5.2.3.").

256 SPP WEIS Order at PP 53, 66-68 (describing the SPP WEIS WMEC's House/Senate voting structure and 75% supermajority threshold and finding that they are just and reasonable).

257 *See id.* (75% supermajority threshold found just and reasonable); *see also, e.g.*, SPP Bylaws § 3.9.1 (establishing a 66% voting threshold for each sector of SPP's Markets and Operations Policy Committee).

258 Tariff § 4.1.6.2.3.2.

259 Tariff § 4.1.6.2.3.1.

- For all other actions, the voting threshold for RAPC approval is a 75% supermajority of both the House and Senate.[260] This threshold is consistent with the threshold the Commission accepted for SPP's WMEC.[261]

The RAPC will typically review and vote on amendments considered first by the PRC. However, a process exists for RAPC to take certain matters directly to the Board of Directors in "exigent circumstances," such as where the Commission has ordered a change to the Tariff, an amendment to the Tariff or Business Practices is necessary to address an immediate reliability impact, or the RAPC determines that an amendment is necessary to address significant impacts to utility service.[262] When the RAPC invokes an exigent circumstance, the Board of Directors will review the RAPC recommendation expeditiously and invite simultaneous comment from the PRC, COSR, and stakeholders.[263]

Like the Board of Directors, the RAPC will generally meet in open session and will only consider Tariff and Business Practices amendments in open session with sufficient time for public comment.[264] However, like the Board of Directors, the RAPC can meet in closed session at the discretion of the RAPC chair.[265] When RAPC meets in closed session, a staff member of the COSR is permitted to be in attendance.[266] These provisions ensure sufficient opportunities for public engagement with the RAPC on Tariff and Business Practice amendments, preserve the ability of the RAPC to meet in closed session when warranted to address confidential or sensitive matters, but ensure that the states are able to monitor those confidential sessions, subject to a non-disclosure agreement.[267]

The RAPC structure is just and reasonable because it provides an important role for Participants to advise guide the Board of Directors in considering changes to the WRAP design, Tariff, and Business Practices. Because only RAPC members undertake the obligations under the WRAPA and Tariff to participate in the WRAP, it is critical that they have a strong voice in the process of considering changes to the WRAP.

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260 Tariff § 4.1.6.2.3.3.

261 SPP WEIS Order at P 53.

262 Tariff § 4.1.3.1.1.

263 Tariff § 3.3.5.

264 Tariff § 4.1.5.1.

265 Tariff § 4.1.5.1.1.

266 Tariff § 4.1.5.1.1.

267 *See* Tariff § 4.3.2.1.

b. Program Review Committee

WPP and the stakeholders involved in the WRAP development discussions recognize that broad stakeholder engagement is critical to the success and credibility of a regional program like the WRAP. Accordingly, the WRAP has adopted the PRC, a broadly inclusive committee composed of representatives from numerous sectors including RAPC Participants (including separate representatives for investor-owned utilities, publicly owned utilities, federal power marketing administrations, and retail competition load serving entities), and non-Participants such as independent power producers, public interest organizations, retail consumer advocacy groups, states, and others.[268] The PRC is designed to be the "clearinghouse" for changes to the Tariff and Business Practices, responsible for reviewing proposed changes before they are considered by the RAPC and the Board of Directors, with limited exceptions noted above.[269]

Consistent with the open meetings policy established for the Board of Directors and RAPC, the PRC will generally meet in open session, but also has the option to meet in closed session.[270] Like the RAPC and Board, all PRC decisions on proposed Tariff or Business Practices will be conducted in open meetings.[271] The PRC is designed to operate by consensus; however, the Tariff outlines PRC voting proceedings for when voting is necessary.[272] The PRC is required to present all proposals it receives to the RAPC, with summaries of all feedback received and the PRC's recommendation.[273]

The provisions establishing the PRC are just and reasonable because they set out a clear process for consideration of Tariff and Business Practice amendments by a widely inclusive stakeholder body, informed by public comment, on all proposals received.

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268 Tariff § 4.2.2; *see also* Edmonds Aff. ¶ 28. The Tariff specifies that entities that are eligible to participate in more than one sector may only participate in one sector and shall declare the sector in which they plan to participate. Tariff § 4.2.6.

269 *See supra* notes 253-254 and accompanying text.

270 Tariff § 4.2.4.

271 Tariff § 4.2.4.

272 Tariff § 4.2.5.

273 Tariff § 4.2.1.1. The Tariff also requires the PRC to establish a process for public comment. *See id.* § 4.2.3.

3. State Involvement and the Committee of State Representatives

Given the primary role of states in regulating utility resource adequacy,[274] the WRAP is designed to facilitate a strong, but flexible, role for states to engage in the process through the COSR. The COSR is composed of a representative from each state or provincial jurisdiction that regulates at least one Participant, with each state or province deciding whether that representative is a state regulatory commissioner or other state official.[275] This flexibility allows each state or province to decide for itself how to engage in the WRAP.

The COSR has several unique powers in the stakeholder process to ensure that state perspectives are taken into consideration. For example, if the COSR determines that a RAPC proposal to the Board of Directors is substantially different than the proposal that was submitted to the RAPC by the PRC, the COSR has the right to engage additional public review and comment before the Board considers the RAPC proposal, subject to reasonable timing restrictions.[276] Additionally, if the COSR as a body opposes or appeals a RAPC decision to the Board of Directors, the Board of Directors will not consider the RAPC decision until after the RAPC and COSR have engaged in at least two public discussions to attempt to resolve the discrepancy.[277] The COSR also has the express right to designate a staff member to attend and monitor all closed meetings of the RAPC.[278] Finally, as discussed above, in the event that the Board of Directors decides to expand the WRAP to involve market optimization or transmission planning services, the COSR has the right to require WPP to file an alternative governance proposal in certain circumstances.[279]

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274 *See, e.g.*, *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 136 FERC ¶ 61,051, at P 107 (2011), *order on reh'g & clarification*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g & clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014) (acknowledging that integrated resource planning is a "specific substantive matter[] traditionally reserved to the states").

275 Tariff § 4.3.1.

276 Tariff § 4.3.3.1.

277 Tariff § 4.3.2.2. If the RAPC decision involves an "exigent circumstance" as discussed above, *see supra* notes 262-263 and accompanying text, the Tariff limits the additional public engagement between COSR and RAPC in order to ensure timely consideration by the Board. *See* Tariff § 4.3.3.2.1.

278 *See supra* note 267 and accompanying text.

279 *See supra* note 245 and accompanying text.

While structured to provide states with strong rights and involvement in the process of considering WRAP changes, the COSR is also structured to be flexible. The Tariff specifies that the COSR can determine its own leadership,[280] its own process for voting, meetings, and quorum, and its own funding structure.[281] The proposed COSR is just and reasonable because it affords states a strong role in the WRAP process, affords the COSR flexibility to determine its processes, and involves provisions that were carefully negotiated between WPP and states.

G. Cost Allocation and Recovery of WRAP Administrative Costs under Schedule 1 of the Tariff

1. Overview

WPP proposes to recover in full each Month its actual costs of administering and operating the WRAP that Month from the customers taking service that Month. WPP thus proposes to follow the basic template that is well-established in Commission precedent for RTOs and ISOs to recover their administrative and operating costs. WPP is not an RTO or ISO, but WPP has the same attributes that support on-going current cost recovery by RTOs and ISOs under formula rates. Like each current Commission-jurisdictional RTO and ISO, WPP is an administrative services provider that, as explained by Ms. Sexton in her accompanying affidavit, is not operated to earn a profit, has no equity investors, and has no retained earnings that could be used to cover costs if current revenues fall short.[282] In light of this structure, WPP currently recovers its actual costs of WRAP development from the participating members on an ongoing basis, and likewise recovers its actual costs of its non-Commission-jurisdictional services on an ongoing basis from customers.[283]

For context, WPP estimates its annual costs of WRAP administration and operation will be in the range of $9.2 to $10.8 million, of which approximately $4.4 to $3.5 million will be the expected annual cost of the Program Operator service contract.[284] WPP's remaining costs are expected to be primarily staff labor, other outside services, the

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280 Tariff § 4.3.2.

281 Tariff § 4.3.4.

282 *See* Sexton Aff. ¶ 6.

283 *See* Sexton Aff. ¶ 6.

284 *See* Sexton Aff. ¶ 5.

expenses of the Board and the Independent Evaluator,[285] and other administrative and general costs.[286]

Similar to RTOs/ISOs that recover their costs to administer resource adequacy programs from load serving entities and market participants,[287] WPP proposes to recover its costs from the Participants, based in part on the number of Participants and in part on Participants' peak loads. The sizable and diverse group of WPP members that have spearheaded the WRAP initiative, each of which is a potential Participant once the program takes effect, themselves favored the use of both of these two billing determinants.[288] WPP analyzed which of its expected WRAP administration costs are reasonably associated with Participant headcount, and which are reasonably associated with Participant peak load, and developed a cost-center assignment matrix reflecting that split,[289] similar to those accepted by the Commission for an RTO's administrative cost recovery.[290] The potential Participants themselves, which will bear these charges, unanimously endorsed the resulting cost assignment,[291] which is reflected in the WRAP Tariff submitted with this filing.[292]

Because a monthly administrative services charge that divides actual costs by actual billing determinants has the potential for some volatility, WPP proposes rate certainty and transparency measures that the Commission previously has accepted for RTOs/ISOs to address that same concern.[293] Specifically, WPP proposes to include in the filed Tariff:

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285 *See* Tariff § 5.

286 *See* Sexton Aff. ¶ 4.

287 *See, e.g.*, PJM Open Access Transmission Tariff, Schedule 9-4 § (a) (resource adequacy program administration service provided to, and recovering costs from load serving entities and owners of capacity resources).

288 *See* Sexton Aff. ¶ 9.

289 Sexton Aff. ¶ 17; *see* Tariff, Schedule 1 § 4.

290 *See, e.g.*, *PJM Interconnection, L.L.C.*, Offer of Settlement, Docket Nos. ER00-298-003, EL00-41-002 (May 12, 2000) ("ER00-298 Settlement"); *PJM Interconnection, L.L.C.*, Letter Order Approving Settlement, Docket Nos. ER00-298-000, -001, -002, -003, EL00-41-000, -001, -002 (July 31, 2000) (accepting settlement that established RTO unbundling of its administrative costs into separate service categories, using a filed cost assignment matrix).

291 Sexton Aff. ¶ 26.

292 *See* Tariff, Schedule 1 §§ 2 & 4.

293 *See PJM Interconnection, L.L.C.*, Settlement Agreement and Offer of Settlement, Docket No. ER05-1181-000 (Apr. 18, 2006)**;** *PJM Interconnection, L.L.C.*, 115

(i) conservative maximum values for the two formula rates (i.e., the rate based on Participant headcount and the rate based on Participant peak load), which will require an FPA filing at the Commission to amend;[294] (ii) a reserve to cover temporary shortfalls of revenues below costs, and thereby afford some flexibility on the timing of a filing to amend the maximum rates;[295] and (iii) regular provision to the RAPC of forecast future costs and rates.[296]

WPP also proposes a Cash Working Capital Support Charge. WPP's service agreement with the Program Operator requires an annual payment, and WPP will include 1/12th of that amount in its monthly Schedule 1 charges to Participants. But that creates a potential shortfall due to the agreed timing of the annual payment to the Program Operator (in March each year, beginning in 2023) and the timing of collection of the needed funds from Participants, which will commence after the Tariff becomes effective in January 2023.[297] To ensure that WPP has the equivalent of twelve Months' worth of collections from Participants at the time it makes the annual payment to the Program Operator, WPP proposes a Cash Working Capital Support Charge to Participants based on 9/12th of the Program Operator annual payment.[298] This will be a one-time charge (absent future changes to the Program Operator annual payment), because once WPP has sufficient cash working capital to make the first annual payment, the monthly collections from Participants under the regular Schedule 1 charges over the ensuing twelve Months will cover the next annual payment, and so on for each subsequent year.[299] As Ms. Kelly reports, "[t]he prospective Participants, which will bear this charge, unanimously endorsed this resolution of the working capital issue, as the specifically preferred alternative to WPP borrowing the needed funds from a lender, and charging Participants the costs of servicing that loan."[300]

FERC ¶ 61,249 (2006) (accepting settlement establishing RTO administrative cost recovery mechanism with filed maximum rates and a six-percent reserve in the form of a deferred regulatory liability).

294 *See* Tariff, Schedule 1 § 3.

295 *See* Tariff, Schedule 1 § 1.

296 *See* Tariff, Schedule 1 § 3.

297 *See* Sexton Aff. ¶ 25.

298 *See* Tariff, Schedule 1 § 5; Sexton Aff. ¶ 26.

299 *See* Sexton Aff. ¶ 26.

300 Sexton Aff. ¶ 26.

Last, WPP proposes that when a Participant defaults on payment of a WPP invoice for Schedule 1 charges, WPP will recoup those missing revenues from other Participants.[301] The proposed Default Allocation Assessment thus adopts for WPP provisions similar to those that the Commission has approved for ISOs/RTOs, which—like WPP—have no other source of funds to make up the shortfall when a customer does not pay its bill. WPP's version of this type of provision, however, has a much narrower scope than that approved for RTOs and ISOs. Specifically, WPP proposes this Participant assessment only for non-payment of WPP's administrative cost charges. Non-payment of those charges leaves WPP short in covering its current, ongoing costs, and any recoupment from the defaulting Participant through bill collection litigation would only come months or years after the current revenue shortfall.[302] This back-stop is not needed, however, for the other charges that WPP will invoice, such as Deficiency Charges and Delivery Failure Charges, which do not cover WPP costs, and which WPP is obliged to distribute to Participants only to the extent paid by the Participants that are invoiced these charges.[303]

Below, WPP supplements this Overview with additional details, to the extent needed, on the topics addressed above.

2. WRAP Costs and Reserve

To ensure there are no unintended gaps in cost recovery, proposed Schedule 1 broadly defines WPP's costs of operating and administering the WRAP.[304] In addition, since WPP will recover its costs each Month, costs for a Month can be those either incurred or accrued that Month.[305]

WPP proposes to base its reserve on 6% of the expected costs, exclusive of the reserve, for one year—which is the same maximum level the Commission accepted for an RTO that proposed a similar reserve.[306] As accepted in that case, WPP will establish a

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301 *See* Tariff § 6.

302 WPP will of course pursue all available means to recover the unpaid amounts and collection costs from the defaulting Participant and will distribute any such collections to Participants that paid a Default Allocation Assessment as to such default. *See* Tariff § 6.

303 *See* Tariff §§ 17.2.10 & 20.7.4.3.

304 *See* Tariff, Schedule 1 § 1.

305 *See* Tariff, Schedule 1 § 1.

306 *See supra* note 293.

deferred regulatory liability for the amounts above WPP's costs in the reserve,[307] and will credit current Schedule 1 customers over the ensuing year any amounts collected in the prior year that cause the reserve to exceed the 6% level at year-end.[308]

3. WRAP Billing Determinants and Cost Assignment

As explained above, WPP will recover its WRAP costs from Participants based on the number of Participants and their peak loads. The Tariff names the former charge the Base Charge and the latter charge the Load Charge. The specific billing determinant for the Load Charge is the Median Monthly P50 Peak Load, which is a single monthly value designed to reflect the Participant's peak loads in its two most recent FS Submittals that have been validated by WPP. As Ms. Sexton explains, using the median avoids putting undue weight on any outlying individual values (which could result from using the greatest or an average instead of a median), and automatically updates each Participant's load billing determinant to a current value on a rolling basis each time a new FS Submittal is validated.[309]

WPP's assignment of costs between the Base Charge and Load Charge is reasonable. The Commission's cost causation principle "requires costs 'to be allocated to those who cause the costs to be incurred and reap the resulting benefits.'"[310] While "the Commission need not 'allocate costs with exacting precision,' the costs assessed against a party must bear some resemblance 'to the burdens imposed or benefits drawn by that party.'"[311] WPP applied that guidance here. As noted above, WPP's costs of operating and administering the WRAP are fairly limited in both scope and nature. As Ms. Sexton explains, WPP's WRAP costs can be broken down into several readily identifiable categories: (1) WPP's direct cost of program administration; (2) the costs of the Program Operator, which can be further divided between technology and staffing/overheads; (3) the costs of the independent Board insofar as they concern the WRAP; (4) legal services costs; and (5) the costs of the Independent Evaluator.[312] As Ms. Sexton further explains, "[a]

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307 *See* Tariff, Schedule 1 § 1.

308 *See* Tariff, Schedule 1 § 1.

309 Sexton Aff. ¶ 18.

310 *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 87 (D.C. Cir. 2014) (quoting *Nat'l Ass'n of Regul. Util. Comm'rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007)); *see also Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254, 1255 (D.C. Cir. 2018).

311 *Pub. Serv. Elec. & Gas Co. v. FERC*, 989 F.3d 10, 13 (D.C. Cir. 2021) (quoting *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368-69 (D.C. Cir. 2004)).

312 Sexton Aff. ¶ 12.

substantial share of WPP's direct costs of program administration is reasonably related to, and benefits, Participants as Participants."[313] These include WPP engagement with Participants individually or in groups, and WPP's facilitation of the RAPC, which is the stakeholder committee exclusively comprised of Participants.[314] Other examples, she notes, include management of participant file sharing, calculation and invoicing of charges and administration fees, and onboarding and training of new RAPC representatives.[315] WPP will create a separate cost center for these types of WPP program administration activities, and WPP employees will code their time to this cost center when they engage in these activities.[316] WPP will assign a share of program administration overheads to that cost center, pro rata, in proportion to the labor costs recorded to that cost center compared to all WPP WRAP labor costs.[317] In addition, WPP will assign to the Base Charge 50% of the independent Board's WRAP-related costs. As Ms. Sexton explains, this reflects the reality that the Board's activities support, serve, and benefit Participants *both* in terms of Participants' engagement with WPP and participation in the stakeholder process as individual entities, *and* in terms of Participants' involvement in the Forward Showing Program and Operations Program, which, as noted below, is defined by the size, scope, and complexity of their resources and loads.[318] As she adds, "[g]iven the limited extent of the Board costs, it is reasonable to simply split those costs equally between the Base Charge and Load Charge,"[319] given that there would be little, if any, added value (in terms of the ultimate impact on rates) from trying to parse the Board's focus and activity more finely than the proposed even split.

All remaining WRAP costs will be recovered based on peak loads. Program Operator costs arise almost entirely from its support of the Forward Showing Program and the Operations Program.[320] Participants' engagement with these two programs is defined by the size, scope, and complexity of their resources and loads—for which peak load is a straightforward metric.[321] The same is true for the Independent Evaluator, which will

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313 *See* Sexton Aff. ¶ 12.

314 *See* Sexton Aff. ¶ 12.

315 Sexton Aff. ¶ 12.

316 Sexton Aff. ¶ 13.

317 Sexton Aff. ¶ 13.

318 Sexton Aff. ¶ 16.

319 Sexton Aff. ¶ 16.

320 Sexton Aff. ¶ 15.

321 Sexton Aff. ¶ 15.

largely be focused on WPP's implementation of the Forward Showing Program and the Operations Program (including WPP's oversight of the Program Operator), and for legal services, which are likely to be largely concerned (once the Tariff becomes effective) with WPP's implementation of, and compliance with, the substantive WRAP elements, i.e., the Forward Showing Program and the Operations Program.[322]

In sum, the proposal to recover all WRAP administration and operation costs from Participants, and to employ for that purpose a two-part rate that relies partly on head-count and partly on peak loads, is just and reasonable. Participants are the entities responsible for demonstrating their resources and loads in the Forward Showing Program; and they are the entities with both the right to obtain assistance from other Participants and the obligation to provide assistance to other Participants under the Operations Program.[323] The WRAP is designed and intended to enhance Participants' ability to meet resource adequacy goals, and so the Participants appropriately will bear the WRAP costs.[324] As Ms. Sexton shows, certain of the costs of WRAP administration and operation clearly benefit Participants as Participants, regardless of the size of their peak loads, and thus are reasonably charged equally to all Participants. The remaining costs are more closely associated with the Forward Showing Program and the Operations Program, which are driven by the size, scope, and complexity of Participants' resources and loads—making peak load is a reasonable metric.

4. Rate Certainty

To provide Participants with rate certainty, WPP proposes an annual maximum of $59,000 per year for the sum of the monthly Base Rates in a year, and an annual maximum of $199 per MW for the sum of the monthly Load Charge Rates in a year.[325] Ms. Sexton shows the derivation of these maximum values in her affidavit, including the projected calendar-year 2023 budget and conservative assumptions about the number (and peak loads) of Participants' commitment to the WRAP.[326] Stating these maxima on an annual basis avoids forcing a Commission rate-change filing for transitory monthly rate changes, while providing Participants certainty about their WRAP charges over any year.[327] Having some certainty into the maximum costs that would be charged was an important consideration for potential WRAP Participants.

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322 Sexton Aff. ¶ 15.

323 Sexton Aff. ¶ 8.

324 Sexton Aff. ¶ 8.

325 Tariff, Schedule 1 § 3.

326 *See* Sexton Aff. ¶ 3.

327 Sexton Aff. ¶ 24.

As noted above, the Tariff includes additional WPP commitments on this topic. Specifically, WPP will, to the extent reasonably practicable, provide two-Months' notice prior to WPP's filing at the Commission of changes to the maximum rates (without limiting the Board's authority and discretion to seek at the Commission any change in the maximum rates as and when the Board determines is in the best interests of the WRAP and WPP).[328]

In addition, WPP will provide to the RAPC good faith, non-binding estimates of: (i) reasonably anticipated WRAP budgets for the three years beyond the current budget, including sensitivity analyses for major contingencies; (ii) reasonably anticipated numbers of Participants and peak loads for each such year; and (iii) reasonably anticipated highest monthly Base Charges and Load Charge Rates for each such year.[329] This provides Participants a reasonable basis for their cost planning and budgeting, and the three-year forecast period (which is in addition to the current budget period) takes account of the requirement that Participants, absent extenuating circumstances, must provide two years' advance notice of withdrawal from the WRAP.[330]

H. WRAPA

As noted above, the Tariff contains a *pro forma* WRAPA that each Participant will execute to join the WRAP.[331] Because all of the main terms and conditions for participation in the WRAP (including governance and cost allocation) are set forth in the Tariff, and given that the WRAP is only one service offered by WPP, WPP and its members did not see the need to develop a separate detailed participation or membership agreement like those existing in RTO markets. In this regard, the WRAPA is more closely analogous to a form of service agreement under a tariff.

However, the WRAPA contains important provisions surrounding termination of participation in the program that would typically be found in an RTO membership agreement. The WRAPA provides for the orderly exit of a Participant based on the Forward Showing cycle. As Ms. Edmonds explains, given the interdependence of Participants inherent in a regional program focused on sharing capacity and obligations, a Participant's exit from the WRAP will necessarily impact other Participants.[332] The

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328 Tariff, Schedule 1 § 3.

329 Tariff, Schedule 1 § 3.

330 *See* Sexton Aff. ¶ 22; Tariff, Attachment A § 9.

331 *See supra* note 9. WPP will submit any non-conforming WRAPA for Commission review in a subsequent filing.

332 *See* Edmonds Aff. ¶ 38.

WRAPA establishes a two-year notice period for withdrawing from the WRAP, tied to the next Forward Showing Program period.[333] This two-year window will allow sufficient time for the Program Operator to take the impact of a Participant's withdrawal into account and make adjustments to regional metrics to maintain reliability standards.[334] During the two-year period, the Participant remains obligated to comply with all requirements and obligations of the WRAP and to pay all financial obligations incurred prior to the effective date of the withdrawal.[335] These provisions are fairly standard across RTO agreements with exit provisions.[336] Additionally, the Tariff limits the withdrawing Participant's ability to vote on RAPC actions that affect the WRAP beyond the withdrawal period,[337] to ensure that the Participant does not have the ability to influence WRAP design and provisions to which it will no longer be subject.

In addition to the standard two-year "Normal Withdrawal" process, the WRAPA allows for an expedited withdrawal with less than two years notice for a variety of circumstances. If WPP can reasonably determine with a high degree of confidence that the impact of a Participant's expedited withdrawal can be mitigated financially, WPP may calculate an "exit fee" that includes all outstanding WRAP administrative costs and a share of administrative costs up to the next Forward Showing Program period, any costs incurred by WPP or the Program Operator associated directly with the withdrawal, and any costs necessary to hold other Participants harmless from the expedited withdrawal.[338] Payment of the fee entitles the Participant to an expedited withdrawal.[339]

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333 Tariff, Attachment A § 9.1.

334 *See* Edmonds Aff. ¶¶ 38-39.

335 Tariff, Attachment A §§ 9.1.1, 9.1.2.

336 *See, e.g.*, Southwest Power Pool, Inc. Membership Agreement First Revised Volume No. 3 § 4.3 ("SPP Membership Agreement") (imposing various obligations on a member that withdraws including a hold harmless obligation, obligation to pay outstanding financial obligations, and other financial and performance obligations); MISO Transmission Owners Agreement, Art. Five § II (same and requiring the withdrawing member and the RTO to negotiate about other remaining obligations).

337 *See* Tariff, Attachment A § 9.1.3.

338 *See* Tariff, Attachment A § 9.2.2.

339 The exit fee can be waived if a Participant's payment of it would violate federal, state, or local law. *Id.* This provision was adopted to accommodate the unique nature of some non-jurisdictional Participants that have limitations imposed on their expenditures by law.

A Participant can also exercise an expedited withdrawal in the event that the RAPC and Board of Directors vote to modify Section 3.4 of the Tariff to expand the WRAP to provide other services like market optimization, open access transmission tariff administration, or other areas that are currently prohibited by the Tariff. In order to exercise an expedited withdrawal, the Participant must have voted against the amendment to Section 3.4 when it was considered by the RAPC and must have satisfied all Forward Showing Program, Operations Program, and other financial obligations incurred prior to the date that the amendments to Section 3.4 are made effective by the Commission.[340] As explained above, the limitations imposed in Section 3.4 of the Tariff were a carefully negotiated compromise to facilitate some Participants' participation in the WRAP.[341] If those provisions change, the benefit of the bargain for certain Participants also changes, which may change their calculus of the respective benefits and burdens of continued program participation.

Finally, a Participant can invoke an expedited withdrawal if it experiences an "extenuating circumstance."[342] Such extenuating circumstances include: (1) an action by a governmental authority that substantially impairs the Participant's ability to participate in the WRAP to the same extent as previously;[343] (2) continued participation conflicts with applicable legal governing statutes or other legal authorities;[344] (3) the Participant opposed the release of composite or aggregated Participant data in a certain format;[345] or (4) a court or the Commission orders the release of the Participant's confidential or commercially sensitive data.[346] Under any of these circumstances, the Participant is obligated to negotiate with WPP to seek to minimize the impact of the expedited withdrawal on WPP and other Participants and is required to pay all financial obligations uncured up to the withdrawal date.[347] Any mitigation plan agreed to by WPP and the withdrawing Participant must be approved by the Board of Directors before the Participant is excused from any further WRAP obligations.[348]

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340 Tariff, Attachment A § 9.2.3.

341 *See supra* Section III.F.1

342 Tariff, Attachment A § 9.2.1.

343 Tariff, Attachment A § 9.2.1.1.

344 Tariff, Attachment A § 9.2.1.2.

345 *See* Tariff, Attachment A § 9.2.1.3.

346 *See* Tariff, Attachment A § 9.2.1.4.

347 Tariff, Attachment A § 9.2.1.

348 Tariff, Attachment A § 9.2.1.

The reason for the first extenuating circumstance is obvious—if a governmental authority takes an action that impairs continued participation (for example, a state commission orders a Participant to cease participation in the program), the Participant may not be able to wait two years or longer to affect its withdrawal under the "Normal Withdrawal" provisions of Section 9.1. Similarly, if there is either a change in WRAP design that results in a conflict with a Participant's governing statute, or the statute changes in a manner that is incompatible with the WRAP, a Participant's expedited withdrawal is necessary and appropriate to ensure that the Participant remains in compliance with its governing statute. These provisions are consistent with or similar to withdrawal provisions that the Commission has approved in RTOs.[349]

The other extenuating circumstances (i.e., release of aggregated or composite data in a format that the Participant opposes and compelled release of the Participant's data) are necessary to enable each Participant to safeguard its commercially sensitive data. Section 10 of the Tariff, described in more detail below, governs the handling of Participant-specific data that the Participant has identified as confidential. Included in those provisions is the ability of WPP to release WRAP data on a composite, aggregated basis to facilitate greater transparency into regional resource adequacy. A Participant that believes that the form and format WPP proposes to release composite data does not sufficiently mask the Participant's data and identity may object to the format by following a process set forth in Section 10.2.1. If ultimately unsuccessful in blocking the release, the Participant has a one-time, time-limited right to invoke an expedited withdrawal.[350] Likewise, if the Commission or a court of law orders WPP to release a Participant's confidential data, and the Participant is unsuccessful in challenging the release, the Participant may elect an expedited withdrawal.[351]

In addition to the withdrawal provisions, the WRAPA permits the Board of Directors to amend its terms and conditions[352] or to expel a Participant for cause,[353] and

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349 *See, e.g.*, SPP Membership Agreement § 4.2.2(b)(iv) (allowing a member to withdraw with less than the standard twenty-four-month notice if federal or state law governing the member changes or the agreement or other SPP governing documents change in a manner that causes a conflict with the member's federal or state law obligations).

350 Tariff, Attachment A § 9.2.1.3.

351 Tariff, Attachment A § 9.2.1.4.

352 Tariff, Attachment A § 6.

353 Tariff, Attachment A § 9.2.4.

obligates Participants to pay their share of WRAP administrative costs.[354] These provisions are similar to or modeled after Commission-approved provisions in RTOs,[355] and therefore the Commission should also accept them here as just and reasonable.

I. WRAP Timing and Transition to Binding Program

As noted above, WPP has launched a "non-binding" version of the WRAP for the Winter 2022/2023 Season. The purpose of the non-binding version is to provide information to Participants regarding the adequacy of their resources to satisfy the WRAP requirements and meet the needs of the WRAP footprint, and to develop regional metrics and insight into regional resource adequacy. If the Commission approves the WRAP Tariff (as it should), the first Binding Season of the WRAP will be Summer 2025.

Recognizing that some Participants may be more ready than others become subject to all binding aspects of the WRAP and associated charges, WPP proposes a transition process that will allow Participants to decide in which Season, over a three-year period commencing in 2025 and ending in 2028, they agree to become subject to the biding aspects of the WRAP. As Ms. Edmonds explains, a number of WPP members advocated for a meaningful time period for transition to the binding program to allow them to address concerns about the sufficiency of their existing power purchase agreements, the ability to contract for or build additional qualified capacity, engaging in any necessary regulatory processes or other governmental approvals, and other organizational concerns.[356] As explained above, there are significant benefits in the increased regional coordination and regional situational awareness that comes from the data exchange and analyses that will occur during the non-binding and transition phases of the WRAP, even if not all Participants are committed to the binding obligations before 2028. Allowing a transition also enables Participants to time their entry into the binding phase to their current needs, capacity portfolio, and regulatory requirements, while ensuring broad participation by utilities throughout the region.

The Tariff allows each Participant to elect which Season during the Transition Period will be its first Binding Season, either at the time they execute a WRAPA or January 1, 2023, whichever is later.[357] As long as the Participant remains in non-binding status it will not be subject to any Deficiency Charges, Delivery Failure Charges, Holdback

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354 Tariff, Attachment A § 7.

355 *See, e.g.*, SPP Membership Agreement § 6 (authorizing the SPP board of directors to terminate a member for cause).

356 *See* Edmonds Aff. ¶ 36.

357 Tariff §§ 15.1-15.2.

Requirements, or Energy Deployment obligations,[358] but will still submit Forward Showing data as required by the Tariff[359] and will be eligible to receive Holdback capacity that is offered voluntarily by other Participants.[360] As a signatory to the WRAPA, the non-binding Participant will enjoy all rights and be subject to all obligations under Part I of the Tariff including voting rights in stakeholder committees (including RAPC) and the obligation to pay its share of all WRAP administrative costs under Schedule 1 of the Tariff.[361]

In addition, the transition provisions allow a Participant to defer its first Binding Season further, provided it provides notice of such deferral two years in advance.[362] The Participants who have elected to participate in the first Binding Season may also vote, within two years of that Season, to delay implementation of the first Binding Season for up to two Seasons.[363]

The proposed transition provisions are just and reasonable because they accommodate the unique needs and readiness of individual potential Participants, while enabling those that are ready to engage in full binding participation in the WRAP to do so as expeditiously as possible. Moreover, by beginning the non-binding portion this year, the increased regional coordination and wide-angle analysis of regional resource adequacy will benefit all Participants with situational awareness whether they begin participation in the binding aspects of the program in 2025 or sometime between then and 2028.

IV. DESCRIPTION OF PROPOSED TARIFF PROVISIONS

WPP's WRAP Tariff is divided into three parts with two addenda. Part I contains the general terms and conditions for the WRAP, including WRAP governance. Part II outlines the Forward Showing Program requirements. Part III sets forth the terms for the Operations Program. In addition, as noted above, Schedule 1 to the WRAP Tariff governs cost allocation for WPP's administration of the WRAP, including the formula rate and maximum rate to be charged to Participants for WRAP services. Attachment A to the WRAP Tariff contains the WRAPA, a *pro forma* service agreement to be executed by each WRAP Participant, which sets forth the rights and contains the binding contractual obligations of WPP and Participants.

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358 Tariff § 15.1.1.

359 Tariff § 15.1.2.

360 Tariff § 15.1.4.

361 Tariff § 15.1.5.

362 *See* Tariff § 15.3.

363 Tariff § 15.4.

A. WRAP Tariff, Part I – General Terms and Conditions

Part 1 of the Tariff sets forth the general terms and conditions applicable to all aspects of the WRAP. Section 1 contains the defined terms that are used throughout the Tariff. Section 2 of the Tariff describes the role of WPP as the Program Administrator, including WPP's exclusive rights under FPA section 205 to submit amendments to the Tariff. Section 2 also delineates WPP's ability to contract with a Program Operator to assist with the technical performance aspects of the WRAP.

Section 3 outlines the roles, authorities, and limitations on the WPP Board of Directors, including the requirement that each Board member maintain financial independence from all Participants and classes of Participants,[364] similar to the requirements imposed on the Board members of various Commission-approved RTOs and ISOs.[365] This section also lays out the process for the Board to consider amendments to the Tariff[366] and establishes the prohibitions on the Board's ability to modify the Tariff to offer other services,[367] as discussed in more detail above, and the special provisions allowing for additional engagement with COSR and the public if the Board votes to expand the WRAP to include market optimization or transmission services.[368]

Section 4 describes the various stakeholder groups including the RAPC, PRC, and COSR, including their processes, authorities, and composition. Section 5 of the Tariff establishes the Independent Evaluator that will conduct regular assessments of the performance of the WRAP and recommend any potential beneficial design modifications, as discussed in more detail above.

Section 6 outlines the various charges that WPP will be responsible for invoicing and collecting, including the WRAP Administration Charge under Schedule 1 of the Tariff, Deficiency Charges in the Forward Showing Program as established in Part II of the Tariff, and Delivery Failure Charges in the Operations Program as provided in Part III of the Tariff. As noted above, the Tariff does not set forth credit requirements for these charges because Section 6 establishes a mechanism to recover Participant defaults with respect to WRAP Administration Charges, the "Default Allocation Assessment" that is applied to

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364 *See* Tariff § 3.1.

365 *See supra* notes 227-229 and accompanying text.

366 *See* Tariff § 3.3.

367 *See* Tariff § 3.4.

368 *See* Tariff § 3.5.

non-defaulting Participants,[369] and because WPP is only obligated to pay out the proceeds of the Deficiency Charges and Delivery Failure Charges to the extent that revenues are collected. Section 6 also establishes a thirty-day payment cycle for WPP invoices, a two-day cure period for failure to pay, and provisions governing WPP's ability to pursue legal remedies against a defaulting participant.[370]

Section 7 discusses credit requirements and settlement for holdback and delivered energy. As discussed above, the WRAP relies on the existing bilateral market framework in the West. As such, all holdback and energy delivery will be settled bilaterally between Participants,[371] and Participants will be required to establish credit among themselves. The Tariff also provides that WPP will attempt to engage a central credit organization to facilitate credit arrangements between Participants.[372] At all times, the obligation is on the deficient Participant to make sure it has arranged sufficient credit with any delivering Participant.[373]

Section 8 sets forth provisions governing force majeure, limitations of liability, and indemnification. Section 8.1 contains standard force majeure provisions found in RTO/ISO tariffs, including a requirement that a force majeure event does not excuse financial obligations.[374] Financial obligations can be excused if they fall under one of the waiver or excuse exceptions specified in Parts II or III of the Tariff, which require the Program Operator, WPP, and/or the Board of Directors to approve such waiver or excuse. Sections 8.2 and 8.3 contain relatively standard Open Access Transmission Tariff ("OATT") and RTO/ISO tariff provisions addressing limitations on liability and indemnification, and limit WPP's and the Program Operator's liability only to events

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369 *See* Tariff § 6.4.3. The Default Allocation Assessment is allocated 20% on a per capita basis and 80% based on Median Monthly P50 Peak Load. *Id.* § 6.4.3.1.

370 *See* Tariff § 6.4. To the extent WPP is successful in recovering funds from a defaulting Participant, it is required to credit those funds, less its costs to recover such funds, to any Participants who paid a Default Allocation Assessment. *Id.* § 6.4.2.

371 Tariff § 7.1.

372 *See* Tariff § 7.1.2.

373 Tariff § 7.1.2.3.

374 *See* Tariff § 8.1; *see also, e.g.*, ISO New England Inc. Transmission, Markets, and Services Tariff § I.5.1 (stating that force majeure does not excuse financial obligations).

involving gross negligence or intentional misconduct[375] and obligate Participants to indemnify WPP and the Program Operator from third party claims.[376] As discussed above,[377] Section 8.4 of the Tariff provides notice to Participants of the actions WPP may take in the unlikely event that the Program Operator suddenly becomes unavailable to continue in the role, and requires engagement with Participants in such unlikely event.[378]

Section 9 sets forth the dispute resolution process under the WRAP Tariff. These provisions are modeled on the Commission's *pro forma* OATT and Commission-approved RTO and ISO tariff dispute resolution provisions, and establish the process to address disputes between WPP and a Participant.[379]

Section 10 governs WPP's handling and use of Participant-specific confidential or commercially sensitive information provided by a Participant. In large part, these provisions, including the general provisions that state that WPP will maintain confidentiality of such information[380] and the exceptions and procedures involving compelled release by law or by order of the Commission or a court of competent

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375 *See* Tariff § 8.2; *see also, e.g.*, California Independent System Operator Corporation Fifth Replacement FERC Electric Tariff § 14.5.1 ("CAISO Tariff") (limiting liability to gross negligence or intentional wrongdoing; Southwest Power Pool, Inc. Open Access Transmission Tariff Sixth Revised Volume No. 1 § 10.2 (same) ("SPP Tariff"). Because Participants will be transacting with one another through separate bilateral agreements outside the Tariff, Section 8.2.5 contains a provision specifying that Participants are only liable to each other under the Tariff for any charges or payments calculated under the Tariff, but that this does not foreclose other liability that may be specified in the Participants' bilateral agreement with each other. WRAP Tariff § 8.2.5.

376 *See* Tariff § 8.3; *see also* CAISO Tariff § 14.4 (requiring market participants to indemnify the ISO); SPP Tariff § 10.3 (same).

377 *See supra* Section III.B.

378 *See* Tariff § 8.4.

379 *Compare* Tariff § 9, *with Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890-B, 123 FERC ¶ 61,299, Appendix B, *pro forma* Open Access Transmission Tariff § 12 (2008), *order on reh'g & clarification*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

380 *See* Tariff §§ 10.1, 10.2 & 10.3.

jurisdiction,[381] are largely modeled on Commission-approved confidentiality provisions in existing RTO/ISO tariffs.[382]

However, given the unique nature of the WRAP, WPP has adopted special provisions governing its ability to release publicly composite or aggregated data. Given the anticipated potential high level of interest in regional resource adequacy data for the WRAP footprint, WPP and its members determined that a process for the release of composite or aggregated data is appropriate, provided that Participant-specific confidential information remain confidential. Accordingly, WPP and its prospective Participants have established a process in Section 10.2.1 of the Tariff, which permits Participants to review the form and format of any intended release of composite or aggregated data and raise any concerns first with WPP staff, then the RAPC, and then the Board of Directors. This process will enable WPP to provide the regional data necessary to meet the transparency objectives of the WRAP but at a sufficiently masked level of granularity so as to protect Participant-specific confidential information, while allowing Participants a process to ensure that their Participant-specific confidential data is not inadvertently disclosed or discoverable through the release of the composite or aggregated data. If a Participant exhausts this process and is dissatisfied with the outcome (i.e., an adverse Board of Directors decision on the release of composite or aggregated data in a form and format over the Participant's objection), the Participant has a one-time, prompt right to invoke an expedited withdrawal under the "extenuating circumstances" provisions of the WRAPA,[383] provided it does so expeditiously. This process for the release of composite or aggregated data and related expedited withdrawal right was the subject of extensive negotiations among WPP and Participants during the WRAP development process, and is an important feature to balance the need for greater transparency against legitimate Participant concerns about their own commercially sensitive data.

Section 11 simply specifies the timing of deadlines that fall on a weekend or holiday. Section 12 establishes the application and registration process to become a WRAP Participant. It also lays out a process to address a situation where two Participants attempt to register the same resource or load.[384] Because a portion of the WRAP footprint is subject to retail deregulation and some loads may change LREs, it is possible that a load could be registered by two different entities, so the Tariff specifies a process to sort out any

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381 *See* Tariff §§ 10.4-10.5.

382 *See generally, e.g.*, CAISO Tariff § 20.

383 Tariff, Attachment A § 9.2.1.3.

384 *See* Tariff § 12.3.

duplicative registrations. Section 12 also requires Participants to register all loads and resources, regardless of whether the resources or loads will be subject to the WRAP.[385] This provision is similar to provisions some RTOs have adopted in order to have greater visibility into participant resource and load portfolios.[386]

B. WRAP Tariff, Part II – Forward Showing Program

The Forward Showing Program is described in more detail above[387] and in Mr. Hendrix's affidavit.[388] Accordingly, this section only briefly identifies the Tariff provisions to implement the Forward Showing Program. Section 13 of the Tariff provides an overview description of the Forward Showing Program. Section 14 establishes the timeline and process for the Forward Showing Program, including the FS Submittal and WPP/Program Operator review of the Submittal. Section 15 sets forth the parameters for the three-year Transition Period to full binding implementation on all Participants, as discussed more extensively above.[389]

Section 16 details the components of the Forward Showing, including FSPRM determination, QCC calculations and methodology, and the Forward Showing Transmission Requirement. Section 17 establishes the Forward Showing Deficiency Charge calculation, including CONE and its assessment to deficient Participants. Section 17 also contains some provisions limiting applicability of the Forward Showing Deficiency Charge to Participants during the Transition Period when they remain in non-binding status.[390]

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385 *See* Tariff § 12.2.

386 *See, e.g.*, SPP Tariff, Attachment AE (MPL) § 2.2(2).

387 *See supra* Section III.C.

388 *See generally* Hendrix Aff. ¶¶ 5-11.

389 *See supra* Section III.I.

390 *See* Tariff § 17.3.

C. WRAP Tariff, Part III – Operations Program

Like the Forward Showing Program, the Operations Program is discussed extensively above[391] and in Mr. Cates's[392] and Mr. Roy's[393] affidavits; accordingly the Tariff provisions implementing the Operations Program are only briefly described here. Section 18 of the Tariff contains an overview of the Operations Program. Section 19 sets forth the Operations Program timeline and supporting information, including provisions addressing the Multi-Day-Ahead Assessment.

Section 20 breaks down the components of the Operations Program, including the Sharing Requirement,[394] Holdback Requirement,[395] release of Holdback,[396] Energy Deployment,[397] Safety Margin,[398] Operations Program Transmission Service Requirements,[399] Energy Delivery Failure and related charge,[400] and the ability to seek voluntary increased assistance to identified deficiencies after the Preschedule Day.[401] Section 21 governs settlement of Operations Program transactions and the settlement price calculation, which Mr. Roy discusses more extensively in his affidavit.

D. WRAP Tariff, Schedule 1– WRAP Administration Charge

As explained above and by Ms. Sexton,[402] Schedule 1 of the Tariff establishes WPP's WRAP administrative cost recovery through the WRAP Administration Charge.

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391 *See supra* Sections III.D & III.E.

392 *See generally* Cates Aff. ¶¶ 4-11.

393 *See generally* Roy Aff. ¶¶ 22-27.

394 Tariff § 20.1.

395 Tariff § 20.2.

396 Tariff § 20.3.

397 Tariff § 20.4.

398 Tariff § 20.5.

399 Tariff § 20.6.

400 Tariff § 20.7.

401 Tariff § 20.8.

402 *See generally* Sexton Aff. ¶¶ 19-21.

Sections 1 and 2 govern the costs and calculation of the charge, while Section 3 establishes the maximum rates that Ms. Sexton discusses in more detail in her affidavit.[403] Section 4 sets forth the WRAP Cost Assignment Matrix, which splits WPP WRAP-related costs between the Base Charge and the Load Charge, Section 5 contains the provisions authorizing WPP to collect a Cash Working Capital Support Charge to enable WPP to have sufficient funds on hand to make required payments for WRAP-related services, primarily the annual Program Operator fee.

E. WRAP Tariff, Attachment A – Western Resource Adequacy Program Agreement

As explained above, Attachment A of the Tariff contains the *pro forma* WRAPA. Sections 1-5 of the WRAPA establish Participant rights and obligations, including the obligation to comply with all the rates, terms, and conditions set forth in the Tariff. Section 6 acknowledges that the Board has the unilateral right to amend the WRAPA, subject to the limitations on Board authority set forth in Section 3 of the Tariff. Section 7 establishes each Participant's obligation to pay their share of all WPP WRAP-related costs as calculated under Schedule 1. Section 8 obligates WPP to provide the services set forth in the Tariff. Section 9 governs Participant withdrawal from the WRAP and the Board's right to terminate a Participant's participation in the WRAP, as discussed in more detail above.[404] Finally, Section 10 contains an acknowledgment that, by signing the WRAPA, a Participant that is not subject to the Commission's jurisdiction is not waiving its non-jurisdictional status, which is similar to provisions the Commission has accepted in RTO/ISO agreements.[405]

V. STAKEHOLDER AND PUBLIC OUTREACH

WPP has engaged in an extensive, multi-year effort with numerous WPP members and other entities to develop the Tariff that is being submitted with this filing. As noted above and in Ms. Edmonds's and Mr. Drummond's affidavits, several WPP members as prospective WRAP Participants have been meeting regularly since 2019 to discuss the design and governance of the WRAP. More recently, WPP constituted the RAPC, which has met regularly since October 2021 to refine the WRAP design and develop the Tariff. In August 2022, members of the RAPC expressed unanimous support for the final WRAP Tariff that is being submitted herein, and, on August 23, 2022, the WPP Board of Directors voted unanimously to authorize WPP to submit this Tariff.

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403 *See* Sexton Aff. ¶¶ 19-24.

404 *See supra* Section III.H.

405 *See, e.g.*, SPP Membership Agreement § 3.11.

In addition to WPP members and other prospective WRAP Participants, WPP has engaged in extensive public outreach throughout the process of developing the WRAP, including hosting numerous public webinars and WPP staff appearing at more than eighty industry conferences and events during the past three years. WPP has also engaged expansively with state commissions, through WIEB and other outreach efforts, throughout the process of developing the WRAP. Most recently, WPP hosted a public webinar on the final draft WRAP Tariff on July 25, 2022, during which public comments were solicited and the Tariff was further modified based on those public comments. Ms. Edmonds discusses WPP's extensive public outreach efforts in more detail in her affidavit.[406]

VI. EFFECTIVE DATE, REQUEST FOR COMMISSION ACTION, AND REQUEST FOR A WAIVER OF NOTICE REQUIREMENTS

WPP requests an effective date of January 1, 2023, for the WRAP Tariff proposed in this filing, and further requests a waiver of the Commission's notice requirements set forth in section 35.3 of the Commission's regulations, 18 C.F.R. § 35.3, to allow WPP to submit this Tariff to the Commission more than 120 days prior to the requested effective date. WPP also requests that the Commission establish a thirty-day comment period on the proposed Tariff, rather than the standard twenty-one-day comment period. Good cause exists for granting the waiver, the requested comment period, and effective date. First, given the unique nature of the program and WRAP Tariff, WPP believes that additional time for public comment will enable the Commission to develop a robust record for approving the WRAP Tariff. WPP is submitting the Tariff slightly more than 120 days prior to the requested effective date to accommodate this extended comment period and also to afford the Commission additional time to consider and rule on the proposed Tariff in light of the record developed.

A January 1, 2023, effective date is important so that WPP can begin operating the WRAP under the governance and funding provisions set forth in the WRAP Tariff. To date, governance and funding of WPP's WRAP development efforts have been by agreement of the WPP members involved in the WRAP development discussions during various phases of the project. Current funding expires at the end of 2022. Additionally, WPP will need to develop numerous business practices, charters, and other guidance documents to provide greater detail and clarity on the requirements of the Tariff and program design, and would prefer to use the formal stakeholder process involving the PRC, RAPC, COSR, and Board of Directors as outlined in Part I of the Tariff for those efforts. Making the Tariff effective January 1, 2023, will enable the WRAP to move from an ad hoc effort of Western entities and WPP staff to a formalized program under a Commission-approved Tariff.

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406 *See* Edmonds Aff. ¶¶ 45-47.

Last, while WPP has submitted this filing more than 120 days prior to the effective date, WPP requests that the Commission issue an order accepting the WRAP Tariff, without modification or significant condition, as soon as practicable but by no later than December 12, 2022.[407] Prospective WRAP Participants are evaluating their participation in the program and need certainty surrounding the Tariff requirements and program design in order to execute and agree to be bound by the WRAPA. WPP is asking potential Participants to execute the WRAPA prior to January 1, 2023, so that WPP's WRAP efforts can begin to be funded under Schedule 1 and WRAP development efforts can continue under the WRAP Tariff and particularly the governance and stakeholder provisions set forth in the Tariff.

VII. ADDITIONAL INFORMATION

A. Information Required by the Commission's Regulations[408]

1. Documents Submitted with this Filing:

In addition to this transmittal letter, the following documents are included:

Attachment A	Affidavit of Sarah E. Edmonds President & Chief Executive Officer Western Power Pool;

[407] To facilitate an order by December 12, 2022, WPP has assigned an effective date of December 12, 2022, to a nonsubstantive eTariff record submitted with this filing, while marking each other record with a January 1, 2023 effective date.

[408] To the extent necessary, WPP requests a waiver of the following requirements under the Commission's regulations: (1) 18 C.F.R. § 35.12(b)(1), estimates of the transactions and revenues under an initial rate schedule; (2) 18 C.F.R. § 35.12(b)(2)(ii), summary statement of all cost computations involved in arriving at the derivation of the level of the rate; (3) 18 C.F.R. § 35.12(b)(5) requirement to submit information required under 18 C.F.R. § 35.13(h)(37). WPP further requests waiver of any other Commission regulation the Commission deems necessary and appropriate. Good cause exists to grant these waivers as the information requested is not applicable to the WRAP Tariff, which sets forth the terms and conditions for the WRAP.

Attachment B	Affidavit of William K. Drummond Chairman of the Board of Directors Western Power Pool;
Attachment C	Affidavit of Antoine Lucas Vice President of Engineering Southwest Power Pool, Inc.;
Attachment D	Affidavit of Charles G. Hendrix Manager of Reliability Assurance Southwest Power Pool, Inc.;
Attachment E	Affidavit of Charles C. Cates Manager of Operations Engineering, Analysis, and Support Southwest Power Pool, Inc.;
Attachment F	Affidavit of Ryan L. Roy Director of Technology, Modeling, and Analytics Western Power Pool;
Attachment G	Affidavit of Rebecca D. Sexton Director of Reliability Programs Western Power Pool; and

WRAP Tariff.

2. *Effective Date:*

As noted above, WPP requests that the Commission accept this filing effective January 1, 2023.

3. *Service:*

WPP is planning to serve a copy of this filing on each prospective Participant and on its extensive stakeholder service list compiled over the past three years of the WRAP development effort once a docket number has been established for this proceeding. In addition, a complete copy of this filing will be posted on the WPP web site: www.westernpowerpool.org.

4. *Description of Filing and Basis of Proposed Tariff:*

A description of the WRAP Tariff, along with the reasons and justifications for it, is provided above.

5. *Requisite Agreements:*

Currently, there are none, but each Participant will be required to execute a WRAPA to participate.

6. *Comparison of the Proposed Initial Rate with Other Rates of the Filing Utility:*

There are none.

7. *Specifically Assignable Facilities Installed or Modified:*

There are none.

B. Correspondence and Communications

Correspondence and communications with respect to this filing should be sent to, and WPP requests the Secretary to include on the official service list, the following:[409]

Sarah E. Edmonds
President and Chief Executive Officer
Rebecca D. Sexton
Director of Reliability Programs
Northwest Power Pool d/b/a Western Power Pool
7525 NE Ambassador Place, Suite M
Portland, OR 97220
(503) 445-1074
Sarah.Edmonds@westernpowerpool.org
Rebecca.Sexton@westernpowerpool.org

Paul M. Flynn
Matthew J. Binette
WRIGHT & TALISMAN, P.C.
1200 G Street, N.W., Suite 600
Washington, DC 20005-3898
(202) 393-1200
flynn@wrightlaw.com
binette@wrightlaw.com

[409] To the extent necessary, WPP requests a waiver of Commission Rule 203(b)(3), 18 C.F.R § 385.203(b)(3), to permit more than two persons to be listed on the official service list for this proceeding.

VIII. CONCLUSION

For all of the foregoing reasons, WPP respectfully requests that the Commission accept the proposed Tariff as just and reasonable effective January 1, 2023, without modification or condition. WPP further requests that the Commission issue an order accepting this filing by December 12, 2022, to afford potential WRAP Participants certainty regarding program design so that they can decide whether to join the WRAP.

/s/ Paul M. Flynn

Paul M. Flynn
Matthew J. Binette
WRIGHT & TALISMAN, P.C.
1200 G Street, N.W., Suite 600
Washington, DC 20005-3898

Attorneys for Northwest Power Pool d/b/a Western Power Pool

Attachment A

Affidavit of Sarah E. Edmonds on Behalf of Northwest Power Pool d/b/a Western Power Pool

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF SARAH E. EDMONDS
ON BEHALF OF
NORTHWEST POWER POOL
D/B/A WESTERN POWER POOL

1. My name is Sarah E. Edmonds. I am the President and Chief Executive Officer ("CEO") of Northwest Power Pool d/b/a Western Power Pool ("WPP"). My business address is 7525 NE Ambassador Place, Suite M, Portland, Oregon 97220. In my current position I am responsible for the overall management of WPP.

2. I have a Bachelor's degree from the University of Oregon and a law degree from the Georgetown University Law Center. Prior to being named CEO of WPP, I served as Director of Transmission Services and Reliability for Portland General Electric ("PGE"). Before joining PGE, I worked at PacifiCorp, where I held the positions of Lead Senior Attorney, Director of Transmission; Vice President and General Counsel of PacifiCorp Transmission; and Vice President of PacifiCorp Transmission Strategy, Policy & Corporate Compliance. At PacifiCorp, I also led policy and tariff development efforts for the formation of the Western Energy Imbalance Market in PacifiCorp's service area, which launched in 2014.

3. My affidavit provides an overview of WPP's proposed Western Resource Adequacy Program ("WRAP"), explains the governance of the program itself, and describes WPP corporate governance changes that will be implemented upon Federal Energy Regulatory Commission ("Commission") approval of the WRAP, including the transition to an independent Board of Directors ("Board"). I also discuss other features of

the proposal including a transition period to full binding implementation and provisions to address a potential Participant's withdrawal from the program.

4. In addition to my affidavit, the following individuals are providing affidavits in support of this filing:

- William K. Drummond, Chair of the Board of Directors of WPP: Mr. Drummond explains the purpose and reasoning behind WPP's proposed WRAP;
- Antoine Lucas, Vice President of Engineering, Southwest Power Pool, Inc. ("SPP"): Mr. Lucas discusses SPP's role as Program Operator;
- Charles G. Hendrix, Manager of Reliability Assurance, SPP: Mr. Hendrix provides an overview of the design and operation of the WRAP Forward Showing Program;
- Charles C. Cates, Manager of Operations Engineering Analysis and Support, SPP: Mr. Cates provides an overview of the WRAP Operations Program, the real-time portion of the WRAP;
- Ryan L. Roy, Director of Technology, Modeling, and Analytics, WPP: Mr. Roy describes the process of settling transactions in the WRAP;
- Rebecca D. Sexton, Director of Reliability Programs, WPP: Ms. Sexton discusses WRAP cost allocation and recovery of WRAP administrative costs.

Background

5. WPP is an Oregon mutual benefit corporation recognized by the Internal Revenue Service as tax-exempt under section 501(c)(6) of the Internal Revenue Code. WPP's mission is to help regional utilities maximize the benefits of coordinated operations. WPP seeks to achieve this mission consistent with its core values, which include operating as a customer-driven, relationship-based, independent organization that operates with the highest integrity. From this foundation, WPP provides professional and management services to its participating organizations through professional service contracts with individual Participants. These services include but are not limited to developing and

offering training programs for grid operators, implementing WPP's Contingency Reserve Sharing program, and coordinating NorthernGrid regional transmission planning. WPP participating organizations include major generating utilities serving the Western United States, as well as British Columbia and Alberta, Canada. Smaller, principally non-generating utilities in the region participate indirectly through the member system with which they are interconnected.

6. Under WPP's proposal to stand up the WRAP, WPP will continue to provide the services it currently provides under existing contracts and funding. The WRAP will be a new, standalone regional resource-adequacy program administered by WPP under a Commission-jurisdictional WRAP Tariff[1] and funded by charges set forth in that Tariff.

7. As described in more detail in Mr. Drummond's affidavit, beginning in early 2019, a broad coalition of members of WPP began exploring potential solutions for ongoing and anticipated challenges to resource adequacy in the region with WPP's assistance and facilitation. The impending retirement of significant amounts of thermal generation, the considerable growth in the installation of variable energy resources, and dramatic changes in the magnitude, duration, and timing of weather-related events together present a threat to the region's continued ability to maintain adequate supply of electricity during critical hours. This lack of supply threatens to hinder the system's ability to provide reliable service to customers and to ensure system operators can meet legal requirements and environmental goals. These dynamics have been documented in several studies that are described more specifically in Mr. Drummond's affidavit.

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[1] Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff").

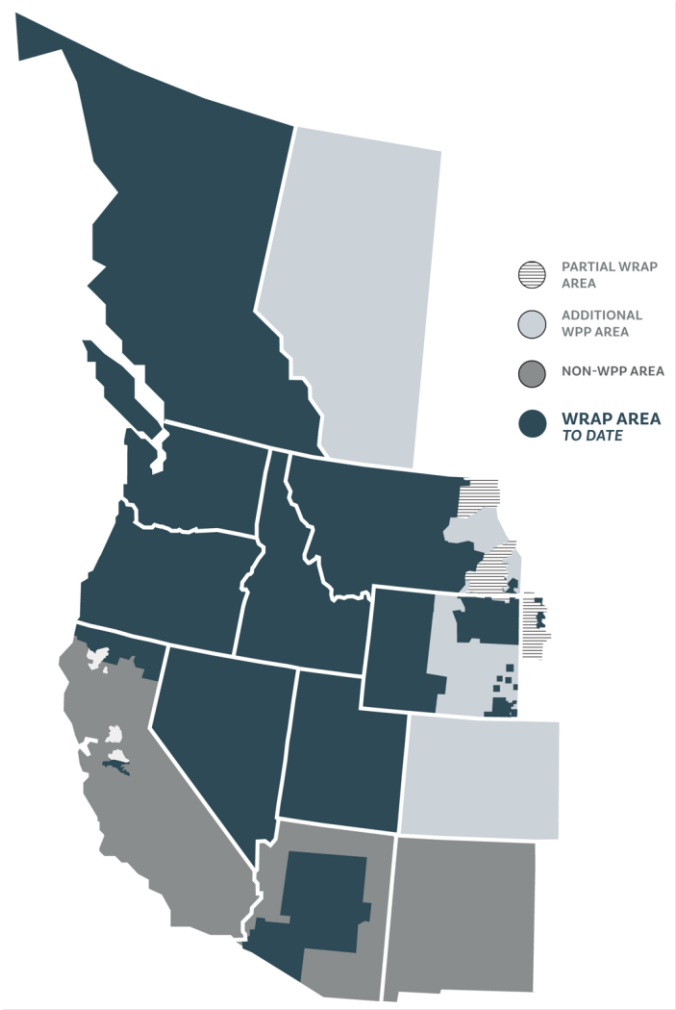
8. WPP and its members have worked on the design of the WRAP and its governance since 2019. The WRAP applies to members that chose to become Participants in WRAP and has been designed as a voluntary regional resource adequacy program that will be rolled out in stages, starting with the implementation of a non-binding program in October 2021. The non-binding stage of the program is strictly informational and includes no compliance requirements. Currently, Participants are in the process of completing the first non-binding Forward Showing, due for evaluation in September 2022, which will provide Participants with information about the adequacy of their resources to meet the needs of the WRAP footprint for the Winter 2022/2023 Season. Participants intend to transition to the binding phase of the WRAP beginning in Summer 2025, as explained in more detail below. The commencement of the WRAP as a binding program, including WRAP charges for non-compliance, would operate pursuant to the WRAP Tariff.

9. The WRAP will be administered by WPP, the entity that will serve as the public utility charged with program administration and oversight. Day-to-day functions will be conducted by one or more Program Operator(s) hired by WPP. WPP has retained SPP as Program Operator. The Program Operator role is discussed in more detail in the affidavit of Mr. Lucas.

10. The WRAP has now reached a total of twenty-six Participants,[2] which collectively represent an estimated peak winter load of approximately 65,000 megawatts

[2] The twenty-six WRAP Participants are: Arizona Public Service, Avista Corp., Avangrid Renewables, Basin Electric Power Cooperative, Black Hills Energy, Bonneville Power Administration, Calpine Energy, Chelan County PUD, Clatskanie PUD, Douglas County PUD, Eugene Water and Electric Board, Grant County PUD, Idaho Power Company, NorthWestern Energy, NV Energy, PacifiCorp, Portland General Electric, Powerex, Puget Sound Energy, Salt River Project, Seattle City Light, Shell Energy, Snohomish County PUD, Tacoma Power, The Energy Authority, and Turlock Irrigation District.

("MW") and an estimated peak summer load of approximately 72,000 MW across ten states and one Canadian province.[3] The coordination, cooperation, and regional viewpoint enabled by this diverse array of Participants has allowed the WRAP to make tremendous and rapid progress toward combatting emerging reliability issues by completing detailed design work that supports WRAP. Below is a map of the WRAP footprint to date:[4]



3 The states include Arizona, California, Idaho, Montana, Nevada, Oregon, South Dakota, Utah, Washington, and Wyoming. The province is British Columbia.

4 Importantly, this map depicts the territories of entities that are currently participating in the WRAP development effort. No Participants have yet formally executed the necessary agreements to participate in the WRAP under the WRAP Tariff. As the accompanying transmittal letter discusses, WPP will begin the process of obtaining commitments from Participants later this year, once the WRAP Tariff is approved by the Commission. However, the entities represented above have been funding the WRAP development efforts to date.

11. With this filing, WPP is not proposing to stand up a centralized capacity market or other organized wholesale market structure. Instead, WPP is proposing a stand-alone resource adequacy program that will include a Forward Showing function and, for the Operations Program, will rely on bilateral transactions between individual Participants to satisfy their respective program obligations, consistent with the long-standing bilateral market structure in the region. Nor is WPP proposing to establish a Commission-jurisdictional regional transmission organization ("RTO") or independent system operator ("ISO") or any other structure that would allow WPP to become involved in administration of transmission systems or Open Access Transmission Tariff ("OATT") responsibilities of its members or Participants. Rather, each Participant that currently operates a transmission system will continue to operate its transmission system consistent with its own obligations and applicable regulatory requirements. Thus, Participants will remain responsible for administering their own transmission systems and OATTs and for securing the transmission service necessary to deliver capacity and energy to meet their obligations under the WRAP. These delivery obligations are discussed in more detail in the affidavit of Mr. Cates.

WRAP Independent Administration

12. In light of the functionality contemplated for WRAP and the significance of regional resource adequacy for the West, the WRAP must be administered in an independent manner to ensure that program administration is neither unduly discriminatory nor preferential. While WPP is not proposing a transmission organization or centralized market, WPP nevertheless developed its program and corporate governance proposals by looking to the Commission's guidance and requirements for the independent operation of RTOs and ISOs to inform the proposed governance of the WRAP.

13. Using the Commission's guidance, WPP has identified steps it will take to restructure its corporate governance if the Commission approves the WRAP Tariff and if WPP receives sufficient commitment from Participants to move forward with the WRAP. These corporate governance provisions will be set forth in the WPP Bylaws and other governing documents. These provisions will apply broadly to WPP corporate governance and across its corporate services and will ensure the WRAP is administered in an independent manner. I discuss WPP's Board of Directors and WPP's Nominating Committee, two key elements of corporate independence, in more detail below.

14. In addition to ensuring independence at the corporate level, the WRAP program governance itself, including its stakeholder process, has been designed to effectuate independent program administration and to ensure that stakeholders have a voice and influence in the administration of WRAP. The inclusive, participatory stakeholder process for the WRAP is described in the WRAP Tariff submitted with this filing, and I discuss it in more detail below.

WPP Board of Directors

Board Independence

15. Once the Commission approves the WRAP Tariff and WPP obtains sufficient Participant commitment to fund the WRAP to move forward, WPP will modify its current governance structure to implement changes to corporate governance needed to ensure independent program administration. A key element of this independent governance will be an independent Board tasked with overseeing the WRAP and administering the WRAP Tariff. The current Board of WPP consists of four individuals with no requirement for independence. If the WRAP is approved, WPP will transition to a fully independent Board made up of directors who must be financially independent of all

WRAP Participants and classes of Participants. This independent Board will have oversight responsibility for all WPP programs and services, including the WRAP, and will have the sole right under Federal Power Act ("FPA") section 205 to submit revisions to the WRAP Tariff.[5] The Board will typically meet in open session to act on any proposed amendments to the WRAP Tariff or Business Practice Manuals, but may also meet in closed session to address non-WRAP WPP matters and other issues such as personnel and litigation matters.

16. To identify and elect these new independent Board members, WPP will use a Nominating Committee composed of up to fourteen individuals representing various WPP stakeholder sectors and other bodies, including investor-owned and consumer-owned utilities, public interest organizations, and retail customer advocacy groups ("Sectors").[6] Stakeholder Sectors will identify one or two individuals to serve on the Nominating Committee as representatives of their Sectors. The Nominating Committee will identify, vet, and recommend candidates for election to the Board. This participatory Nominating Committee structure is based largely on procedures that have been implemented in the Western Energy Imbalance Market operated by the California Independent System Operator Corporation with great success and support in the region. All candidates for the

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5 This authority is limited by Section 3 of Part I of the WRAP Tariff, which limits the Board's ability to adopt certain modifications, as discussed in more detail below. Also, in the event that WPP ever seeks to file to expand the WRAP to include market optimization or transmission planning services, WPP will initiate a formal process with the Committee of State Representatives ("COSR") and other stakeholders to conduct a full review of governance structures and procedures and, if COSR does not support any modified governance structure approved by the Board, WPP will also file an alternative, state-supported proposal.

6 WPP has already begun this process by standing up an initial Nominating Committee, consistent with WRAP program governance design, to interview and nominate potential candidates for the new independent Board. This will ensure that a broad array of stakeholders is involved in WPP's transition from a non-independent Board to an independent Board.

Board put forth by the Nominating Committee will be required to demonstrate financial independence from WRAP Participants and will be subject to strict conflict-of-interest policies.

17. In identifying and selecting candidates, the Nominating Committee will give consideration to diversity of experience and expertise, diversity of race, gender, and ethnicity, and geographic diversity. Nominating Committee members will obtain input from their sectors but Nominating Committee deliberations will be confidential.

18. The Nominating Committee will put forth candidates for consideration by the Board, which will have authority to approve or reject a candidate (if one seat will be vacant) or slate of candidates (if more than one seat will be vacant) under procedures adopted by the Board.

Board Transition Issues

19. To allow WPP to transition to a fully independent Board while ensuring stable oversight of existing WPP programs and services and organizational continuity, members of the existing Board may seek to be nominated to serve on the new, independent WPP Board for a period of time, so long as they satisfy the financial independence and qualification criteria required for service on the new, independent Board. The current WPP Board member's years of service on the current WPP Board will not count toward any term limits that may be applicable to the new, independent Board. If one or more current directors applies for the new Board and satisfies all requirements for service, the Nominating Committee (discussed below) must select at least one such existing director to be recommended for service on the independent Board.

20. To further address WPP's Board transition and continuity, two directors from the current WPP Board will be selected to serve as non-voting advisors to the

independent WPP Board for a one-year term, so long as they meet all independence requirements and are willing and able to serve.

Limitations on Board Authority

21. Given the unique nature of a regional resource adequacy construct operating outside of a Commission-approved RTO and the sole right of the WPP Board to file changes to the WRAP Tariff under FPA section 205, the WRAP Tariff contains certain safeguards preventing the Board from unilaterally expanding the scope of the WRAP without broad Participant approval. Numerous Participants have informed WPP that these safeguards are key to their willingness to participate in the WRAP. The limitations on Board authority are set forth in Section 3 of Part I of the WRAP Tariff and, in general, preclude the Board from unilaterally modifying the WRAP Tariff to assert control over Participants' generation or transmission assets, to adopt more formal, centralized markets, or to create an RTO or ISO. It is important to note that these limitations apply only to the WRAP Tariff and the services provided thereunder; nothing prohibits WPP or any other entity from proposing such requirements or programs outside the context of the WRAP Tariff.

WRAP Stakeholder Process

22. In addition to implementing provisions intended to ensure independence at the WPP corporate leadership level, the WRAP's program governance is likewise designed to ensure that a broad swath of stakeholders is included in the WRAP's governance process and that the independent Board does not become isolated from stakeholder viewpoints.

23. WPP has developed a WRAP-specific stakeholder process allowing for robust advice to the Board through a number of critical stakeholder groups. These include a Resource Adequacy Participant Committee ("RAPC") composed of WRAP Participants,

a Program Review Committee ("PRC") representing the broader stakeholder community and reporting to the Board generally through the RAPC, and a COSR made up of state regulatory or other governmental representatives with jurisdiction over WRAP Participants. Each of these committees is described below. In addition to these stakeholder advisory opportunities, the Program Operator will identify a senior executive to serve as advisor to the Board on WRAP-related issues, and WPP will engage an Independent Evaluator to perform an annual review of the WRAP and recommend any design changes to the Board. Each of these avenues for input to the Board is discussed in more detail below.

24. Typically, the process for Board consideration of WRAP design changes will be as follows: any stakeholder (or the RAPC collectively or Board) proposes a change, the PRC reviews and prioritizes proposals, gathers stakeholder input and input from the COSR, develops the proposal into a specific proposed change, and determines whether to recommend approval of the change to the RAPC. Regardless of whether the PRC recommends approval of the change, the PRC presents the proposal and all comments and feedback received to the RAPC. The RAPC then votes to recommend to the Board approval or rejection of the proposed change. Finally, the Board votes to accept or reject the change. In circumstances where the RAPC has voted to reject a change, any stakeholder may appeal the RAPC decision to the Board for independent consideration of the proposed change.

The RAPC

25. The RAPC consists of one representative from each WRAP Load Responsible Entity[7] that executes the Western Resource Adequacy Program Agreement ("WRAPA") under the WRAP Tariff.[8] The RAPC is modeled after the Western Markets Executive Committee ("WMEC") structure approved by the Commission for SPP's Western Energy Imbalance Service ("WEIS") market.[9] The RAPC deliberates on all proposed WRAP design changes and recommends to the Board approval or rejection of any proposals. The RAPC is the highest level of stakeholder influence over WRAP design changes, and the Board is precluded under the WRAP Tariff from considering any changes to the WRAP design until after they have been considered by the RAPC. The RAPC also has certain reserved authorities such as deciding whether to modify the limitations on Board authority set forth in Section 3 of the WRAP Tariff, as I discuss above, as well as sole authority to consider recommendations to the Board regarding cost allocation for WRAP costs, changes to the WRAPA,[10] and certain other requirements. These special authorities are tied to the fact that only RAPC members execute the WRAPA, agree to be bound by the WRAPA and WRAP Tariff, and pay WPP's costs of administering the WRAP.

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7 As defined in the WRAP Tariff.

8 Notably, these are the entities that will also be responsible for paying the costs of the WRAP under Schedule 1 of the WRAP Tariff.

9 *See* Western Energy Services, *Western Markets Executive Committee Charter*, Southwest Power Pool, (Jan. 20, 2022), https://spp.org/Documents/61046/WMEC%20Charter_040122.pdf ("SPP WMEC Charter); *see also Southwest Power Pool, Inc.*, 173 FERC ¶ 61,267 (2020) ("*SPP*") (accepting WEIS Tariff and WMEC Charter).

10 The WRAPA is Attachment A to WRAP Tariff. Some individual Participants may be party to a non-conforming version of such participation agreement to be filed at and accepted by the Commission.

26. The RAPC will typically meet in open session but may meet in closed session with a representative of the COSR in attendance. I discuss the COSR in more detail below.

27. RAPC actions are determined based on a "House/Senate" voting structure. The Senate vote will be based on a one-Participant, one-vote (per capita) structure, and the House vote will be weighted based on each Participant's share of total WRAP average peak load, as determined in the Forward Showing Program for each Season. Resolutions brought before the RAPC that are supported by the PRC will be approved with a 67% affirmative vote of both House and Senate, and all other RAPC actions generally will be approved with a 75% affirmative vote of both House and Senate.[11] The House majority threshold may be changed if one Participant represents sufficient peak load (i.e., 25%) to hold an effective veto over RAPC actions. This House/Senate voting structure and the 75% supermajority are modeled on the voting structure approved by the Commission for the SPP WEIS WMEC.[12]

The PRC

28. The PRC will be composed of a broad swath of stakeholder sector representatives and will advise the RAPC and Board and serve generally as the "clearinghouse" for processing proposed WRAP design changes, which can be submitted by any stakeholder. Except in cases whether the RAPC determines the need for "exigent"

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[11] One exception to this rule is any RAPC votes to change the limitations on Board powers set forth in Section 3 of the WRAP Tariff, which will require an affirmative 80% vote of both House and Senate.

[12] SPP WMEC Charter at 6-7; *see also SPP* at P 53 (describing WMEC's House and Senate approach).

design changes,[13] or in cases where the RAPC retains sole authority to make recommendations to the Board (e.g., cost allocation and amendments to the WRAPA), changes to the WRAP will make their way to the Board through the PRC process. Even where the RAPC has authority to make recommendations directly to the Board, the PRC will nevertheless have the right to comment on those proposed changes at the time the Board considers the proposed change. The PRC will generally operate by consensus but will vote by sector when voting is necessary. The makeup of the PRC will be as follows:

- Four RAPC Participant Investor-Owned Utility representatives;[14]
- Four RAPC Participant Consumer-Owned Utility representatives;
- Two RAPC Participant Retail Competition load serving entity representatives;[15]
- Two RAPC Participant federal power marketing administration representatives;
- Two independent power producer or marketer representatives;
- Two public interest organization representatives;
- One retail customer advocacy group representative;
- One industrial customer advocacy group representative;
- One individual representing load serving entities with loads in the WRAP represented by other Load Responsible Entities that are not otherwise eligible for any other sector; and

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13 In the event of a RAPC-determined exigent design change, the PRC, COSR, and public comment would occur in conjunction with the Board review of the RAPC proposal. Such exigent changes may include changes mandated by the Commission with a short compliance filing deadline, changes that address immediate reliability impacts, and changes that have significant impacts to utility service. Tariff § 4.1.3.1.1.

14 For sectors with four representatives, three out of four must approve any action to be considered sector approval.

15 For sectors with two representatives, both representatives must approve any action to be considered sector approval.

- The COSR Chair or Vice Chair (or a designated COSR representative).

29. The PRC will establish a process for receiving and reviewing design recommendations from stakeholders, including developing a possible workplan to prioritize proposed design changes. Except where a change involves an issue reserved exclusively for RAPC review or RAPC has determined that a design change is an exigent change, all other WRAP design changes must proceed through the PRC process. Like other groups under the Tariff, the PRC will typically meet in open session, but can meet in closed session, provided that it does not take action on any proposed Tariff or Business Practice Manual change in closed session.

The COSR

30. Another major WRAP committee is the COSR, which consists of state representatives from every state or provincial jurisdiction that regulates one or more WRAP Participants.[16] Given the primary role of states in regulating resource procurement and resource adequacy for individual utilities, a strong state role is critical to the success of the WRAP. The COSR will serve in an advisory capacity to the stakeholder process and Board. If the COSR determines that a RAPC-approved change differs substantively from the proposal submitted to the RAPC by the PRC, the COSR can require that the proposal undergo additional public review and comment before the RAPC-approved proposal is submitted to the Board. Additionally, if the COSR appeals a RAPC decision to the Board, the Board will not act on the RAPC proposal until the RAPC and COSR have engaged in discussions to attempt to achieve a mutually agreeable resolution to be considered by the

[16] The Tariff leaves to each state/province's discretion whether to appoint a representative from a state/provincial regulatory commission or other state/provincial governmental authority (such as a state energy office). Tariff § 4.3.1.

Board. With these committees, WRAP governance and the Board will be informed by a broad range of stakeholder viewpoints.

31. As noted previously, the limitations on Board authority in the WRAP Tariff preclude the Board from unilaterally modifying the WRAP Tariff to assert control over Participants' generation or transmission assets, to adopt more formal, centralized markets, or to create an RTO or ISO. If, however, subject to those limitations, the Board of Directors votes to file at the Commission to expand the WRAP to include market optimization or transmission planning services, WPP will initiate a formal process with COSR and other stakeholders to conduct a full review of governance structures and procedures, including the role of states. If COSR does not support any revised governance structure that emerges from such WPP review process, WPP will file, along with any WPP governance proposal to the Commission, an alternative governance structure on behalf of the COSR so long as such COSR alternative governance structure is supported by 75% of the COSR.

Program Operator and Independent Evaluator

32. As I noted above, many key functions required for day-to-day operation of the WRAP will be conducted by one or more Program Operator(s) hired by the Board. The Program Operator(s) role is discussed in more detail in the affidavit of Mr. Lucas. Importantly, WPP will remain the point of compliance for the WRAP Tariff. The Program Operator(s) will serve in a contractual role, undertaking a number of important functions that would typically be performed by a public utility's staff, but the ultimate responsibility for WRAP Tariff compliance and oversight of Program Operator(s) will still rest entirely with the WPP Board.

33. Employing a Program Operator to perform specific program functions on a contractual basis maximizes efficiency by enabling WPP to leverage existing industry

expertise in resource adequacy without having to replicate such expertise in-house. The Program Operator's relationship with WPP will be governed by a separate Program Operator agreement. The Program Operator is responsible for fulfilling many underlying analytical functions necessary for WPP's implementation of the Forward Showing and Operations Programs. The Program Operator will report directly to the WPP Board, and a Program Operator executive will serve as advisor to the Board on all WRAP-related items (with the exception of agenda items related to the hiring, retention, supervision, and compensation of the Program Operator).[17] As I previously noted, WPP has engaged SPP to serve as Program Operator. SPP served as advisor to WPP and its members during the development of the WRAP construct and SPP already administers a resource adequacy program for its RTO footprint. SPP's expertise will allow SPP to serve as an effective WRAP Program Operator.[18]

34. Finally, to aid the Board reviewing performance of the WRAP, WPP will engage an Independent Evaluator to make an annual independent assessment of the performance of the WRAP, including operations, accounting and settlement, and program design.[19] The Independent Evaluator will issue a written report annually to the Board and other WRAP committees (subject to any necessary confidentiality protections) and will report directly to the Board. The Independent Evaluator will not monitor individual WRAP

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17 The affidavits of Mr. Hendrix, Mr. Cates, and Mr. Lucas provide more details on the role of the Program Operator(s) with respect to the Forward Showing and Operations Program.

18 If, for any reason, the Program Operator(s) become(s) unavailable, WPP will continue to implement the WRAP Tariff and its obligations to the extent of its ability to do so. Nevertheless, some elements of the WRAP are likely to require a Program Operator for full implementation. The WRAP Tariff thus contains a prior notice provision that states that WPP may seek suspension or waiver of any WRAP Tariff provisions that WPP may be unable to implement for some limited period of time until a replacement Program Operator(s) become(s) available. *See* Tariff § 8.4.

19 The Independent Evaluator will be an outside entity hired by the Board.

Participants, nor will the Independent Evaluator have decision-making authority. Thus, while serving as an independent check on the performance of the WRAP, the Independent Evaluator will not have the same scope, range of authorities, or responsibilities that a market monitor in organized markets would possess.

Transition to a Binding WRAP

35. As noted previously, Participants are in the process of completing the first non-binding Forward Showing, due for evaluation in September 2022, and which will provide Participants with information about the adequacy of their resources to meet the needs for the WRAP footprint for the Winter 2022/2023 Season. The Commission's approval of the WRAP Tariff would allow WPP to implement a WRAP with *binding* Forward Showing and Operations elements. The Forward Showing and Operations elements of the WRAP are described in the affidavits of Mr. Hendrix and Mr. Cates, respectively.

36. Moving to a binding WRAP would represent a significant change for Participants. A number of stakeholders have advocated for a meaningful time period for transition to allow potential Participants to address concerns that may affect their organizations, including concerns about existing market liquidity for resource adequacy quality resources, potential necessary regulatory approvals, the existence of power purchase agreements that may not meet WRAP requirements, and concerns about the ability to contract for (or build) resource adequacy quality resources in the timeframe necessitated by WRAP requirements. The WRAP thus includes a process for an orderly transition from a non-binding Forward Showing to binding Forward Showing and Operations Program elements.

37. In order to effectuate an orderly and manageable transition from non-binding to binding WRAP requirements, each Participant signing on to the WRAPA will be allowed to elect which WRAP Season it would like to become binding on that Participant. The first Binding Season that can be selected will be Summer 2025. Until its selected Binding Season, a Participant will participate in the WRAP in a non-binding manner. During its non-binding participation, a Participant will not be subject to various WRAP charges associated with binding program participation, nor will it be required to cure deficiencies and or have mandatory Holdback obligations. The Participant will, however, be required to submit information for purposes of the Forward Showing calculations. It will also be eligible to receive Holdback offered voluntarily by other Participants, and will have all voting rights under the Tariff and WRAPA that it will have during binding WRAP participation. In the transmittal letter accompanying this filing, WPP details the various benefits that are provided even while some Participants remain in a non-binding status, including increased regional visibility, standardization, and transparency, which all improve the status quo even if all Participants are not fully binding at the outset of the program.

Exit Provisions

38. As noted above, participation in the WRAP is voluntary, but the requirements are binding on those who elect to participate. Given the interconnected nature of the WRAP's calculation of resource adequacy obligations, a Participant's exit from the WRAP will have cascading impacts on other Participants. Consequently, the WRAP program design contemplates: (1) the opportunity for a Participant to exit the WRAP with twenty-four-months' notice, a time period deemed sufficient to allow the Program Operator to take the impact of a Participant's exit into account in future reliability metrics; or (2) an

expedited withdrawal from the WRAP under specified conditions. An expedited withdrawal would be authorized only under specified conditions and may involve the exiting Participant making a make-whole "exit fee" payment to hold other Participants harmless from the Participant's expedited withdrawal. These exit rights will be governed by the WRAPA.

39. Under the WRAPA's normal withdrawal provisions, a Participant is permitted to withdraw from the WRAPA by giving WPP written notice of its intent to exit the program at least twenty-four months before the beginning of the next binding Forward Showing Program period. This notice period will ensure that the Program Operator can adjust modeling assumptions in future periods to reflect the exit without negative impacts to regional reliability. During the time period between a Participant's notice and its withdrawal, referred to as the "Withdrawal Period," the Participant will remain subject to all requirements and obligations imposed by the WRAP Tariff and WRAPA, including the requirements of the Forward Showing Program and Operations Program and the obligation to pay the Participant's share of WRAP costs. The Participant will not be eligible to vote on any actions affecting the WRAP that extend beyond the Withdrawal Period.

40. The WRAPA also allows for *expedited* withdrawal in two specific circumstances described in the WRAPA: (1) in the event of an "Extenuating Circumstance"; or (2) in the event that remaining Participants can be held harmless from the expedited withdrawal through the exiting Participant's payment of an exit fee. These two situations are described below.

41. Extenuating Circumstances include the following:

- A governmental authority takes an action that substantially impairs a Participant's ability to continue to participate in the WRAP to the same extent as previously;

- Continued participation in the WRAP conflicts with governing statutes or other applicable legal authorities or orders applicable to the Participant;

- The Participant voted against a RAPC determination and disagreed with a Board of Directors decision to release composite or aggregated data under Section 10.2.1 of the Tariff, provided that such right to expedited withdrawal is exercised promptly after the first time that the Board of Directors determines that the form and format of composite or aggregated data sufficiently protects against the release of Participant-specific confidential or commercially sensitive Participant data;[20] or

- The Commission or a court of competent jurisdiction requires the public disclosure of a Participant's confidential or commercially sensitive information, as further described in Section 10.5 of the Tariff.[21]

42. Before a Participant may withdraw on an expedited basis, the Participant invoking Extenuating Circumstances to justify an expedited withdrawal must negotiate with WPP regarding the timing of the withdrawal, as well as potential ways to minimize the impact of its expedited withdrawal on all other Participants and WPP. Prior to the Participant's expedited withdrawal becoming effective, the Board of Directors must review and approve the Extenuating Circumstance and the proposed plan to mitigate impacts. Regardless of the Extenuating Circumstance invoked, the withdrawing Participant will be liable for all financial obligations incurred by the withdrawing Participant prior to its Withdrawal Date.

43. An expedited withdrawal will also be permitted if the impact of a Participant's expedited withdrawal on WRAP operations and fellow Participants can be calculated with a high degree of confidence and mitigated by the payment of an "exit fee"

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[20] Failure to exercise this right promptly upon the first occurrence of the Board of Directors voting on a specific form and format of composite or aggregated data shall constitute a waiver of the right to expedited withdrawal for any future disclosures of composite or aggregated data in the same or substantially similar form and format.

[21] Provided, however, that such right to expedited withdrawal shall be exercised promptly upon the exhaustion of all legal or administrative remedies aimed at preventing the release.

to be calculated by WPP. This exit fee shall include (but not be limited to): (1) any unpaid WRAP fees or charges; (2) the Participant's share of all WRAP administrative costs incurred up to the next Forward Showing Program period; (3) any costs, expenses, or liabilities incurred by WPP and/or the Program Operator directly resulting from the Participant's withdrawal; and (4) any costs necessary to hold other Participants harmless from the voluntary expedited withdrawal. The exit fee must be paid in full prior to the Withdrawal Date, but may be waived to the extent that it would violate any federal, state, or local statute, regulation, or ordnance or exceed the statutory authority of a federal agency.

44. While the above circumstances describe a Participant's options for voluntary withdrawal from the WRAP, Participants may also be subject to involuntary termination. The Board of Directors, in its sole discretion, may terminate a Participant's participation in the WRAP and may terminate any Participant's WRAPA for cause, including but not limited to a material violation of any WPP rules or governing documents or non-payment of obligations, so long as the Board provides the Participant with notice of the reasons for the contemplated termination and a reasonable opportunity to cure any deficiencies. A termination will not relieve the expelled Participant of any financial obligations incurred prior to the termination date, and WPP may take all legal actions available to recover any financial obligations from Participant.

Stakeholder, State, and Public Outreach

45. As I discuss above and Mr. Drummond explains in his affidavit, the WRAP represents the culmination of a multi-year, voluntary effort by WPP members and prospective WRAP Participants to design an effective binding resource adequacy program tailored to the unique needs and market structures of the region. In addition to extensive

weekly engagement by participating entities (i.e., WPP members and likely WRAP Participants), the components of WRAP have been developed using a robust stakeholder process. Starting early on in the development of WRAP design, WPP utilized a twenty-eight-person "stakeholder advisory committee" composed of non-Participant industry leaders from many different sectors to guide program development. The committee provided comments and feedback on conceptual and detailed design proposals and were engaged several times throughout the development of a written proposal for WRAP design.

46. Special and extensive outreach was also made to Western regulators. This outreach focused primarily on governance proposals and included several workshops with state regulators throughout 2021. These discussions were facilitated by Western Interstate Energy Board ("WIEB") and included multiple meetings and exchanges of proposals to design governance generally and to define the role of the COSR specifically. WIEB and state representatives spent significant time in their review of various proposals put forth by WPP and participating entities and provided robust and thoughtful feedback that has informed the contents of the WRAP design and governance with respect to the role of COSR in the larger scheme of WRAP governance. Key elements of the role and rights of the COSR resulting from these discussions include: (1) a designated representative of the COSR on the PRC; (2) attendance of a designated staff representative of the COSR in all RAPC meetings, including closed sessions; (3) the enhanced process for COSR engagement in RAPC decision-making I described above; and (4) a commitment by WPP to work with the COSR to conduct a full review of governance structures and procedures in the event that WPP seeks to expand the WRAP to include market optimization or transmission planning services that I also discuss above. As a result of these efforts, the

governance framework of WRAP achieved a high degree of support and consensus from state representatives who supported the discussions.

47. In addition, general public outreach has occurred throughout the multi-year process. WPP staff has participated in more than 80 industry-related events and other meetings to discuss the WRAP, established a public listserv with several hundred recipients to provide updates on WRAP development, and hosted numerous public webinars and other public outreach including (among others):

October 2, 2019	Public resource adequacy symposium
February 7, 2020	Public webinar providing an overview of the WPP resource adequacy effort, timeline of project and program design objectives and design elements, timeline and opportunities for public involvement, and feedback received to date from the stakeholder advisory committee
April 24, 2020	Public webinar on RA program organization, Forward Showing and Operations Programs, and regulatory and jurisdictional considerations
September 11, 2020	Public webinar on the preliminary program conceptual design and status update, including an overview of the feedback from the stakeholder advisory committee
January 29, 2021	Public webinar on WRAP status update, Forward Showing Program and Operations Program, and next steps
May 14, 2021	Public webinar on proposed WRAP governance to gather feedback
May 21, 2021	Public Load Service Information Forum #1 – this forum was created to build awareness and understanding of the WRAP to encourage broader participation
June 12, 2021	Public Load Service Information Forum #2
July 14, 2021	Public Load Service Information Forum #3
July 16, 2021	Public webinar on WRAP governance and design updates
July 28, 2021	Release of the WRAP "Detailed Design Document"
August 4, 2021	Public resource adequacy symposium

August 12, 2021	Public Load Service Information Forum #4
November 17, 2021	Public webinar to discuss public comments on WRAP design document
January 12, 2022	Public webinar on stakeholder engagement opportunities within the Nominating Committee and Program Review Committee
January 26, 2022	Public webinar on general WRAP design update, load forecasting, and resource accreditation
February 4, 2022	Public webinar on WRAP governance
March 2, 2022	Public webinar on WRAP design, cost of new entry charge, settlements and pricing, and load forecasting
May 11, 2022	Public webinar on legacy contracts and WRAP cost allocation
June 30, 2022	Public webinar on transmission demonstration, participation scenarios in the WRAP, and forward showing capacity requirements
July 14, 2022	WRAP Tariff published for public review
July 25, 2022	Public webinar to review the WRAP Tariff and allow public comment

These are just a subset of the numerous public outreach efforts in which WPP has engaged during the multi-year effort to develop the WRAP Tariff that is being filed today.

Conclusion

48. WPP believes that the governance changes and stakeholder structure described above will ensure proper independence of WPP as WRAP administrator and will provide ample opportunities for a broad cross-section of stakeholders to provide input into WRAP design and changes, while also ensuring that Participants who are funding the WRAP and their respective state and provincial regulators have a strong say in the design and functioning of the program. These features of the WRAP governance design will

ensure that the WRAP Tariff is and remains just and reasonable and not unduly discriminatory or preferential.

49. This concludes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-___-000

VERIFICATION

I, **Sarah E. Edmonds**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF SARAH E. EDMONDS ON BEHALF OF NORTHWEST POWER POOL D/B/A WESTERN POWER POOL**, are true and correct to the best of my knowledge, information, and belief.

Sarah E. Edmonds

Subscribed and sworn to before me, the undersigned notary public, this 29 day of August 2022.

OFFICIAL STAMP
TALI GARCIA
NOTARY PUBLIC - OREGON
COMMISSION NO. 999030
MY COMMISSION EXPIRES APRIL 14, 2024

Tali Garcia
Notary Public

Attachment B

Affidavit of William K. Drummond on Behalf of Northwest Power Pool d/b/a Western Power Pool

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF WILLIAM K. DRUMMOND
ON BEHALF OF NORTHWEST POWER POOL
D/B/A WESTERN POWER POOL

1. My name is William K. Drummond. I am chair of the Board of Directors of Northwest Power Pool ("NWPP") d/b/a Western Power Pool ("WPP"). My business address is 7525 NE Ambassador Place, Suite M, Portland, Oregon 97220.

2. In addition to serving on the NWPP Board of Directors, I was the Executive Director of the Mid-West Electric Consumers Association from 2014-2020, managing an association of 300 cooperative and municipally owned electric utilities and public power districts that receive power from the Western Area Power Administration, representing their interests before Congressional and state committees and as part of the Missouri River Recovery Implementation Committee. Prior to that, I served as Deputy Administrator and later as Administrator and Chief Executive Officer of the Bonneville Power Administration ("Bonneville") from 2011-2014, responsible for the overall leadership and management of all Bonneville programs under federal statute. Before Bonneville, I served in various managerial roles for generation and transmission cooperatives located on both sides of the United States-Canadian border from 1994-2011, including creating, developing, and managing Canada's first generation and transmission cooperative. I also served as a Senior Economist for the Idaho Public Utilities Commission earlier in my career. I have more than forty years of experience in the energy industry. I have a Bachelor of Science Degree

in Forestry from the University of Montana and a Master of Arts Degree in Economics from the University of Arizona.

3. I am submitting this affidavit on behalf of WPP to explain the purpose and reasoning behind WPP's proposed Western Resource Adequacy Program ("WRAP"). Other witnesses are providing affidavits describing the various aspects of the program design and its governance, funding, and related issues.

Overview

4. The electricity system in the Western Interconnection is in a state of transition, from a resource mix with a significant amount of hydroelectric energy supplemented by thermal generation to an emerging paradigm that includes large amounts of intermittent renewable energy resources displacing traditional thermal generation. The impending retirement of a number of traditional baseload generators in the region and increased penetration of variable renewable resources has led many in the region to be concerned that the region will not continue to have an adequate and reliable supply of electricity to meet demand during peak periods if the status quo continues.

5. As I will discuss in more detail below, a number of groups—including Bonneville, the Pacific Northwest Utilities Conference Committee ("PNUCC"), the Northwest Power and Conservation Council, consulting firm Energy & Environmental Economics ("E3"), the North American Electric Reliability Corporation ("NERC"), and the Western Electricity Coordinating Council ("WECC") (among others)—have examined how anticipated changes to loads and resources in the Pacific Northwest will affect utilities' ability to meet customer needs reliably. Despite some differences in assumptions and methodologies, these studies identify an immediate challenge to the regional electricity system's ability to provide reliable electric service. Specifically, these studies each

conclude that the region may already be experiencing capacity shortages at times, and by the later in the decade may face a capacity deficit of thousands of megawatts ("MW") if the status quo continues.

6. The Commission is well aware that the country's resource mix continues to transition away from coal toward cleaner generating sources, and even cleaner natural gas is being displaced by wind and solar resources. Following the California energy crisis of the early 2000s, the West experienced a significant increase in investment in natural gas-fired power plants. However, over the last decide, investment in this type of traditional baseload generation has slowed significantly, with only four new natural gas plants totaling 1,100 MW coming online in the Northwestern United States since 2011. At the same time, the focus of investment has been on variable resources such as wind and solar. While these new energy sources bring various environmental and social benefits, wind, solar, and even hydroelectric energy (which is prevalent in the Western United States) are limited in their ability to replace dispatchable generation fueled by coal, natural gas, and other traditional fuels (e.g., nuclear) because (with the exception of storage hydro) their output is variable and their fuel source cannot be economically stored at this time. Energy storage resource technology is nascent and dependent on energy produced by other resources for charging, and thus cannot at this time bridge the gap brought about by the growing retirements of traditional, firmer resources.

7. Recent trends in retirements of conventional generation resources are significant. For example, nearly 2,000 MW of coal-fired generating capacity retired in 2020 and additional retirements numbering in the thousands of MWs are planned over the course of the decade. Indeed, it is estimated that the region may face the potential retirement of between 10 gigawatts ("GW") and 17.5 GW of coal resources by 2030. At

the same time, while the region experienced relatively flat demand resulting from the 2008 "Great Recession," demand has since increased with studies showing load growth of between 5 percent and 7 percent by 2028, fueled in significant part by increased energy usage by data centers and agricultural operations, with the likelihood of increased electrification of certain sectors of the economy (e.g., transportation) expected to increase demand as well. With these conflicting trends, some studies have estimated a capacity deficit for just the Pacific Northwest region of between 1,000 MW and 6,000 MW by 2028. Other areas in the Western Interconnection are experiencing similar trends, meaning that individual balancing authorities and subregions will be able to rely less and less on imports from other areas.

8. At present, resource adequacy planning in the West is conducted largely on a utility-by-utility basis, with each utility utilizing its own integrated resource planning ("IRP") process and unique methods to assess resource needs for their individual systems and the contribution of their own available resources and potential market purchases to source those needs. The lack of a regional focus on resource adequacy limits the ability of planners to see the "big picture" both in terms of demand and load growth and available capacity to meet those needs beyond each utility's individual system. Such a paradigm can result in either under- or over-procurement of capacity by individual utilities because of a lack of information and transparency into regional needs and availability of resources. Such an approach also fails to capitalize on regional diversity by failing to maximize for the benefit of the entire region, for example, the significant wind resource potential in the Northern part of the WPP region and considerable solar potential in the South, and the differences in annual peak demand (e.g., Winter in the North and Summer in the South).

9. These trends led to several utilities and other stakeholders in the Pacific Northwest region to take action. Specifically, beginning in early 2019, WPP (then known as NWPP) coordinated a broad coalition of its members to explore the nature of and potential solutions to ongoing and future challenges to resource adequacy in the region. WPP convened several working groups of its members to: (1) review existing regional studies of resource adequacy; (2) review current resource adequacy planning practices among utilities in the region; (3) survey best practices for resource adequacy programs throughout the country and the world; (4) investigate implications of possible constraints on fuel supply and transmission deliverability; and (5) communicate the results and findings to the appropriate audiences.

10. These efforts by WPP and its members have resulted in the WRAP design and Western Resource Adequacy Program Tariff[1] that is being submitted in this filing. The WRAP is a voluntary regional resource adequacy program that is being rolled out in stages, starting with a non-binding stage that begins with the Winter 2022/2023 Season. The first Binding Season will be the Summer of 2025, with the opportunity for some Participants electing to remain in the non-binding program during a three-year transition to full binding implementation by Summer 2028, as Ms. Edmonds explains in more detail in her affidavit. Importantly, the WRAP is *voluntary* to join, but imposes *binding* obligations on Participants that agree to be subject to WRAP requirements.

11. The WRAP is not a centralized capacity market like those adopted in several regional transmission organizations ("RTOs") in the Eastern Interconnection; instead, the

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[1] Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff or WRAP Tariff").

WRAP relies on self-supply and bilateral transactions between Participants to satisfy their resource adequacy obligations, consistent with the current bilateral market structure across the Western Interconnection. WRAP Participants include several members that operate in the Northwest and several Participants in the Desert Southwest. Ms. Edmonds discusses the composition of the WRAP in more detail in her affidavit.

The Problem Being Addressed

12. As noted above, the electricity system in the Western Interconnection (as well as the country overall) is in a state of transition. Mass retirements of traditional, firm, fossil-fuel generation resources and significant integration of intermittent renewable resources, coupled with load growth, is leading to a state of concern regarding resource adequacy across the region. State legislative decarbonization targets, utility emission reduction goals, consumer demand, and favorable economics are leading to a shift from traditional resources to carbon-free intermittent renewable resources. Resource adequacy planning is currently conducted by each utility individually, with individual utilities lacking regional visibility and awareness of the needs and available resources in other parts of the footprint. Each utility does its own resource adequacy planning and establishes its own planning margins using its own methodology, forecasting approach, capacity accreditation practices, and other assumptions that may or may not reflect the realities of the regional electric system or market for capacity in the Western Interconnection. This current approach fails to send appropriate investment signals by making it difficult to understand whether, where, and when new capacity is needed within the region.

13. WPP and prospective WRAP Participants are working to meet these challenges through development and implementation of the WRAP. The WRAP is a region-wide resource adequacy program through which WPP will establish Planning

Reserve Margins ("PRM") that each Participant will need to satisfy above and beyond serving their forecast load. The WRAP will encompass two "Binding Seasons" each year, Winter and Summer, for which Participants will be obligated to demonstrate in advance that they can serve their load and meet the established PRM. In real time, Participants who find themselves short can call on the resources of other Participants who have surplus generation, to maintain reliable service to their customers. Mr. Hendrix and Mr. Cates, respectively, describe the WRAP Forward Showing Program and real-time Operations Program in more detail in their affidavits.

14. The outlook for resource adequacy, and the need for a regional approach, were brought to light by several studies conducted during the latter half of the last decade. While I briefly summarize each of those study's findings and conclusions below, my summary should not be construed as WPP endorsing or adopting any of the specific methods, findings, or conclusions of any individual study. Instead, I describe these studies because, together, they paint a picture of the circumstances that led several NWPP members (and later, additional prospective WRAP Participants) to work together to develop the WRAP.

15. First, Bonneville's "2018 White Book"[2] identified the load and resource balance for both the federal system operated by Bonneville and the Pacific Northwest region as a whole, comparing the region's expected loads and contract obligations to available resources and contract purchases over a ten-year period from 2020-2029. While the Bonneville analysis showed sufficient energy availability for the region during the

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[2] *2018 Pacific Northwest Loads and Resources Study*, Bonneville Power Admin. (Apr. 2019), https://www.bpa.gov/-/media/Aep/power/white-book/2018-wbk-loads-and-resources-summary-20190403.pdf.

study period,[3] Bonneville also found that the region is short on capacity during the entire ten-year period. Even assuming that 100 percent of uncommitted capacity is available to contribute to the region's resource and load balance, Bonneville found a nearly 250 MW capacity deficit in 2020, climbing to a nearly 5,000 MW deficit in 2029.[4] Without the contribution of uncommitted capacity, the 2018 White Book determined that the region faces a 7,700 MW deficit by 2029.[5]

16. The Northwest Power and Conservation Council's Resource Adequacy Advisory Committee conducts an annual assessment of regional resource adequacy (in its member states of Idaho, Montana, Oregon, and Washington) looking forward five years, incorporating utility plans for existing resources and new investments as well as the impacts of energy efficiency targets adopted in the council's power plan. According to the Northwest Power and Conservation Council's 2023 assessment conducted in 2018,[6] the study region will continue to exceed its Loss of Load Probability ("LOLP") target of 5 percent resulting from the continuing trend of coal plant retirements in the region. The study also showed a need for significant capacity additions in the coming years to meet the council's planning standard. The study also found that the region, which once had a capacity surplus, is now approaching a deficit. The Northwest Power and Conservation

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3 *See id.* at 31.

4 *Id.* at 32.

5 *Id.* at 33.

6 *See Pacific Northwest Power Supply Adequacy Assessment for 2023*, Northwest Power and Conservation Council, 5 (June 14, 2018), https://www.nwcouncil.org/sites/default/files/2018-7.pdf.

Council's updated assessment in 2019 raised similar concerns.[7] By 2024, with the planned retirement of coal plant capacity, the LOLP was expected to grow to over 8 percent. By 2026, the LOLP was predicted to grow to 17 percent.[8]

17. PNUCC compiles Northwest utilities' ten-year projections of electric loads and resources into an annual Northwest regional forecast and examines the ability of the Northwest system to meet average energy, seasonal energy, and both Winter and Summer peak loads. PNUCC's 2019 assessment, measuring 2020-2029, showed that the region was already short of its Winter resource adequacy needs and would be short of its Summer needs by 2022.[9] Factors contributing to the shortage included coal and other thermal plant retirements and increasing Winter and Summer peak loads. The study found that 3,646 MW of coal capacity serving the region would be retired by 2028 under existing plans,[10] and utilities and independent power producers face increasing uncertainty about the ability to site and build new gas power plants to replace that firm capacity.[11]

18. In developing its 2019 integrated resource plan, WPP Participant Portland General Electric commissioned a study developed by consulting firm E3 to examine

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7 *See Pacific Northwest Power Supply Adequacy Assessment for 2024*, Northwest Power and Conservation Council, 5 (Oct. 31, 2019), https://www.nwcouncil.org/media/filer_public/0d/b4/0db4c39b-cae1-4c0c-8f16-a0e5f9df64ac/2024_RA_Assessment_Final-2019-10-31.pdf.

8 *Id.* WPP observes that some stakeholders have noted that the model used lacked sufficient granularity to provide a complete and accurate picture of resource adequacy. I offer discussion of this study here only to provide context into the numerous studies that have identified similar concerns regarding long-term resource adequacy in the Western Interconnection.

9 *See Northwest Regional Forecast of Power Loads and Resources 2020 through 2029*, Pacific Northwest Utilities Conference Committee, 10-11 (Apr. 2019), https://www.pnucc.org/wp-content/uploads/PNUCC-2019-NRF.pdf.

10 *Id.* at 2.

11 *See id.* at 5.

regional load-resource balance to inform its own assumptions of the availability of capacity in the regional market. As part of this effort, E3 developed several load-resource balance scenarios for the Northwest region. E3 developed Base Case, Low Need, and High Need scenarios to test how key assumptions in other regional studies like load growth and import availability changes the Northwest region's capacity position. E3 concluded that import availability will continue to decline as a result of increasing Winter peak loads and retirements of thermal power plants in California. Under the Base Case scenario, E3 predicted a Winter capacity shortfall as early as 2021 and a Summer capacity shortfall by 2026.

19. E3 also conducted a resource adequacy assessment for Puget Sound Energy in 2019, which focused on the challenges of ensuring resource adequacy in a deeply decarbonized electric system in Washington, Oregon, Idaho, Utah, Western Wyoming, and most of Montana (collectively, the "Greater Northwest"). The study simulated seventy-years of historical hourly loads and hydro conditions, paired with weather matched wind and solar profiles, and historical generator outage rates to assess resource adequacy under various scenarios in 2018, 2030, and 2050. The study found that the Greater Northwest has insufficient capacity to meet a 1-in-10 year loss of load expectation standard in 2.4 hours of 2018 using a PRM of 12 percent (compared to the 15 percent used by most individual utilities in the Greater Northwest region). The study found low effective capacity contributions from wind and solar (7 percent and 12 percent, respectively) in 2018 because such resources are not consistently available during high load events like cold Winter mornings and evenings. The E3 analysis also found that the Greater Northwest region will need an additional eight GW of net new capacity (accounting for both load

growth and planned coal retirements) in 2030, rising to sixteen GW of net new capacity if all coal plants in the region are retired by 2030.

20. NERC develops an annual assessment of the load and resource balance across its various Regional Entity regions, evaluating the resource adequacy of each region. As part of its 2018 Long-Term Reliability Assessment,[12] NERC determined that the WECC region is tending toward tighter reserve margins over time through 2028.[13] The study's assumptions of coal retirements (e.g., two GW through 2028 for the WECC NWPP-US subregion)[14] was more conservative than some other contemporaneous studies and analyses; however, the NERC assessment predicted tightening capacity availability in the WECC and its various subregions. More recent assessments, including NERC's 2022 Summer Reliability Assessment have likewise warned of insufficient resource availability to meet demand and reserves during certain Summer hours in the WECC-NWPP-US and WECC-Southwest Reserve Sharing Group assessment areas, with the potential for load shedding under extreme peak demand and outage scenarios.[15]

21. WECC also produces a "Western Assessment,"[16] which concludes that resource adequacy risks to reliability are likely to increase over the next ten years. In the

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12 *2018 Long-Term Reliability Assessment*, North American Electric Reliability Corp. (Dec. 2018), https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2018_12202018.pdf.

13 *See, e.g., id.* at 136 (showing declining reserve margins for the NWPP-US region between 2019 and 2028).

14 *See, e.g., id.* at 135 (compare 2019 and 2028 coal composition).

15 *2022 Summer Reliability Assessment*, North American Electric Reliability Corp., 33-34 (May 2022), https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_SRA_2022.pdf.

16 *2021 Western Assessment of Resource Adequacy*, Western Electric Coordinating Council (Dec. 17, 2021), https://www.wecc.org/Administrative/WARA%202021.pdf.

assessment, WECC recommends entities take immediate action to mitigate near-term risks and prevent long-term risks.

22. While many of these studies are somewhat dated in their analyses and conclusions, they each informed the early efforts to develop the WRAP, and many of their findings remain relevant today. The more recent studies discussed above further reinforce the concern identified in the earlier studies that informed early WRAP efforts. Each study finds that the region(s) studied either already experience(s) capacity shortages or will be short in the near-term future, and that two key factors—planned retirements of a substantial amount of baseload generation capacity and Summer and Winter peak load growth—are the main drivers of the looming capacity shortfall. The Bonneville, PNUCC, Northwest Power and Conservation Council, E3, NERC, and WECC studies and analyses collectively point to planned and prospective thermal retirements (particularly coal) as key drivers, with thousands of MW of coal plant retirements by 2029. Load growth resulting from several factors including increased air conditioning use in the Northwest and the growth of data centers and agricultural operations across the region reverse a trend of flat load during the previous two decades. These trends are coupled with increased legislative targets and utility goals for carbon-free supply driving further investment in intermittent renewable resources like wind and solar (which have diminished capability to address resource adequacy needs as more are added to the regional resource mix, because capacity contributions decline with increasing penetration). Meanwhile, hydroelectric generation continues to be a dominant source of power in the region, but lack of storage capability in the United States portion of the region, lingering drought conditions, and competing water use needs limit the ability of hydro to fill the gap left by the retirement of other baseload generation. Likewise, other options like energy efficiency and demand response, may

assist but will not replace retired baseload resources, nor will imports, as California and other areas of the Western United States are experiencing similar tightening conditions.

The Solution

23. As I explained above, the WPP region is facing a looming resource adequacy crisis. Several long-term drivers of the problem include retirement of firm resources and replacement by variable energy resources like wind and solar, a push to decarbonize the economy and electrification of several sectors of the economy, load growth, reduced import availability from other regions experiencing similar conditions, transmission system limitations, and fuel security and availability. Variable energy resources like wind and solar cannot provide a one-for-one substitute for traditional firm (i.e., thermal) resources, but, by harnessing regional diversity in supply and demand, the WPP WRAP can maximize the contribution of variable energy resources to resource adequacy.

24. The current, utility-specific resource adequacy construct across the Western Interconnection does not take advantage of regional visibility and diversity in resource availability and capability and peak load differences, and thus can result in over-reliance on market purchases or double-counting capacity by individual utilities who lack visibility into each other's resource adequacy planning and transactions. The current construct also lacks a uniform, standardized method for measuring resource adequacy and assessing resource capability, relying instead on individual utility IRP, which makes assumptions that may differ from utility to utility and may not be realistic when viewed on a region-wide basis. Each utility also sets its own reliability margins, which vary widely from single-digit margins up to margins of over 20 percent. With each individual utility planning

and procuring only for its own specific IRP needs, the region lacks transparent investment signals to indicate where and when resource additions are needed.

25. To address the challenges I describe above and the shortcomings of the current approach, a group of members of the NWPP convened an effort in 2019 to explore these challenges and possible solutions to achieve better resource adequacy on a regional basis. Additional potential Participants outside of the Northwestern United States also joined in the effort, resulting in an expanded footprint and the NWPP rebranding as WPP in early 2022. This multi-year effort reviewed the existing resource adequacy studies of the region that I summarize above, analyzed current practices among utilities in the region, surveyed best practices across the nation and the world, investigated implications of fuel constraints, transmission constraints, and deliverability issues, and spent considerable time from 2020 through 2022 designing a voluntary resource adequacy program for the region—i.e., the WRAP that is proposed in this filing—which includes binding capacity requirements for Participants and charges for failure to meet those requirements.

26. There are numerous benefits from a regional approach to resource adequacy, including the ability to: (1) maximize the utilization of regional diversity in load and resource capabilities; (2) offer a wider view into resource adequacy needs, increase transparency and visibility, which also facilities more informed resource planning and procurement decisions; (3) provide more transparent price signals to spur investment in capacity resources where and when needed; (4) optimize the use of reserves, achieve cost savings through reduced PRM, and leverage the use of available capacity rather than constructing new capacity; (5) standardize approaches to forecasting, capacity requirements, and capacity accreditation; and (6) provide neutral regional support, monitoring, and oversight by an independent program administrator, WPP, and an

independent program operator. The purpose of the program, like any resource adequacy program, is to ensure sufficient resourced are installed, contracted, and committed on a forward basis to serve demand reliably with a high degree of confidence.

27. The WRAP is designed to take advantage of the benefits of a regional approach while being tailored to address the unique characteristics of the region. The goals of the program are to: (1) transition to a regional approach to maintain reliability in light of the changing dynamics of the electric system in the region while maximizing all of the benefits I noted above (e.g., leverage regional load and resource diversity, optimize use of reserves and existing resources, encourage timely development of new resources); (2) tailor the program to the unique needs and characteristics of the region; and (3) ensure compatibility with existing regulatory authorities and utility IRP processes.

28. I have already discussed the first of these goals (leveraging a regional approach) in detail above. Regarding the second goal (i.e., tailoring the program to the unique needs and characteristics of the region), the WRAP is designed to work with the existing self-supply and bilateral market structures that dominate the Western United States electric system by having a central entity establish PRM, accredit resource capacity, and identify individual utility deficits and surpluses outside the construct of a Commission-approved RTO- or independent system operator ("ISO")-administered organized wholesale market. Participants will continue to rely on these existing bilateral market mechanisms to comply with WRAP obligations, by engaging in bilateral transactions or self-supplying their required capacity to satisfy load and PRM obligations during the Forward Showing Program, and in near- and real-time periods will have the opportunity to source their needs by engaging in bilateral transactions rather than leaning on the Operations Program to cover their deficits. The bilateral nature of the WRAP allows Participants to access the regional

diversity by facilitating capacity sharing by Subregions and during seasons where one area may be experiencing a surplus and some Participants in another area are facing a deficit. By relying on the existing bilateral market structure, the WRAP respects both the jurisdictional status of key Participants like federal power marketing agencies and other public power entities by retaining their existing frameworks for procuring and providing energy and capacity, while at the same time recognizing that most of the footprint remains vertically integrated and retail regulated. In this manner, the WRAP is designed more like the resource adequacy constructs in highly vertically integrated RTO regions like Southwest Power Pool, Inc. ("SPP") and much of the Midcontinent Independent System Operator, Inc. footprint, as opposed to the centralized capacity markets in some of the other Eastern RTOs.

29. Regarding the third goal (i.e., compatibility with existing regulatory authorities and utility IRP processes), the WRAP is designed to set resource adequacy targets and binding requirements for Participants (with charges for deficiencies) with input from Participants and their regulators, while allowing Participants to decide how to meet their capacity obligations rather than dictating or centralizing the procurement of capacity. The program also standardizes forecasting methods and capacity accreditation, but, again, allows Participants flexibility in determining how to satisfy their load and PRM obligations. The program also relies on existing transmission arrangements under individual Participant open access transmission tariffs or other transmission arrangements, rather than adopting a regional transmission system or tariff. Given the number of non-jurisdictional entities in the WRAP region, including at least one federal power marketing entity, this approach is key to facilitating participation by these diverse entities. While the WRAP Tariff and the Western Resource Adequacy Program Agreement ("WRAPA") are

standardized Commission-jurisdictional contracts (with the WRAPA being a *pro forma* agreement set forth in Attachment A of the WRAP Tariff), the WRAP also affords flexibility to certain Participants, such as federal entities and Canadian entities, to establish non-conforming WRAPA provisions tailored to their unique circumstances to enable their participation without running afoul of their statutory authorities or other requirements, similar to accommodations that I understand the Commission previously has approved for some federal entities to participate in RTOs.

30. As I noted above, the WRAP relies on self-supply and bilateral arrangements, rather than a centrally-cleared market, to secure adequate capacity. The reasons for this are basic—there currently is no RTO or other central clearing organization within the WRAP footprint, and (other than the recent establishment of two imbalance markets in the West, which focus on real-time needs as opposed to long-term resource adequacy), no organized, centralized multi-state wholesale markets in the West. The region has long relied on a bilateral market to procure its resources, and previous efforts to establish an RTO or other centralized market structure have not succeeded. WRAP Participants are already sophisticated players in the bilateral markets of the West, and the WRAP obligations will simply be layered on top of the existing market structure, to bolster resource adequacy in the region while minimizing disruption and promoting widespread participation by a diverse set of Participants with different business models, regulatory constructs, and resource and load portfolios.

31. Finally, I am aware, as I am sure the Commission is, of several efforts in the Western Interconnection to develop additional organized market structures, such as the Extended Day-Ahead Market effort by the California Independent System Operator Corporation and the Markets+ initiative under development by SPP. WPP staff is

monitoring these efforts to understand how they might interact with or impact operation of the WRAP. I anticipate that, if these market efforts move forward to implementation and WRAP Participants desire, the WRAP Tariff can be modified at a future time to facilitate cohesive participation in both the WRAP and one or more of these markets by willing Participants.

Conclusion

32. The electric system in the Western Interconnection is in a state of transition, which presents several challenges and obstacles to ensuring resource adequacy over the long term. The prospective WRAP Participants came together voluntarily to address these challenges and to redesign the existing utility-by-utility construct to leverage regional diversity to increase resource adequacy and reliability and ultimately lower costs by potentially lowering individual utility PRMs, sharing existing capacity, and creating signals and incentives for investment in new capacity. The program is, to my knowledge, the first of its kind outside of an organized wholesale market operated by a Commission-approved RTO or ISO. The WRAP is a just and reasonable solution to the region's challenges, and I wholeheartedly encourage the Commission to approve it promptly so that the region can move forward expeditiously to shore up resource adequacy.

33. This concludes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-___-000

VERIFICATION

I, **William K. Drummond**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF WILLIAM K. DRUMMOND ON BEHALF OF NORTHWEST POWER POOL D/B/A WESTERN POWER POOL**, are true and correct to the best of my knowledge, information, and belief.

William K. Drummond

Subscribed and sworn to before me, the undersigned notary public, this 29 day of August 2022.

OFFICIAL STAMP
OLGA MARIE NICKOLOFF
NOTARY PUBLIC - OREGON
COMMISSION NO. 1013566
MY COMMISSION EXPIRES JUNE 10, 2025

Olga Marie Nickoloff
Notary Public

Attachment C

Affidavit of Antoine Lucas

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF ANTOINE LUCAS

1. My name is Antoine Lucas. I am employed as Vice President of Engineering by Southwest Power Pool, Inc. ("SPP"). My business address is 201 Worthen Drive, Little Rock, Arkansas 72223. In my current position I am responsible for the ongoing development of SPP's transmission expansion plan, tracking expansion projects, administration of generator interconnection processes, performance of engineering studies, and engineering support of SPP's real-time operations functions.

2. I earned a Bachelor of Science Degree in Industrial Engineering from Louisiana Tech University and a Master of Business Administration from University of Arkansas at Little Rock. Prior to being named Vice President of Engineering at SPP, I most recently served SPP as Director for Transmission Planning. In that role, I was responsible for the engineering and related activities insuring continued reliable development of the SPP transmission grid. My responsibilities included attainment of SPP approval for transmission expansion plans, participation in Federal Energy Regulatory Commission ("Commission") and state regulatory proceedings, and facilitation of policy decisions related to transmission planning processes and services. I had responsibility for the design, management, development, implementation, and monitoring of planning activities that produced transmission expansion plans to serve future system reliability, economic, and public policy needs. In addition, I managed and tracked all activities related to expansion planning in SPP and coordinated with others as necessary to implement and

administer regional planning analyses and project tracking and reporting. I provided engineering support as necessary for members, regulators, and other stakeholders, and coordinated with other internal departments to ensure SPP's regulatory compliance.

3. I am submitting this affidavit to provide an overview of SPP's role as the contracted Program Operator for Northwest Power Pool d/b/a Western Power Pool's ("WPP") Western Resource Adequacy Program ("WRAP").

Background

4. SPP is a Commission-approved regional transmission organization ("RTO"). It is an Arkansas non-profit corporation with its principal place of business in Little Rock, Arkansas. SPP currently has 113 members, including sixteen investor-owned utilities, fourteen municipal systems, twenty-two generation and transmission cooperatives, eight state agencies, seventeen independent power producers, thirteen power marketers, fourteen independent transmission companies, one federal agency, four large retail customers, and four alternative power/public interest entities. As an RTO, SPP: (1) administers, across the facilities of SPP's Transmission Owners, open access transmission service over approximately 70,000 miles of transmission lines covering portions of Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming; (2) administers the Integrated Marketplace, a centralized day-ahead and real-time Energy and Operating Reserve market with locational marginal pricing and market-based congestion management. SPP is the Market Operator for the Western Energy Imbalance Service Market ("WEIS Market") in the Western Interconnection, a five-minute energy imbalance service market. The WEIS Market is operated on behalf of the entities that

signed the Western Joint Dispatch Agreement. SPP also serves as Reliability Coordinator for certain utilities in the Western Interconnection.

5. During the design phases of the WRAP, SPP served as the "Program Developer," working alongside WPP (then the Northwest Power Pool) and potential WRAP Participants to document a detailed conceptual design document published in 2021 (available on the WPP website). During these design efforts, SPP led design discussions with WPP and its customers regarding resource adequacy ("RA") best practices, implementation of RA standards in RTOs and independent system operators ("ISOs") across the country, and potential applications to the WRAP footprint. These discussions drew heavily on SPP's own RA program and expertise, while considering the unique needs of the Western Interconnection and the need to design an RA program outside of an RTO/ISO structure, utilizing the existing bilateral market.

6. SPP responded to WPP's request for Program Operator qualifications in May 2021 and was selected as the preferred provider by WPP and its participating entities in July 2021. In September 2021, SPP and WPP entered into a contract for SPP to provide ongoing Program Operator services. As is contemplated under the proposed Western Resource Adequacy Program Tariff,[1] WPP has contracted with SPP to perform certain activities in its role as Program Operator, as discussed further below.

7. As the Program Operator, SPP will be responsible for performing planning studies, establishing Planning Reserve Margins ("PRMs"), administering the Forward Showing Program twice per year, applying capacity accreditation rules, monitoring the regional operational adequacy requirements in real-time (the "Operations Program"), and

[1] Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff").

analyzing financial charges for non-compliance in the Forward Showing Program outlined in the proposed WRAP Tariff. SPP will also maintain technical systems to administer the Forward Showing and Operations Program.

Forward Showing Program Responsibilities

8. As contracted Program Operator, SPP will administer the Forward Showing Program that is described in the WRAP Tariff, utilizing a staff of engineers, specialists, and contractors to administer the Advance Assessment process, Forward Showing Submittal process, and the assessment of Participant compliance with the Forward Showing Program requirements.

9. SPP will be responsible for performing the WRAP's Loss of Load Expectation ("LOLE") studies annually for Winter and Summer Seasons. SPP will utilize a staff of engineers/specialists and reliability simulation software to perform regional LOLE studies in the Program Operator role. SPP will run a comprehensive and robust multi-area reliability-planning simulation that will allow the evaluation of resource adequacy based on the reliability metrics required by the program.

10. SPP will calculate and allocate the monthly PRMs for each Subregion of the WRAP. SPP will determine the capacity necessary to maintain the one-day-in-ten-year standard that is required by the WRAP Tariff for both the Summer and Winter Seasons.

11. SPP will work with WPP and the appropriate stakeholder committees to determine relevant pricing data for the development of a cost of new entry value for the WRAP footprint.

12. SPP will provide templates and/or technological interfaces for Participants to submit their load and resource data (in the Advance Assessment and in the seasonal

Forward Showing Submittals). SPP will review and validate data submissions, maintain secure databases of Participant and program information, and provide guidance to Participants regarding data quality.

13. SPP will notify Participants after the Forward Showing Deadline of any deficiencies they may have in meeting the Forward Showing compliance requirement. Throughout the cure period, SPP will work with deficient Participants to ensure that each is aware of its deficiencies, how to cure the deficiencies, and the applicable timeframes needed to provide the prescribed cure.

14. Based on the WRAP Tariff, SPP will calculate appropriate non-compliance deficiency payments for Participants that have failed to meet their Forward Showing Capacity Requirements based on the amount of deficient capacity for the specified timeframe. During the process, SPP will coordinate with WPP, who will be responsible for assessing these costs to Participants.

15. SPP will calculate Qualifying Capacity Contribution ("QCC") for all resource types in accordance with the Forward Showing sections of the WRAP Tariff. SPP will determine QCC by using Effective Load Carrying Capability ("ELCC") methodology for variable energy resources, energy storage resources ("ESR"), and hybrid resources that include ESRs. For thermal resources, an Unforced Capacity methodology will be used while other testing methodologies will be employed for other types of resources such as demand response programs. SPP will work closely with Participants to validate their application of the WRAP's Storage Hydro QCC methodology that determines QCC for their storage hydro resources. SPP will perform ELCC studies for applicable resources to determine their QCC.

Operations Program Responsibilities

16. As the contracted Program Operator, SPP will administer the Operations Program that is described in the WRAP Tariff.

17. SPP will monitor the submissions of the program Participants through automated systems. These submissions will include the variables and data specifications necessary to run the sharing calculation(s) described in the WRAP Tariff.

18. SPP will provide software to facilitate data exchange and validation. SPP will collate this data into a Multi-Day Ahead Assessment, including requirements for each Preschedule Day, as defined by the program calendar.

19. SPP will monitor and improve data quality through communication with Participants regarding issues such as forced outage rates, renewable forecasting, and load forecasting. SPP has experience working with its current membership on these types of data.

20. SPP will utilize operators to make assessments of Holdback Requirements for each Preschedule Day and to forecast possible holdback requirements in the operating horizon. SPP will provide software to facilitate notification of Holdback Requirements and Participants' exchanges of Holdback Requirements.

21. SPP will provide support during Sharing Events, as appropriate. SPP will monitor these events over their duration and communicate with program Participants in order to provide situational awareness via software notifications and phone calls where necessary. Additionally, SPP will coordinate with impacted parties, as appropriate, to support reliability of the grid.

22. SPP will provide software to facilitate automated data transfers for Participants to submit data, as well as operational systems for communication from the Program Operator to Participants, and between Participants.

23. SPP will meet the WRAP's needs for a highly reliable and secure WRAP implementation. SPP maintains a Tier III data center (as rated by the Uptime Institute).

Engagement with Stakeholders and WPP

24. As the contracted Program Operator, SPP will communicate and work with WPP, the Independent Evaluator, the Resource Adequacy Participants Committee ("RAPC"), the Program Review Committee ("PRC"), the Committee of State Representatives, and other stakeholder groups as appropriate to operate the program and refine the program design if needed.

25. SPP will support WPP's new independent board, as appropriate, in the board's oversight and governance of the following: the WRAP, Tariff and Business Practice Manual updates, oversight of program operations and Participant performance, and review of program non-compliance or disputes.

26. SPP will provide to WPP data necessary to perform administrative functions, such as settlement, program evaluation, support and facilitation of the WPP Board and program committees, and stakeholder and regulator inquiries, as appropriate.

27. SPP will work with the PRC and RAPC to create and evaluate proposed WRAP Tariff and Business Practice Manual updates.

Conclusion

28. SPP believes that implementation of the WRAP will provide increased reliability and coordination benefits for electricity customers in the Western

Interconnection. The relationship SPP has formed with WPP to design and begin building this program has already proven to capitalize on some of the biggest strengths of each organization, moving the region toward its first regional coordination program of this magnitude. SPP has played an integral role in providing technical expertise and RA experience to this endeavor and looks forward to continued success with WPP and its Participants.

29. This concludes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool	)	Docket No. ER22-___-000
d/b/a Western Power Pool	)	

VERIFICATION

I, **Antoine Lucas**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF ANTOINE LUCAS**, are true and correct to the best of my knowledge, information, and belief.

Antoine Lucas

Subscribed and sworn to before me, the undersigned notary public, this 30th day of August 2022.

Michelle Harris
Notary Public

MICHELLE HARRIS
Notary Public-Arkansas
Pulaski County
My Commission Expires 04-01-2028
Commission # 12365480

Attachment D

Affidavit of Charles G. Hendrix

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF CHARLES G. HENDRIX

1. My name is Charles G. Hendrix. My business address is 201 Worthen Drive, Little Rock, Arkansas 72223. Since January 2020, I have been employed by Southwest Power Pool, Inc. ("SPP") as its Manager of Reliability Assurance.

2. In my current position I am responsible for managing and overseeing SPP's adherence to North American Electric Reliability Council ("NERC") reliability standards pertaining to SPP's role as a Planning Coordinator and managing SPP's resource adequacy process. Staff under my supervision is responsible for performing Planning Coordinator assessments as required by NERC standards, tariff planning studies for the generator retirement process, and other transmission reliability studies as necessary. I am also responsible for staff that administers SPP's tariff policies and timelines for resource adequacy including the evaluation and acceptance of load serving entity ("LSE") submittals for SPP's resource adequacy requirements and the performance of Loss of Load Expectation ("LOLE"), Effective Load Carrying Capability ("ELCC"), and other resource adequacy studies. Staff under my supervision also participates in various NERC reliability assessments. In addition, since the Fall of 2020, I have been one of the lead SPP subject matter experts providing project development support, advice, and assistance to the Northwest Power Pool d/b/a Western Power Pool ("WPP") in its development, in

collaboration with prospective Participants[1] and other stakeholders, of the proposed Western Resource Adequacy Program ("WRAP"). My focus in this effort has been the development, design, and planned implementation of the Forward Showing Program component of the WRAP.

3. I have over thirty years of experience in electrical engineering and management in the electric utility industry, including a total of eighteen years with SPP. Before I became SPP's Manager of Reliability Assurance, I served as SPP's Manager of Compliance and Advanced Studies (with responsibilities similar to my current position) from June 2016 to January 2020, in the generator interconnection area as an engineer and as its Manager of Generation Interconnection Studies from July 2005 to June 2016, and as a Senior Engineer in the generator interconnection area from August 2000 to March 2002. I also worked at Arkansas Electric Cooperative Corp. as a Power Quality and Reliability Engineer from March 2002 to June 2005, and at Central and Southwest Services (now part of American Electric Power Corp.) and its affiliate companies in various roles in substation engineering design, transmission planning, and substation field operations from March 1992 to July 2000. I earned my Bachelor of Science Degree in Electrical Engineering from Louisiana Tech University in 1992. I am a registered Professional Engineer in the State of Oklahoma.

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[1] The capitalized terms that I use in this affidavit have the meanings provided in the tariff being submitted to the Federal Energy Regulatory Commission ("Commission") today in this WPP filing. Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff").

Purpose of Affidavit

4. I am submitting this affidavit to describe the Forward Showing Program of the WRAP.[2] Mr. Charles C. Cates, SPP's Manager of Operations Engineering Analysis and Support, is submitting a separate affidavit to describe the WRAP's Operations Program; and Mr. Antoine Lucas, SPP's Vice President of Engineering, is submitting a separate affidavit to describe SPP's role, by contract with WPP, to serve as Program Operator for the WRAP.

Overview of the Forward Showing Program

5. The WRAP's Forward Showing Program employs the same basic elements that for decades have been used first in multi-utility capacity sharing agreements and then as the foundation of regional resource adequacy constructs. Interconnected systems that agree to rely on one another's capacity resources for the mutual benefit of assuring reliable service to their respective loads typically agree to use: (i) administratively determined reserve margins designed to meet system planning objectives, such as avoidance of lost load; (ii) common understandings on measurement of peak load; (iii) common understandings on definition and accreditation of resources that count toward meeting the reserve margins; and (iv) financial consequences for failure to demonstrate sufficient resources, such as deficiency charges.

6. Consistent with that broad template, the WRAP's Forward Showing Program includes: (i) procedures for establishing Planning Reserve Margins designed to meet an LOLE of one event-day in ten years; (ii) common methods for calculating monthly

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[2] Please note that while for ease of explanation I sometimes use simplified or summary language to describe the Forward Showing Program, the Tariff language governs in the event of any inconsistencies between my description in this affidavit and the actual language in the Tariff.

peak load forecasts, with a 50% chance of being exceeded, during defined Summer and Winter Seasons; (iii) principles and procedures for establishing the Qualified Capacity Contribution ("QCC") of qualifying resources and supply contracts; and (iv) deficiency charges tailored to incent parties *not* to be deficient, with the charges tied to the cost of installing a new peaking plant, and adjusted to reflect the higher value of capacity when the region is short of the targeted reserve margin. The WRAP does not establish a central market, and WPP does not buy or sell energy or capacity. The WRAP instead sets terms for Participants to execute bilateral sales to one another under the program by establishing common resource and contract accreditation and accounting rules such that each Participant understands how these sales will count towards a Participant's Forward Showing requirement and how some of these transactions will be accounted for in the Participant's Sharing Calculation.

7. The WRAP's Forward Showing Program adds other important features related to the fact that WPP is not an independent system operator ("ISO") or regional transmission organization ("RTO"). First, rather than require all LSEs in its region to participate in the WRAP, the WRAP design accommodates and encourages LSE participation as (or through) Load Responsible Entities ("LREs"). An LRE that agrees to participate in the WRAP is known as a Participant, so the terms LRE and Participant can be used interchangeably. Second, the WRAP has a distinct Forward Showing requirement for transmission service. In an ISO or RTO, LSEs purchase Network Integration Transmission Service directly from the ISO or RTO to move power from their resources to their loads. WPP is not a transmission service provider, and LREs therefore need to demonstrate in their Forward Showing Submittal that they have secured transmission in a

sufficient quantity to provide reasonable assurance that they will be able to move power from resources to loads during the season addressed by their Forward Showing.

8. In the Forward Showing, each Participant shows the calculation of the capacity the Participant requires to serve its loads during the relevant season (known as the FS Capacity Requirement) and of the capacity provided by the Qualifying Resources the Participant provides or procures to meet that requirement (known as the "QCC"). If, upon review by WPP, there is a shortfall in the QCC relative to the FS Capacity Requirement, the Participant is given an opportunity to cure the deficiency. If a deficiency remains after the cure period, the Participant will be assessed a deficiency charge.

The Forward Showing Timeline and Process

9. WRAP requires LREs to submit Forward Showings for Binding Seasons in both the Summer and Winter. Binding, as used here, means that the Participant will be required to show a Portfolio QCC that satisfies the LRE's Forward Showing Capacity Requirement for that season, or pay deficiency charges. Binding also means that a Participant forecast to have a surplus of resources on an Operating Day can be required (on the Preschedule Day) to hold back a share of its capacity as needed to help meet the needs of Participants forecast to be in deficit on that Operating Day, and to deliver energy to a deficient Participant that confirms such need on the Operating Day. Mr. Cates describes these Operations Program terms in his affidavit, including charges that can be assessed on a Participant that fails, without valid justification, to make required energy deliveries.

10. The Tariff refers to the documentation that embodies a Participant's Forward Showing as the Forward Showing Submittal ("FS Submittal"). WPP and SPP, working with Participants, have developed a standard workbook format to elicit and organize the information that Participants need to provide in their FS Submittal. In

addition, each FS Submittal must include an attestation by a senior official of the Participant that it has reviewed the FS Submittal, and that the statements in the submittal are true, correct, and complete to the best of the official's knowledge and belief following due inquiry. Importantly, the required attestation expressly makes clear that the due inquiry must be appropriate to the reliability and resource adequacy matters addressed in the submittal. Requiring an attestation from a senior official, who likely has important organizational responsibility and accountability and will not sign such an attestation lightly, provides a meaningful check on the reliability of the Participant's FS Submittal.

11. The WRAP appropriately employs Binding Seasons in both the Summer and Winter, since the WRAP Region includes both Summer-peaking and Winter-peaking areas within the Western Electricity Coordinating Council ("WECC") region.[3] Both seasonal showings are mandatory for all Participants in the WRAP. Thus, for example, a Participant with an annual peak in the Winter must make both Winter and Summer showings, ensuring that the resources relied upon by the Participant for the Season it peaks are accounted for (i.e., not oversold) in the season it does not peak. Separate showings for Summer and Winter also reflect that resource performance and relative reliance on different resource types can often vary between Summer and Winter, accommodating different QCC determinations for different Seasons. The two Binding Seasons advance the WRAP's regional approach to resource adequacy, leveraging load and resource diversity across the WRAP Region to enhance efficiency and moderate resource adequacy costs for the region as a whole.

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[3] *2021 Western Assessment of Resource Adequacy*, Western Electric Coordinating Council, Chapter 4 (Dec. 17, 2021), https://www.wecc.org/Administrative/WARA%202021.pdf (showing that NWPP-NW and NWPP-NE are traditionally Winter-peaking, while NWPP-Central and Desert Southwest are traditionally Summer-peaking).

FS Capacity Requirement—Peak Load Forecast

12. Each Participant's FS Capacity Requirement is based on the peak load forecast of the loads for which that Participant is responsible. The Tariff prescribes three important principles for these forecasts: (i) the forecast probability, i.e., the likelihood the forecast will be exceeded, is 50%; (ii) the Participants must meet a separate FS Capacity Requirement each Month during a Binding Season, so peak load values are needed for each Month; and (iii) for fairness and consistency, load forecasts must abide by certain common requirements.

13. As to the first point, peak load forecasts used for binding showings will be P50, i.e., median, peak load forecasts. Load forecasts inherently include many uncertainty variables (e.g., weather, economics, demand response, changes in end-use efficiency, electrification). Adjusting relevant variables to different levels can result in higher or lower load forecasts with different probabilities of occurring. The median forecast is that which has a 50% chance of being exceeded. By contrast, a more conservative forecast, e.g., at the 90th percentile, has only a 10% chance of being exceeded. While the more conservative forecast increases reliability by reducing uncertainty, it also would require Participants to develop or procure a higher level of resources, thus increasing costs. WRAP's use of P50 peak load forecasts strikes a reasonable balance between reducing uncertainty and increasing cost, and also is appropriate for a shorter-term forecast: the FS Deadline for a Season is seven Months before the start of the Season. The comparatively short interval between the forecast and the period that is the subject of the forecast provides less opportunity for uncertainty to be realized through large deviations between the forecast and the actual load.

14. As to the second point, the WRAP recognizes that peak loads will vary *within* each Binding Season, and therefore allows a different FS Capacity Requirement for each Month in a Binding Season. Participants thus will not have to show that they have arranged a flat (constant) amount of resources every Month in the Season to meet a single seasonal peak load forecast. Instead, the Month of the seasonal peak will set the FS Capacity Requirement for that Month only; the FS Capacity Requirements in the other Months of that Binding Season will be based on the respective lower peak load forecasts for those other Months. Recognizing this in-season variability enhances Participant flexibility to meet their FS Capacity Requirement, thus facilitating program participation, while still helping ensure that the actual resource adequacy needs (which will predictably vary during the season) are at all times satisfied.

15. WRAP will not, however, require new Month-specific peak load forecasts for every Month of every Binding Season. Unique peak load forecasts for each separate Month could introduce heightened forecast error and greater forecast variability. The WRAP Tariff instead prescribes forecasting the peak load for the Binding Season, and then deriving monthly peak load forecasts using a shaping factor that captures the observed historic relationship between the seasonal peak and the monthly peak for each Month in the Season.

16. As to the third point, while Participants will forecast peaks for the loads for which they are responsible, their forecasts will have to follow certain common requirements. Some RTOs and ISOs responsible for such functions as energy market operations, resource dispatch, Balancing Authority Area ("BAA") functions, and transmission planning, have developed the capability to forecast loads over multiple immediate, near-term and long-term horizons. WPP does not have those other

responsibilities, and does not propose to duplicate the Participants' long-standing load forecasting role. However, through their participation in WRAP, Participants undertake obligations to assist one another when resources are insufficient to ensure adequate service to loads, and thus have a mutual interest in ensuring both reliability and commonality in their separate peak load forecasts. To that end, the Tariff prescribes that WRAP-required load forecasts will include: (i) a base monthly peak derived from a recent historic period; (ii) adjustments for known additions and removals of load during the forecast window; and (iii) a specified load growth factor. These three requirements inject commonalities into what typically would be key points of judgment or discretion in a peak load forecast. Individual Participants, for example, might have various reasons for adopting a particular load growth factor; but in the WRAP context, a Participant's choice of a lower load growth factor (relative to other Participants) would also reduce the Participant's FS Capacity Requirement. That choice of forecast assumption would reduce the quantity of resources the Participant would need to show to cover its own loads and also serve as a source of mutual support for all Participants during times of greatest capacity need.

17. The further details of the peak load forecasting methodology with these essential features will be developed through the stakeholder process for the WRAP Business Practice Manuals, which will further promote rigor and consistency in the peak load forecasts that underlie each Participant's FS Capacity Requirement.

FS Capacity Requirement—Planning Reserve Margin

18. As is common among regional resource adequacy programs approved by the Commission, the WRAP will employ a reserve margin above the forecast peak load level to help ensure resource adequacy under adverse conditions, such as when demand is higher than the forecast peak load, when resource outages are higher than expected, or

when Variable Energy Resource ("VER") availability is lower than expected. As is also common among other regional resource adequacy programs, the reserve margin used for the WRAP, known as the Forward Showing Planning Reserve Margin ("FSPRM"), will be determined using a probabilistic analysis to satisfy a LOLE of no more than one event-day in ten years.

19. The Tariff sets forth several key steps to determine the FSPRM for each Month of a Binding Season. Similar to the monthly peak load forecasts discussed above, monthly reserve margins help ensure that the actual resource adequacy needs are satisfied in every Month of the Binding Season, while also affording flexibility to Participants, which facilitates program participation and thereby can increase program benefits from load and resource diversity. On the supply side, the probabilistic model includes a stack of simulated resources that are represented by capacity accreditation principles consistent with those used for WRAP QCC determinations, which I describe below. In other words, the model is designed to determine the FSPRM needed given the types of resources that Participants will need to show to satisfy their FS Capacity Requirement. On the demand side, the analysis uses the forecast seasonal peak load for the relevant Binding Season, as well as the resulting shaped monthly peak loads for each Month of the Binding Season, determined consistent with the principles I discuss above. As is common in such determinations, the probabilistic analysis takes account of uncertainties in generation and load by running thousands of scenarios with random variations in conditions that affect load, resource availability, and resource performance, and tallies each instance of loss of load (i.e., when demand of the modeled loads exceeds supply from the modeled resource stack). The analysis then adjusts the QCC value for the Binding Season as needed to just meet a loss of load expectation of no more than one event-day in ten years. To determine

separate FSPRM values for each Month, another step is needed. Specifically, the analysis adjusts the QCC value for each Month of the Binding Season, until each Month meets a loss of load expectation of at least one event-day in 100 years, while also maintaining the overall loss of load expectation for the Binding Season at no more than one event-day in ten years. Because the reserve margin is expressed as an added increment equal to a percentage of load, the FSPRM for each Month is the simulated QCC value determined for that Month in the prior step, minus the P50 Peak Load Forecast for the Month, divided by the P50 Peak Load Forecast for the Month. The final Unforced Capacity ("UCAP") FSPRM value will be calculated by taking into account the QCC values of all resource types in the model.

20. The above steps describe the technical requirements governing calculation of an FSPRM. The FSPRM values that Participants must use for their FS Capacity Requirement will be the values approved by WPP's Board of Directors. These reserve margin levels will be set for a Binding Season well before the FS Deadline for that season. Specifically, WPP, with support from the Program Operator, will follow the principles and procedures in the Tariff and Business Practice Manuals to calculate the FSPRM values needed for a Binding Season, and WPP will post the recommended values no later than twelve Months before the FS Deadline for that Binding Season. The Board of Directors will then take its final action regarding approval of the FSPRM values for each Month of the Binding Season no later than nine Months before the FS Deadline. As provided in the Tariff, the Board may approve separate FSPRM values for separate Subregions of the WRAP Region. In those cases, the process I describe above will include calculation and determination of recommended FSPRM values for the different Subregions.

21. The FSPRM determined in accordance with the above is intended to include an approximation of Contingency Reserves, which are typically planned to cover the loss of the most severe single contingency. Under NERC standards specific to WECC (NERC Standard BAL-002-WECC-3), Contingency Reserve is equal to the sum of 3% of hourly integrated load plus 3% of hourly integrated generation. The FSPRM will incorporate this requirement for the WRAP Region (or Subregion, if applicable) as a whole. Individual Participants will have their FS Capacity Requirement adjusted in their FS Submittals to account for changes in their particular Contingency Reserve requirements resulting, for example, from energy contract purchases or sales that modify the load or generation for which they are responsible.

Qualifying Capacity Contribution—Overview

22. The FS Capacity Requirement sets for each Participant the amount of capacity it must demonstrate. The QCC measures the capacity the Participant provides to show that it meets that requirement. For each Binding Season, a Participant will show its Portfolio QCC, which is the sum of the QCC of the identified Qualifying Resources ("Resource QCC") and the QCC of capacity the Participant has contracted ("Net Contract QCC"), plus or minus, respectively, any transfers of accredited capacity to the Participant from another WRAP Participant, or from the Participant to another WRAP Participant (i.e., Total RA Transfer). Participants also must show a required level of firm transmission service rights to deliver capacity from the resources identified in their FS Submittal to the loads for which the Participant is responsible.

23. Under the WRAP Tariff, many Resource QCC determinations will take account of resource performance during Capacity Critical Hours ("CCH"), which looks beyond peak load hours to take a snapshot of performance during the times of greatest

capacity need. Specifically, CCH are those hours during which the WRAP Region's net capacity need is expected to be above the 95th percentile, based on historic and forward looking data for the WRAP Region's gross load, VER performance (including synthesized performance to capture expected VERs at future levels), and interchange. These hours are the times when the region is most likely to need the capacity provided by the resources Participants put forth in their FS Submittals, so how well those resources performed during those times properly should influence the capacity value the WRAP assigns to those resources.

Resource QCC—Individual Generation, Demand, and Storage Resources

24. All Participant resources must be registered with the WRAP before they can be included in a Forward Showing. WPP must identify any deficiencies in an FS Submittal within sixty days after it is submitted; that timeframe is not intended to accommodate the accreditation and capacity rating process for individual resources. Instead, the WRAP-determined capacity value for each Qualifying Resource will be set in advance. The Tariff sets forth key principles to govern the Resource QCC calculation for the variety of resource types found in the WRAP Region, and (as is common for resource adequacy programs) relies on business practice rules for implementation and calculation details. The Business Practice Manuals also will specify the information a Participant must provide when it requests registration of a resource. WPP, with support from the Program Operator, will determine the Resource QCC of each Qualifying Resource after the resource is registered.

25. For resources that use conventional thermal fuels such as natural gas, coal, nuclear, and biofuels, the Resource QCC will be set using a UCAP methodology. Under this approach, resource-specific testing and capability requirements will determine an installed capacity value, and that value will be adjusted downward to account for the

likelihood of forced outages. The forced-outage calculation methodology will be based on historic performance during CCH over a specified multi-year period. Class average forced outage data for the resource type will be used if there is insufficient historic performance data. This resource-specific determination method is consistent with approaches employed to accredit thermal resources under other Commission-approved resource adequacy programs.

26. For VERs, i.e., wind and solar, Resource QCC will be determined using an ELCC methodology. ELCC methods, increasingly used in regional resource adequacy programs, take account of the synergistic portfolio effects within and among VER types at different resource penetration levels, which influence the extent to which the resource adequacy program region can rely on those VER categories to meet overall capacity needs. ELCC values are calculated on an aggregate basis, and then allocated among individual resources. For WRAP, an ELCC value will be calculated for all VERs of a given resource type in an identified geographic VER Zone. VER Zones will be defined (and delineated in the Business Practice Manuals) based on such Tariff-prescribed factors as geography, performance, meteorological considerations, and resource type penetration levels for each VER resource type.

27. To determine an aggregate ELCC value for a VER type in a VER Zone, two LOLE studies are performed—one with all resources *except* the VER type at issue, and one with all resources *including* the VER type at issue. In both studies (performed using a model and assumptions consistent with those used to determine the FSPRM), a quantity of "Pure Capacity,"—i.e., hypothetical capacity that performs fully and consistently with no interruption or outage—is added or subtracted in the same megawatt ("MW") amount for every hour of the Binding Season at issue as necessary to achieve a LOLE result of exactly

0.1 day per year (i.e., equivalent to 1 day in 10 years). The Pure Capacity quantity needed in the second study is then subtracted from the Pure Capacity needed in the first study. For example, if 500 MW of Pure Capacity had to be added in the study *without* the VER type at issue to achieve the desired LOLE, but only 200 MW of Pure Capacity had to be added in the study *with* that VER type, then the contribution of that VER type to achieving the LOLE is 300 MW. To assure a sound result, the same steps are repeated for every year of a multi-year period, and the results are averaged (or weighted differentially, if warranted by engineering judgment for the particular data set). The end result is the ELCC Value for the VER type, VER Zone, and Binding Season at issue.

28. The aggregate capacity will then be allocated among all VERs of the given resource type located in that VER Zone. The allocation will be based on each resource's average historical performance during CCH, so long as three years of historic or synthesized forecast data during such hours is available. Absent that data, each resource of that VER type in the VER Zone will be assigned a share of the aggregate ELCC on a per-MW average basis.

29. For Energy Storage Resources ("ESRs"), Resource QCC will be determined based on an ELCC methodology comparable to that used for VERs. For this purpose, ESRs will be modeled at the level of their usable capacity that can be sustained for a minimum duration of four hours. As the Tariff explicitly clarifies, this does not mean that an ESR must have a nameplate rating that assumes a minimum four-hour run time. Rather, a resource with a nameplate rating that assumed a shorter run time will have its Resource QCC scaled to reflect the capability that can be sustained for four hours.

30. For Demand Response capacity resources, the Resource QCC will be determined by multiplying the load reduction in MWs by the number of hours (maximum

of five) the resource can demonstrate load reduction capability divided by five. In other words, similar to the method described above for ESRs, this approach scales the resource's performance over a minimum sustained duration (five hours in this case). The Demand Response resource also must meet certain testing requirements; must be controllable and dispatchable by the Participant or by the host utility; and must not already be used as a load modifier in the Participant's load forecast.

31. For hydro storage resources, the Resource QCC will be determined using a methodology that: (a) considers each resource's actual generation output, residual generating capability, water in storage, reservoir levels, and flow or project constraints over the previous 10-year historical period; (b) assesses the historical generation during CCH on any given day and the ability to increase generation during CCHs on the same day, subject to useable water in storage, inflows/outflows, and expected project operating parameters/constraints and limitations; (c) incorporates forced outage rates and planned outages; and (d) determines QCC as the average contribution to CCH for each Winter Season and Summer Season over the previous ten years. If ten years of historic data is not available, the Tariff gives the Participant the option to use data from a demonstrably comparable facility, or apply another method that provides reasonable confidence in the reliability of the predicted values. Reflecting long-standing hydro storage operator practices and the sensitivity of hydro storage data, the WRAP Tariff permits the Participant to calculate the Resource QCC, subject to review and validation by WPP.

32. For resources that do not fall in the above categories, including run of river hydro resources, and that either are not dispatchable or require the purchaser to take energy as available from the resource, Resource QCC will be determined based on the monthly average performance of the resource during CCH. The Tariff specifies qualifying facilities

under the Public Utility Regulatory Policies Act of 1978 as one example of a resource type that falls into this category.

Resource QCC—Exception for Catastrophic Failures

33. As I explain below, the WRAP adopts a significant deficiency charge to provide each Participant a strong incentive to demonstrate, seven Months before each Binding Season, that it has made the required Forward Showing for every Month of that Season. At the same time, the WRAP recognizes that there may be special circumstances when a Participant, due to conditions clearly beyond its control, is unable to make the required showing. The Tariff narrowly defines and limits these circumstances, however, to avoid possibly undermining the program's paramount reliability objectives. As I discuss below, the Tariff provides several narrow exceptions to the FS Transmission Requirement. It also provides a narrow exception to the FS Capacity Requirement.

34. Specifically, a Participant can obtain an exception from its FS Capacity Requirement if its Portfolio QCC falls short due solely to a catastrophic failure of one or more Qualifying Resources that the Participant is unable to replace on commercially reasonable terms as a result of the timing and magnitude of the catastrophic failure. The limits on this exception provide a good illustration of the balance intended for exceptions to WRAP requirements. Participants are expected to plan for resource failures and other contingencies; and they are expected to respond to and mitigate such contingencies. Here, a failure provides relief from the Forward Showing requirement *only* if it is a catastrophic failure *and* its timing and magnitude are such that the Participant is unable to secure, as of the FS Deadline, replacement of the lost resource on commercially reasonable terms. Note, too, that the exception is provided if the shortfall in Portfolio QCC is due *solely* to a catastrophic failure. Further limiting the exception, the Participant's request for an

exception must include complete information on the nature, causes, and consequences of the catastrophic failure, must describe the Participant's specific, concrete efforts prior to the FS Deadline to secure replacement Qualifying Resources—*and* must be supported by a Senior Official Attestation. Even if the exception is granted, moreover, the Participant must submit a monthly exception check report demonstrating that either the circumstances necessitating the exception have not changed, or that the Participant has secured replacement Qualifying Resources and no longer requires the exception. In other words, the Participant will need to continue to show that replacement resources are not available on commercially reasonable terms if it wants to maintain the exception. Reinforcing the importance of this ongoing check, if the Participant fails to submit a required monthly report, it will be assessed a deficiency charge unless it cures that failure within seven days.

35. Recognizing the significance of such exception requests, the Tariff provides that a Participant denied an exception can appeal that denial to WPP Board of Directors. When an appeal is made, the requested exception will be denied or permitted as, when, and to the extent decided by the Board.

Net Contract QCC

36. Similar to the Resource QCC, the Net Contract QCC Tariff provisions set forth key principles to govern the QCC calculation for distinct categories of contract types, and rely on the Business Practice Manuals for implementation and calculation details. Note that the Net Contract QCC could be a positive or negative value, depending on whether the particular Participant is a net seller or a net buyer of contract capacity.

37. The general rule is that, to qualify, capacity supply agreements must be resource-specific. Other Commission-jurisdictional resource adequacy programs are "resource-specific." The WRAP Tariff makes clear what that means for the WRAP.

Specifically, "resource-specific" means (among other requirements) that the contract must include: (i) an identified source; (ii) an assurance that the capacity is not used for another entity's resource adequacy requirements; (iii) an assurance that the seller will not fail to deliver in order to meet other obligations; and (iv) affirmation of NERC Priority 6 or 7 firm point-to-point transmission service rights or network integration transmission service rights from the identified resource to the point of delivery/load. Note, too, that the specific resources identified in a qualifying capacity supply agreement must meet the same accreditation requirements the WRAP Tariff prescribes for Qualifying Resources of the same resource type.

38. The "resource-specific" requirement is vital. Resources committed through the WRAP must be available at the times of greatest capacity need. But these are the times when neighboring areas likely also need capacity, and when the demands on resources are greatest. The "resource-specific" requirement helps ensure that a resource relied upon for the WRAP is not also being relied upon at the same time to meet conflicting resource needs.

39. There are limited exceptions to the requirement that supply contracts must be resource specific, and those exceptions are constrained by important protections. A system sales contract can qualify for a Net Contract QCC value, so long as: (i) the system capacity that is the subject of the agreement is surplus to the seller's estimated needs; (ii) there is an assurance that the seller will not fail to deliver in order to meet other obligations; and (iii) there is NERC Priority 6 or 7 firm point-to-point transmission service rights or network integration transmission service rights from the identified resource to the point of delivery/load. If the contract's seller is a Participant, the WRAP has the information it needs to confirm the capacity is surplus to the seller's needs. If the Seller is not a Participant, the surplus status will need to be demonstrated through a Senior Official

Attestation, with the non-Participant seller's written assent. As can be seen, the requirements for a system supply contract closely track three of the four general requirements—the only exception is for "an identified source." The requirement that the capacity must be surplus to the seller's needs is therefore critical, since it serves as the intended effective substitute for commitment of an identified resource.

40. Legacy Agreements, i.e., those entered into prior to October 1, 2021, can qualify for a Net Contract QCC value, so long as (if the agreement does not identify the source) it is possible for WPP to presume a source or sources. In practice, this identification of a presumed source will require the written assent of the supplier under the Legacy Agreement. The Business Practice Manuals will include a standard form for this purpose. A Legacy Agreement for which such resource determination cannot be reasonably made will not be counted as adding to the Portfolio QCC. October 1, 2021, refers to the time at which Participants endorsed the principle that capacity supply agreements would need to be resource-specific to qualify under the WRAP. Participants that entered supply agreements after that date therefore knew that the agreement would not qualify for Net Contract QCC if it was not resource-specific. Conversely, Participants that entered capacity supply agreements before that date could have had reasonable doubt regarding the extent to which qualifying agreements would need to be resource-specific. The exception accordingly recognizes that the contract might not identify a resource, but it still advances the basic resource adequacy objective by requiring the ability, working with the seller, to presume a resource. I should note that during the WRAP's initial three-year Transition Period that Ms. Edmonds describes in her affidavit, Participants can obtain an exception for a limited amount of capacity under Legacy Agreements for which the seller does not consent to a presumed resource.

FS Transmission Requirement

41. In addition to showing Portfolio QCC at least equal to its FS Capacity Requirement, each Participant also must show in its FS Submittal that it has firm transmission service rights sufficient to deliver a MW quantity equal to at least 75% of the MW quantity of its FS Capacity Requirement. The Tariff calls this distinct requirement the FS Transmission Requirement.

42. The minimum standard of 75% reflects a reasonable balance on the firm transmission deliverability metric for initial implementation of the WRAP given the seven-Month deadline for making the Forward Showing. A 100% standard that would require Participants to show full transmission service seven Months ahead of the Binding Season could serve as a barrier to initial participation. And that standard is not essential for reliability, given that most Participants' experience has been that a certain amount of transmission service that is not available seven Months ahead of the Binding Season can be obtained on a shorter-term basis.

43. Moreover, the 75% standard for the Forward Showing *does not* mean a Participant is relieved of 25% of its firm transmission service responsibilities on the Operating Day. As discussed by Mr. Cates, a Participant assigned responsibility for an Energy Deployment to another Participant on the Operating Day faces a Delivery Failure Charge if it does not fulfill that Energy Deployment obligation. The Tariff expressly warns that a Participant will not be relieved of responsibility for a Delivery Failure Charge if the Participant's failure to obtain or maintain firm transmission service caused or contributed to an Energy Delivery Failure.

44. The FS Transmission Requirement must be met with NERC Priority 6 or NERC Priority 7 firm point-to-point transmission service or network integration

transmission service, from the Participant's Qualifying Resources or from the delivery points for the resources identified for its Net Contract QCC (or for its RA Transfers) to such Participant's load. The Tariff clarifies, however, that a Participant's authorized use of Capacity Benefit Margin ("CBM") will satisfy the FS Transmission Requirement. This reflects that CBM is a share of transmission capability held back from open access (i.e., point-to-point and network) service that LSEs can obtain approval to use to serve their loads. Since CBM is specifically reserved to allow LSEs to meet their capacity needs, its use meets the intent of the FS Transmission Requirement, at least as to the portion of the Participant's source-to-sink path covered by CBM.

FS Transmission Requirement—Exceptions

45. Similar to the Catastrophic Failure Exception to the FS Capacity Requirement that I described above, the Tariff allows certain narrow exceptions to the FS Transmission Requirement. As with the exception to the FS Capacity Requirement, these exceptions are limited to conditions that are beyond the Participant's control; are carefully circumscribed; require a formal request on or before the FS Deadline with pertinent details, supported by a Senior Official Attestation; and, if either of the first two exception types described below is granted, require monthly reports (at risk of deficiency charges if the report is not timely filed) demonstrating that the conditions requiring the exception still exist, or that the exception is no longer needed. These exceptions are not intended to undermine the reliability of the WRAP; WPP and the Participants agreed, through the task force process that developed these exceptions, that if the transmission exceptions are impacting the WRAP Region's reliability, they will be reconsidered through a formal reevaluation of the exception process. The FS Transmission Requirement and exceptions also are not intended to replace transmission facility planning. However, implementation

of the FS Transmission Requirement and the extent, nature, and scope of requested exceptions, should send signals to transmission facility owners and planners on the need for additional transmission as the WRAP helps identify transmission constraints on capacity transfers during CCH.

46. The Tariff recognizes four types of FS Transmission Requirement exceptions, each with its own conditions, limitations, and required showings: (i) Enduring Constraints; (ii) Future Firm Available Transmission Capability ("ATC") Expected; (iii) Transmission Outages and Derates; and (iv) Counterflow of a Resource Adequacy Resource.

47. Under the "Enduring Constraints" scenario, a Participant can obtain an exception if it first demonstrates that, as of the FS Deadline for a Binding Season, there is no ATC available on any single segment of a needed transmission path from either the transmission service provider ("TSP") or the secondary market, for the Months needed (for a duration of one year or less) at the applicable Open Access Transmission Tariff ("OATT") rate or less. Note that if transmission is not available for one year or less, and is only available (at the OATT rate or less from either the TSP or secondary market sources) for more than one year, the Participant can still seek an exception, but if the exception is granted, the Participant will not be eligible for an exception on the same path for the following year—since it will have already demonstrated that it had an option to address a multi-year problem by buying multi-year service. In addition, the Participant must submit a Senior Officer Attestation that the Participant has taken commercially reasonable efforts to procure firm transmission service rights, and that it has posted its firm transmission requirements for the relevant transmission segment and relevant time on a relevant bulletin board before the FS Deadline. Moreover, the Participant must also demonstrate that there

was remaining available transmission transfer capability (i.e., non-firm ATC after the fact) for all CCHs in the same Season of the most recent year for which CCHs have been calculated. This demonstration is needed to show that it is feasible to seek short-term (i.e., one year or less) transmission to meet capacity needs on the relevant path. If, conversely, that is *not* feasible, i.e., if the path was constrained in at least one CCH of the CCHs in the same Season of the most recent year for which CCHs have been calculated, then the Participant must demonstrate that it is constructing or contracting for a new local resource for at least the amount of the exception requested, or that it is pursuing long-term firm transmission service rights by entering the long-term queue and taking all appropriate steps to obtain at least an amount of transmission service rights equal to the exception quantity requested. Taken together, these conditions and limitations underscore that the WRAP expects Participants to pursue all commercially reasonable options to develop feasible and adequate resource plans, including the necessary consideration of the transmission needed to deliver capacity from resources to loads.

48. Under the "Future Firm ATC Expected" scenario, a Participant can obtain an exception if it demonstrates both that: (i) ATC for NERC Priority 6 or NERC Priority 7 firm point-to-point or network integration transmission service rights is not posted or available (from the TSP or in the secondary market, for a duration of one year or less, and at the applicable OATT rate or less) *prior* to the FS Deadline; but that (ii) the TSP has released additional ATC for such transmission service rights in every one of the CCHs of the most recent year for which CCHs have been calculated on the applicable path *after* the date of the FS Deadline. The Tariff provides that this exception will be subject to volume limitations specified in the Business Practice Manuals. This contemplates that, because the premise of this exception is that, while ATC has not been available as of the FS

Deadline, the prior years' experience shows that it is likely to become available after the FS Deadline for all CCHs of the Binding Season at issue. The total exceptions of this type that will be granted are limited to the amount of transmission that is likely to become available. This value may be less than the transmission a Participant needs for that path in the relevant Season, and this quantity also will be pro-rated if more than one Participant seeks this exception on the same path for the same Season. Moreover, just as with the "Enduring Constraints" exception (and based on the same rationale), if the required firm transmission service rights are only available (at the OATT rate or less from either the TSP or secondary market sources) for more than one year, the Participant can still seek an exception, but if the exception is granted, the Participant will not be eligible for an exception on the same path for the following year.

49. Under the "Transmission Outages and Derates" scenario, a Participant can obtain an exception if it demonstrates that: (i) an applicable segment of its existing transmission service rights from its source to sink path for a Qualifying Resource included in its FS Submittal is expected to be derated or out-of-service; *and* (ii) the ATC for NERC Priority 6 or NERC Priority 7 firm point-to-point or network integration transmission service rights is not otherwise available. The Tariff also provides that this type of exception request is subject to volume and duration limitations specified in the Business Practice Manuals. Those limitations are simply intended to limit the requested exception to the volume and duration of the identified outage or derate.

50. Under the Counterflow of a Resource Adequacy Resource scenario, a Participant can obtain an exception if it demonstrates that another Participant's use of firm transmission service to deliver capacity from its resource to its load, or the Participant's own use of firm transmission service to deliver capacity from its resource to its load,

provides a direct and proportional transmission counterflow that supports the requesting Participant's delivery of capacity from a different resource to a different load. In that narrow circumstance, the Participant requesting the exception can show that it does not need to obtain firm transmission service to deliver capacity from the different resource to the different load. "Direct and proportional," as used here, means (for example) that the Participant's delivery of capacity from its Qualifying Resource located in one BAA to the Participant's load located in another BAA is offset by a second Participant's use of firm transmission service to deliver of capacity from the second Participant's Qualifying Resource located in the first Participant's load BAA to the second Participant's load located in the first Participant's subject Qualifying Resource BAA. The Business Practice Manuals will set forth details for confirming and matching the counterflow for the different Qualifying Resources (including input from the relevant TSP), and for limiting the exception quantity to the counterflow quantity.

51. When a Participant submits an FS Transmission Requirement exception request at or before the FS Deadline for a Binding Season, WPP will consider the terms, conditions, and limitations for the exception type, and may consider the completeness of the exception request, information from transmission service providers, OASIS data, and other relevant data and information, in determining whether to grant or deny a transmission exception request. WPP will provide the Participant WPP's determination on the transmission exception request no later than 60 days after submission of the FS Submittal containing that request. A Participant denied an exception request may appeal that decision to the WPP Board.

Resource Adequacy Transfers

52. The WRAP will support transfers among Participants of their FS Capacity Requirements, subject to review and validation by WPP, with support from the Program Operator. Such resource adequacy transfers will be added to the purchasing Participant's Portfolio QCC and subtracted from the selling Participant's Portfolio QCC. The common rules for determining each Participant's FS Capacity Requirement and Portfolio QCC, along with the common program requirements for registration of all Qualifying Resources and support for all supply agreements included in Net Contract QCC, make such in-program transfers a convenient option for Participants to meet part of their resource adequacy needs as essentially (from the program's perspective) an accounting matter.

Determination of Monthly Deficiencies

53. As I explained above, Participants must submit their FS Submittal for a Binding Season seven Months before the start of the Season. WPP, with support from the Program Operator, will review and validate the Participants' FS Submittals within 60 days after the FS Deadline, and notify Participants of any deficiencies. Participants will then have 60 days from WPP's notification to cure the deficiency before deficiency charges are assessed. This approach, and the forward timing built into the resource adequacy demonstrations for each Season, is designed to facilitate and promote independent validation of Participant's FS Submittals, and identification and correction of any deficiencies to help ensure that the required resources are arranged and in place for the relevant Season.

54. Any deficiencies that are not cured by the 60-day deadline will result in a Deficiency Charge. For this purpose, deficiencies will be calculated and determined separately for each Month of the subject Binding Season. As I explained above, each

Participant's P-50 Peak Load Forecast, FSPRM, and FS Capacity Requirement will be determined separately for each Month. Since the FS Capacity Requirement (i.e., what the Participant needs to show) can vary by Month, the Participant's Portfolio QCC (i.e., what they show to demonstrate compliance) can vary by Month. Similarly, since the FS Transmission Requirement is set at 75% of the MW value of the FS Capacity Requirement, that too will vary by Month, as can the Demonstrated FS Transmission. Likewise, exceptions (both the Catastrophic Failure exception and the FS Transmission exceptions) will be requested and approved on a monthly basis, and RA Transfers will be recorded on a monthly basis. As I explained above, this monthly approach helps ensure that actual resource adequacy needs are satisfied during a Binding Season, while affording Participants some flexibility to make lesser resource and transmission showings for the non-peak Months of the Binding Season.

55. Each Month, deficiencies (if any) will be calculated for a Participant as to both its FS Capacity Requirement and its FS Transmission Requirement, and whichever deficiency value is the higher of the two will set the Participant's Monthly Deficiency for that Month. On the capacity side, the deficiency is any shortfall in the Participant's Portfolio QCC relative to its FS Capacity Requirement, after accounting for any approved exception (which can reduce or eliminate a deficiency) and any RA Transfer (which can reduce or increase the Participant's required resource showing—depending on whether the Participant is a buyer or seller in the RA Transfer). Similarly, on the transmission side, the deficiency is any shortfall in the Participant's Demonstrated FS Transmission relative to its FS Transmission Requirement, after accounting for any approved exceptions (which can reduce or eliminate a deficiency).

Deficiency Charge

56. Any Monthly Deficiencies determined as I described above will be assessed a Deficiency Charge. In simple terms, the Deficiency Charge is the product of the Monthly Deficiency times a Cost of New Entry ("CONE") value (described below) and a CONE Factor (which I also describe below). This simple approach is adjusted for the WRAP, however, because CONE values are typically based on the annual revenue requirement of a hypothetical capacity resource, but Participants in the WRAP could theoretically pay multiple Deficiency Charges over a twelve Month period, since there are separate Forward Showings required for two Binding Seasons within a year, and deficiencies will be calculated for each Month in a Binding Season. Without some adjustment, therefore, a Participant could pay multiple times the annual cost of a peaking plant over the course of a year (regardless of how long or short on capacity the WRAP Region is over that period).

57. To address this concern, the adopted approach uses an annual CONE value for the Participant's largest Monthly Deficiency in the first Binding Season of a year (which the Tariff defines as the Summer Season), and a monthly CONE value for any smaller Monthly Deficiencies of that Participant in the other Months of the Summer Season. To preserve a strong incentive for a Participant to minimize the number of its deficiencies over a Season, the monthly CONE value is doubled (i.e., multiplied by 200%). Given the magnitude of an annual CONE charge, there is reasonable concern that once a Participant is assessed that charge, it may become less sensitive to whether it also has to pay a monthly-based Deficiency Charge for deficiencies in other Months of the same Season. Doubling the monthly CONE value thus provides a strong deterrent against repeated deficiencies, while still maintaining the Deficiency Charges far below what a

Participant would pay if it was subject to an annual-based CONE value for each of its multiple deficiencies over a year.

58. All of a Participant's Monthly Deficiencies for the first Binding Season in a year are known three Months before the start of that Season (i.e., the difference between the seven-Month advance FS Deadline and the 120-day period thereafter to identify and resolve any deficiencies). But whether a Participant has any deficiencies in the ensuing Winter Season will not be known until approximately three Months before the start of that Season. This timing difference requires a further adjustment to Deficiency Charges to preserve the approach of generally basing Deficiency Charges over the course of twelve Months on an annual CONE value. Accordingly, if a Participant had a Monthly Deficiency for the Summer Season, and then has a Monthly Deficiency for the Winter Season that is higher than its highest Summer Season deficiency, the Participant will be assessed an annual-CONE-based Deficiency Charge for the Winter Season deficiency, less what the Participant already paid as an annual-CONE-based charge for the Summer Season deficiency. But that does not absolve the Participant of any Deficiency Charge for its Summer Season deficiency. Consistent with the approach that Participants pay a monthly CONE-based charge for any lesser Monthly Deficiencies over the twelve-Month period, the Participant will pay a monthly CONE charge (including the 200% factor discussed above) for the Summer Season deficiency that now becomes one of the Participant's lesser deficiencies over that period.

CONE Value

59. The Tariff defines the CONE value as the annual capital and fixed operating costs to install a hypothetical new peaking gas plant. This approach is reasonable, because such a plant is representative of a traditional marginal capacity

resource, i.e., a resource that can be brought into commercial operation in a relatively short time, and that would run predominantly at peak, given traditionally higher fuel costs. The Commission has accepted gas peaking plant CONE values for similar purposes in other RA programs. The Tariff prescribes standards and principles to govern the initial calculation and updating of the CONE value, i.e., it must be based on publicly available information relevant to the estimated annual capital and fixed operating costs of a hypothetical natural gas-fired peaking facility; it does not consider net revenue from the sale of capacity, energy, or ancillary services; and it does not consider variable operating costs necessary for generating energy. WPP, with support from the Program Operator, will calculate the CONE based on these Tariff-prescribed parameters, and the resulting value must be set forth in the Business Practice Manuals. This requirement means that the proposed CONE value will need to go through the full stakeholder process described by Ms. Edmonds in her affidavit, including development through the multi-sector Program Review Committee, a supermajority House and Senate approval vote by the Resource Adequacy Participants Committee, and approval by the independent WPP Board of Directors. Any future change to the CONE value will need to go through the same process before it can become effective.

60. This process to setting and changing CONE, as opposed to stating the CONE value in the Tariff, is reasonable since the CONE value will be used only to set a Deficiency Charge that, if it operates with the intended deterrent effect, will rarely if ever be assessed. The Tariff's requirement to base the CONE calculation on publicly available data, and the extensive stakeholder and WPP Board review and approval process, provides further assurance that the initial and updated CONE values will be reasonable for their limited purpose.

CONE Factor

61. As noted, the Deficiency Charge also includes a CONE Factor, which adjusts the charge based on the degree to which the WRAP Region as a whole is short on capacity. Specifically, the CONE Factor equals 125% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is 1% or less (including if the region is in surplus); 150% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is between 1% and 2%; 175% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is between 2% and 3%; and 200% if the aggregate capacity deficiency of the WRAP Region as a whole for a Binding Season is above 3%. This same sliding scale is used to set separate CONE Factors for the Summer Season and Winter Season. The CONE Factor thus appropriately reflects the potential higher value of capacity if the region is tight on capacity, and helps preserve the key design principle that a Participant should never see payment of the Deficiency Charge as an economic alternative to procure resource adequacy quality resources.

62. These Tariff-specified procedures and requirements will produce a reasonable Deficiency Charge. In that regard, the distinguishing feature of this charge is that it is designed to be a deterrent; its purpose is to ensure that Participants provide a compliant FS Submittal. Participants have control over whether they submit a deficient Forward Showing, and in the ordinary course it is reasonable to expect that Participants will submit compliant Forward Showings. If, however, there is an issue with an identified resource, e.g., it does not qualify, the desired outcome is that the Participant identifies and provides a Qualifying Resource, and not that it pays a monetary charge.

63. This completes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool	)	Docket No. ER22-___-000
d/b/a Western Power Pool	)	

VERIFICATION

I, **Charles G. Hendrix**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF CHARLES G. HENDRIX**, are true and correct to the best of my knowledge, information, and belief.

Charles G. Hendrix

Charles G. Hendrix

Subscribed and sworn to before me, the undersigned notary public, this 30th day of August 2022.

MICHELLE HARRIS
Notary Public-Arkansas
Pulaski County
My Commission Expires 04-01-2028
Commission # 12365480

Michelle Harris

Notary Public

Attachment E

Affidavit of Charles C. Cates

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF CHARLES C. CATES

1. My name is Charles C. Cates. Since November 2018, I have been employed by Southwest Power Pool ("SPP") as its Manager of Operations Engineering Analysis and Support. My business address is 201 Worthen Drive, Little Rock, Arkansas 72223. In my current position I am responsible for Operations Engineering Support, including North American Electric Reliability Corporation ("NERC") compliance activities, operational reliability assessment and analysis, SPPs Reserve Sharing Group administration, midterm resource adequacy assessment, operational generation retirements studies, and various operational special studies and projects. In addition, since the Fall of 2020, I have been one of the lead SPP subject matter experts providing project development support, advice, and assistance to the Northwest Power Pool d/b/a Western Power Pool ("WPP") in its development, in collaboration with prospective Participants[1] and other stakeholders, of the proposed Western Resource Adequacy Program ("WRAP"). My focus in this effort has been the development and design of the Operations Program component of the WRAP.

2. I have been employed by SPP in various positions of increasing responsibility since shortly before the Federal Energy Regulatory Commission approved SPP as a regional transmission organization ("RTO"). Before I became SPP's Manager of Operations Engineering Analysis and Support, I served as SPP's Manager of Transmission

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1 The capitalized terms I use in this affidavit have the meaning provided in the tariff that is being submitted in this WPP filing. Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff").

Services from June 2016 to November 2018, as its Manager of Congestion Hedging from January 2013 to June 2016, as its Manager of Economic Planning from October 2011 to December 2012, and as an Engineer from November 2003 to October 2011. I earned both a Bachelor of Science Degree in Electrical Engineering and a Master of Science Degree in Engineering from the University of Arkansas. I am a registered Professional Engineer with the state of Arkansas.

Purpose of Affidavit

3. I am submitting this affidavit to describe the Operations Program (aside from the settlement rates) of the WRAP.[2] Mr. Charles G. Hendrix, SPP's Manager of Reliability Assurance, is submitting a separate affidavit to describe the WRAP's Forward Showing ("FS") Program; and Mr. Antoine Lucas, SPP's Vice President of Engineering, is submitting a separate affidavit to describe SPP's role, by contract with WPP, to serve as Program Operator for the WRAP. Mr. Ryan Roy, WPP's Director of Technology, Modeling and Analytics, describes the rate formulas used to set pricing for Holdback Requirements and Energy Deployments in the Operations Program.

Overview of the Operations Program

4. The Operations Program facilitates Participant access, when necessary, to resources committed to the resource adequacy needs of the WRAP Region through the Forward Showing Program, which is set forth in Part II of the Tariff and discussed by Mr. Hendrix in his affidavit. The Operations Program only applies during the Binding Seasons, which are prescribed periods during the Summer and Winter as defined in the Tariff. On

2 Please note that, while for ease of explanation I sometimes use simplified or summary language to describe the Operations Program, the Tariff language governs in the event of any inconsistencies between my description in this affidavit and the actual language in the Tariff.

an ongoing basis during each Binding Season, WPP monitors the resource adequacy of each Participant to determine when any Participant may have insufficient capacity to cover the forecasted demand. When a Participant is forecasted to be in a deficit, WPP will initiate a Sharing Event and call on other Participants that may have a surplus to hold back capacity (via a Holdback Requirement) and (if the Participant confirms on the Operating Day that it is still in deficit) deliver energy (via an Energy Deployment) to the Participant(s) in deficit.

5. The Operations Program identifies when a Participant is expected to be in deficit by (i) iteratively applying a Sharing Calculation over each day of a Multi-Day Ahead Assessment; (ii) setting Holdback Requirements on the Preschedule Day (if a Sharing Event is identified); and (iii) confirming the need for, and implementing, Energy Deployments on the Operating Day. As I noted above, Mr. Roy discusses in his accompanying affidavit the settlement rates for Holdback Requirements and Energy Deployments in the Operations Program.

Purpose, Design, and Benefits of the Operations Program

6. The WRAP has many benefits particular to the WRAP Region, including potential longer term benefits of helping ensure resource adequacy during an expected period of significant changes in the region's resource portfolio, and providing a stable, predictable resource adequacy construct on a region-wide basis that can help support resource additions. But at its core, the WRAP also offers the benefits expected from a broad regional resource adequacy program: (1) applying common resource adequacy requirements and metrics across a broad area can take advantage of greater resource diversity and load diversity in that area, enabling more efficient and cost-effective resource adequacy planning; and (2) by participating in the program, parties responsible for serving

load are afforded the opportunity to tap into that diversity at times when their load/resource balance is under extreme stress and other Participants are in comparatively better shape. In simple terms, the Operations Program is WRAP's platform for the program to provide its Participants resource adequacy assistance when it is needed.

7. In RTO/independent system operator ("ISO") resource adequacy programs that are paired with the RTO/ISO's centrally dispatched energy market, the energy market typically serves as the mechanism by which market participants realize the benefit of pooled capacity when, due to adverse or unexpected conditions, their own load exceeds their own resources. But a central energy market is not the only reasonable means of delivering this basic benefit of a regional resource adequacy program. The Operations Program meets this need in a very straightforward fashion by: (1) tracking each Participant's current load/resource balance leading up to each Operating Day; (2) identifying the infrequent occasions when one or more Participants is expected to be in a deficit position in an Operating Day; (3) calculating the degree to which the remaining Participants are in a surplus position; and (4) apportioning responsibility among the Participants in surplus to provide the assistance (in the form of Holdback Requirements and Energy Deployments) needed by the Participants that are in deficit.

8. The Operations Program implements that template in a way that advances several beneficial design principles. First, it builds on the resource adequacy provisions set forth in the Forward Showing Program. There is no need to reinvent the wheel on how to calculate whether or the extent to which a Participant is in surplus or deficit on the Operating Day; the Forward Showing already provides that template. The Operations Program accordingly provides a method for updating each Participant's expected load, resources, and outages relative to the Forward Showing to determine the Participant's

expected surplus or deficit position on the Operating Day. In particular, the Sharing Calculation determines which operational changes to consider relative to the Participant's Forward Showing. This close relationship with the Forward Showing also facilitates administration and implementation, and enhances predictability and transparency for Participants, because the Forward Showing and the Operations Program "speak the same language."

9. Second, the Operations Program is designed to be a reliable means of providing necessary support as a last resort, not as a first resort. Each Participant is responsible for planning and meeting its own resource needs. If it appears, in the days leading up to an Operating Day, that a Participant will be in a deficit position on the Operating Day, the Participant still bears the primary responsibility for resolving that deficit by the Operating Day. Consistent with that design objective, even if a Participant's expected deficit position on the Operating Day triggers a Sharing Event, and imposition of Holdback Requirements, on the Preschedule Day, the Participant *still* will get *no* Energy Deployments on the Operating Day *unless* it provides affirmative written notice to WPP 120 minutes before the relevant hour on the Operating Day that the Participant will be in a deficit position on that hour and requires an Energy Deployment. This rule embodies the program's expectation that the Participant will attempt to resolve its deficit through a transaction outside of the program before calling on the program to meet that need.

10. Third, the Operations Program is implemented on the scheduling timeframe—setting the applicable Western Electricity Coordinating Council ("WECC")

scheduling day[3] for an Operating Day as the Operations Program's Preschedule Day—when Holdback Requirements are set. This is critical, as it closely aligns the Operations Program with how bilateral transactions are conducted in the West. By requiring successive Sharing Calculations (identifying both positive and negative results) in the days leading up to the Preschedule Day, the Operations Program increases regional reliability through centralized assessments on a multi-day-ahead horizon that serve to identify potential reliability issues, provide broader visibility into developing reliability events, and provide a platform on which to address those issues through opportunities to use regional diversity of both demand and supply.

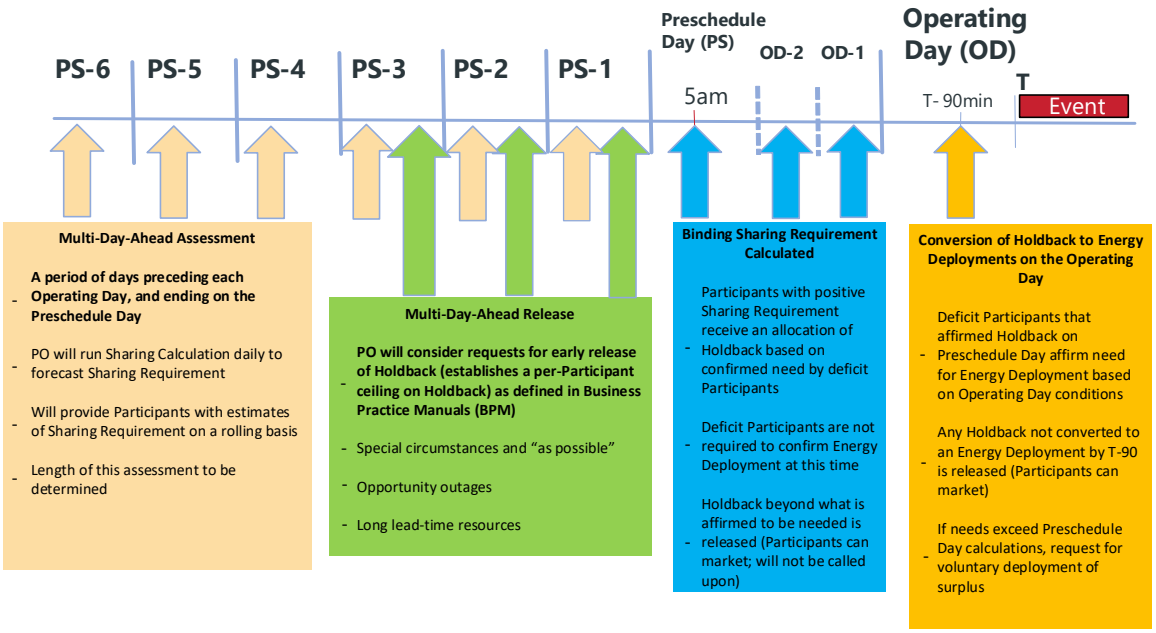
Operations Program Timeline

11. As illustrated in Figure 1 below, the Operations Program runs continuously, working back from each Operating Day in each Binding Season. The rolling period leading up to each Operating Day is known as the Multi-Day-Ahead Assessment. For operational flexibility, the Tariff does not fix the number of days in that assessment, but it is currently anticipated to be seven days. The timeline thus entails a forecast of expected conditions on each Operating Day beginning seven days before the Operating Day. As I explain below, the focus of that forecast is a calculation as to each Participant, known as the Sharing Calculation, whether the Participant will be in a surplus or deficit relative to its forecasted resource adequacy needs anticipated for the approaching Operating Day. The forecast is revised daily through the Preschedule Day, which is the scheduling day for a given Operating Day defined by WECC's scheduling calendar (typically, the last business day

3 Because, due to weekends or holidays, the WECC scheduling day may be earlier than the day before the Operating Day, the Preschedule Day will also be earlier than the Operating Day at those times.

before the Operating Day). When a Sharing Event has been identified for an Operating Day, the expected conditions forecast and Sharing Calculations will continue to be revised hourly during the Operations Day.[4] Figure 1 below depicts the process of the Operations Program timeline.

Figure 1
Operations Program Timeline



Sharing Calculation

12. As explained above, the Operations Program is the means by which each Participant can realize the benefits of load and resource diversity in the WRAP Region, which is defined by the Participants that have made binding showings in the Forward Showing Program. More precisely, the Operations Program defines when a Participant can

4 I should note that WPP, with support from SPP as the Program Operator, may update the Sharing Calculation during the Operating Day for reliability monitoring purposes and situational awareness even if a Sharing Event has not been identified,

call upon assistance from the other Participants during stressed periods, and how much assistance it may request.

13. The Sharing Calculation does so by comparing the load and resource conditions the Participant was required to show in the Forward Showing Program with the load and resource conditions the Participant is expected to face during the relevant Operating Day. As seen in Figure 2, below, which shows the governing formula from the Tariff, the Sharing Calculation thus takes into account the load forecast for the Operating Day, changes for the Operating Day (compared to the Forward Showing for the relevant Month) in Variable Energy Resource ("VER") performance, Run-of-River Qualifying Resource performance, forced outages, and Contingency Reserves. The Sharing Calculation also recognizes when a Participant used Regional Diversity Transmission to meet part of its FS Capacity Requirement, and factors in an explicit uncertainty element relating to the load, VER, and run-of-river forecasts.

Figure 2
Sharing Calculation Formula

$$\boldsymbol{Sharing\ Requirement} =$$

$$\mathbf{[}\boldsymbol{P50} + \boldsymbol{PRM} - \textbf{Regional Diversity Transmission} - \boldsymbol{\Delta\ Forced\ Outages} + \boldsymbol{\Delta RoR\ Performance} + \boldsymbol{\Delta VER\ Performance}\mathbf{]}$$

$$-$$

$$\mathbf{[}\boldsymbol{Load\ Forecast} + \boldsymbol{\Delta CR} + \boldsymbol{Uncertainty}\mathbf{]}$$

14. The resulting value compares what each Participant should have available to them, as seen in the Forward Showing Program, to what is actually available in the particular Operating Day. A positive Sharing Calculation indicates a Participant is forecasted to be in surplus for the Operating Day. A negative Sharing Calculation result

indicates a Participant is forecasted to be in deficit for the Operating Day. As can be seen from the equation above, a negative result implies that the Participant has effectively exhausted its FS Planning Reserve Margin, due, for example, to unexpectedly high loads and/or unexpectedly reduced resource performance. This underscores that Sharing Events, i.e., at least one hour during an Operating Day when at least one Participant has a negative Sharing Calculation, are indicative of high stress on the system, during which multiple Participants may be facing resource adequacy challenges.

15. As noted, the Sharing Calculation will identify not only which Participants are expected to be in deficit during the Operating Day, but also which Participants are expected to be in surplus. This, in turn, will help determine not only which Participants need assistance, but also which Participants will provide assistance, and how much assistance those Participants are expected to provide. The Tariff's rules on Holdback Requirements and Energy Deployments (which I discuss below) provide the specific allocation methods for determining these obligations.

Operations Program Holdback Requirement

16. If the Sharing Calculation finds during pre-scheduling operations that any Participant will be in a net negative position for any hour of an Operating Day, then WPP declares on the Preschedule Day a Sharing Event for the relevant hours of that Operating Day. Once the deficit Participant positively confirms its need for assistance, WPP sets the hourly Holdback Requirement for each Participant and all Participants are notified. The Holdback Requirement effectively sets aside a portion of capacity held by Participants that are net positive capacity for the Sharing Event hour(s) for expected use during the Operating Day (via an Energy Deployment) by the Participants that are net negative in capacity for that Sharing Event.

17. Figure 3 below shows the governing formula in the Tariff to determine the Holdback Requirements for the Participants that are in surplus:

Figure 3
Holdback Requirement Calculation Formula

Participant Holdback Requirement =

Participant Sharing Ratio $*$ Total Program Sharing Requirment

Where:

Participant Sharing Ratio =

The positive Sharing Requirement, if any, calculated for such Participant / Σ positive Sharing Requirement of all Participants having a positive Sharing Requirement for such hour

And Where:

Total Program Sharing Requirment =

abs(Σ negative Sharing Requirements of all Participants having a negative Sharing Requirement for such hour)

18. Under this formula, the Holdback Requirement is allocated to each net positive Participant based on their proportion of the program-wide net positive amount. In other words, all Participants in a surplus position are expected to aid Participants in a deficit position, and Participants in a relatively greater surplus position are expected to provide relatively more assistance.

19. For Participants' planning certainty, and to avoid undue restrictions on their use of their own capacity, there are limits on the amount of the Holdback Requirement. First, the Holdback Requirement set on the Preschedule Day cannot be increased, and the level of a Participant's Holdback Requirement (for a given Sharing Event) also caps their responsibility for Energy Deployments during the hours of the Operating Day covered by that Sharing Event. Second, WPP will provide affected Participants estimates during the

Multi-Day-Ahead Assessment of the Holdback Requirement it expects to set on the Preschedule Day. Following that methodology, WPP can establish during the Multi-Day-Ahead Assessment expectations on the level of the Holdback Requirement that will likely be set on the Preschedule Day by applying the same considerations, discussed below, for a release of a Holdback Requirement.

20. To increase Participant flexibility and options, the Tariff recognizes that Participants can engage in transfers of their Holdback Requirements that were set by WPP under the Operations Program. The involved Participants must handle these transfers bilaterally, and are solely responsible for transmission arrangements and settlements. All such transfers must be reported to WPP, and a transfer will not be permitted if it is not fully reported to WPP by 120 minutes before the start of the applicable hour.

Release of Capacity from Holdback Requirement

21. Because expectations regarding Participants' need for assistance on an Operating Day can change, and to avoid reserving capacity that is not needed, WPP can release capacity back to Participants. To that end, WPP will review Holdback Requirements after they are set on the Preschedule Day, and can release all or part of a Holdback Requirement so long as no Participant is then calculated to have a negative Sharing Calculation for the hour(s), and WPP determines that there is a low probability of a Sharing Event for the hour. Alternatively, WPP may grant a Participant's request for release of all or part of the Participant's Holdback Requirement based on the Participant's showing of extenuating circumstances. Once capacity is released back to a Participant, that capacity is no longer subject to an Energy Deployment requirement.

Energy Deployment

22. As the Operations Program enters the Operating Day, the Holdback Requirement that is a capacity megawatt ("MW") value will be converted, to the extent it is still needed, to an Energy Deployment that is an hourly energy (i.e., MWh) value. Reflecting the program design principle of encouraging Participants to resolve their resource adequacy shortfalls outside the program before invoking compelled assistance under the Operations Program, each Participant in a deficit position must confirm to WPP, by no later than 120 minutes before the applicable hour, of the quantity of Energy Deployment it requires for that hour. That requested quantity can be no greater than the negative Sharing Calculation result previously calculated for the Participant for that hour, and if confirmation is not provided by the 120-minute deadline, the Participant is deemed to waive all Energy Deployment deliveries for that hour.

23. Energy Deployments needed for an hour will be assigned or allocated among Participants in one of two ways, depending on whether the allocation is in a Subregion that has a central transmission hub that permits energy deliveries to that hub from any point in the Subregion.

24. For a Subregion that *has* such a hub, the total Energy Deployment needed for a given hour will equal the sum of all confirmed Energy Deployment MWs for that hour, and that total will be allocated to each Participant that has a Holdback Requirement based on the ratio of that Participant's final Holdback Requirement to the sum of all Participants' final Holdback Requirements.

25. For a Subregion that *does not have* such a hub, the Energy Deployment assignments will be determined by WPP using an optimization calculation that uses receipt and delivery point information provided by Participants, prioritizes use of transmission

service and holdback voluntarily offered by Participants on the Preschedule Day or under the Forward Showing Program, and matches and allocates provision and receipt of Energy Deployments within categories specified by the Tariff.

26. The optimization-based approach in a Subregion without a central transmission hub provides a way to address potential issues related to accessibility of Holdback. The optimization will take as input from entities with a positive Sharing Calculation, the transfer capability from generation to a point or set of points and a prioritization of each transfer path. The optimization will also take as input from entities with a negative Sharing Calculation, the transfer capability from a point or set of points to load and a prioritization of each transfer path. This information provides the foundation for building a model of connectivity between Participants that is congruent with the West's use of contract paths in the bilateral market. The optimization then uses this model of connectivity to ensure that the maximum amount of deficit can be served given the limitations inherent in the model. The optimization is not economic or cost-based, as would be the case in a market solution. It is instead designed to maximize the ability of the Operations Program to meet the needs of Participants with a negative Sharing Calculation result. It does this by matching surplus Participants with deficit Participants in a way that respects the transfer capability submitted by Participants, utilizes transfer capability that Participants have high confidence in through the indication of priority, and generally attempts to meet the needs of a deficit Participant utilizing Holdback and Energy Deployment from a Participant that is as close to the deficit Participant as is feasible. This allocation methodology allows for a Subregion that may be constrained by transmission to realize the maximum program support during Sharing Events. To promote flexibility in meeting the Operations Program requirements, Participants can transfer Energy

Deployment obligations. Such transfers must be handled bilaterally, and the Participants are solely responsible for the necessary transmission arrangements and settlement. All such transfers must be reported to WPP by the third business day of the Month following the Month in which the Energy Deployment occurred.

Safety Margin

27. As an additional reliability measure for the mutual benefit of the Participants, WPP may establish a Safety Margin. As shown above, Sharing Calculations focus on the resource adequacy status of individual Participants. The Safety Margin, by contrast, recognizes that there may be anticipated system conditions that present an increased risk to resource adequacy during the Operating Day in the WRAP Region, warranting additional holdback going into the Operating Day to ensure capacity is available to cover the event. As examples of such regional or subregional conditions, the Tariff cites potential large resource trips, heavy transmission outage conditions, and significant environmental conditions. For transparency, WPP will maintain further details on possible Safety Margin conditions in the Business Practice Manuals, and will notify all Participants whenever a Safety Margin is applied, providing the timeframe during the upcoming Operating Day when the Safety Margin is being applied, the MW amount, and the rationale for applying a Safety Margin.

28. In each hour a Safety Margin is applied, it results in a larger Holdback Requirement for all Participants with a Sharing Requirement (i.e., a positive Sharing Calculation result) in that hour. The Safety Margin is allocated among such Participants pro rata based on their relative shares of the sum of all Sharing Requirements for the hour. However, the Safety Margin cannot result in a Holdback Requirement greater than a

Participant's Sharing Requirement, since the Sharing Requirement defines the extent of a Participant's surplus capacity for the hour.

Operations Program Transmission Service Requirement

29. As explained by Mr. Hendrix, Participants must demonstrate in their Forward Showing Submittals that they have arranged NERC Priority 6 or 7 firm transmission service covering at least 75% of their aggregate transmission needs from resources to loads, and face deficiency charges if they fail to do so without a valid exception. The Operations Program reaffirms that requirement but applies it to transmission needed to satisfy in full the Participant's FS Capacity Requirement. Part of the basis for the 75% rule—allowing Participants the seven months between the FS Deadline and the start of the Binding Season to complete their firm transmission arrangements—no longer applies once Participants are in the Binding Season. Explicit affirmation of the requirement to secure 100% of the needed capacity eliminates any implication that Participants only need to obtain the 75% that is required at the time of the Forward Showing. Participants are not required to make a further demonstration of transmission as they enter the Binding Season. If, however, a Participant has an Energy Delivery Failure, WPP's review to determine whether to assess a Delivery Failure Charge will include a review of whether a failure to secure the required firm transmission service rights contributed to the Energy Delivery Failure. The Tariff expressly puts Participants on notice that they are expected to comply with this transmission service requirement.

30. This completes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool	)	Docket No. ER22-___-000
d/b/a Western Power Pool	)	

VERIFICATION

I, **Charles C. Cates**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF CHARLES C. CATES**, are true and correct to the best of my knowledge, information, and belief.

Charles Cates

Charles C. Cates

Subscribed and sworn to before me, the undersigned notary public, this 30th day of August 2022.

Michelle Harris

Notary Public

MICHELLE HARRIS
Notary Public-Arkansas
Pulaski County
My Commission Expires 04-01-2028
Commission # 12365480

Attachment F

Affidavit of Ryan L. Roy
on Behalf of Northwest Power Pool d/b/a
Western Power Pool

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF RYAN L. ROY
ON BEHALF OF
NORTHWEST POWER POOL D/B/A
WESTERN POWER POOL

1. My name is Ryan L. Roy. My business address is 7525 NE Ambassador Place, Suite M, Portland, Oregon 97220. Since August 2021, I have been employed by Northwest Power Pool d/b/a Western Power Pool ("WPP") as its Director of Technology, Modeling and Analytics.

2. In my current position I act as the primary subject matter expert on issues concerning trading, scheduling, settlements, Balancing Authority Area ("BAA")[1] operations, merchant generator operations, and hydro modeling for WPP's projects and initiatives regarding the Western Resource Adequacy Program ("WRAP"), the Pacific Northwest Coordination Agreement, and the WPP Reserve Sharing Group ("RSG"). I am also responsible for providing strategic oversight of WPP's development, use, and implementation of technology solutions that support the WRAP. I have worked on the design and implementation of the WRAP since December 2020, first while employed by Sapere Consulting ("Sapere") as a Senior Consultant in its Energy Solutions practice, and then in my current position as a member of WPP staff.

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1 Capitalized terms that I use in this affidavit, if not defined in the affidavit, have the meaning provided by the Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff") that is included with this filing.

3. I have over twenty years of experience in trading, trading systems development, settlements, and operations in the electric utility industry. Prior to joining WPP in 2021, I was a Senior Consultant in the Energy Solutions practice at Sapere. While at Sapere I worked on price forecasting models for energy markets in South America and provided consulting services to a large hydro-electric owner and operator. Prior to joining Sapere in 2020, I worked at Public Utility District No. 1 of Chelan County ("Chelan") for eighteen years. In my last role at Chelan, I managed the staff responsible for the short-term trading function, overseeing trading of 250 average megawatts ("aMW") and scheduling of 500 aMW. In that role, I also supervised the staff responsible for optimizing Chelan's hydro resources. From 2010-2019, I served as Chelan's Senior Power Business Systems Architect and Resource Analyst, where I designed and implemented profit and loss models and net wholesale revenue optimization models used for long-term forecasting and planning. In that role, I developed and managed systems that automated the calculation of forward price forecasts and mark-to-market values, and that automated the management of counterparty credit and collateral in support of back and middle-office reporting requirements. From 2007-2010, I was an IT Systems Advisor and Application Architecture Manager for Chelan focusing on the development of systems to support corporate IT operations functions. Prior to 2007, I served in various information technology and software engineering roles with Chelan. I earned a Bachelor of Arts in Business Administration from Washington State University and a Master of Science in Software Engineering from DePaul University.

4. My affidavit explains and supports the Tariff's proposed pricing for Energy Deployments and Holdback Requirements in the Operations Program, as well as the

Delivery Failure Charge that is assessed on a Participant that fails to deliver its assigned Energy Deployment and does not obtain a waiver of its obligation to do so.[2]

Key Considerations

5. WRAP settlements reflect the fact that the WRAP is not a central market for either capacity or energy. The Tariff prescribes how WPP is to calculate the quantity of their resources Participants should hold back—and not sell to others; the quantity of energy a Participant needing assistance on an Operating Day will buy within the program; the quantity a Participant providing assistance will sell; and the prices a buyer will pay, and a seller will receive for Holdback Requirements and Energy Deployments. The implementing transactions will be entirely bilateral between program Participants. WPP is not a settlement entity or a party to any of the transactions, nor is WPP operating a market for the conduct of these transactions.

6. In the same vein, the WRAP prescribes just and reasonable pricing for Holdback Requirements and Energy Deployments that is designed: (i) to encourage Participants to invoke the program's compelled sales of capacity and energy by other Participants only when they cannot resolve their anticipated resource adequacy shortfalls through bilateral or market purchase transactions outside the program; and (ii) to fairly and fully compensate Participants that meet Holdback Requirements and deliver Energy Deployments.

7. In that regard, the pricing structure should support the design objective that WRAP should be a resource of last resort—not a resource of first resort. If WRAP's

2 Please note that while for ease of explanation I sometimes use simplified or summary language to describe the pricing provisions in the Tariff, the Tariff language governs in the event of any inconsistencies between my description in this affidavit and the actual language in the Tariff.

dictated pricing was, by design, consistently lower than the price that a Participant would have to pay a resource in the WRAP Region to compete with the price such a resource could get by selling into the day-ahead market, then Participants would be incented to invoke WRAP's compelled sales of Holdback and Energy Deployments as a less expensive alternative to purchasing from WRAP Region resources in bilateral transactions outside the WRAP. Consider, for example, if the Operations Program used solely a day-ahead price index to set the price for Holdback Requirements and Energy Deployments. That approach, in the context here, would transfer all of the operational and price risk to the Participant in surplus that is assigned Holdback Requirements and Energy Deployment obligations. That Participant would have to manage the operational and load resource balance impacts of the holdback and would be exposed to the difference between the day-ahead index and the real-time index if the Participant that is in deficit declines some or all of the Energy Deployment on the Operating Day. That approach would essentially provide the Participant in deficit with a free option for its energy needs on the Operating Day—which is entirely inconsistent with the WRAP objectives I have described. To avoid such scenarios, the proposed pricing, as I explain below, incorporates a reasonable premium over the index price, and includes a component that permits recovery of opportunity costs.

8. Another key point to bear in mind when considering the Tariff's pricing for Energy Deployments and Holdback Requirements is that it *only* applies to bilateral transactions between Participants when a Participant affirmatively chooses to rely on the Tariff's *required assistance* from other Participants. The Tariff's pricing does not apply to a Participant's bilateral capacity or energy transactions with an entity that is not a Participant. Nor does the Tariff's pricing apply to bilateral capacity or energy transactions

between Participants that they choose to enter *in lieu of* entering the bilateral transactions required by the Tariff's rules on Holdback Requirements and Energy Deployments.

9. A final important factor is that, even if there was only one Participant needing assistance for a given hour of an Operating Day, the quantity of the Holdback Requirement can differ from the quantity of the Energy Deployment. This can happen, for example, if a Participant was in a deficit position on the Preschedule Day (i.e., it had a negative Sharing Calculation) *and* the Participant in deficit confirmed on the Preschedule Day that it will need capacity for that hour of the Operating Day, *but* on the Operating Day itself, the Participant that was in deficit *does not* confirm its need for an Energy Deployment for that hour equal to its negative Sharing Calculation. When a Participant advises on the Operating Day that it requires a lesser Energy Deployment than what was implied by its negative Sharing Calculation, that is known as "Energy Declined."

10. In all events, WPP's only role is to apply the Tariff's rules to calculate the required quantities and pricing for a Holdback Requirement or Energy Deployment. The Participants themselves are responsible for entering the bilateral transactions that implement the Tariff-required quantity and price. WPP only gets involved again if the Participant that was required to provide an Energy Deployment *does not do so*; in that event, WPP will either (upon due consideration of a waiver request) grant a waiver or assess a Delivery Failure Charge.

Holdback Settlement Price, Energy Declined Settlement Price, and Total Settlement Price

11. Turning to the pricing itself, the Tariff rules establish a price for the Holdback Requirement and a price for the Energy Deployment, and a separate Make Whole Adjustment applicable when the selling Participant's opportunity costs exceed the

compensation the seller receives for the Holdback Requirement and the Energy Deployment (and accounting for factors that mitigate those opportunity costs).

12. The price paid for a Holdback Requirement is the Holdback Settlement Price. The price paid for an Energy Deployment is the Energy Declined Settlement Price. While that label seems counter-intuitive at first glance, it simply reflects that the same price is used to value both the amount of energy a Participant receives as an Energy Deployment, and some or all of the amount of energy that was implied by the Holdback Requirement but that the Participant elected on the Operating Day not to receive. The Participant that reduces the quantity of energy it takes under the Operations Program on the Operating Day gets a credit for that reduction, valued at the Energy Declined Settlement Price, to reflect that it pays the Holdback Settlement Price on the full amount of its negative Sharing Calculation that was used to set Holdback Requirements on the Preschedule Day, even though the Energy Deployment it receives on the Operating day is less than the megawatt ("MW") quantity of its negative Sharing Calculation for that hour.

13. The specific price values used for the Holdback Settlement Price and the Energy Declined Settlement Price are derived from the Total Settlement Price. The Total Settlement Price, in turn, is patterned directly on the maximum import bid pricing that the Federal Energy Regulatory Commission ("Commission") accepted, without change, in 2021 for the California Independent System Operator ("CAISO"). CAISO's pricing proposal set the maximum price bids for imports into CAISO from certain resources located in the portions of the Western Interconnection that are outside CAISO by taking the greater of the Mid-Columbia ("Mid-C") or Palo Verde ("PV") index prices, multiplying the index by an hourly shaping ratio, and multiplying that number by 110%. CAISO explained and supported its proposal to use the two price indices, the hourly shaping factor,

and the 110% factor, and the Commission accepted that proposal in full, along with CAISO's proposed requirement that bid prices can be no higher than CAISO's "hard" price cap of $2,000/megawatt hour ("MWh") on energy offers.

14. Adopting CAISO's approved pricing, WPP proposes to base the Total Settlement Price on a Day-Ahead Applicable Price Index with an hourly shaping factor identical to CAISO's hourly shaping ratio, and to use the same 110% multiplier that was approved for CAISO. The only differences are that: (i) CAISO named the two indices in its tariff, whereas WPP anticipates specifying the same (i.e., Mid-C and PV) indices as CAISO but will do so in its Business Practice Manuals, rather than the Tariff; and (ii) CAISO's pricing is based on whichever of the two indices yields a higher price for the time period at issue, whereas WPP will use the price index more appropriate in the WRAP Subregion for which the price is being calculated.

15. As prescribed by the Tariff, WPP will apportion the Total Settlement Price into a component to compensate Participants for satisfying Holdback Requirements and a component to compensate Participants for delivering Energy Deployments. The price paid for Energy Deployments will be no higher than 80% of the Total Settlement Price, and what remains from the Total Settlement Price will be marked as compensation for the Holdback Requirement. This method recognizes that while there are good options for using energy price indices at liquid hubs to set energy prices in a contract or tariff, there currently is no distinct capacity price index that would be a good candidate for pricing WRAP Holdback Requirements. The price for the Energy Deployment component can readily be set using the price for the hour at issue from a real-time energy price index, but nothing would prevent that price from consuming most or all of the Total Settlement Price. Capping that component at 80% thus ensures that there is at least some significant share of

the Total Settlement Price that can be treated as compensation for the Holdback Requirement.

Make Whole Adjustment

16. To ensure fair compensation for all costs reasonably associated with meeting WRAP sale obligations, the pricing proposal also includes compensation for reasonable opportunity costs, in the form of a Make Whole Adjustment. The Make Whole Adjustment is applied if the compensation otherwise provided via the Total Settlement Price and its components "is less than the estimated revenues the selling entity would have received had such entity not been subject to a Holdback Requirement and had sold a day-ahead block of energy with a MW value equal to the maximum amount of Holdback Requirement for the hours in the block."[3] The Make Whole Adjustment is reduced by both the real-time value of Declined Energy, and the real-time value of "Unheld Energy." Declined Energy, as I previously explained, is the increment from what was held-back by Participants on the Preschedule Day that the Participant that was in a deficit position decided on the Operating Day not to take as part of its needed Energy Deployment. Reducing the Make Whole Adjustment by the real-time price value of this increment recognizes that, while the selling Participant was prevented from selling the block in the day-ahead market, it could have sold some or all of it in the real-time market, thus mitigating some of its foregone revenues. Unheld Energy, which is simply the maximum holdback MW value in the block minus the holdback MW value that was requested, similarly reduces the seller's opportunity cost of the day-ahead energy block sale because when the holdback is declined by the deficit Participant it becomes capacity and energy

3 Tariff § 21.2.5.

that is no longer obligated to the WRAP program ("unheld") and therefore is available to be re-marketed at the real-time market price.

17. The resulting Make Whole Adjustment is a textbook example of an opportunity cost, i.e., the revenues from a legitimate, available sale opportunity the seller must forego in order to make the sale required by the Tariff. As relevant here, day-ahead sales are commonly made in the form of multiple hour blocks during the Operating Day. In fact, the on-peak (sixteen hour) and off-peak (eight hour) blocks are among the most liquidly traded products in the day-ahead energy markets for both Mid-C and PV. A Holdback Requirement assignment on the Preschedule Day that includes any of the hours of a customary day-ahead block sale prevents the Participant assigned that requirement from making that block sale. Allowing a Make Whole Adjustment for these legitimate opportunity costs thus helps ensure a Participant receives a just and reasonable price based on the Participant's costs. The Make Whole Adjustment also helps ensure that Participants facing a resource adequacy shortfall are not incented to use WRAP Holdback Requirements as a significantly less expensive alternative to buying day-ahead energy at the block pricing that sellers commonly demand.

Subregional Pricing

18. The Tariff pricing proposal adds further rules to ensure just and reasonable prices for the different scenarios that can arise when the WRAP Region separates into different Subregions that place different values on the transactions at issue. First, if the seller and buyer are based in the same Subregion (for example, the Subregion for which Mid-C can successfully serve as a central hub), their settlement prices will be based on a price index applicable to that Subregion (for example, the Mid-C price index). Using instead a price index better suited to a different Subregion (for example, the PV price index)

would result in prices that do not reflect the competitive conditions, or the fair value of energy, in the Subregion where the transaction is occurring.

19. Second, if the seller and buyer are located in different Subregions, the Tariff directs using the higher priced index for components of the settlement pricing because a seller that can deliver into different Subregions through bilateral sales that are not under the WRAP would have the ability in those sales to capture the price difference between Subregions in the bilateral market. If, through the allocation of holdback, the seller becomes obligated to deliver into the Subregion with the lower priced index then it has foregone the ability to make a bilateral sale in the Subregion with the higher priced index—which is a lost opportunity cost that is appropriately recognized in the Tariff's pricing provisions.

20. Third, if a Participant *other than* the buyer and seller is involved in the transaction because it is providing transmission service rights between the two Subregions, the seller receives the applicable index price for the Subregion where the resource used to meet the Holdback Requirement or Energy Deployment is located. In addition, in this scenario, the separate Participant that provided Subregion-to-Subregion transmission receives the difference between each Subregion's Total Settlement Price or zero, whichever is greater. This approach ensures that a party that provided Subregion-to-Subregion transmission is fairly compensated for the value it provides by making resources from a lower-price Subregion available to purchasers located in a higher-price Subregion.

Market-Based Rate Considerations

21. WPP addresses in the transmittal letter for this filing the implications of the WRAP design for the Commission's policies designed to identify and limit opportunities for the exercise of market power. In this part of my affidavit, I provide support for that

discussion based on my knowledge of the WRAP design and my experience with market trading in the West.

22. First, the Forward Showing Program rules will not prescribe any transactions that must occur between any Participants. Participants will need to show at the FS Deadline that they will have in place Portfolio QCC for each Month of the applicable Binding Season in an amount at least equal to their FS Capacity Requirement for that Month; and their Qualifying Resources and Net Contract QCC will need to meet the qualification standards established by the Tariff. But how and where each Participant obtains those resources or contracts is entirely up to the Participant and occurs outside the Forward Showing Program. While the Forward Showing Program rules can *affect* the demand and supply for resources (for example, by setting the FS Planning Reserve Margin at a particular level or by adopting rules that govern which type of resources will qualify to meet the FS Capacity Requirement), those effects will occur within the existing framework of Commission regulation, market-power mitigation, and market-based rate authority. They will not change that framework.

23. Second, the Operations Program likewise relies on bilateral transactions conducted under existing authorities. As explained above, the Operations Program is intended to be a last resort, not a first resort, for Participants that are facing the prospect of a resource adequacy shortfall on an upcoming Operating Day. Participants are expected and encouraged to resolve their potential shortfalls through bilateral purchases outside the WRAP, before they invoke the Operations Program provisions that require other Participants to sell them capacity to make up for that shortfall. As noted above, bilateral transactions will occur in the existing framework of Commission jurisdiction and market-based rate authority.

24. Third, when the need for an Energy Deployment under the Operations Program *does* arise, the Tariff, not the seller or buyer, prescribes the quantity and the price. The Participant assigned responsibility for an Energy Deployment does not have a choice to refuse to provide that Energy Deployment. If it has a valid justification for an inability to deliver the Energy Deployment, it can seek a waiver, which may or may not be granted, based on WPP's (and potentially, the WPP Board of Directors' ("Board")) review. This process protects against the possibility of a seller attempting to engage in economic withholding. Likewise, the fact that the seller has no ability to set or influence the compensation prescribed for an Energy Deployment (and the associated Holdback Requirement) limits opportunities for the exercise of market power. Unlike resource adequacy programs that use an auction or market to set program prices, the settlement price prescribed here by the Tariff for the Participant-to-Participant sales required by the Tariff is not determined by any offers submitted by any WRAP Participant.

25. Fourth, the methods WPP proposes to price Holdback Requirements and settlement prices—reliance on liquid price indices and legitimate opportunity costs—have been accepted or endorsed in the Western Electricity Coordinating Council ("WECC"), including: (i) use of index prices to set the settlement price in the RSG program WPP administers, where many RSG members (who receive that pricing) are also active in the development of WRAP and are potential Participants in the WRAP; (ii) the CAISO maximum import pricing proposal that I discussed above; and (iii) the Commission's "soft-cap" guidance order, which identifies methods, including use of liquid price indices and legitimate opportunity costs, that the Commission could accept to justify prices above the WECC $1,000/MWh "soft cap."

26. Fifth, the Tariff's Make Whole Adjustment appears to be a textbook example of an opportunity cost payment, e.g., a verifiable alternative sales opportunity available to the seller at issue that the seller is required to forego because the Tariff requires the seller to enter a different sale at a lower price. Under that adjustment, a seller will receive (to the extent the adjustment exceeds other WRAP Tariff-identified compensation) the payment for a standard block energy market transaction that it was prevented from making because it was assigned a Holdback Requirement on the Preschedule Day for one or more hours (during that standard block) on the Operating Day.

27. In short, I believe it is fair to say that WRAP's reliance on bilateral transactions and the Commission's existing framework for market-based rates, WRAP's design that prevents sellers from exercising control over price, quantity, or the Tariff-triggered obligation to make the sale, and WRAP's chosen methods to set the price for the required bilateral transactions, all help assure that the WRAP will be consistent with the Commission's policies to promote wholesale competition and guard against the exercise of market power.

Delivery Failure Charge

28. The Tariff also establishes a Delivery Failure Charge, which will be assessed on a Participant that fails to deliver its assigned Energy Deployment. Let me first emphasize the significance of such a failure to deliver. As I explained above, Participants are expected and encouraged to secure the resources they need to satisfy their resource adequacy requirements. Participants are expected to have made such arrangements, or to timely make such arrangements, even when the system is stressed by the types of conditions—unexpectedly high loads, unexpectedly poor resource performance, reduced ability to rely on interchange—that are the hallmark of Capacity Critical Hours.

Participants are expected to still attempt to make such arrangements even if they have a negative Sharing Calculation on the Preschedule Day. Consequently, when a Participant *does* need to invoke Participant assistance under the Operations Program, it likely indicates that the Participant has few other options to ensure service to the loads for which it is responsible. Moreover, the Participant that provides assistance to another Participant that is facing those difficult conditions, could itself become, during a later event, the Participant that needs assistance. In other words, while Participants are encouraged to meet their resource adequacy needs outside the Operations Program, when that assistance is needed, it is truly needed, and all Participants benefit from having that "last resort."

29. All of these considerations underscore that when a Participant is assigned the obligation to provide an Energy Deployment, it is essential that the Participant actually deliver that Energy Deployment.

30. For this reason, the Delivery Failure Charge is designed to provide every Participant an unmistakable incentive to fulfill its Energy Deployment obligations. The Delivery Failure Charge equals the MWh amount of the Energy Deployment that the Participant failed to provide, times a Charge Rate. The Charge Rate is the higher of the day-ahead or real-time index price provided by the applicable price indices, times a Delivery Failure Factor.

31. The Delivery Failure Factor starts at five, but it scales up substantially for repeated failures and if the deficit is not covered by other Participants. If the deficit *is* covered by other Participants, the Delivery Failure Factor is five for the first non-waived failure in five years (i.e., the Tariff's "Cumulative Delivery Failure Period," which includes a particular measurement of that five years); ten for the second non-waived failure within five years, and twenty for the third non-waived failure within five years.

32. If the deficit *is not* covered by other Participants, the factor is higher: twenty-five for the first non-waived failure in five years; and fifty for the second and subsequent non-waived failures. These increasing factors reasonably reflect the very serious consequences at stake when the surplus Participant's failure to provide an Energy Deployment to a deficit Participant led to the high likelihood, or actual consequence, of unserved load, and also reflect that a seller that failed to provide an Energy Deployment on one occasion needs an even bigger financial incentive to ensure it honors its Energy Deployment obligation when it next arises.

33. The Tariff allows a Participant that failed to satisfy an Energy Deployment obligation to ask WPP to waive that obligation. The Tariff provides examples of circumstances that could warrant a waiver and requires WPP to maintain a non-exclusive list of valid justifications in the Business Practice Manuals. A Participant denied a waiver request can appeal that denial to the Board. This path to seeking a waiver is reasonable, and it also shows that the Delivery Failure Charge is assessed only when the Participant can present no reasonable justification for its failure to deliver, which further supports including a very strong incentive element in the Delivery Failure Charge.

34. This completes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-___-000

VERIFICATION

I, **Ryan L. Roy**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF RYAN L. ROY ON BEHALF OF NORTHWEST POWER POOL D/B/A WESTERN POWER POOL**, are true and correct to the best of my knowledge, information, and belief.

Ryan L. Roy

Subscribed and sworn to before me, the undersigned notary public, this 29th day of August 2022.

SOFIA ADAMS
NOTARY PUBLIC #20119682
STATE OF WASHINGTON
MY COMMISSION EXPIRES
07-30-24

Notary Public

Attachment G

Affidavit of Rebecca D. Sexton on Behalf of Northwest Power Pool d/b/a Western Power Pool

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-____-000

AFFIDAVIT OF REBECCA D. SEXTON
ON BEHALF OF NORTHWEST POWER POOL D/B/A
WESTERN POWER POOL

1. My name is Rebecca D. Sexton. I am the Director of Reliability Programs for the Northwest Power Pool d/b/a Western Power Pool ("WPP"). My business address is 7505 NE Ambassador Place, Suite R, Portland, Oregon, 97220. In my current position I am responsible for managing the final design and implementation of the Western Resource Adequacy Program ("WRAP"), as well as WPP's significant transition, as detailed in WPP's filings in this proceeding, to become the WRAP Program Administrator.[1]

2. I have been in my current position since October 2021. From December 2014 until I commenced my current position, I was a consultant with Sapere Consulting, Inc. In that role, I assisted clients with regional project and program facilitation, project management, risk management, decision analysis, and strategic planning. In particular, from the project's inception in September 2019 until I was hired by WPP, I served as the manager for the participant-led process that developed and designed the WRAP proposal.

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[1] Capitalized terms that I use in this affidavit, if not defined in the affidavit, have the meaning provided by the Western Resource Adequacy Program Tariff of Northwest Power Pool d/b/a Western Power Pool ("Tariff" or "WRAP Tariff") that is included with this filing.

I earned a Master's degree in civil engineering from Oregon State University and a Bachelor's degree in Geology-Physics from Whitman College.

3. My affidavit supports WPP's proposal on recovery of the costs of WRAP administration and operation, as set forth in Schedule 1 of the Tariff.[2] In particular, I explain the derivation of WPP's proposed cost assignment and maximum rates, and the rationale and expected use of WPP's proposed Cash Working Capital Support Charge.

Background

4. I begin with a general introduction to the nature and extent of WPP's expected WRAP costs. WPP will be responsible for independent administration and operation of the WRAP as prescribed by the Tariff. WPP will serve directly as the Program Administrator, and will supervise the performance of Southwest Power Pool, Inc. ("SPP") in its contracted role as Program Operator, as discussed by Mr. Antoine Lucas in his accompanying affidavit. WPP's WRAP costs accordingly will mostly be in the administrative and general category, such as staff labor, Board salaries and expenses, outside services (including not only the Program Operator but also the Independent Evaluator), overheads, rental expense, insurance, and taxes other than income taxes, and may include general plant, such as information technology systems. WRAP costs also could at times include interest or other borrowing expenses, although no substantial borrowings are currently planned.

5. WPP's WRAP costs will be modest in comparison to Participants' costs to secure or maintain the resources they will need to meet their resource adequacy obligations

[2] Please note that while for ease of explanation I sometimes use simplified or summary language to describe the provisions of Schedule 1, the Tariff language governs in the event of any inconsistencies between my description in this affidavit and the actual language in the Tariff.

under WRAP. In particular, WPP estimates its annual costs of WRAP administration and operation will fall in a range, over the near term, of approximately $9.2 million to $10.8 million.[3] This estimate includes the expected annual cost of the Program Operator service contract of approximately $4.4 million during the development phase of WRAP and $3.5 million after that.

6. WPP will need to recover through the proposed Tariff its actual WRAP costs on a relatively current, ongoing basis, because WPP does not have an alternative source of funds it can use to cover shortfalls in its cost recovery. WPP is not operated to earn a profit, has no equity investors, and has no retained earnings. WPP's current cost-recovery practices are consistent with this approach. WPP recovers on an ongoing basis its actual costs of providing services not related to WRAP, such as its long-standing administrative support for a reserve sharing group in the Pacific Northwest. Likewise, WPP currently recovers its actual costs of WRAP development on an ongoing basis from the prospective program participants.

7. As can be seen from the above, WPP's WRAP costs will be comparable in type (although much smaller in extent) to the administrative costs of regional transmission organizations ("RTOs") and independent system operators ("ISOs") which, like WPP, also have no equity or retained earnings they can use to cover their costs. WPP accordingly used the administrative cost recovery charges the Federal Energy Regulatory Commission ("Commission") has approved for ISOs and RTOs as the template for WPP's proposed Schedule 1.

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[3] This estimate does not include the reserve of 6% of WPP's annual revenues, which is provided by section 1 of Schedule 1.

Cost Assignment

8. WPP proposes to recover its WRAP costs entirely from the Participants. Per the Tariff, Participants are the entities responsible for demonstrating their resources and loads in the Forward Showing Program; and they are the entities with both the right to obtain assistance from other Participants and the obligation to provide assistance to other Participants under the Operations Program. Each Participant must be a Load Responsible Entity ("LRE") with the capabilities, authorities, and qualifications required by the Tariff's LRE definition. No entity becomes a Participant unless it agrees voluntarily to execute a Western Resource Adequacy Program Agreement. The WRAP is designed and intended to enhance Participants' ability to meet resource adequacy goals, and so the Participants appropriately will bear the WRAP costs. Notably, other stakeholders can provide meaningful input to WRAP rules through the Program Review Committee, but they will not bear any entry fee or ongoing charge to do so.

9. Importantly, the twenty-six entities from across the Western Interconnection currently engaged in the WRAP's development and design unanimously endorsed the Tariff in late August 2022, which expressly includes the proposed cost assignments, maximum rates, Cash Working Capital Support Charge, Default Allocation Assessment, and other provisions that will set the administrative cost recovery charges that Participants will be assessed under the WRAP.

10. Schedule 1, section 2 proposes to recover WRAP costs from Participants with a two-part rate: all Participants will pay the same Base Charge each Month, and each Participant will also pay a Load Charge each Month based on its peak load. This approach reasonably reflects differences in how Participants will benefit from WRAP costs incurred by WPP, better balances WRAP cost recovery among the Participants, and somewhat

lessens the extent to which WRAP relies for administrative cost recovery on individual Participants with large peak loads.

11. To develop the two-part rate structure reflected in the proposed Tariff, I analyzed which of WPP's expected WRAP administration and operation costs are reasonably associated with benefits to Participants as Participants, and which are reasonably associated with benefits to Participants in ensuring resource adequacy for their peak loads.

12. As I explained above, WPP's costs of operating and administering the WRAP are fairly limited in both nature and extent, and can be broken down into several readily identifiable categories: WPP's direct cost of program administration; the costs of the Program Operator, which can be further divided between technology and staffing/overheads; the costs of the independent Board insofar as they concern the WRAP; legal services and other outside services costs, and the costs of the Independent Evaluator. A substantial share of WPP's direct costs of program administration is reasonably related to, and benefits, Participants as Participants. Differing WPP staff activities, such as engagement with Participants individually or in groups, and facilitation of the Resource Adequacy Participant Committee ("RAPC"), which is the stakeholder committee exclusively comprised of Participants, are a good indication of WRAP costs incurred for the benefit of Participants as Participants, regardless of their peak load levels. Other examples of this type of WPP staff activity and engagement include management of participant file sharing, calculation and invoicing of charges and administration fees, and onboarding and training of new RAPC representatives.

13. WPP will create a separate cost center for these Participant-focused WPP program administration activities, and WPP employees will code their time to this cost

center when they engage in these activities. WPP will assign a share of program administration overheads to that cost center, pro rata, in proportion to the labor costs recorded to that cost center compared to all WPP WRAP labor costs—similar to the Commission's regular acceptance of labor allocators to recover overhead costs that support public utility staff functions or activities.

14. WPP's remaining direct costs of program administration will mostly be associated with the public engagement process and with facilitating the stakeholder process (such as the broad, sector-based Program Review Committee) *other than* the RAPC. As such, these costs are not primarily focused on the Participants as Participants.

15. The Program Operator costs arise almost entirely from its support of the Forward Showing Program and the Operations Program, and the cause and benefit of these costs can more closely be related to the size, scope, and complexity of a Participant' resources and loads —for which peak load is a straightforward metric. Similarly, the costs for the Independent Evaluator are reasonably associated with the substantive content of the Forward Showing Program and the Operations Program, given that the Independent Evaluator will largely be focused on WPP's implementation of the Forward Showing Program and the Operations Program (including WPP's oversight of the Program Operator). Likewise, WPP's legal services costs are likely to be largely concerned (once the Tariff becomes effective) with WPP's implementation of, and compliance with, the substantive WRAP elements, i.e., the Forward Showing Program and the Operations Program. To ensure no gaps in cost assignment and recovery, any of WPP's costs of program administration that are *not* coded by employees to Participant engagement, facilitation, and support activities will be assigned to the Load Charge.

16. One other cost category remains—the expenses associated with the independent Board's WRAP-related activities. WPP proposes to assign half of these costs to the Base Charge, and half to the Load Charge. This reflects the reality that the Board's activities support, serve, and benefit Participants *both* in terms of Participants' engagement with WPP and participation in the stakeholder process as individual entities, *and* in terms of Participants' involvement in the Forward Showing Program and Operations Program. Given the limited extent of the Board costs, it is reasonable to simply split those costs equally between the Base Charge and Load Charge. There would be little, if any, added value (in terms of the ultimate impact on rates) from trying to parse the Board's focus and activity more finely than the proposed even split. I should add that the Participants themselves settled upon this equal split of Board costs when they considered the WRAP administrative cost recovery topic.

17. The results of this cost assignment analysis will be memorialized in the Tariff, in the form of a Cost Assignment Matrix. The matrix relies on cost centers as I described them above, i.e., Program Administration, divided between Participant-related and remaining costs; Program Operator—technology; Program Operator—staff and overheads; Board, Outside Services; and Independent Evaluator, and shows whether the costs in that center are assigned in full to the Base Charge or the Load Charge, or have percentage assignments to both the Base Charge and the Load Charge. This approach allows the calculation of the two charges each Month to track how the costs actually are split each Month between Base Charge activities and Load Charge activities. This approach is reasonable, and Participants expressly favored this approach—as opposed to deriving and embedding in the Tariff, for use in every Month, a single percentage value for all Load Charge costs and a complementary percentage value for all Base Charge costs.

18. The specific billing determinant proposed for the Load Charge is the Median Monthly P50 Peak Load, which is a single monthly value designed to reflect the Participant's peak loads in its two most recent FS Submittals that have been validated by WPP.[4] Using the median avoids putting undue weight on any outlying individual values (which could result from using the greatest or an average instead of a median), and automatically updates each Participant's load billing determinant to a current value on a rolling basis each time a new FS Submittal is validated.

Maximum Rates

19. An administrative services charge that divides actual costs each Month by actual billing determinants[5] each Month has the potential for some rate volatility. For planning certainty, prospective Participants desired an upper bound on that rate uncertainty. Proposed Schedule 1, section 3 meets that need by stating specific numeric limits on an annual basis. To be very clear, these maximum levels are not themselves the rate Participants will pay; rather, their monthly rate will be the result of the proposed Schedule 1 rate formula that assigns costs between the Base Charge and the Load Charge, and then divides each month's actual costs across each month's actual billing determinants. The maximum rates instead set a Tariff parameter that will *prevent* WPP from charging a rate that recovers its actual costs over the actual billing determinants. The maximum rates therefore will operate to force WPP to file with the Commission for an increase in those stated maximum rates if and when WPP anticipates that the rates produced by the formula rate will exceed those maximum levels.

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4 *See* Schedule 1, section 2.

5 By billing determinants, I simply mean the number of Participants (for the Base Charge) and their Median P 50 Peak Loads, for the Load Charge. The values I use below to derive the maximum rates help put these billing determinants in a real-world context.

20. I calculated the maximum levels proposed in Schedule 1, i.e., an annual maximum of $59,000 per year for the sum of the monthly Base Rates in a year, and an annual maximum of $199 per megawatt ("MW") for the sum of the monthly Load Charge Rates in a year. For that calculation, which is shown on Appendix A, I started with WPP's 2023 WRAP budget projection including contingency, which covers the period from January 1, 2023, to December 31, 2023. The total amount of that budget is $11,190,000.[6] I analyzed that budget and estimated the share of WPP's staff costs that would likely be associated with support of and engagement with Participants as Participants. I then assigned those labor costs, along with a pro rata share of overheads, to the Base Charge. I also assigned 50% of the budgeted Board costs associated with WRAP to the Base Charge. All other costs were assigned to the Load Charge. The result, as shown on Appendix A, is Base Charge costs of $1.24 million and Load Charge costs of $9.95 million.

21. WPP assesses that the contingency most likely to elevate the unit rates under Schedule 1 is not an increase in the level of the WRAP costs (which are not extensive or complicated and are likely to be relatively stable), but rather the commitment of Participants at a lower-than-expected level, or the exit of Participants from the program. To calculate the maximum rates, therefore, I divided the Base Charge costs and Load Charge costs that I derived as discussed above by billing determinants that would reflect a conservatively low level of Participant commitment.

22. In that regard, twenty-six prospective Participants currently have agreed to fund WPP's WRAP development efforts (including SPP's support for that process) and are

[6] When calculating the maximum rates, the budget estimate includes the reserve of 6% of WPP's annual revenues, which is provided by section 1 of Schedule 1.

actively engaged in the design and development process. For my conservative estimate, I assumed only twenty-one Participants. To be clear, this number could result from any combination of lower initial commitment levels and future Participant exits. Participants have the right to withdraw for any reason with two years notice, and also can withdraw on less than two years notice based on a narrow set of expedited withdrawal scenarios described in the Tariff. An important consideration in my conservative estimate is that withdrawal by one Participant could precipitate withdrawals by other Participants, and that some of those reactive withdrawals (if, for example, ordered by a state regulator) could occur under the expedited withdrawal provisions. The possibility for such reactive withdrawals stems from the nature of the WRAP, in which Participants benefit to some degree based on the participation of other Participants, that bring their load and resource diversity into the regional mix.

23. To derive the billing determinants used in my maximum rate calculation, I assumed that the twenty-one Participants would have a peak load of 50,000 MW. This assumption is based on multiplying the approximate average load of all current design participants—3,000 MW— by five, representing the assumed reduction in Participants from twenty-six to twenty-one, which yields a reasonable value under the circumstances.

24. As shown on Appendix A, dividing the Base Charge costs of $1.24 million by 21 Participants produced the maximum annual sum of monthly Base rates of $59,000 per year. Similarly, dividing the Load Charge costs of $9.95 million by the peak load of 50,000 MW produced the maximum annual Load Charge Rate of $199 per MW. Stating these maxima on an annual basis avoids forcing a FERC rate-change filing for transitory monthly rate changes, while providing Participants certainty about their WRAP charges over any year.

Cash Working Capital Support Charge

25. WPP also proposes a Cash Working Capital Support Charge in Schedule 1, section 5. WPP's service agreement with the Program Operator requires an annual payment, and WPP will include 1/12th of that amount in its monthly Schedule 1 charges to Participants. But that approach can result in a shortfall due to the agreed timing of the annual payment to the Program Operator (in March each year, beginning in 2023) and the timing of collection of the needed funds from Participants, which will commence after the Tariff becomes effective in January 2023.

26. To ensure that WPP has the equivalent of twelve months' worth of collections from Participants at the time it makes the annual payment to the Program Operator, proposed Schedule 1 includes a Cash Working Capital Support Charge to Participants based on 9/12th of the Program Operator annual payment. This will be a one-time charge (absent future changes to the Program Operator annual payment), because once WPP has sufficient cash working capital to make the first annual payment, the monthly collections from Participants under the regular Schedule 1 charges over the ensuing twelve months will cover the next annual payment, and so on for each subsequent year. The prospective Participants, which will bear this charge, unanimously endorsed this resolution of the working capital issue, as the specifically preferred alternative to WPP borrowing the needed funds from a lender, and charging Participants WPP's costs of servicing that loan.

27. This completes my affidavit.

Appendix A

	BASE COSTS	LOAD COSTS	NOTES
PROGRAM ADMINISTRATION (non-participant)		$2,962,000	Costs and staff time related to stakeholder engagement, Program Review Committee, and any other costs that are not specifically Participant engagement. Larger loads and a larger footprint increase the amount of stakeholders and the cost of facilitating engagement.
PROGRAM ADMINISTRATION (Participant engagement, RAPC facilitation)	$1,020,000		Costs and staff time related to Participant engagement and RAPC facilitation. Participant engagement is not correlated to the load size of the Participant.
WRAP PORTION OF WPP BOARD OF DIRECTORS	$220,000	$220,000	Approximately 20% of Board costs will be borne by non-WRAP WPP programs and committees. The remaining approximately 80% of Board costs will be split between Load and Bases Costs due to the dual benefit the Board will provide.
PROGRAM OPERATIONS STAFFING AND OVERHEAD		$4,268,000	Costs and staff related to the technical operations of the WRAP. Technical operations of the WRAP are related to the load size and number of resources a Participant brings into the Program.
PROGRAM OPERATIONS TECHNOLOGY		$200,000	Costs related to obtaining, building, and maintaining the technology needed to operate the WRAP. Technical operations of the WRAP are related to the load size and number of resources a Participant brings into the Program.

LEGAL SERVICES		$1,11,000	Costs of legal services needed to obtain FERC approval, any updates to the WRAP Tariff, general in-house legal needs, and any tax or corporation-focused legal help needed to transition WPP to house the WRAP. Legal needs and tariff updates will scale with participant load size and number and variety of resources.
INDEPENDENT EVALUATOR		$500,000	Costs associated with the annual program review. Similar to the operations of the program, review and evaluation of the WRAP is related to the load size and number of resources a Participant brings into the Program.
CONTINGENCY RESERVE		$600,000	Contingency reserve charged to Load Costs because it is not specifically for Participant engagement.
TOTAL	**$1,240,000**	**$9,950,000**	
RATES	**$1,240,000 / 21 Participants = $59,000 per Participant**	**$9,950,000 / 50,000MW = $199 per MW**	

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northwest Power Pool d/b/a Western Power Pool	))	Docket No. ER22-___-000

VERIFICATION

I, **Rebecca D. Sexton**, being duly sworn according to law, state under oath that the matters set forth in the foregoing **AFFIDAVIT OF REBECCA D. SEXTON ON BEHALF OF NORTHWEST POWER POOL D/B/A WESTERN POWER POOL**, are true and correct to the best of my knowledge, information, and belief.

Rebecca D. Sexton

Subscribed and sworn to before me, the undersigned notary public, this 31 day of August 2022.

SHALYN NELSON
Commission Expires June 15, 2025
NOTARY PUBLIC
LICENSE # 21019567
STATE OF WASHINGTON

Notary Public

WESTERN RESOURCE ADEQUACY PROGRAM

TARIFF

OF

NORTHWEST POWER POOL

D/B/A

WESTERN POWER POOL

TABLE OF CONTENTS

PART I GENERAL PROVISIONS

1. Definitions

Unless the context otherwise specifies or requires, capitalized terms used in this Tariff shall have the respective meanings assigned herein for all purposes of this Tariff (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Parts, Sections, Schedules, or Attachments, are to Parts, Sections, Schedules, or Attachments of this Tariff.

Applicable Price Index: A published index of wholesale electric prices, or Locational Marginal Prices duly calculated and posted by a FERC-regulated market operator, in either case as designated under Part III of this Tariff for use in connection with an identified Subregion.

Administration Charge or WRAP Administration Charge: The charge established under Schedule 1 of this Tariff for recovery of the costs of the WRAP.

Advance Assessment: Analyses and calculations of Participant load, resource, and other information performed in advance of each Binding Season as set forth in Part II of this Tariff.

Available Transfer Capability ("ATC"): Transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses.

Balancing Authority: The responsible entity that integrates resource plans ahead of time, maintains demand and resource balance within a Balancing Authority Area, and supports interconnection frequency in real time.

Balancing Authority Area: The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Base Charge: A component of the WRAP Administration Charge as established under Schedule 1 of this Tariff.

Base Costs: Base Costs shall have the meaning provided in Schedule 1 of this Tariff.

Base Services Cost Centers: The cost centers comprising the Base Charge as defined in Schedule 1 of this Tariff.

Base Services Percentage: Base Services Percentage shall have the meaning provided in Schedule 1 of this Tariff.

Binding Season: The Summer Season or the Winter Season.

Board of Directors or Board: The Board of Directors of the Northwest Power Pool d/b/a Western Power Pool.

Business Day: Any Day that is a Monday through Friday, excluding any holiday established by United States federal authorities.

Business Practice Manuals: The manuals compiling further details, guidance, and information that are appropriate or beneficial to the implementation of the rules, requirements, and procedures established by this Tariff. Business Practice Manuals do not include such internal rules or procedures as the Western Power Pool may adopt for its operation and administration, including but not limited to any corporate by-laws of the Western Power Pool, or for any services or functions provided by the Western Power Pool other than those established by this Tariff.

CAISO: The California Independent System Operator Corporation, a California nonprofit public benefit corporation.

Capacity Benefit Margin: An amount of transmission transfer capability permitted under open access transmission rules to be reserved by load serving entities to ensure access to generation from interconnected systems to meet generation reliability requirements.

Capacity Critical Hours ("CCH"): Those hours during which the net regional capacity need for the WRAP Region is expected to be above the 95th percentile, based on historic and synthesized data for the WRAP Region's gross load, variable energy resource performance, and interchange.

Capacity Deficiency: A shortfall in a Participant's Portfolio QCC relative to that Participant's FS Capacity Requirement, as further defined in Part II of this Tariff.

Cash Working Capital Fund: Cash Working Capital Fund shall have the meaning provided in Schedule 1 of this Tariff.

Cash Working Capital Support Charge: A charge assessed to Participants under Schedule 1 of this Tariff to fund the Cash Working Capital Fund.

Cash Working Capital Support Charge Rate: Cash Working Capital Support Charge Rate shall have the meaning provided in Schedule 1 of this Tariff.

Cost of New Entry ("CONE"): The estimated cost of new entry of a new peaking natural gas-fired generation facility, as determined under, and used in, Part II of this Tariff.

CONE Factor: A factor employed in the calculation of Deficiency Charges under Part II of this Tariff, to reflect whether, and the extent to which, the WRAP Region as a whole is expected to have a capacity deficiency during the period for which the Deficiency Charge is bring calculated.

Committee of State Representatives ("COSR"): Committee of State Representatives, as established in Part I of this Tariff.

Contingency Reserve: As more fully described in the NERC WECC reliability standards, a quantity of reserves, consisting of generation, load, interchange, or other resources, that are deployable within ten minutes, equal to the greater of (i) the MW quantity of the loss of the most severe contingency and (ii) the megawatt quantity equal to the sum of 3% of hourly integrated load plus 3% of hourly integrated generation.

Cumulative Delivery Failure Period: Any period of five consecutive years, ending with and including the most recent Energy Delivery Failure as of the time of determination of a possible Delivery Failure Charge.

Day: A calendar day.

Day-Ahead Price: A price for wholesale electric transactions designated as a day-ahead price in an Applicable Price Index.

Default Allocation Assessment: A charge assessed on non-defaulting Participants to recover the costs associated with a default by a Participant, as set forth in Part I of this Tariff.

Deficiency Charge: A charge assessed for a Capacity Deficiency or Transmission Deficiency, as set forth in Part II of this Tariff.

Delivery Failure Charge: A charge assessed for a Participant's failure to deliver a required Energy Deployment, as set forth in Part III of this Tariff.

Delivery Failure Charge Rate: A rate employed in the determination of a Delivery Failure Charge as more fully set forth in Part III of this Tariff.

Delivery Failure Factor: A factor used in the determination of a Delivery Failure Charge to recognize the relative severity or impact of an Energy Delivery Failure, as set forth in Part III of this Tariff.

Demand Response: A resource with a demonstrated capability to provide a reduction in demand or otherwise control load in accordance with the requirements established under Part II of this Tariff.

Demonstrated FS Transmission: A Participant's demonstration in its Forward Showing Submittal that it has secured firm transmission service rights of the type and quantity sufficient to provide reasonable assurance, as of the time of the Forward Showing Submittal, of delivery of capacity from the Qualifying Resources and the resources associated with the power purchase agreements in the Participant's Portfolio QCC.

Dual Benefit Cost Centers: Dual Benefit Cost Centers shall have the meaning provided in Schedule 1 of this Tariff.

Effective Load Carrying Capability ("ELCC"): A methodology employed to determine the Qualified Capacity Contribution of certain types of Qualifying Resources, as more fully set forth in Part II of this Tariff.

Energy Declined Settlement Price: A pricing component used as part of the calculation of settlements for Holdback Requirements and Energy Deployments under Part III of this Tariff.

Energy Delivery Failure: A failure by a Participant to provide an Energy Deployment assigned to such Participant under Part III of this Tariff.

Energy Deployment: A delivery of energy that a Participant is required to provide during an Operating Day, as set forth in Part III of this Tariff.

Energy Storage Resource: A resource, not including a Storage Hydro Qualifying Resource, designed to capture energy produced at one time for use at a later time.

Excused Transition Deficit: A Participant's inability during the Transition Period to demonstrate full satisfaction of the Participant's FS Capacity Requirement, which, under certain conditions and limitations prescribed by Part II of this Tariff, permits a reduction in the otherwise applicable Deficiency Charge.

Federal Power Marketing Administration: A United States federal agency that operates electric systems and sells the output of federally owned and operated hydroelectric dams located in the United States.

FERC: The Federal Energy Regulatory Commission.

Forced Outage Factor: The factor resulting from dividing the number of hours a generating unit or set of generating units is not synchronized to the grid system, not in reserve shutdown state and considered to be out of service for unplanned outages—or a startup failure, by the number of total hours in the period multiplied by 100% or a Program Administrator calculated equivalent forced outage factor that reflects the likelihood and extent to which a resource will be unavailable from time to time due to factors outside management control.

Forward Showing Program: The program and requirements as set forth in Part II of this Tariff.

Forward Showing Submittal ("FS Submittal"): The submissions a Participant is required to submit in advance of each Binding Season to demonstrate its satisfaction of the FS Capacity Requirement and FS Transmission Requirement, as set forth in Part II of this Tariff.

Forward Showing Year: A period consisting of a Summer Season and the immediately succeeding Winter Season.

FS Capacity Requirement: The minimum quantity of capacity a Participant is required to demonstrate for a Binding Season, as set forth in Part II of this Tariff.

FS Deadline: The deadline for Participants' submissions of their FS Submittals for a Binding Season, as established under Part II of this Tariff.

FS Planning Reserve Margin ("FSPRM"): An increment of resource adequacy supply needed to meet conditions of high demand in excess of the applicable peak load forecast and other conditions such as higher resource outages, or lower availability of resources, expressed as a percentage of the applicable peak load forecast, as determined in accordance with Part II of this Tariff.

FS Transmission Requirement: The minimum quantity of transmission service rights a Participant is required to demonstrate for a Binding Season, as set forth in Part II of this Tariff.

High-Priced Day: The most recent day in the CAISO in which prices in the day-ahead market were at least $200/MWh.

Holdback Requirement: A MW quantity, as determined on a Preschedule Day, that a Participant is required to be capable of converting into an Energy Deployment on a given hour of the succeeding Operating Day, as more fully set forth in Part III of this Tariff.

ICE Index: A wholesale electric price index prepared and published by the Intercontinental Exchange.

Incremental Cash Working Capital Support Charge: Incremental Cash Working Capital Support Charge shall have the meaning provided in Schedule 1 of this Tariff.

Independent Evaluator: An independent entity engaged to provide an independent assessment of the performance of the WRAP and any potential beneficial design modifications, as set forth in Part I of this Tariff.

Installed Capacity: Nameplate capacity adjusted for conditions at the site of installation.

International Power Marketing Entity: An entity that (i) owns, controls, purchases and/or sells resource adequacy supply and is responsible under the WRAP program for meeting LRE obligations associated with one or more loads physically located outside the United States.

Legacy Agreement: A power supply agreement entered into prior to October 1, 2021.

Load Charge: A component of the WRAP Administration Charge as established under Schedule 1 of this Tariff.

Load Charge Rate: Load Charge Rate shall have the meaning provided in Schedule 1 of this Tariff.

Load Services Costs: Load Services Costs shall have the meaning provided in Schedule 1 of this Tariff.

Load Services Cost Centers: Load Services Cost Centers shall have the meaning provided in Schedule 1 of this Tariff.

Load Services Percentage: Load Services Percentage shall have the meaning provided in Schedule 1 of this Tariff.

Load Responsible Entity ("LRE"): An LRE is an entity that (i) owns, controls, purchases and/or sells resource adequacy supply, or is a Federal Power Marketing Administration or an International Power Marketing Entity, and (ii) has full authority and capability, either through statute, rule, contract, or otherwise, to:

(a) submit capacity and system load data to the WRAP Program Operator at all hours;
(b) submit Interchange Schedules within the WRAP Region that are prepared in accordance with all NERC and WECC requirements, including providing E-Tags

for all applicable energy delivery transactions pursuant to WECC practices and as required by the rules of the WRAP Operations Program;

(c) procure and reserve transmission service rights in support of the requirements of the WRAP Forward Showing Program and Operations Program; and

(d) track and bilaterally settle holdback and delivery transactions.

Subject to the above-mentioned criteria, an LRE may be a load serving entity, may act as an agent of a load serving entity or multiple load serving entities, or may otherwise be responsible for meeting LRE obligations under the WRAP.

Locational Marginal Price: The cost of delivering an additional unit of energy to a given node, as calculated under a FERC-regulated wholesale electric tariff.

Loss of Load Expectation ("LOLE"): An expression of the frequency with which a single event of failure, due to resource inadequacy, to serve firm load would be expected (based on accepted reliability planning analysis methods) to result from a given FS Planning Reserve Margin.

Make Whole Adjustment: A component used as part of the calculation of settlements for Holdback Requirements and Energy Deployments under Part III of this Tariff.

Maximum Base Charge: The maximum amount prescribed in Schedule 1 of the Tariff that the Base Charge cannot exceed.

Maximum Load Charge Rate: The maximum rate prescribed in Schedule 1 of the Tariff that the Load Charge Rate cannot exceed.

Median Monthly P50 Peak Loads: Median Monthly P50 Peak Loads has the meaning prescribed by Schedule 1 of this Tariff.

Month: A calendar month.

Monthly Capacity Deficiency: A Participant's Capacity Deficiency for a given Month.

Monthly Deficiency: An identification under Part II of this Tariff whether, and the extent to which, a Participant's need for capacity or transmission for a given Month is greater than the capacity or transmission, respectively, the Participant can demonstrate for such Month.

Monthly FS Capacity Requirement: FS Capacity Requirement determined as to a Month.

Monthly FSPRM: The FS Planning Reserve Margin applicable to a given Month of a given Binding Season, as determined in accordance with Part II of this Tariff.

Monthly Transmission Deficiency: A Participant's Transmission Deficiency for a given Month.

Monthly Transmission Demonstrated: A Participant's Demonstrated FS Transmission for a given Month.

Monthly Transmission Exceptions: Exceptions from the FS Transmission Requirement approved under Part II of this Tariff for a Participant for a given Month.

Multi-Day-Ahead Assessment: A period of days preceding each Operating Day, and ending on the Preschedule Day, during which Sharing Calculations are successively performed based in each case on Operating Day conditions expected at the time of calculation.

North American Electric Reliability Corporation ("NERC"): A not-for-profit international regulatory authority that serves as the designated electric reliability organization for the continental United States, Canada, and a portion of Mexico.

Net Contract QCC: The QCC, which may be a positive or negative value, calculated, in sum and on net, for a Participant's power purchase agreements and power sale agreements, in accordance with Part II of this Tariff.

Non-Binding Season: As to a Participant, a Binding Season that occurs during the Transition Period prior to the first Binding Season for which the Participant has elected to be subject to Parts II and III of this Tariff.

Non-Binding Participant: For any Binding Season, a Participant that has made an election by which such Binding Season is a Non-Binding Season for that Participant.

Open Access Transmission Tariff: A governing document on file with FERC establishing the rates, terms, and conditions of open access transmission service, or equivalent tariff of a transmission service provider that is not required to file its transmission service tariff with FERC.

Operating Day: A current Day of actual electric service from resources to load, for which Sharing Events are determined and Energy Deployments may be required, as set forth in Part III of this Tariff.

P50 Peak Load Forecast: A peak load forecast prepared on a basis, such that the actual peak load is statistically expected to be as likely to be above the forecast as it is to be below the forecast.

Participant: A Load Responsible Entity that is a signatory to the WRAPA.

Portfolio QCC: As to a Participant, the sum of the Resource QCC provided by all of a Participant's Qualifying Resources plus the Net Contract QCC of such Participant.

Preschedule Day: The applicable scheduling Day for a given Operating Day as defined in scheduling calendar established by WECC.

Program Administrator: The Western Power Pool, in its role as the entity responsible for administering the WRAP.

Program Operator: A third party that has contracted with the Program Administrator to provide technical, analytical, and implementation support to the Program Administrator for the WRAP.

Program Review Committee ("PRC"): The stakeholder sector committee as established in Section 4.2 of this Tariff.

Pure Capacity: A MW quantity of capacity without any assigned forced outage rate employed in ELCC determinations under Part II of this Tariff.

Qualifying Capacity Contribution ("QCC"): The MW quantity of capacity provided by a resource, contract, or portfolio which qualifies to help satisfy a Participant's FS Capacity Requirement, as determined in accordance with Part II of this Tariff.

Qualifying Resource: A generation or load resource that meets the qualification and accreditation requirements established by and under Part II of this Tariff.

Real-Time Price: A price for wholesale electric transactions designated as a real-time price in an Applicable Price Index.

Resource Adequacy Participant Committee ("RAPC"): The committee comprised of representatives from each Participant as established in Part I of this Tariff.

Resource QCC: The QCC provided by a Qualifying Resource, as determined in accordance with Part II of this Tariff.

Run-of-River Qualifying Resource ("ROR"): A hydro-electric power project that does not have the capability to store a sufficient volume of water to support continuous generation at the project's stated maximum capacity for a period of one hour. Resource does not meet the definition of a Storage Hydro Qualifying Resource.

Safety Margin: An additional factor allocated among Participants with positive sharing calculations when warranted by certain conditions as prescribed by Part III of this Tariff.

Senior Official Attestation: A signed statement of a senior official of a Participant attesting that it has reviewed such Participant's information submission required under this Tariff, that the statements therein are true, correct and complete to the best of such official's knowledge and belief following due inquiry appropriate to the reliability and resource adequacy matters addressed therein, and containing such further statements as required by this Tariff or the applicable Business Practice Manual for the information submission at issue.

Sharing Calculation: A calculation used in the Operations Program under Part III of this Tariff to identify any hour in which any Participant is forecast to have a capacity deficit.

Sharing Event: An hour or hours of an Operating Day for which one or more Participants has a negative Sharing Calculation result, as determined in accordance with Part III of this Tariff.

Sharing Requirement: A requirement applicable to a Participant with a positive Sharing Calculation result for a given hour or hours of an Operating Day to potentially provide an Energy Deployment to a Participant with a negative Sharing Calculation result for those same hours, as determined in accordance with Part II of this Tariff.

Storage Hydro Qualifying Resource: A hydro-electric power project with an impoundment or reservoir located immediately upstream of the powerhouse intake structures that can store a sufficient volume of water to support continuous generation at the project's stated maximum capacity for a period of one hour or longer.

Subregion: An area definition approved by the Board of Directors and identified in the Business Practice Manuals, that is wholly contained within the WRAP Region, which is separated from one or more other Subregions by transmission constraints on capacity imports or on capacity exports that result, or are expected to result, in differing FSPRM determinations for that Subregion relative to such other Subregion.

Summer Season: A period of time that commences on June 1 of a Year and terminates on September 15 of the same Year.

System Sale: A power sale in which the generation is sourced, at the seller's discretion, from a group of two or more identified Qualifying Resources.

Transition Period: The Binding Seasons within the time period from June 1, 2025, through March 15, 2028, plus the time period required to implement the requirements and procedures of Part II of this Tariff applicable to such Binding Seasons.

Transmission Deficiency: A shortfall in a Participant's demonstration of secured transmission service rights, after accounting for any approved transmission exceptions, relative to that Participant's FS Transmission Requirement, as further defined in Part II of this Tariff.

Unforced Capacity: The percentage of Installed Capacity available after a unit's forced outage rate is taken into account.

Variable Energy Resource ("VER"): An electric generation resource powered by a renewable energy source that cannot be stored by the facility owner or operator and that has variability that is beyond the control of the facility owner or operator, including but not limited to a solar or wind resource.

VER Zone: A geographic area delineated in accordance with Section 16.2.5.2 of this Tariff for a given type of VER, where each VER of that type located in such area is anticipated to be comparably affected by meteorological or other expected conditions in such area to a degree that warrants distinct calculation of ELCC allocations for such VERs of that type in such area.

Western Electricity Coordinating Council ("WECC"): A non-profit corporation that has been approved by FERC as the regional entity for the western interconnection and that also has NERC delegated authority to create, monitor, and enforce reliability standards.

Western Resource Adequacy Program Agreement ("WRAPA"): The participation agreement for the Western Resource Adequacy Program, as set forth as Attachment A to this Tariff, or as set forth for an individual Participant in a non-conforming version of such participation agreement accepted by FERC.

Western Resource Adequacy Program ("WRAP"): The Western Resource Adequacy Program, as established under this Tariff.

Western Power Pool ("WPP"): Northwest Power Pool, d/b/a Western Power Pool, which serves as Program Administrator for the WRAP under this Tariff and holds exclusive rights under section 205 of the Federal Power Act to file amendments to this Tariff.

Winter Season: A period of time that commences on November 1 of a Year and terminates on March 15 of the immediately following Year.

WRAP Cost Assignment Matrix: The matrix set forth in Schedule 1 of this Tariff to identify which WRAP costs are assessed to the Base Charge and the Load Charge components of the WRAP Administration Charge.

WRAP Region: The area comprising, collectively, (i) the duly recognized and established load service areas of all loads in the United States that all Participants are responsible for serving, (ii) the duly recognized and established load service areas of all loads in the United States that all load serving entities, on whose behalf a Participant acts in accordance with this Tariff, are responsible for serving, and (iii) the applicable location(s) on the United States side of the United States international border that form the basis for an International Power Marketing Entity's participation under the WRAP, in all cases excluding, for any Binding Season, any loads permitted by this Tariff to be excluded from Participants' Forward Showing Submittal for such Binding Season.

Year: A calendar year.

2. Role of Western Power Pool

2.1 WPP, acting under the direction of its Board of Directors, shall administer the WRAP as Program Administrator. Except as specified in Section 3 of this Tariff, WPP, as authorized by its Board of Directors, shall have the sole authority to submit to FERC amendments to the rates, terms, and conditions set forth in this Tariff under section 205 of the Federal Power Act, 16 U.S.C. § 824d. Nothing contained herein shall be construed as affecting in any way the right of any Participant or any other entity to apply to FERC for amendments to the rates, terms, and conditions contained herein under section 206 of the Federal Power Act, 16 U.S.C. § 824e, or any other applicable provision of that Act.

2.1.1 WPP president and staff shall support the Board of Directors in overseeing all aspects of the WRAP, including oversight and management of the Program Operator(s) in accordance with any Program Operator agreement(s) entered into by WPP under Section 2.2 of this Tariff.

2.1.2 WPP and its staff shall provide all legal, regulatory, and accounting support for the WRAP, including support for making filings with FERC as authorized by the Board of Directors.

2.1.3 WPP staff shall provide all logistical support necessary to facilitate implementation of the WRAP and specifically all logistical needs of the Board of Directors and reasonable logistical assistance to facilitate meetings and activities of the RAPC, PRC, and all subordinate organizational groups.

2.2 As Program Administrator, WPP shall undertake all actions as necessary to implement and administer the WRAP, including but not limited to engaging one or more Program Operator(s) to perform technical operations of the WRAP including both the Forward Showing Program and Operations Program. Except as otherwise provided herein, WPP may contract for certain activities required by this Tariff to be provided by one or more Program Operator(s) subject to oversight by the Board of Directors, provided, however, that the Program Operator shall operate solely as a contractor under the oversight of WPP, and WPP shall remain the sole point of compliance with this Tariff. WPP shall have the sole authority to enter into contracts for such engagements and is responsible for providing support and compensation for such Program Operator(s) pursuant to any contract(s).

2.2.1 WPP will contract with Program Operator(s) to assist WPP with providing reasonable technical support and expertise to all WRAP organizational groups as governed by the Program Operator's contract with WPP.

3. Role of the Board of Directors and Limitations on Board Authority

3.1 Authority: Ultimate authority over all aspects of the WRAP as established under this Tariff shall be vested in the independent Board of Directors. Each member of the Board of Directors shall at all times exhibit financial independence from all Participants and classes of Participants, as further provided in the WPP Bylaws and policies. As set forth in Section 2.1 of this Tariff, the Board of Directors shall have the exclusive authority to approve and direct WPP to file amendments to this Tariff with FERC under section 205 of the Federal Power Act, 16 U.S.C. § 824d, subject to the limitations and prohibitions imposed under Section 3.4 of this Tariff. The Board of Directors shall also have the exclusive authority to approve the Business Practice Manuals and any amendments to the Business Practice Manuals, subject to the terms, conditions, and limitations imposed under this Tariff.

3.2 The Board of Directors generally shall meet in open session for all matters related to the WRAP; however, the Board of Directors may meet in closed session as the chair deems necessary to safeguard the confidentiality of sensitive information, including but not limited to discussing matters related to personnel, litigation, or proprietary, confidential, or security sensitive information. The Board of Directors shall not take action on any proposed amendment to this Tariff or the Business Practice Manuals in closed session. During open session, the chair of the Board of Directors will reasonably accommodate stakeholder requests to address the Board within the discretion of the chair.

3.3 The Board of Directors shall only consider amendments to this Tariff or the Business Practice Manuals after such amendments are first acted upon by the RAPC, subject to the following additional conditions:

3.3.1 In the event that the RAPC has voted to reject or has not voted to support a proposed amendment to this Tariff or the Business Practice Manuals, any stakeholder may appeal such decision to the Board of Directors, and the Board of Directors shall consider the appeal.

3.3.2 In the event that the RAPC has voted to reject or has not voted to support a proposed amendment to this Tariff or the Business Practice Manuals and a stakeholder has not appealed such decision, the Board of Directors may, on its own motion or motion of any member of the Board of Directors, consider the proposed amendment.

3.3.3 In the event that the COSR as a body opposes or appeals a RAPC decision to the Board of Directors regarding an amendment to this Tariff or the Business Practice Manuals, the process set forth in Section 4.3.3 of this Tariff shall apply prior to the Board of Directors' consideration of the RAPC decision.

3.3.4 In the event that the Board of Directors wishes to initiate an amendment to this Tariff or the Business Practice Manuals that has not undergone PRC

and RAPC review, the Board of Directors shall first submit such proposed amendment to the PRC for review under the processes set forth in Sections 4.1 and 4.2 of this Tariff.

3.3.5 Expedited Review Process: In the event that the RAPC determines that an expedited review process is necessitated by an exigent circumstance as set forth in Section 4.1.3.1.1 of this Tariff, the Board of Directors shall review the RAPC's recommended Tariff or Business Practice Manual amendment expeditiously and invite comment from the PRC, COSR, and stakeholders concurrently with its consideration of the RAPC proposal.

3.4 WPP is specifically prohibited from amending this Tariff to:

3.4.1 Alter, usurp, control, or otherwise materially modify the Participants' existing functional control and responsibility over their generation and transmission assets, including but not limited to planning and operation of such assets, Open Access Transmission Tariff administration, interfering with Balancing Authority duties and responsibilities, or imposing a must-offer requirement on any specific generation resources.

3.4.2 Administer Open Access Transmission Tariff service, engage in Balancing Authority operations, impose transmission planning requirements, or assume any transmission planning responsibilities with regard to any of the Participant's transmission assets.

3.4.3 Form any type of organized market, including but not limited to a capacity market, a regional transmission organization, a real-time market, or any other type of FERC-approved regional construct, unless such action is also approved by the RAPC under its voting procedures set forth in Section 4.1.6 of this Tariff.

3.4.4 Impose any requirements on Participants beyond the assessment of financial charges as specified in this Tariff or suspension or termination of participation for failure to meet any WRAP requirements.

3.4.5 Amend in any way this Section 3 of this Tariff without the approval of the RAPC under its voting procedures set forth in Section 4.1.6 of this Tariff.

3.4.6 Amend the RAPC voting thresholds set forth in Section 4.1.6 of this Tariff.

3.5 Subject to the limitations and prohibitions imposed under Section 3.4 of this Tariff, if the Board of Directors votes to file at FERC to expand the WRAP to include market optimization or transmission planning services, WPP will initiate a formal process with COSR and other stakeholders to conduct a full review of governance structures and procedures, including the role of states. If COSR does not support any revised governance structure that emerges from such WPP review process, the WPP will file, along with any WPP governance proposal to FERC, an alternative

governance structure on behalf of the COSR so long as such COSR alternative governance structure is supported by 75% of the COSR.

4. Organizational Groups for the WRAP

4.1 Resource Adequacy Participants Committee

4.1.1 Authority and Purpose: The RAPC shall be the highest level of authority for representation by Participants in the WRAP governance structure and shall represent the interests of Participants directly to the Board of Directors.

4.1.2 Composition: The RAPC shall be composed of one representative from each Participant. Such representative shall be a senior management official with binding decision-making authority on behalf of the Participant, or a designated representative of a Participant's senior management official. A designated representative shall be required to have binding decision-making authority on behalf of the Participant and shall have all voting rights delegated from the senior management official. Participant shall appoint a designated representative no less than one Business Day in advance of a meeting for that designated representative to be eligible to vote during the meeting.

4.1.3 Functions: The RAPC:

4.1.3.1 Shall consider and recommend that the Board of Directors approve or reject all proposed amendments to this Tariff or Business Practice Manuals prior to the Board of Directors considering such amendments, including any amendments reviewed and referred by the PRC.

4.1.3.1.1 Exigent Circumstances: When the RAPC determines that an amendment to the Tariff or the Business Practice Manuals requires expedited Board of Directors review due to exigent circumstances, it may propose such amendment directly to the Board of Directors without awaiting review by other committees and stakeholders. Exigent circumstances include: (i) a FERC-mandated amendment to this Tariff or the Business Practice Manuals; (ii) an amendment to this Tariff or the Business Practice Manuals to address an immediate reliability impact; or (iii) an amendment to this Tariff or the Business Practice Manuals that the RAPC has determined has significant impacts to utility service.

4.1.3.2 Shall consider and vote to recommend that the Board of Directors approve or reject any proposed amendments to this Tariff or the Business Practice Manuals.

4.1.3.3 May provide input to the Board of Directors on any proposed WPP rules that apply both to the WRAP and other WPP services.

4.1.3.4 May evaluate and provide input to the Board of Directors on the WRAP administration budget and budget allocation to Participants, including amendments to the WRAP Administration Charge as calculated in accordance with Schedule 1 of this Tariff.

4.1.3.5 Shall form and organize all of the organizational groups under its responsibilities.

4.1.3.6 May take other actions reasonably related to its role as the senior-level Participant advisory committee to the Board of Directors regarding WRAP matters.

4.1.4 Leadership: The RAPC shall select from among its members a chair and vice chair.

4.1.5 Meetings:

4.1.5.1 Meetings of the RAPC will generally be open to all stakeholders. WPP shall provide advanced written notice of the date, time, place, and purpose of each RAPC meeting. All RAPC decisional items shall be placed on the open meeting agenda and allotted adequate time for public comment and deliberation.

4.1.5.1.1 The RAPC may meet in closed session as the RAPC chair deems necessary; provided, however, that the RAPC shall allow the designated COSR support staff member as specified in Section 4.3 of this Tariff to attend any closed meeting. The RAPC shall not take action on any proposed amendment to this Tariff or the Business Practice Manuals in closed session.

4.1.5.2 The quorum for a meeting of the RAPC or any organizational group organized under it shall be one-half of the representatives thereof, but not less than three representatives, provided that a lesser number may serve as a quorum for the sole purpose of voting to adjourn the meeting to a later time.

4.1.6 Voting:

4.1.6.1 Each RAPC representative shall have one vote.

4.1.6.2 Voting in the RAPC shall utilize a "House and Senate" model.

4.1.6.2.1 Each Participant's "House" vote shall represent the proportion of the Participant's Median Monthly P50 Peak Load, as described in Section 2 of Schedule 1 of this Tariff, compared to the sum of all Participants' Median Monthly P50 Peak Loads. A Participant may choose to divide its

House vote but is responsible for announcing such at the time of voting.

4.1.6.2.2 Each Participant shall receive a single, non-weighted "Senate" vote.

4.1.6.2.3 For an action to be approved by the RAPC, it must pass both "House" and "Senate" votes as follows. For purposes of voting, the percentages identified below specify the percentage threshold of the entire RAPC (whether in attendance or not) that is needed for passage of an action.

4.1.6.2.3.1 Actions to amend any of the limitations on Board authority set forth in Section 3.4 of this Tariff require an 80% affirmative approval by both the House and the Senate vote tallies to be approved.

4.1.6.2.3.2 Actions brought before the RAPC that have been approved by the PRC require a 67% affirmative approval by both the House and Senate vote tallies to be approved.

4.1.6.2.3.3 All other actions not specified in this Section 4.1.6.2.3 require a 75% affirmative approval by both the House and Senate vote tallies to be approved.

4.1.6.2.4 If at any time a single Participant's P50 load for voting purposes would result in that Participant possessing a veto over any votes taken under Section 4.1.5.2.3, such Participant's House vote shall be capped at 1% below the amount that would convey such a veto, such that no single Participant will possess a veto over any action taken under Section 4.1.6.2.3.

4.2 Program Review Committee

4.2.1 Authority and Purpose: The PRC is a sector-representative group comprised in accordance with Section 4.2.2 of this Tariff. The PRC is responsible for receiving, considering, and proposing amendments to this Tariff and the Business Practice Manuals. The PRC shall serve as a clearinghouse of all recommended amendments to this Tariff or the Business Practice Manuals, except for those designated by the RAPC as involving an exigent circumstance under Section 4.1.3.1.1 of this Tariff, amendments to Schedule 1 of this Tariff and cost allocation for the WRAP, and amendments to the WRAPA set forth as Attachment A of this Tariff. The PRC shall serve in an advisory capacity to the RAPC and, when applicable, the Board of Directors.

4.2.1.1 The PRC shall present all proposals received to the RAPC, along with the PRC's recommendation and summaries of all comments and feedback received.

4.2.1.2 The PRC's decisions are advisory-only and are not binding on the RAPC, the Board of Directors, or WPP.

4.2.2 Composition: The PRC shall be composed of up to twenty representatives from the following ten sectors: four representatives of RAPC Participant investor-owned utilities; four representatives of RAPC Participant publicly-owned (consumer or municipal) utilities; two representatives of RAPC Participant retail competition load serving entities; two representatives from RAPC Participant Federal Power Marketing Administrations; two representatives of independent power producers; two representatives of public interest organizations; one representative of retail consumer advocacy groups; one representative of industrial customer advocacy groups; one representative of load serving entities with loads in the WRAP that are represented by other LREs and are not otherwise eligible for any other sector; a representative from the COSR. Expectations for sectors to consider regional, operational, geographic, demographic, and other forms of diversity in selecting their sector representatives are set forth in more detail in the PRC charter, which shall be posted and maintained on the WRAP website or other appropriate public location.

4.2.3 The PRC shall establish a process and criteria for receiving and reviewing proposed amendments to this Tariff and the Business Practice Manuals. Such review will include procedures for stakeholder comment.

4.2.4 Meetings: The PRC shall meet primarily in open session; provided that the PRC may schedule closed meetings if it determines that doing so would be beneficial to safeguard the confidentiality of sensitive information. The PRC shall not take action on any proposed amendment to this Tariff or the Business Practice Manuals in closed session.

4.2.5 Voting: The PRC shall endeavor to operate by consensus. When voting is necessary, voting shall consist of one sector one vote, with an affirmative vote of six sectors (as specified in Section 4.2.2 of this Tariff) constituting approval of an action before the PRC.

4.2.5.1 For sectors with four seats, three sector representatives must agree with the action for the sector to be considered an affirmative vote for the action.

4.2.5.2 For sectors with two seats, both sector representatives must agree with the action for the sector to be considered an affirmative vote for the action.

4.2.6 Participants and other entities shall participate in no more than one PRC sector. If a Participant or other entity is eligible to participate in more than one sector, such Participant or other entity shall declare in which sector it will participate.

4.3 Committee of State Representatives

4.3.1. Composition: The COSR is a committee composed of one representative from each state or provincial jurisdiction (either public utility commission or state/provincial energy office) that regulates at least one Participant.

4.3.2 Leadership: The COSR shall determine its leadership, including a chair and vice chair. The chair or vice chair will be requested to attend all open sessions of the RAPC to provide input and advice.

4.3.2.1 The COSR shall designate a COSR support staff member to attend and audit closed meetings of the RAPC under a non-disclosure agreement.

4.3.3 Authority:

4.3.3.1 If the COSR determines that a proposal approved by the RAPC is substantially different from the proposal submitted to the RAPC by the PRC, the COSR may engage in additional public review and comment before the RAPC decision is presented to the Board of Directors; provided that this additional public review and comment does not unreasonably delay presentation to the Board of Directors.

4.3.3.2 If the COSR as a body opposes or appeals a RAPC decision to the Board of Directors, the Board of Directors will not consider the RAPC's decision until the RAPC engages with the COSR to discuss, in at least two public discussions, to attempt to reach a mutually agreeable solution.

4.3.3.2.1 If the appeal relates to an amendment that the RAPC designated as involving an exigent circumstance under Section 4.1.3.1.1 of this Tariff, COSR can require no more than one public discussion, provided that such additional discussion does not unreasonably hinder the timeline for Board of Directors consideration of the proposed amendment.

4.3.4 Voting, Meetings, and Quorum: The COSR may develop its own rules governing voting, meetings, and quorum for action. COSR shall be responsible for its own costs.

5. Independent Evaluator

5.1 WPP shall engage an Independent Evaluator to provide an independent assessment of the performance of the WRAP and any potential beneficial design modifications. The Independent Evaluator shall report directly to the Board of Directors.

5.2 The Independent Evaluator shall conduct an annual review of the WRAP, including but not limited to analyzing prior year program performance, accounting and settlement, and program design.

5.3 The Independent Evaluator shall prepare an annual report of its findings, and any recommended modifications to WRAP design, and present its findings to the WRAP committees and the Board of Directors, subject to any necessary confidentiality considerations. Any data included in the Independent Evaluator's report shall be reported on an aggregated basis as applicable to preserve confidentiality.

5.4 The Independent Evaluator shall not:

5.4.1 Evaluate individual Participants.

5.4.2 Possess any decision-making authority regarding the WRAP or design modifications.

5.4.3 Evaluate WPP's day-to-day operations of the WRAP (except as part of review of prior year program performance).

6. WPP Invoicing and Settlement

6.1 WPP shall be responsible for issuing invoices to, and collecting from, Participants all charges under Schedule 1 of this Tariff for recovery of all WPP costs associated with administering the WRAP.

6.2 WPP shall be responsible for invoicing, collecting, and (as applicable) distributing revenues from Deficiency Charges under Part II of this Tariff and Delivery Failure Charges under Part III of this Tariff.

6.3 Participants are not required to provide credit assurances to WPP to cover charges under Schedule 1 of this Tariff, Deficiency Charges under Part II of this Tariff, or Delivery Failure Charge under Part III of this Tariff.

6.4 Participants shall make full payment of all invoices rendered by WPP for which payment is required to WPP within thirty calendar days following the receipt of the WPP invoice, notwithstanding any disputed amount, but any such payment shall not be deemed a waiver of any right with respect to such dispute. Any Participant that fails to make full and timely payment to WPP of amounts owed upon expiration of the cure period specified in Section 6.4.1 of this Tariff will be in default.

6.4.1 If a Participant fails to make timely payment as required by Section 6.4, WPP shall so notify such Participant. The notified Participant may remedy such asserted breach by paying all amounts due, along with interest on such amounts calculated in accordance with the methodology specified for interest on refunds in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii); provided, however, that any such payment may be subject to a reservation of rights, if any, to refer such matter to dispute resolution procedures under Section 9 of this Tariff. If the Participant has not remedied such asserted breach by 5:00 p.m. Pacific Prevailing Time on the second Business Day following WPP's issuance of a written notice of breach, then the Participant shall be in default.

6.4.2 In the event of a Participant's default under Section 6.4.1 of this Tariff, WPP in its discretion may pursue collection through such actions, legal or otherwise, as it reasonably deems appropriate, including but not limited to the prosecution of legal actions and assertion of claims in the state and federal courts as well as under the United States Bankruptcy Code. After deducting any costs associated with pursuing such claims, any amounts recovered by WPP with respect to defaults for which there was a Default Allocation Assessment shall be distributed to the Participants who have paid their Default Allocation Assessment in proportion to the Default Allocation Assessment paid by each Participant, as calculated pursuant to Section 6.4.3 of this Tariff. In addition to any amounts in default, the defaulting Participant shall be liable to WPP for all reasonable costs incurred in enforcing the defaulting Participant's obligations.

6.4.3 In the event of a Participant's default with respect to an invoice issued by WPP for charges under Schedule 1 of this Tariff, in order to ensure that WPP remains revenue neutral, the Board of Directors may assess against, and collect from, the Participants not in default a Default Allocation Assessment to recover the costs associated with the default. Such assessment shall in no way relieve the defaulting Participant of its obligations.

6.4.3.1 The Default Allocation Assessment shall be equal to:

(20% × (1/N) + (80% × (Participant Median Monthly P50 Peak Load / Sum Participants Median Monthly P50 Peak Load)

where:

N = the total number of Participants, calculated as of the date WPP declares a Participant in default.

Participant Median Monthly P50 Peak Load = for each Participant included in factor "N" above, the Participant's Median Monthly P50 Peak Load as determined in Section 2 of Schedule 1 of this Tariff, recalculated on the day the WPP declares a Participant in default.

All Participants Median Monthly P50 Peak Load = the sum of the Participant Median Monthly P50 Peak Load values for all Participants included in factor "N" above.

7. Credit Requirements and Settlement for Holdback and Delivered Energy

7.1 Credit and Settlement for Holdback and Delivered Energy: Settlement of holdback and delivered energy shall be completed bilaterally between Participants, subject to the following:

7.1.1 Neither WPP nor the Program Operator(s) shall take title to energy or be party to any settlement of holdback or delivered energy.

7.1.2 Participants shall establish credit with each other through one of the following mechanisms. Neither WPP nor the Program Operator(s) shall be involved in the calculation of credit or credit limits.

7.1.2.1 Establish credit directly with each Participant: Participants may establish credit directly with other Participants from whom they may receive delivered energy.

7.1.2.1.1 Such credit should be established in advance of the applicable season.

7.1.2.1.2 The amount of such credit and any credit limit shall be at the discretion of each Participant.

7.1.2.2 WPP shall conduct a competitive solicitation process to identify a third-party service provider to serve as central credit organization and clearing house for credit and settlement. Once such central credit organization is selected, Participants that have not already directly established credit with all other Participants under Section 7.2.2.1 of this Tariff shall establish credit with the central credit organization.

7.1.2.2.1 WPP will provide the central credit organization any Operations Program related information necessary for them to perform their obligations as set forth in the agreement between WPP and the central credit organization.

7.1.2.2.2 All costs associated with the central credit organization service shall be borne by Participants as established in the agreement between WPP and the central credit organization and either billed directly on a transactional basis or else recovered under Schedule 1 of this Tariff.

7.1.2.3 The obligation to arrange sufficient credit shall at all times be on the deficient Participant (i.e., a Participant with a negative sharing calculation in the Operations Program). If a deficient Participant has not made good faith and commercially reasonable efforts to

obtain sufficient credit with a delivering Participant, such delivering Participant shall so notify WPP and shall be excused from any obligation to deliver to such deficient Participant. Nothing in this Section 7 requires a Participant to violate its written risk or credit policy.

8. Force Majeure, Limitation of Liability, and Indemnification

8.1 Force Majeure: An event of Force Majeure means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, pandemic, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation, or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond a party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing. Neither WPP nor the Participant will be considered in default as to any obligation under this Tariff if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Tariff is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Tariff. Notwithstanding the foregoing, the physical inability to perform because of an event of Force Majeure shall not relieve the party of any financial obligations incurred under this Tariff or as a result of the Force Majeure event, unless, and to the extent, such financial obligation is waived or excused under provisions of Part II or Part III of this Tariff expressly providing for such waiver or excuse.

8.2 Limitation of Liability:

8.2.1 Neither WPP nor the Program Operator shall be liable, whether based on contract, indemnification, warranty, tort, strict liability or otherwise, to any Participant, other entity owning a Qualifying Resource, third party, or other person for any damages whatsoever, including, without limitation, direct, incidental, consequential, punitive, special, exemplary, or indirect damages arising or resulting from any act or omission in any way associated with service provided under this Tariff or any agreement hereunder, including, but not limited to, any act or omission that results in an interruption, deficiency or imperfection of service, except to the extent that the damages are direct damages that arise or result from the gross negligence or intentional misconduct of WPP or Program Operator, in which case WPP shall only be liable for direct damages.

8.2.2 Neither WPP nor the Program Operator shall be liable for damages arising out of services provided under this Tariff or any agreement entered into hereunder, including, but not limited to, any act or omission that results in an interruption, deficiency, or imperfection of service, occurring as a result of conditions or circumstances beyond the control of WPP, or resulting from electric system design common to the domestic electric utility industry or electric system operation practices or conditions common to the domestic electric utility industry.

8.2.3 To the extent that a Participant or other person has a claim against WPP, the amount of any judgment or arbitration award on such claim entered in favor of such entity shall be limited to the value of WPP's assets. No party may seek to enforce any claims under this Tariff or any Agreements entered into

hereunder against the directors, managers, members, shareholders, officers, employees, or agents of WPP, or against the Program Operator, who shall have no personal liability for obligations of WPP by reason of their status as directors, managers, members, shareholders, officers, employees, or agents of WPP or by virtue of their status as Program Operator.

8.2.4 To the extent that WPP is required to pay any money damages or compensation or pay amounts due to its indemnification of any other party as it relates to any services provided, acts, or omissions under this Tariff or any agreement entered into hereunder, WPP shall be allowed to recover any such amounts under Schedule 1 of this Tariff as part of the WRAP Administration Charge. Notwithstanding the foregoing, WPP shall be prohibited from recovering under this Tariff any costs associated with any damages, compensation, or indemnification costs that arise: (i) with regard to any acts or omissions that occur outside of this Tariff and any agreements entered into hereunder, or (ii) if a court of competent jurisdiction determines that the damages are direct damages that arise or result from the gross negligence or intentional misconduct of WPP or the Program Operator.

8.2.5 A Participant's liability to another Participant under this Tariff for failure to comply with obligations under this Tariff shall be limited to any charges or payments calculated pursuant to this Tariff; provided, however, that nothing in this Section 8.2.5 shall limit or is intended to foreclose any Participant's liability that may arise under any bilateral agreements between Participants.

8.3 Indemnification: The Participants shall at all times indemnify, defend, and save WPP (and any of its Program Operator(s), agents, consultants, directors, officers, or employees) harmless from any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties arising out of or resulting from the performance of activities under this Tariff by WPP, any Program Operator(s), or agents, consultants, directors, officers, or employees of WPP, except in cases of gross negligence or intentional wrongdoing by WPP or the Program Operator. WPP shall credit any proceeds from insurance or otherwise recovered from third parties to Participants who have paid to indemnify WPP under this Section 8.3.

8.4 Actions upon Unavailability of Program Operator(s): In the event that the Program Operator(s) become(s) unwilling, unable, or otherwise unavailable to perform contractual duties necessary for WPP to discharge its obligations under this Tariff and WPP's agreement(s) with the Program Operator(s), WPP shall engage with Participants as soon as practicable to determine what actions to take, including but not limited to filing with FERC a request to waive one or more provisions of this Tariff up to and including immediate suspension of all rights and obligations under this Tariff until a replacement Program Operator(s) can assume all relevant Program Operator functions.

9. Dispute Resolution Procedures

9.1 Internal Dispute Resolution Procedures: Any dispute between a Participant and WPP under the Tariff (excluding amendments to the Tariff or to any agreement entered into under the Tariff, which shall be presented directly to the FERC for resolution) shall be referred to a designated senior representative of WPP and a senior representative of the Participant for resolution on an informal basis as promptly as practicable. In the event the designated representatives are unable to resolve the dispute within thirty days (or such other period as the parties may agree upon) by mutual agreement, such dispute shall then be referred to the chief executive officer or comparable executive of each party for resolution. In the event that the executives are unable to resolve the dispute within thirty days (or such other period as the parties may agree upon), such dispute may be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below.

9.2 External Arbitration Procedures: Any arbitration initiated under the Tariff shall be conducted before a single neutral arbitrator appointed by the parties to the dispute. If the parties fail to agree upon a single arbitrator within ten days of the referral of the dispute to arbitration, each party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the parties an opportunity to be heard and, except as otherwise provided herein, shall generally conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association and any applicable FERC regulations.

9.3 Arbitration Decisions: Unless otherwise agreed by the parties, the arbitrator(s) shall render a decision within ninety days of appointment and shall notify the parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the Tariff and/or any agreement entered into under the Tariff and shall have no power to modify or change any of the above in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act and/or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with the FERC if it affects jurisdictional rates, terms and conditions of service or facilities.

9.4 Costs: Each party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (i) the cost of the arbitrator chosen by the party to sit on the three-member panel and one half of the

cost of the third arbitrator chosen; or (ii) one half the cost of the single arbitrator jointly chosen by the Parties.

9.5 Rights Under the Federal Power Act: Nothing in this section shall restrict the rights of any person to file a complaint with the FERC under relevant provisions of the Federal Power Act or of WPP to file amendments to this Tariff under the relevant provisions of the Federal Power Act.

10. Treatment of Confidential and Commercially Sensitive Information of Participants

10.1 Terms: For purposes of this Section 10 only, the term "WPP" shall also include, as applicable, any directors, officers, employees, agents, or consultants of WPP, the Independent Evaluator established under Section 5 of this Tariff, and any central credit organization established under Section 7 of this Tariff. WPP shall be bound by the rights, obligations, and conditions set forth in this Section 10. For purposes of this Section 10, the term "Disclosing Entity" shall include any Participant that discloses information to WPP that the Disclosing Entity deems and identifies as confidential or commercially sensitive. WPP's collection and handling of non-Participant data shall be governed by separate non-disclosure agreements with such non-Participants.

10.2 Treatment of Confidential or Commercially Sensitive Information: WPP shall maintain the confidentiality of all of the documents, data, and information provided to it by any Participant that such disclosing Participant deems and specifically identifies as confidential or commercially sensitive; provided, however, that WPP need not keep confidential: (i) information that is publicly available or otherwise in the public domain; or (ii) information that is required to be disclosed under this Tariff or any applicable legal or regulatory requirement (subject to the procedures set forth in Section 10.4 of this Tariff).

10.2.1 WPP staff may develop and release publicly composite or aggregated data based upon Participant confidential or commercially sensitive information, provided that such composite or aggregated data cannot be used to identify or attribute a disclosing Participant's confidential or commercially sensitive data. Such release of composite or aggregated data shall be governed by the following process.

10.2.1.1 Prior to the initial release of such composite or aggregated data, WPP staff shall present the form and format of such data to each Participant whose confidential information or data will be used to create the composite or aggregated data. If any such Participant objects to the form and format as revealing or allowing for attribution of confidential or commercially sensitive Participant-specific data, WPP staff shall determine whether to modify the form and format or to retain the proposed form and format for release. If WPP staff elects to retain the proposed form and format, the Participant shall have the right to appeal to the RAPC and WPP staff shall be prohibited from releasing the composite or aggregated data in the proposed form and format until the Participant's appeal rights as specified in this Section 10.2.1 are exhausted.

10.2.1.2 If a Participant appeals a WPP staff decision regarding the form and format of composite or aggregated data to the

RAPC, the RAPC shall consider whether the form and format reveals or allows for attribution of confidential or commercially sensitive Participant-specific data. If the RAPC determines that the proposed form and format is sufficient to protect against the release of confidential or commercially sensitive Participant-specific data, WPP staff is authorized to release the composite or aggregated data in the proposed form and format unless the Participant timely appeals the RAPC decision to the Board of Directors.

10.2.1.3 If a Participant appeals a RAPC decision regarding the form and format of composite or aggregated data to the Board of Directors, the Board of Directors shall consider whether the form and format is sufficient to protect against the release or attribution of confidential or commercially sensitive Participant-specific data. If the Board of Directors determines that the proposed form and format is sufficient to protect against the release of confidential or commercially sensitive Participant-specific data, WPP staff is authorized to release the composite or aggregated data in the proposed form and format.

10.2.1.4 Once a proposed form and format of composite or aggregated data is approved by the WPP staff and is not appealed or appeals are unsuccessful, such form and format may be used for all future disclosures of composite or aggregate information and no Participant may dispute such release. If WPP staff proposes to alter the form and format, including but not limited to changing the granularity of data, WPP staff shall be required to follow the process set forth in this Section 10.2.1 and Participants shall have the right to appeal such changes in form and format as set forth herein. Notwithstanding the foregoing, if the composition of Participants in the WRAP changes in such a way that the form and format of composite or aggregated data is no longer sufficient to protect against disclosure or attribution of confidential or commercially sensitive Participant-specific data, an aggrieved Participant shall have a one-time right to raise the issue promptly with WPP Staff for presentation to and review by the Board of Directors, and the Board of Directors in its sole discretion shall decide whether the change in composition results in the form and format of the composite or aggregated data becoming insufficient to protect against the release or attribution of confidential or commercially sensitive Participant-specific data; provided, however, that if an aggrieved Participant does not raise its concerns with the Board of Directors promptly following the

change in composition, such Participant shall have waived its right to contest the release of such composite or aggregated data.

10.2.2 Notwithstanding anything to the contrary in this Section 10.2, if the RAPC unanimously votes to disclose publicly any particular category of Participant-specific data, such data shall no longer be deemed confidential regardless of any such designation by a disclosing Participant, and this election shall be binding on any current and future Participants until such time as the RAPC votes unanimously to prohibit public release of such category of data. A list of the categories of Participant-specific data that the RAPC unanimously votes to make public shall be included in the Business Practice Manuals.

10.3 Access to Confidential or Commercially Sensitive Information: Except as otherwise provided in Section 10.2 of this Tariff, no Participant, entity owning a Qualifying Resource, or any third party shall have the right hereunder to receive from WPP or to otherwise obtain access to any documents, data or other information that has been identified as or deemed to be confidential or commercially sensitive under Section 10.2 of this Tariff by a disclosing Participant. The provisions of this Section 10.3 do not apply to WPP (including any Independent Evaluator, member of the Board of Directors, or any WPP officer, employee, agent, or consultant that requires access to confidential or commercially sensitive information); provided that access to Participant-specific confidential or commercially sensitive information shall be solely for the purpose of performing the duties or functions under this Tariff or otherwise advising or assisting WPP. WPP shall develop internal policies and controls governing the handling and protection of confidential or commercially sensitive Participant-specific data by members of the Board of Directors, officers, employees, agents, consultants, or any Independent Evaluator.

10.4 Exceptions: Notwithstanding anything in this Section 10 to the contrary:

10.4.1 If WPP is required by applicable laws or regulations, or in the course of administrative or judicial proceedings, to disclose information that is otherwise required to be maintained in confidence pursuant to this Section 10, WPP may disclose such information; provided, however, that as soon as practicable after WPP learns of the disclosure requirement and prior to making such disclosure, WPP shall notify any affected disclosing Participant of the requirement and the terms thereof. Any such disclosing Participant may, at its sole discretion and own cost, direct any challenge to or defense against the disclosure requirement and WPP shall cooperate with such disclosing Participant to take all reasonable available steps to oppose or otherwise minimize the disclosure of the information permitted by applicable legal and regulatory requirements. WPP shall further cooperate with such disclosing Participant to the extent reasonably practicable to obtain proprietary or confidential treatment of confidential or commercially

sensitive information by the person to whom such information is disclosed prior to any such compelled disclosure.

10.4.2 WPP may disclose confidential or commercially sensitive information, without notice to any affected disclosing Participant(s), in the event that FERC, during the course of an investigation or otherwise, requests information that is confidential or commercially sensitive. In providing the information to FERC, WPP shall take action, consistent with 18 C.F.R. §§ 1b.20 and/or 388.112, to request that the information be treated by FERC as confidential and non-public and, if appropriate, as Critical Energy Infrastructure Information and that the information be withheld from public disclosure. WPP shall provide the requested information to FERC within the time provided for in the request for information. WPP shall notify any affected disclosing Participant(s) within a reasonable time after WPP is notified by FERC that a request for disclosure of, or decision to disclose, the confidential or commercially sensitive information has been received, at which time WPP and any affected disclosing Participant may respond before such information would be made public.

10.5 Notwithstanding any efforts undertaken pursuant to Section 10.4 to prevent or limit the release of a Participant's confidential or commercially sensitive information, in the event that FERC or a court of competent jurisdiction orders or otherwise permits the public release of a Participant's confidential or commercially sensitive information, the affected Participant shall have a one-time right to elect to terminate its participation in the WRAP under the expedited termination provisions set out in Section 11.2 of the WRAPA.

10.6 WPP shall handle any information identified or deemed to be Controlled Unclassified Information/Critical Energy Infrastructure Information in accordance with FERC's regulations set forth at 18 C.F.R. § 388.113 and any applicable FERC policies or other regulations, including but not limited to restricting access to such information on a password-protected portion of WPP's website or similar precautions.

10.7 Nothing in this Section 10 is intended to limit a Participant's ability to disclose or release publicly its own confidential or commercially sensitive information or data, or to limit a Participant's ability to authorize WPP's disclosure of such material to a specified recipient.

11. Timing

11.1 In the event that any deadline specified in this Tariff shall fall on a day that is not a Business Day, the deadline shall be extended to the next Business Day.

12. Application and Registration

12.1 Any entity wishing to participate in the WRAP must submit an application and registration in accordance with the Business Practices Manuals and must execute the WRAPA as set forth in Attachment A of this Tariff, or a non-conforming version of such participation agreement that is approved by FERC for an individual Participant. Such application and registration must be submitted in accordance with the timelines set forth in the Business Practices Manuals in advance of the next Binding Season.

12.2 Each Participant must register all of its resources and loads, regardless of whether such resources will be used to satisfy the WRAP requirements and regardless of whether certain loads will be subject to the requirements of the WRAP. Participants may modify their registration of resources and loads in accordance with the timing procedures set forth in the Business Practices Manuals.

12.3 In the event that more than one Participant attempts to register the same resource or load, the following procedure will be used to assign the resource or load to a Participant:

12.3.1 If a Participant attempts to register a load or resource that has already been registered by a different Participant, the resource or load will remain registered by the original Participant registering the resource or load until such time as both Participants mutually inform WPP that a change to the registration is required.

12.3.2 If two or more Participants attempt to register the same resource or load during the same registration window, WPP shall request that the Participants determine among themselves the appropriate registration of the resource or load before that resource or load is included in the WRAP.

PART II FORWARD SHOWING PROGRAM

13. Overview

13.1 In the Forward Showing Program, as set forth in this Part II of the Tariff, and as further detailed in the Business Practice Manuals, each Participant shall, in advance of each Binding Season, show as to such Binding Season: (i) the total capacity, referred to and defined herein as the FS Capacity Requirement, required by the provisions of this Tariff for such Binding Season for reliable service to the loads for which such Participant is responsible; (ii) the demonstration of capacity, referred to and defined herein as the Qualifying Capacity Contribution, or QCC, provided by the Qualifying Resources the Participant provides or procures to meet its FS Capacity Requirement; and (iii) at least the minimum level of firm transmission service, referred to and defined herein as the FS Transmission Requirement, needed for reliable delivery of the QCC of the Participant's Qualifying Resources from such resources to the loads for which the Participant is responsible.

13.2 As also set forth in this Part II of the Tariff, and as further detailed in the Business Practice Manuals: (i) WPP shall, in advance of each Binding Season, review the Forward Showing Submittals of each Participant for such Binding Season; (ii) WPP shall identify to the Participant any deficiencies in the Participant's Portfolio QCC (whether as to contracts or directly owned or controlled resources) relative to the FS Capacity Requirement, and any deficiencies in the identified firm transmission service relative to the FS Transmission Requirement, within sixty days of the Forward Showing Submittal deadline; (iii) the Participant shall have an opportunity to cure such deficiencies, within sixty days of notification of deficiency; and (iv) if the Participant fails to cure all such deficiencies on or before the deadlines prescribed herein, the Participant shall be assessed a Forward Showing Deficiency Charge.

14. Forward Showing Program Process and Timeline

14.1 The Forward Showing Program has two Binding Seasons, defined as the Summer Season and the Winter Season. The Summer Season is the period beginning on June 1 of each Year and ending on September 15 of that same Year. The Winter Season is the period beginning on November 1 of each Year and ending on March 15 of the succeeding Year. This Tariff does not establish resource or showing obligations outside the periods defined by the Summer Season and Winter Season.

14.2 Each Participant shall submit its Forward Showing Submittals for each Month of each Binding Season, with all required supporting materials and information as detailed in the Business Practice Manuals, on or before the FS Deadline for the Binding Season. The FS Deadline for each Binding Season shall be seven months before the start of such Binding Season.

14.2.1 Forward Showing Submittal:

14.2.1.1 Absent the exception in Section 14.2.1.2, each Participant shall submit a separate Forward Showing Submittal for loads for which it is responsible if transmission constraints between areas where its loads are located, including, without limitation, when Participant is responsible for loads in more than one Subregion, prevent application, in the manner more fully described in the Business Practice Manuals, of Resource QCC or Net Contract QCC from one load area to the FS Capacity Requirement of another load area.

14.2.1.2 Notwithstanding Section 14.2.1.1, a Participant responsible for loads in two Subregions may submit for a given Month a single Forward Showing Submittal for such loads, and may employ for determination of its FS Capacity Requirement for such Month the lower of the two FSPRM values determined for the Subregions where its loads are located, if the Participant demonstrates in such Forward Showing Submittal, in accordance with the procedures and requirements set forth in the Business Practice Manuals, transmission service rights, which such Participant will make available during all hours of such Month for purposes of regional diversity sharing under the WRAP, of the type required by the FS Transmission Requirement, in a quantity, in addition to that required by the FS Transmission Requirement, equal to the difference in the two FSPRM values multiplied by the Participant's P50 Peak Load Forecast for such Month, with the a point of delivery in the Subregion with the higher FSPRM value and the point of receipt in the Subregion with the lower FSPRM value. Each such offer shall identify the MW quantity, Month of service, point of receipt, and point of delivery of such transmission service rights, and such other information as specified in the Business Practice Manuals, and shall

verify that the offered rights are NERC Priority 6 or NERC Priority 7 firm point-to-point transmission service. No Participant is obligated to offer any such transmission service rights, but any offer so made and not withdrawn before the deadline specified in the Business Practice Manuals shall be considered a binding offer of the identified transmission service rights which may not be withdrawn before the end of the last Day of the Month for which such transmission service is offered.

14.2.2 Each Participant's Forward Showing Submittal shall include a Senior Official Attestation.

14.3 The FSPRM values used in the Forward Showing Submittals for a Binding Season shall be those values approved by the Board of Directors as the culmination of an Advance Assessment process. No later than twelve months before the FS Deadline for each Binding Season, WPP will determine and post the recommended FSPRM for each Subregion for each Month of such Binding Season. Participants shall provide their load, resource and other information reasonably required to perform the analyses and calculations required for the Advance Assessment, in accordance with the Advance Assessment information submission details and schedule specified in the Business Practice Manuals. No later than nine months before the FS Deadline for such Binding Season, the Board of Directors shall take its final action regarding approval of the FSPRM values for each Month of such Binding Season.

14.3.1 In connection with an Advance Assessment process, or otherwise in connection with consideration of a change to the Business Practice Manuals, the Board of Directors may determine that designation of Subregions would encourage the relief, in whole or part, of transmission constraints on the transfer of capacity within the WRAP Region (whether through development or commitment of transmission, of Qualifying Resources, or by other means) to the benefit of the WRAP Region and the advancement of the objectives of the WRAP. Each such Subregion shall be identified in the Business Practice Manuals.

14.3.2 Any Participant may choose to offer in the Advance Assessment process transmission service rights owned or controlled by such Participant for firm delivery of capacity from one Subregion to another Subregion, for use by other Participants under the terms of Part III of this Tariff during any or all identified Months of the applicable Binding Season. Each such offer shall identify the MW quantity, Month of service, point of receipt, and point of delivery of such transmission service rights, and such other information as specified in the Business Practice Manuals, and shall verify that the offered rights are NERC Priority 6 or NERC Priority 7 firm point-to-point transmission service. No Participant is obligated to offer any such transmission service rights in the Advance Assessment process, but any offer so made and not withdrawn before the deadline during the Advance

Assessment process specified in the Business Practice Manuals shall be considered a binding offer of the identified transmission service rights which may not be withdrawn before the end of the last Day of the Month for which such transmission service is offered. WPP shall take account of such offered transmission service rights, along with other transmission deliverability reasonably anticipated to be available for use by Participants for WRAP purposes during the applicable Binding Season in its determination of the recommended FSPRM values for each Month of the applicable Binding Season for the WRAP Region and for each affected Subregion.

14.4 No later than sixty Days after the FS Deadline for a Binding Season, WPP will (i) provide the values of the Participant's FS Capacity Requirement and FS Transmission Requirement for each Month of the Binding Season; (ii) affirm that the Portfolio QCC of such Participant for each Month of the Binding Season equals or exceeds the FS Capacity Requirement of such Month for such Participant or notify such Participants of any deficiencies in the Forward Showing Submittal that result in a failure to demonstrate satisfaction of the FS Capacity Requirement; and (iii) affirm that the Demonstrated FS Transmission plus approved Monthly Transmission Exceptions of such Participant for each Month of the Binding Season equals or exceeds the FS Transmission Requirement of such Month for such Participant or notify such Participants of any deficiencies in the Forward Showing Submittal that result in a failure to demonstrate satisfaction of the FS Transmission Requirement.

14.5 Within 120 Days after the FS Deadline, the Participant shall (i) submit revisions to its Forward Showing Submittal, including, without limitation, additions or revisions to the Participant's Resource QCC, Net Contract QCC, or Demonstrated FS Transmission; (ii) in order to fully cure all identified deficiencies and demonstrate that such Participant's Portfolio QCC for each Month of the Binding Season equals or exceeds its FS Capacity Requirement; and (iii) fully provide Demonstrated FS Transmission for each Month of the Binding Season equals or exceeds its FS Transmission Requirement for the same Month of the Binding Season where WPP identified deficiencies.

14.5.1 Any Participant that fails to cure identified deficiencies in its Forward Showing Submittal within the period prescribed above shall be assessed an FS Deficiency Charge.

15. Transition Period

15.1 A Participant may elect a Binding Season during the Transition Period as the first Binding Season for which it will assume the obligations of demonstrating capacity and making surplus capacity available to other Participants and will receive the benefits of reliance upon other Participants' surplus capacity. As to such Participant, any Binding Season during the Transition Period occurring before the first Binding Season elected by such Participant shall be a Non-Binding Season. As to its elected Non-Binding Seasons, the Participant:

15.1.1 Shall not be subject to Capacity Deficiency Charges, Transmission Deficiency Charges, Holdback Requirements, Energy Deployment obligations, or Delivery Failure Charges;

15.1.2 Shall submit Forward Showing Submittals but shall not be required to cure deficiencies;

15.1.3 Shall not have a mandatory Holdback Requirement as a result of the Sharing Calculation;

15.1.4 May receive Holdback capacity offered voluntarily by other Participants in accordance with Part III of this Tariff; and

15.1.5 Shall have all rights and be subject to all obligations under Part I of this Tariff and the Participant's WRAPA, including, without limitation, voting rights, committee participation, and the obligation to pay the WRAP Administration Charge.

15.2 Any Participant that executes a WRAPA prior to January 1, 2023, shall provide any election of Non-Binding Seasons during the Transition Period no later than January 1, 2023. Any Participant that executes a WRAPA on or after January 1, 2023, shall provide any election of Non-Binding Seasons at the time of execution of its WRAPA. Such elections shall be in writing and in the form and manner provided in the Business Practice Manuals. A Participant that does not elect Non-Binding Seasons on or before the deadlines prescribed herein shall have no Non-Binding Seasons during the Transition Period.

15.3 No later than two years before the start of the first Binding Season elected by a Participant, the Participant may give written notification that unanticipated circumstances prevent it from participating in such Binding Season in a manner that will satisfy the requirements of Parts II and III of this Tariff. This deferral right shall continue for each Binding Season during the Transition Period that becomes the Participant's first Binding Season as a result of an election of such deferral right for a prior Binding Season. A Participant that fails to provide such notification will be subject to Parts II and III of this Tariff for the Binding Season then established as its first Binding Season during the Transition Period and for each Binding Season thereafter.

15.4 Within two years prior to the start of the first Binding Season of the WRAP, a Participant who has elected to participate in the first Binding Season may request a vote of all Participants who have elected to participate in the first Binding Season to delay implementation of the first Binding Season for up to two Seasons. Delayed implementation of the first Binding Season shall be approved if 75% of the Participants who elected to participate in the first Binding Season vote in favor of such delay, with approval requiring a vote of 75% of both the House and Senate vote tallies (as described in Sections 4.1.6.2.1 and 4.1.6.2.2 of this Tariff) of all Participants who elected to participate in the first Binding Season.

15.4.1 The deferral vote may only occur for the first Binding Season of the WRAP. If the Participants who elected to participate in the first Binding Season of the WRAP vote to delay implementation of the first Binding Season, all compliance charges for the Forward Showing Program and Operations Program are automatically deferred; except that the Participants may vote to delay implementation only of the Operations Program portion of the first Binding Season and retain the binding Forward Showing Program portion of the first Binding Season.

16. Components of the Forward Showing

16.1 FS Capacity Requirement. The FS Capacity Requirement shall be determined for each Participant on a monthly basis by applying the applicable Monthly FSPRM for a Month to such Participant's peak load forecast for that Month. The Participant's peak load forecast for a given Month of a Binding Season will be the P50 Peak Load Forecast for the Binding Season multiplied by a shaping factor based on the historic relationship, for such Participant, of the seasonal peak for the Winter Season or Summer Season, as applicable, and the monthly peaks for the Months in such season, as more fully described in the Business Practice Manuals.

16.1.1 P50 Peak Load Forecast. The P50 Peak Load Forecast is a peak load forecast prepared on a basis, such that the actual peak load is statistically expected to be as likely to be above the forecast as it is to be below the forecast. The Business Practice Manuals shall specify an approved load forecasting methodology for use by all Participants for their WRAP-required load forecasts which shall include (i) a base monthly peak derived from a recent historic period that recognizes additions and removals of load during the historic period, (ii) adjustments for known additions and removals of load during the forecast window; and (iii) a specified load growth factor.

16.1.2 FS Planning Reserve Margin

16.1.2.1 The FSPRM is an increment of resource adequacy supply needed to meet conditions of high demand in excess of the applicable peak load forecast and other conditions such as higher resource outages, expressed as a percentage of the applicable peak load forecast. The FSPRM shall be determined based on probabilistic analysis, taking account of uncertainties in generation and load, as the margin above peak load that provides an expectation of no more than a single event-day of loss of load in ten years (sometimes referred to herein as the "1-in-10 LOLE" or 0.1 annual LOLE). The FSPRM shall be determined in a manner that accounts for the governing principles of QCC value determinations set forth in Section 16.2.5 of this Tariff and shall employ the applicable peak load for the applicable Binding Season and Months. Additional details, assumptions, methodologies, and procedures for determination of the FSPRM shall be as set forth in the Business Practice Manuals.

16.1.2.2 WPP shall calculate in the Advance Assessment process the recommended Monthly FSPRM for each Month of each Binding Season, for approval by the Board of Directors as set forth in this Part II.

16.1.2.3 The FSPRM shall employ (i) a simulated resource stack using capacity accreditation principles consistent with those used for WRAP QCC determinations; (ii) an adjustment in the total WRAP-required QCC value as needed to meet a 1-in-10 LOLE, and (iii) while maintaining the 1-in-10 LOLE in (ii), include a monthly reduction of capacity to ensure that each Month has at least 0.01 annual LOLE. The FSPRM for a Month shall be the simulated QCC as adjusted to meet the 1-in-10 LOLE minus the P50 Peak Load Forecast for the Month, divided by the P50 Peak Load Forecast for the Month.

16.1.2.4 The FSPRM shall include an approximation of Contingency Reserves as set forth in the Business Practice Manuals.

16.1.3 Contingency Reserves Adjustment. A Participant's FS Capacity Requirement will be adjusted as set forth in the Business Practice Manuals to account for changes in Contingency Reserve requirements resulting from energy contract purchases and contract sales.

16.1.4 A Participant responsible for loads located in a Subregion for which an FSPRM value has been determined that is higher than the FSPRM value determined for a different Subregion may, in lieu of demonstrating a MW increment of Portfolio QCC otherwise required to satisfy such Participant's FS Capacity Requirement for a given Month, demonstrate in its Forward Showing Submittal, in accordance with the procedures and requirements set forth in the Business Practice Manuals, transmission service rights, which such Participant will make available during all hours of such Month for purposes of regional diversity sharing under the WRAP, of the type required by the FS Transmission Requirement, in a quantity, in addition to that required by the FS Transmission Requirement, that is no greater than the difference in the two FSPRM values multiplied by the Participant's P50 Peak Load Forecast, with the point of delivery in the Subregion with the higher FSPRM value and the point of receipt in the Subregion with the lower FSPRM value. The MW quantity of the additional transmission so demonstrated shall reduce for such Month, by the same MW quantity, the Portfolio QCC the Participant would otherwise be required to demonstrate to satisfy its FS Capacity Requirement for such Month. Each such offer shall identify the MW quantity, Month of service, point of receipt, and point of delivery of such transmission service rights, and such other information as specified in the Business Practice Manuals, and shall verify that the offered rights are NERC Priority 6 or NERC Priority 7 firm point-to-point transmission service. No Participant is obligated to offer any such transmission service rights, but any offer so made and not withdrawn before the deadline specified in the Business Practice Manuals shall be considered a binding offer of the identified transmission service rights which may not be withdrawn before the end of the last Day of the Month for which such transmission service is offered.

16.2 Qualified Capacity Contribution

16.2.1 For each Participant and each Binding Season, the Forward Showing shall show and support the Portfolio QCC, which shall be the sum of the QCC of the Participant's Qualifying Resources ("Resource QCC"), the QCC of its contracted capacity ("Net Contract QCC"), and any transfers of capacity already accredited by another Participant ("Total RA Transfer," which could be positive or negative). The Portfolio QCC effective for a Binding Season shall be the value determined by WPP.

16.2.2 A resource will not be assigned a Resource QCC or counted toward Portfolio QCC unless it is a Qualifying Resource. Qualifying Resources are those that, before they are included in a Forward Showing Submittal, are first registered with WPP. A Participant seeking registration of a resource must submit a request for registration providing the resource information described in the Business Practice Manuals.

16.2.3 The minimum resource size for registration of a resource is 1 MW, provided, however, that Participants with responsibility for individual resources of less than 1 MW may aggregate them to meet the 1 MW minimum requirement, under the conditions and limitations specified in the Business Practice Manuals.

16.2.4 A Participant may include in its Forward Showing Submittal a request for an exception from its FS Capacity Requirement for an insufficiency of its Portfolio QCC solely due to (i) a catastrophic failure of one or more Qualifying Resources due to an event of Force Majeure as defined by Section 8.1 of this Tariff that (ii) the Participant is unable to replace on commercially reasonable terms prior to the FS Deadline as a result of the timing and magnitude of such catastrophic failure and its consequences. As more fully set forth in the Business Practice Manuals, such exception request shall be supported by a Senior Official Attestation. The exception request must include complete information on the nature, causes and consequences of the catastrophic failure, and must describe the Participant's specific, concrete efforts prior to the FS Deadline to secure replacement Qualifying Resources for the applicable Binding Season. WPP will consider the exception criteria established by this section, the information provided in the exception request, the completeness of the exception request, and other relevant data and information, in determining whether to grant or deny an FS Capacity Requirement exception request. WPP shall provide such determination no later than sixty days after submission of such Participant's FS Submittal containing such FS Capacity Requirement exception request. A Participant granted an exception hereunder must complete a monthly exception check report demonstrating that either the circumstances necessitating the exception have not changed; or that Qualifying Resources have become available, and the Participant has acquired them and no longer requires the exception. Failure to timely

submit a required monthly report will result in assessment of a Deficiency Charge, unless the deficiency is cured within seven days of notice of non-compliance. A Participant denied an exception request hereunder may appeal such denial to the Board of Directors in accordance with the procedures and deadlines set forth in the Business Practice Manuals. In such event, the requested exception shall be denied or permitted as, when and to the extent permitted by the Board, in accordance with the procedures and timing set forth in the Business Practice Manuals. WPP shall give notice of any exception granted hereunder in the time and manner provided by the Business Practice Manuals.

16.2.5 QCC: WPP shall determine QCC values for the resource types specified below in accordance with the governing principles specified below for each resource type, and consistent with further details specified for each resource type in the Business Practice Manuals.

16.2.5.1 For resources that use conventional thermal fuels, including but not limited to, coal, natural gas, nuclear, and biofuel, WPP will determine QCC based on an Unforced Capacity methodology that employs resource-specific capability testing and capability requirements to determine an Installed Capacity value, and a forced outage calculation methodology based on historic performance during Capacity Critical Hours over a specified multi-year period (excluding outages properly reported as "outside management control"), or based on class-average forced outage data, as specified in the Business Practice Manuals, if there is insufficient data on historic performance.

16.2.5.2 For resources that are Variable Energy Resources, including, but not limited to, wind and solar resources, WPP will determine QCC based on an ELCC methodology, that accounts for synergistic portfolio effects within and among VER types at different resource penetration levels that influence the extent to which the WRAP Region can rely on those VER categories to meet overall capacity needs.

16.2.5.2.1 For such purpose, a separate ELCC value will be calculated in the aggregate for all VER resources of a given type in an identified VER Zone, to be delineated in the Business Practice Manuals based on factors such as geography, performance, meteorological considerations, and penetration.

16.2.5.2.2 As more fully described in the Business Practice Manuals, the zonal aggregate VER-resource-type value will be calculated by (i) conducting a benchmark LOLE study that includes all resource

types except the VER resource type being studied, employing a model and assumptions consistent with those used to calculate FSPRM, and adding, or subtracting, the same MW quantity of Pure Capacity to every hour of the applicable Binding Season until, respectively, an initial LOLE value above 0.1 day per year becomes 0.1 day per year, or an initial LOLE value below 0.1 day per year becomes 0.1 day per year; (ii) conducting an LOLE study that includes all resource types including the VER resource type being studied, employing a model and assumptions consistent with those used to calculate FSPRM, and adding, or subtracting, the same MW quantity of Pure Capacity to every hour of the applicable Binding Season until, respectively, an initial LOLE value above 0.1 day per year becomes 0.1 day per year, or an initial LOLE value below 0.1 day per year becomes 0.1 day per year; and (iii) subtracting the Pure Capacity value determined under subpart (ii) from the Pure Capacity value determined under subpart (i) (for which calculation a Pure Capacity value subtracted from each hour in either subpart (i) or subpart (ii) will be assigned a negative value; (iv) repeating steps (i) through (iii) for each year of the study period employing historic, or as necessary, synthesized, data; and (v) basing the aggregate value of the studied VER resource type for the studied VER Zone on the results of the calculation in step (iii) for the years studied, which may include differential weighting of the years studied as appropriate to improve the quality and predictive capacity of the final result.

16.2.5.2.3 The aggregate capacity calculated for each VER resource type in each VER Zone will then be allocated to VERs of that type in that VER Zone based on each such resource's average historical performance if at least three years of historical performance or three years of synthesized forecast data during the WRAP Region's CCH is available at the time of such allocation. If three years historical performance or synthesized forecast data is not then available, the average ELCC from the VER Zone will be assigned.

16.2.5.3 For resources that are Energy Storage Resources, WPP will determine QCC based on an ELCC methodology comparable to

that used for VERs. The ELCC methodology will model Energy Storage Resources at the level of their usable capacity that can be sustained for a minimum duration of four hours. An Energy Storage Resource need not have a nameplate rating that assumes a minimum of four hours in order to receive a QCC determination, but the QCC in that case will be scaled to reflect the capability that can be sustained for four hours, as more fully described in the Business Practice Manuals.

16.2.5.4 For Demand Response capacity resources, WPP will determine QCC by multiplying the load reduction in MWs by the number of hours the resource can demonstrate load reduction capability divided by five. To be a Qualifying Resource, a Demand Response capacity resource also must satisfy certain testing requirements; must be controllable and dispatchable by the Participant or by the host utility; and must not already be used as a load modifier in the Participant's load forecast, as further specified in the Business Practice Manuals.

16.2.5.5 For Storage Hydro Qualifying Resources, the Participant will calculate a QCC based on a methodology detailed in the Business Practice Manuals that: (i) considers each resource's actual generation output, residual generating capability, water in storage, reservoir levels, and flow or project constraints over the previous ten-year historical period; (ii) determines the project's QCC by assessing the historical generation during CCHs on any given day and ability to increase generation during CCHs on the same day, subject to useable water in storage, inflows/outflows, and expected project operating parameters/constraints and limitations; (iii) incorporates forced outage rates; and (iv) determines QCC as average contribution to the CCH for each Winter Season and Summer Season over the previous ten years. If ten years of historic data is not available for the Storage Hydro Qualifying Resource, the Participant may alternatively employ data on the same metrics from a demonstrably comparable facility or apply another method that provides reasonable confidence in the reliability of the predicted values, as more fully set forth in the Business Practice Manuals. The Participant's QCC calculation shall be subject to review and validation by WPP. In connection with such review, the Participant shall provide WPP with the following information necessary to calculate a QCC for Storage Hydro Qualifying Resources: (i.a) historic reservoir elevation levels; (ii.a) historic plant generation; (iii.a) elevation versus capacity curves; (iv.a) any minimum or maximum reservoir level constraints; (v.a) forced outage rates; (vi.a) volume of water versus reservoir

elevation storage tables; and (vii.a) turbine discharge versus generation efficiency curve.

16.2.5.6 For Run of River Qualifying Resources, WPP will determine QCC based on the monthly average performance of such resource during Capacity Critical Hours, as further specified in the Business Practice Manuals

16.2.5.7 For resources that (i) are not within the meaning of any of Sections 16.2.5.1 through 16.2.5.5, and that (ii) either (a) are not dispatchable; or (b) require the purchaser of energy from the resource to take energy as available from such resource, including but not limited to a qualifying facility as defined under the Public Utility Regulatory Policies Act of 1978, WPP will determine QCC based on the monthly average performance of such resource during Capacity Critical Hours, as further specified in the Business Practice Manuals.

16.2.6 Net Contract QCC: WPP shall determine Net Contract QCC for the agreement types specified below in accordance with the governing principles specified below for each agreement type, and consistent with further details specified for each agreement type in the Business Practice Manuals. Net Contract QCC may be either positive or negative, to take account of, for example, a Participant's agreements for the sale of capacity to any other party.

16.2.6.1 Absent one of the exceptions described and limited below, capacity supply agreements qualifying for a Net Contract QCC in the WRAP must be resource specific, and therefore must include, among other requirements, an identified source, an assurance that the capacity is not used for another entity's resource adequacy requirements, an assurance that the seller will not fail to deliver in order to meet other supply obligations, and affirmation of NERC priority 6 or 7 firm point-to-point transmission service rights or network integration transmission service rights from the identified resource to the point of delivery/load. The specific resources identified in a capacity supply agreement qualifying for Net Contract QCC shall meet the same Resource QCC accreditation requirements for the given resource type, as specified in Section 16.2.5.

16.2.6.2 A system sales contract can qualify for a Net Contract QCC value, provided that if the seller is not a Participant, the system capacity that is the subject of the agreement must be deemed surplus to the seller's estimated needs, there must be an assurance that the seller will not fail to deliver in order to meet other commercial obligations, and there must be NERC priority

6 or 7 firm point-to-point transmission service rights or network integration transmission service rights from the identified resource) to the point of delivery/load. Surplus status may be demonstrated by a Senior Official Attestation with pertinent supporting details for such surplus status, including written assent of the non-Participant Seller, secured by the purchasing Participant. Such attestation is not required if the seller is a Participant, because the information needed to verify surplus status is already available.

16.2.6.3 A supply agreement entered into prior to October 1, 2021 ("Legacy Agreement") can qualify for a Net Contract QCC value; provided that where a legacy agreement does not identify the source, it must be possible for WPP to presume a source or sources for the contract, including with the written assent of the supplier under such Legacy Agreement, conveyed in the form and manner set forth in the Business Practice Manuals. A Legacy Agreement for which such resource determination cannot be reasonably made will not be counted as adding to the Portfolio QCC.

16.2.7 Total RA Transfer: A Participant may agree with another Participant on a transfer of a portion of their FS Capacity Requirement ("RA Transfer"), provided that the details and duration of such transfer are reported to WPP for validation in accordance with procedures and information requirements specified in the Business Practice Manuals. Where such transfers have been duly reported and validated, an RA Transfer will be added to the purchasing Participant's Portfolio QCC and subtracted from the selling Participant's Portfolio QCC.

16.2.8 Planned Outages: Participants shall include in their Forward Showing Submittal for a Binding Season information on all Qualifying Resources that are currently out of service with a scheduled return date that falls during the Binding Season. Capacity associated with such resources must be deducted from Participants' Portfolio QCC as specified in the Business Practice Manuals to ensure no credit is granted for such resources during the planned outage. The aggregate of any additional outages that are planned to occur during the Binding Season but have not yet begun at the time of submission must be within the Participant's remaining surplus (or replaced with other supply). Participants may provide information on all Qualifying Resources that are planned to be out of service but if such data cannot be supplied with reasonable specificity, a Participant may provide a Senior Official Attestation at the time of the submission of its FS Submittal that it expects the sum of planned outages to be equal to or less than the surplus stated in its FS Submittal throughout the Binding Season.

16.2.8.1 If a Qualifying Resource is planned to return to service within the first five days of a Binding Season, WPP may approve a qualified acceptance of the FS Submittal, provided the deficiency is less than 500 MW.

16.2.8.2 A planned outage shall not justify a waiver of or exception to a Participant's holdback or energy delivery obligations under Part III of this Tariff. Participants will be expected to procure the necessary capacity or energy to meet the Operations Program requirements, regardless of planned outage schedules or FS Submittal acceptance.

16.3 FS Transmission Requirement

16.3.1 As part of its Forward Showing Submittal for a Binding Season, each Participant must demonstrate, as specified in the Business Practice Manuals, that it has secured firm transmission service rights, including under supply arrangements with a third party that holds or has committed transmission service rights, sufficient to deliver a MW quantity equal to at least 75% of the MW quantity of its FS Capacity Requirement. To the extent a Participant holds transmission service rights with a point of receipt at a Qualifying Resource, or in connection with an RA Transfer to such Participant, any such rights from such point in a MW quantity, respectively, in excess of the QCC of such Qualifying Resource, or in excess of the value of such RA Transfer, shall not contribute toward satisfaction of such Participant's FS Transmission Requirement. The FS Transmission Requirement must be met with NERC Priority 6 or NERC Priority 7 firm point-to-point transmission service or network integration transmission service, from such Participant's Qualifying Resource(s) or from the delivery points for the resources identified for its Net Contract QCC or for its RA Transfer to such Participant's load. Notwithstanding the foregoing, authorized use of Capacity Benefit Margin will satisfy the FS Transmission Requirement. Demonstration of the FS Transmission Requirement shall not, in and of itself, relieve any Participant of responsibility for a Delivery Failure Charge as determined under Section 20.7 if such Participant's failure to obtain or maintain firm transmission service of the type and quantity expected by the Operations Program, as described in Section 20.6 of this Tariff, caused or contributed to an Energy Delivery Failure.

16.3.2 A Participant may include in its Forward Showing Submittal a request for an exception from a limited part of its FS Transmission Requirement, provided the exception request meets the terms, conditions, and limitations of one or more of the following four exception categories:

16.3.2.1 Enduring Constraints. Participant is unable to demonstrate sufficient NERC Priority 6 or NERC Priority 7 firm point-to-point or network integration transmission service rights on any single

segment of a source to sink path for a Qualifying Resource; and Participant demonstrates that no ATC for such transmission service rights is available (either from the transmission service provider or through a secondary market) at the FS Deadline on the applicable segment for the Month(s) needed (for a duration of one year or less) at the applicable Open Access Transmission Tariff rate or less; and Participant submits a Senior Official Attestation that Participant has taken commercially reasonable efforts to procure firm transmission service rights, and that Participant has posted Firm Transmission Requirements on a relevant bulletin board prior to the FS Deadline. In addition to the foregoing, Participant must further demonstrate that there was remaining available transmission transfer capability (i.e., non-firm ATC after the fact) for all CCHs in the same season of the most recent year for which CCHs have been calculated; or, if the path was constrained in at least one CCH of the CCHs in the same season of the most recent year for which CCHs have been calculated, Participant in that case must demonstrate either that it is constructing or contracting for a new local resource for at least the amount of the exception requested, or that it is pursuing long-term firm transmission service rights by entering the long-term queue and taking all appropriate steps to obtain at least the amount of the exception requested.

16.3.2.2 Future Firm ATC Expected. Participant demonstrates that ATC for NERC Priority 6 or NERC Priority 7 firm point-to-point or network integration transmission service rights is not posted or available prior to the FS Deadline (for a duration of one year or less) at the applicable Open Access Transmission Tariff rate or less, and that the transmission service provider has, after the FS Deadline, released additional ATC for such transmission service rights in every one of the CCHs of the most recent year for which CCHs have been calculated on the applicable path . The Participant must also demonstrate that the exception request meets volume and duration limitations specified in the Business Practice Manuals.

16.3.2.3 Transmission Outages and Derates. Participant demonstrates that an applicable segment of its existing transmission service rights from its source to sink path for its Qualifying Resource is expected to be derated or out-of-service and the ATC for NERC Priority 6 or NERC Priority 7 firm point-to-point or network integration transmission service rights is not otherwise available, and that the exception request meets volume and duration limitations specified in the Business Practice Manuals.

16.3.2.4 Counterflow of a Qualifying Resource. Participant demonstrates that either: (i) Participant's use of firm transmission service in connection with the delivery of capacity from

Participant's Qualifying Resource (or from the resource associated with its Net Contract QCC) to Participant's load (or other qualifying delivery point permitted by the WRAP) or (ii) a second Participant's use of firm transmission service in connection with the delivery of capacity from the second Participant's Qualifying Resource (or from the resource associated with its Net Contract QCC) to the second Participant's load (or other qualifying delivery point permitted by the WRAP) provides a direct and proportional counterflow transmission that supports the first Participant's delivery of capacity from the first Participant's Qualifying Resource (or from the resource associated with its Net Contract QCC) to the first Participant's load (or other qualifying delivery point permitted by the WRAP) Qualifying Resource to their load. If the exception is requested under subpart (ii) of this subsection, the Participant requesting the exception shall include a written acknowledgement from the second Participant that it is aware of such exception request.

As more fully set forth in the Business Practice Manuals, such exceptions may be subject to overall WRAP limits, and shall be supported by a Senior Official Attestation. WPP will consider the exception category terms, conditions and limitations set forth above, and may consider the completeness of the exception request, information from transmission service providers, OASIS data, and other relevant data and information, in determining whether to grant or deny a transmission exception request. WPP shall provide such determination no later than sixty days after submission of such Participant's FS Submittal containing such transmission exception request. A Participant denied an exception request hereunder may appeal such denial to the Board of Directors in accordance with the procedures and deadlines set forth in the Business Practice Manuals. In such event, the requested exception shall be denied or permitted as, when and to the extent permitted by the Board, in accordance with the procedures and timing set forth in the Business Practice Manuals. WPP shall give notice of any exception granted hereunder in the time and manner provided by the Business Practice Manuals.

A Participant granted a transmission exception under either Section 16.3.2.1 or Section 16.3.2.2 must complete a monthly transmission exception check report demonstrating that either (i) the circumstances necessitating the exception have not changed; (ii) transmission has become available and the Participant has acquired it; or (iii) the Participant has acquired a different resource, and associated transmission service rights, and no longer requires the exception. Failure to timely submit a required monthly report will result in assessment of a Deficiency Charge, unless the deficiency is cured within seven days of notice of non-compliance.

16.3.3 To the extent a Participant does not demonstrate satisfaction of its FS Transmission Requirement by the FS Deadline, the Participant may correct any such deficiency on or before the end of the cure period prescribed by Section 14.5 of this Tariff to avoid a Deficiency Charge.

16.3.4. Any deficiency of transmission service rights ultimately determined by WPP will be treated, for purposes of Deficiency Charge determinations, as in conjunction with, and not additive to, any deficiencies of QCC determined pursuant to Section 16.2.

17. Forward Showing Deficiency Charge

17.1 If a Participant fails during the cure period to demonstrate that it has resolved any identified deficiencies in either or both of its FS Capacity Requirement and its FS Transmission Requirement, the Participant will be assessed a Deficiency Charge for each Month for which a deficiency is identified in accordance with this section. In such case, the deficiency for which the Participant will be assessed a Deficiency Charge will be calculated in accordance with the following:

Participant's Monthly Capacity Deficiency = Maximum of (Monthly FS Capacity Requirement – Monthly Portfolio QCC, 0)

Participant's Monthly Transmission Deficiency (MW) = Maximum of ((75% × Monthly FS Capacity Requirement) – (Monthly Transmission Demonstrated + Approved Monthly Transmission Exemptions), 0)

Where Monthly Transmission Demonstrated is the amount of transmission service rights submitted by a Participant per the requirements in Section 16.3 and validated by WPP for each month.

Monthly Deficiency (MW) = Maximum of (Monthly Capacity Deficiency, Monthly Transmission Deficiency)

17.2 A Participant's Deficiency Charges shall be calculated as set forth in this Section 17.2, subject to the Transition Period rules in Section 17.3, and shall take account of multiple Monthly Deficiencies within a Forward Showing for a single Binding Season, and multiple Deficiencies across a Forward Showing Year, consisting of a Summer Season and the immediately succeeding Winter Season, in accordance with the following:

17.2.1 The Monthly Deficiency with the highest MW value in a Forward Showing for a Summer Season shall be assessed a Deficiency Charge equal to:

Max Summer Deficiency (MW) × Annual CONE ($/kW-year) × 1000 × Summer Season Annual CONE Factor

17.2.2 Any other Monthly Deficiency in the Participant's Forward Showing for the same Summer Season shall be assessed a Deficiency Charge equal to:

Additional Summer Deficiency (MW) × (Annual CONE ($/kW-year)/12) × 1000 × 200%

17.2.3 Any Monthly Deficiency in the Forward Showing for the immediately succeeding Winter Season with a higher MW value than the highest MW value of the Monthly Deficiency in the Summer Season shall be assessed a Deficiency Charge on the incremental MW value above the Summer Season equal to:

Maximum of (Max Winter Deficiency – Max Summer Deficiency, 0) (MW) × Annual CONE ($/kW-year) × 1000 × Winter Season Annual CONE Factor

and in such case where there is a Monthly Deficiency in the Winter Season with a higher MW value than the highest MW value of any Monthly Deficiency in the Summer Season, the Monthly Deficiency with the highest MW value in the Summer Season shall be assessed an additional Deficiency Charge calculated in accordance with Section 17.2.2.

17.2.4 Any other Monthly Deficiency in the Participant's Forward Showing Submittal for the same Winter Season shall be assessed a Deficiency Charge equal to:

Additional Winter Capacity Deficiency × (Annual CONE/12) × 1000 × 200%

17.2.5 For purposes of the above, CONE is the estimated cost of new entry of a new peaking natural gas-fired generation facility. The CONE estimate shall be based on publicly available information relevant to the estimated annual capital and fixed operating costs of a hypothetical natural gas-fired peaking facility. The CONE estimate shall not consider the anticipated net revenue from the sale of capacity, energy, or ancillary services from the hypothetical facility, nor shall it consider variable operating costs necessary for generating energy.

17.2.6 WPP shall review the CONE estimate annually for a possible update. Any proposed changes in the CONE estimate shall be subject to review through the stakeholder process for program rule changes.

17.2.7 The Summer Season Annual CONE Factor shall vary based on the ratio ("Summer % Deficit") of the Aggregate Capacity Deficiency for the WRAP as a whole for that Summer Season, divided by the P50 Peak Load Forecast for the Summer Season, as follows:

If the Summer % Deficit is less than 1%, the Summer Season Annual CONE Factor = 125%

If the Summer % Deficit is greater than 1% but less than 2%, the Summer Season Annual CONE Factor = 150%

If the Summer % Deficit is greater than 2% but less than 3%, the Summer Season Annual CONE Factor = 175%

If the Summer % Deficit is greater than 3%, the Summer Season Annual CONE Factor = 200%

17.2.8 The Winter Season Annual CONE Factor shall vary based on the ratio ("Winter % Deficit") of the Aggregate Capacity Deficiency for the WRAP as a whole for that Winter Season, divided by the P50 Peak Load Forecast for the Winter Season, as follows:

If the Winter % Deficit is less than 1%, the Winter Season Annual CONE Factor = 125%

If the Winter % Deficit is greater than 1% but less than 2%, the Winter Season Annual CONE Factor = 150%

If the Winter % Deficit is greater than 2% but less than 3%, the Winter Season Annual CONE Factor = 175%

If the Winter % Deficit is greater than 3%, the Winter Season Annual CONE Factor = 200%

17.2.9 Notwithstanding Sections 17.2.7 and 17.2.8, if there is either a Summer % Deficit or a Winter % Deficit in a Forward Showing Year, then for the immediately following Forward Showing Year, both the Summer Season Annual CONE Factor and the Winter Season Annual CONE Factor shall be 200%.

17.2.10. Subject to the Transition Period rules in Section 17.3, revenues from the payment of Deficiency Charges as to a Binding Season shall be allocated among those Participants with no Deficiency Charges for that Binding Season, pro rata based on each Participant's share of all such Participants' Median Monthly P50 Peak Loads for such Binding Season.

17.3 During the Transition Period, Deficiency Charges otherwise calculated under Section 17.2 shall be reduced as, when, and to the extent, and subject to the conditions, provided in Section 17.3.2; and revenue allocations otherwise calculated under Section 17.2 shall be adjusted as, when, and to the extent, and subject to the conditions, provided in Section 17.3.4.

17.3.1. During the Transition Period, a Participant with a Monthly Capacity Deficiency can pay a reduced Deficiency Charge for so much of such Monthly Capacity Deficiency as was due to an Excused Transition Deficit. To obtain an Excused Transition Deficit for a Binding Season, the Participant must provide a Senior Official Attestation attesting that the Participant has made commercially reasonable efforts to secure Qualifying Resources in the quantity needed to satisfy the Participant's FS Capacity Requirement for the Binding Season, but is unable to obtain Qualifying Resources in the quantity required for the Binding Season because the supply of such resources on a timely basis and on commercially reasonable terms is at that time inadequate. Excused Transition Deficits are not

resource specific, relate to a MW quantity of the Participant's FS Capacity Requirement, and are limited for each Participant as to a Binding Season during the Transition Period to a maximum permissible MW quantity equal to a percentage value times the FSPRM applicable to such Participant for all Forward Showing Submittals submitted by such Participant for such Binding Season. For purposes of such calculation, the percentage value is 75% for each of the 2025 Summer Season and 2025-2026 Winter Season, 50% for each of the 2026 Summer Season and 2026-2027 Winter Season, and 25% for each of the 2027 Summer Season and 2027-2028 Winter Season.

17.3.2 A Participant will pay a reduced Deficiency Charge as to the portion of its Monthly Capacity Deficiency for which it obtained an Excused Transition Deficit. The Deficiency Charge otherwise applicable to such Participant under Section 17.2 shall be reduced by a percentage value equal to 75% for each of the 2025 Summer Season and 2025-2026 Winter Season, 50% for each of the 2026 Summer Season and 2026-2027 Winter Season, and 25% for each of the 2027 Summer Season and 2027-2028 Winter Season. The Participant will be assessed a Deficiency Charge calculated under Section 17.2, without reduction or adjustment, for any of its Monthly Capacity Deficiency that is in excess of the amount of such deficiency for which it obtained an Excused Transition Deficit.

17.3.3 Whether or not a Participant obtains an Excused Transition Deficit as to a Binding Season, the Participant may reduce a Monthly Capacity Deficiency otherwise calculated under Section 17.1 for a Binding Season during the Transition Period to the extent such deficiency is due to the Participant's inability to obtain assent from the supplier under a Legacy Agreement to the accreditation required for such Legacy Agreement under Part II of this Tariff and the Business Practice Manuals. To obtain such relief, the Participant must provide a Senior Official Attestation attesting that the Participant made commercially reasonable efforts to execute the required accreditation form with the supplier under the Legacy Agreement, but the supplier was unable or unwilling to counter sign the accreditation form. The reduction in Monthly Capacity Deficiency permitted by this Section 17.3.3 as to any Participant for all Forward Showing Submittals submitted by such Participant for any Binding Season during the Transition Period shall not exceed a MW quantity equal to 25% times the FSPRM applicable for such Participant for such Binding Season. To the extent a Participant reduces a Monthly Capacity Deficiency under this subsection, the percentage of the Participant's FSPRM corresponding to the reduction hereunder shall reduce the maximum permissible percentage of FSPRM reduction allowed under Section 17.3.1 for Excused Transition Deficits for the same Binding Season.

17.3.4 A Participant that, as a result of application of this Section 17.3, pays no Deficiency Charge as to a Binding Season, shall not be deemed a "Participant[ ] with no Deficiency Charges" for purposes of Section

17.2.10, and shall not receive an allocation of revenues from the payment of Deficiency Charges as to such Binding Season.

PART III OPERATIONS PROGRAM

18. Operations Program Overview

18.1 The Operations Program facilitates access to collective capacity made available through regional load and resource diversity of all Participants under the terms of this Part III.

18.2 The Operations Program evaluates forecasted system conditions across the seven-day period ("Multi-Day-Ahead Assessment") preceding the Operating Day, commencing at the outset of the assessment period with an initial Sharing Calculation and initial identification of potential Sharing Events for the Operating Day. The assessment is refined as forecasted conditions for the Operating Day are revised and established on the Preschedule Day, a Holdback Requirement for any Sharing Events is then identified. To the extent a Sharing Event continues to be identified for the Operating Day, Holdback Requirements shall be converted into Energy Deployments on the Operating Day.

18.3 The Operations Program prescribes pricing designed to incent Participants to resolve any forecast Operating Day deficiencies before the Operating Day, including through transactions outside the Operations Program, and to fully compensate Participants that provide support through the Operations Program to Participants with Operating Day deficiencies.

19. Operations Program Timeline and Supporting Information

19.1 The Multi-Day Ahead Assessment is conducted for the seven rolling days before each Operating Day. WPP shall prepare and post a forecast for the Operating Day on the first day of the Multi-Day-Ahead Assessment, revise the forecast each day thereafter, including on the Preschedule Day, and then revise the forecast hourly into the Operating Day during any Sharing Event.

19.2 The Operations Program, during any Binding Season, shall rely on and employ (among other data) the following information from the Forward Showings for such Binding Season: (i) the P50 Peak Load Forecast for each Participant; (ii) the Monthly FSPRMs for each Participant during such Binding Season; (iii) expected performance by Qualifying Resource type and any RA Transfers; (iv) expected forced outage rates by resource type; (v) expected Contingency Reserves; and (vi) firm transmission service rights made available for purposes of regional diversity sharing under the WRAP, as demonstrated by Participants in their Forward Showing Submittals, as permitted under Part II of this Tariff, which shall be assumed to be available for all hours of each Month for which such firm transmission service rights were made available.

19.3 To facilitate WPP's conduct of the Multi-Day-Ahead Assessment, each Participant shall provide the Program Operator information relevant to the Participant's expected demand and supply conditions on each Operating Day, of the type, in the manner, and with the frequency, specified in the Business Practice Manuals.

19.4 Each Participant in any Subregion identified in the Business Practice Manuals as not containing a central transmission hub permitting energy deliveries to that hub from any point within such Subregion, shall, in addition to providing the information required by Section 19.3, identify, on or before the deadline during the Preschedule Day specified in the Business Practice Manuals, for each Hour of the Operating Day each point to which it can deliver energy, each point at which it can take receipt of energy, the quantity it can deliver or receive at each such point, and a numeric factor intended to prioritize use of transmission made available by Participants with positive Sharing Calculations and needed by Participants with negative Sharing Calculations for each such hour, employing for such purpose the numeric factor developed by WPP with input from the stakeholder committees identified for such input in the Business Practice Manuals. A Participant with a positive Sharing Calculation for an hour must provide a total quantity for all identified points at which it can deliver that is no less than the amount of its positive Sharing Calculation for such hour (adjusted as necessary for any RA Transfer in accordance with Section 20.1.2). A Participant with a negative Sharing Calculation for an hour must provide a total quantity for all identified points at which it can take receipt that is no less than the amount of its negative Sharing Calculation for such hour (adjusted as necessary for any RA Transfer in accordance with Section 20.1.2). Participants shall provide this same information for each Operating Day on an expected or preliminary basis on each day of the Multi-Day-Ahead Assessment

following, and based on, the expected Holdback Requirement estimates provided on each such day for the Operating Day.

19.5 Any Participant may, at its sole election, in addition to the information and priorities provided pursuant to Section 18.4, offer on the Preschedule Day additional holdback capacity, or additional transmission service rights, including intermediate or wheeling transmission service, for use by other Participants under Part III of this Tariff. Any such offer shall include for such offered holdback or transmission service rights the same type of point of receipt, point of delivery, quantity, and numeric factor information required by Section 19.4 as well as any associated or resulting limit on such Participant's offered holdback.

20. Components of the Operations Program

20.1 Sharing Requirement

20.1.1 WPP shall implement, as more fully described in the Business Practice Manuals, with respect to each Forward Showing Submittal accepted by WPP for a Participant under Part II of this Tariff, or with respect to each Subregion in which the Participant is responsible for load regardless of whether the Participant submitted a single Forward Showing Submittal encompassing its loads in both Subregions, the following Sharing Calculation to identify any hour in which any Participant is forecast to have a capacity deficit (known as a "Sharing Event"). This calculation takes into account changes in a Participant's resource availability, resource performance, forecast load, and Contingency Reserves relative to the Forward Showing, plus an Uncertainty Factor. The Sharing Requirement is equal to:

[P50 + FSPRM – Regional Diversity Transmission -- ΔForced Outages + ΔRoR Performance + ΔVER Performance] – [Load Forecast + ΔCR + Uncertainty Factor]

Where:

P50 refers to the Participant's Monthly P50 Peak Load for that Binding Season's month;

FSPRM refers to the MW quantity of the FSPRM percentage applied to the Participant P50 Peak Load Forecast for that Participant for that Binding Season;

Regional Diversity Transmission refers to the MW quantity of additional transmission service rights made available for purposes of regional diversity sharing under the WRAP, as demonstrated by the Participant in its Forward Showing Submittal in lieu of demonstrating an equal MW quantity of Portfolio QCC, as permitted under Part II of this Tariff; provided that when separate Sharing Calculations are performed for each of two Subregions in which a Participant is responsible for load, the Regional Diversity Transmission shall be equal to the lower of (i) the additional firm transmission service rights (above that required for the FS Transmission Requirement) demonstrated in the Participant's Forward Showing Submittal and (ii) the additional firm transmission service rights (above that required for the FS Transmission Requirement) demonstrated in the Participant's Forward Showing Submittal minus any transfer made from the Subregion with the lower PRM to the Subregion with the higher FS PRM to address all or part of a negative Sharing Calculation result in the Subregion with the higher FSPRM.

$\boldsymbol{\Delta\ Forced\ Outages}$ refers, for the subject hour, to: (i) any change in forced outages of any of the thermal resources included in the Participant's Portfolio QCC, relative to the forced outages assumed in the Forward Showing Submittal by application of the Forced Outage Factor; (ii) any change in forced outages of any of the Storage Hydro Qualifying Resources relative to the forced outages assumed in the calculation of the Participant's Resource QCC as more fully described in the Business Practice Manuals; and (iii) any impacts of transmission conditions on previously acquired firm transmission service rights that result in capacity reductions up to the level of the Resource QCC of the associated Qualifying Resource;

$\boldsymbol{\Delta RoR\ Performance}$ refers to any change, for the subject hour, in expected performance of any of the run-of-river resources in the Participant's Portfolio QCC relative to the QCC of that Qualifying Resource;

$\boldsymbol{\Delta VER\ Performance}$ refers to any change, for the subject hour, in expected performance of the VER Resources in the Participant's Portfolio QCC relative to the QCC of that Qualifying Resource;

Load Forecast refers to the forecast of expected load for the subject hour for the loads for which the Participant is responsible;

$\boldsymbol{\Delta CR}$ refers to any change in Contingency Reserves for the subject hour, relative to that assumed in the Participant's Forward Showing Submittal; and

Uncertainty Factor refers to a factor determined by WPP, as more fully set forth in the Business Practice Manuals, to account for the potential variance between forecasts of load, solar resources, wind resources, and run-of-river resources, and the Operating Day conditions of such load and resources based on historic data.

20.1.2 In addition to the foregoing, the Sharing Calculation for a Participant that is a purchaser of an RA Transfer shall be performed in two passes, with and without such purchase. If the result of assuming in the first pass that the Participant had not purchased the RA Transfer is that the Participant has a negative Sharing Calculation, then the Participant that sold the RA Transfer must agree, for the time period addressed by the Sharing Calculation, to an energy delivery to the Participant that purchased the RA Transfer, in an amount equal to the lesser of: (i) the MW quantity needed to result in a net zero Sharing Calculation for the Participant that purchased the RA Transfer; and (ii) the MW amount of the RA Transfer. If the result of recognizing the Participant's purchase of the RA Transfer in the second pass is that the Participant has a positive Sharing Calculation, then the Participant that sold the RA Transfer must assume a share of the purchasing Participant's resulting obligation to the Operations Program in an amount equal to the

MW quantity of the RA Transfer, minus the MW quantity of the delivery made by the seller of the RA Transfer to the purchaser of the RA Transfer as a result of the first pass.

20.1.3 The Sharing Calculation of any Participant that was found to have a Monthly Capacity Deficiency under Sections 16.1 and 16.2, for which such Participant paid an FS Deficiency Charge, including any Deficiency Charge reduced by application of Section 17.3 during the Transition Period, shall be reduced by the MW quantity of such Monthly Deficiency. During the Transition Period, a Participant that had a Deficiency Charge as to a Binding Season reduced by application of Section 17.3 shall receive a lesser priority to Holdback and Energy Deployments during such Binding Season relative to Participants that, as to the same Binding Season, had no Monthly Capacity Deficiency under Sections 16.1 and 16.2, or had a Monthly Capacity Deficiency under those sections but obtained no reduction in the Deficiency Charge under Section 17.3. Such priority shall apply only in the event that during a Sharing Event, there is insufficient Holdback available to satisfy the deficits of all Participants with a negative Sharing Calculation, or in the event that there is insufficient Energy Deployment available to satisfy the deficit positions of all Participants that confirmed a need for Energy Deployment. In either such event, the Holdback, or Energy Deployment, available to Participants that had their Deficiency Charges reduced by Section 17.3 shall be limited to that available after satisfying the deficit positions of Participants that did not had no Monthly Capacity Deficiency under Sections 16.1 and 16.2, or had a Monthly Capacity Deficiency under those sections but obtained no reduction in their Deficiency Charge under Section 17.3.

20.2 Holdback Requirement

20.2.1 To the extent that: (i) WPP's application of the Sharing Calculation identifies on the Pre-Schedule Day a Sharing Event for any hour(s) of the Operating Day; and (ii) the Participant(s) found to be deficient for such hour(s) by the Sharing Calculation confirms to the WPP, in accordance with notification and confirmation procedures set forth in the Business Practice Manuals, such Participant's need for capacity for such hour(s), then WPP shall determine the Participants having a Holdback Requirement for such hour(s) and the quantity of the Holdback Requirement for each such Participant in accordance with the following Holdback Calculation:

Participant Holdback Requirement = Participant Sharing Ratio × Total Program Sharing Requirement

where:

Participant Sharing Ratio = [the positive Sharing Requirement, if any, calculated for such Participant] / Σ positive Sharing Requirements of all Participants having a positive Sharing Requirement for such hour]

Total Program Sharing Requirement = abs(Σ negative Sharing Requirements of all Participants having a negative Sharing Requirement for such hour)

Holdback Requirements shall be expressed as whole MWs for each hour for which they are estimated or established and shall not be specific to any Qualifying Resource.

20.2.2 Absent a Holdback Requirement Transfer as described below, a Participant's Holdback Requirement for any hour of an Operating Day shall not exceed the level first set by WPP on the Preschedule Day for that Participant for that hour. Prior to establishing the Holdback Requirement for an hour of an Operating Day, WPP, during the Multi-Day-Ahead Assessment, will estimate, and provide to affected Participants, an expected Holdback Requirement for such hour of the Operating Day. As expected, conditions change over the Multi-Day-Ahead Assessment, WPP may adjust its estimate of the expected Holdback Requirement for such hour, applying the same considerations and principles set forth in Section 20.3.1 for a release of a Holdback Requirement, as well as the same process and considerations for early release of Holdback Requirement set forth in Section 20.3.1.1. When WPP notifies affected Participants of such reduction, the Holdback Requirement established on the Preschedule Day shall not exceed the reduced level previously estimated by WPP for such hour.

20.2.3 Any Participant may agree with any other Participant for the first Participant to transfer to the second Participant some or all of the Holdback Requirement established for the first Participant for any hour on any Operating Day. Any such Holdback Requirement Transfer shall be a bilateral arrangement settled outside the Operations Program, provided, however, that both Participants must timely notify WPP, by the time and in the manner described in the Business Practice Manuals, of such Holdback Requirement Transfer. Any necessary transmission arrangements and any transaction settlements shall be the sole responsibility of the Participants that are the parties to such bilateral arrangement.

20.3 Release of Holdback Requirement

20.3.1 As detailed in the Business Practice Manuals, WPP will review Holdback Requirements for each hour of an Operating Day following the establishment during the Preschedule Day of any Holdback Requirement for that hour. To the extent the WPP determines any Holdback Requirements can be reduced, it shall release all or a portion of Participants'

Holdback Requirements. WPP will permit a release of Holdback Requirements to the extent WPP has not applied a Safety Margin for such hour and (i) WPP's continued Sharing Calculations determine that no Participant has a negative Sharing Requirement for such hour; and (ii) WPP determines there is a low probability of a Sharing Event for the hour; or (iii) WPP grants a Participant's request for extenuating circumstances of all or any portion of that Participant's Holdback Requirement for the hour.

20.3.1.1 In advance of the process described in Section 20.3.1 WPP may, on its own or in response to a Participant request, set a ceiling on the Holdback Requirement based on application of the same considerations set forth in Section 20.3.1 for a release of a Holdback Requirement.

20.3.2 Upon release of all or any portion of a Holdback Requirement, the quantity of Holdback Requirement so released shall no longer be subject to an Energy Deployment requirement under the Operations Program for the subject hour.

20.3.3 No Holdback Requirement transfer for any hour shall be permitted if notice of such bilateral transaction is not fully reported to WPP, in the form required by the Business Practice Manuals, by 120 minutes before the start of such hour.

20.4 Energy Deployment

20.4.1 Participants shall provide energy during an hour, in support of any Participants with a negative Sharing Requirement and a confirmed need for energy under the Operations Program for such hour, in accordance with WPP's calculation of the Energy Deployment for such hour.

20.4.1.1 For any hour, as to any Subregion identified in the Business Practice Manuals as containing a central transmission hub permitting energy deliveries to that hub from any point within such Subregion, the total Energy Deployment required of all Participants that are subject to Energy Deployment shall equal the sum, in MWh for that hour, of the energy confirmed as being needed in that hour by Participants in such Subregion with negative Sharing Requirements in such hour, to the extent that can be supported by the Program. The Energy Deployment required from a Participant in such Subregion in such hour shall be that Participant's pro rata share of the total Energy Deployment for such Subregion, based on the ratio of that Participant's final Holdback Requirements for such hour to the sum of all final Holdback Requirements for that hour. Energy Deployments required hereunder shall be delivered to the central transmission hub in such Subregion, or to an alternate delivery point mutually agreed by the parties to a specific Energy

Deployment, provided both parties to the transaction report such alternative delivery arrangements to WPP in the form and manner described in the Business Practice Manuals.

20.4.1.2 For any hour, as to any Subregion identified in the Business Practice Manuals as not containing a central transmission hub permitting energy deliveries to that hub from any point within such Subregion, WPP shall conduct an optimization calculation that prioritizes use of transmission service voluntarily offered by a Participant pursuant to Section 19.3.1 and additional holdback capacity and transmission service voluntarily offered pursuant to Section 19.5, and that employs the receipt point and delivery point information, quantities, and numeric factors provided pursuant to Section 18.4 as well as any associated or resulting limit on such Participant's offered holdback, to match and allocate provision of Energy Deployment and receipt of Energy Deployment within the following categories: (i) holdback and transmission service rights offered pursuant to Section 19.5; (ii) transmission service offered pursuant to Section 19.3.1, paired with any holdback offered pursuant to Section 19.5 that is not fully used by category (i); (iii) Holdback Requirement under Section 20.2 matched pursuant to the information provided pursuant to Section 19.4 on a nearest neighbor cluster basis, allocated pro rata among Participants within such cluster; (iv) Holdback Requirement under Section 20.2 matched pursuant to the information provided pursuant to Section 19.4 and allocated among Participants within the same Subregion to the extent not matched and allocated under category (iii); and (v) Holdback Requirement under Section 20.2 from Participants in another Subregion, paired with any transmission service offered pursuant to Section 19.3.1 that is not fully used by category (ii).

20.4.2 The Energy Deployment a Participant may receive for any hour shall be no greater than the negative Sharing Requirement calculated for such Participant for such hour. Such Participant shall confirm, by no later than 120 minutes before the start of such hour, the quantity of Energy Deployment for which it requires delivery for such hour, through the procedures outlined in the Business Practice Manuals. Any Participant that does not confirm required Energy Deployment deliveries for such hour by such deadline will be deemed to waive all deliveries of Energy Deployment under the Operations Program for such hour. See Section 21.2 Settlement Price Calculation below for payment obligations.

20.4.3 The Energy Deployment a Participant can be required to supply for an hour shall not exceed the final Holdback Requirement calculated for such Participant on Pre-Schedule Day, including any duly reported exchange of Holdback Requirement, as of 120 minutes before the start of such hour. Any Participant for which WPP calculated during the Preschedule Day a

negative Sharing Requirement for the hour in question shall have zero Holdback Requirement and shall not have any Energy Deployment obligation for that hour.

20.4.4 WPP shall advise each Participant with a required Energy Deployment for an hour of the required MWh quantity and delivery point of such Energy Deployment by no later than ninety minutes before the start of such hour.

20.4.5 Participants may engage in voluntary, bilateral transfers of Energy Deployment obligations for an hour, provided that the Participants assume sole responsibility for any required transmission arrangements and settlement of such bilateral transfer. All such bilateral transfers must be reported to WPP no later than the third Business Day of the Month following the Month in which the transfer occurs.

20.5 Safety Margin

20.5.1 WPP may establish on the Preschedule Day a Safety Margin for the WRAP Region or any identified Subregion thereof for any hour of an Operating Day when warranted by such circumstances as potential large resource trips, heavy transmission outage conditions, significant environmental conditions, or other similar regional or subregional conditions, as more fully set forth in the Business Practice Manuals.

20.5.2 Any Safety Margin so determined for an hour shall be allocated pro rata among Participants with a positive Sharing Requirement, based on their relative shares of the sum of all positive Sharing Requirements for such hour, provided, however, that the Safety Margin allocated to a Participant may not result in a Holdback Requirement for such Participant greater than such Participant's Sharing Requirement. A Participant allocated holdback for a Safety Margin hereunder does not receive compensation under this Tariff for such allocation of holdback.

20.5.3 WPP shall notify all Participants of application of a Safety Margin for any hour, including in such notice the total timeframe, the MW amount, and the rationale for such Safety Margin.

20.6 Operations Program Transmission Service Requirements

Participant shall have in place, prior to the Operating Day, transmission service satisfying NERC priority 6 or 7 for each hour of such Operating Day for which a Sharing Event has been established, in a quantity sufficient for deliveries from the Qualifying Resources relied upon in such Participant's Forward Showing Submittal to demonstrate satisfaction of such Participant's FS Capacity Requirement (or from replacement Qualifying Resources) to serve such Participant's loads during such hours. In the event a Participant has an Energy Delivery Failure, the review associated with the possible assessment of a Delivery Failure Charge on such Participant shall, as further described in the Business Practice Manuals, include

whether a failure to secure sufficient NERC priority 6 or priority 7 firm transmission service rights caused or contributed to such Energy Delivery Failure. For such purpose, the Participant will have been expected to have complied with the transmission service requirement stated in this subsection.

20.7 Failure to Deliver Energy Deployments

20.7.1 A Participant assigned a required Energy Deployment pursuant to Section 20.4.4 of this Tariff for any hour that fails to deliver the specified energy during such hour, and that does not obtain a waiver of its Energy Deployment obligation, shall be assessed a Delivery Failure Charge.

20.7.2 A Participant shall be deemed to have an Energy Delivery Failure if Participant fails to deliver the Energy Deployment quantity established under Section 20.4.1, absent grant of a waiver pursuant to Section 20.7.3 of this Tariff.

20.7.3 A Participant anticipating an Energy Delivery Failure should provide WPP notice of such expected Energy Delivery Failure as soon as practicable after becoming aware of the anticipated failure. Whether anticipated or not, a Participant may request a waiver of an Energy Deployment obligation after an Energy Delivery Failure has occurred. The WPP shall review all such waiver requests and shall determine whether the Participant's justification for the Energy Delivery Failure is valid and warrants waiver of its Energy Deployment obligation. The WPP also shall consider whether the Participant knew in advance, or reasonably should have known in advance, of an Energy Delivery Failure, and what efforts the Participant took to notify the WPP in advance of such Energy Delivery Failure. The procedures for addressing such waiver requests, including a non-exclusive list of valid justifications for an Energy Delivery Failure shall be set forth in the Business Practice Manuals. A Participant denied a waiver request hereunder may appeal such denial to the Board of Directors in accordance with the procedures and deadlines set forth in the Business Practice Manuals. In such event, the requested waiver shall be denied or permitted as, when and to the extent permitted by the Board, in accordance with the procedures and timing set forth in the Business Practice Manuals. WPP shall report on the disposition of each waiver request received.

20.7.4 The Delivery Failure Charge for each hour shall be the Charge Rate applicable for such hour times the MWhs of energy that were required to be, but were not, delivered pursuant to an Energy Deployment during such hour. The Charge Rate shall be the higher of the Day-Ahead price or Real-Time price provided by the Day-Ahead Applicable Price Index and Real-Time Applicable Price Index as specified in the Business Practice Manuals for the Subregion applicable to the location of the delivering entity, applicable to the day and hour of the energy delivery, respectively, for the hour, times a Delivery Failure Factor, as follows:

20.7.4.1 If the deficit is fully covered by other Participants through the Operations Program, in each instance of failure, the Delivery Failure Factor shall be five for the first non-waived Energy Delivery Failure in a Cumulative Delivery Failure Period; ten times for the second non-waived Energy Delivery Failure in a Cumulative Delivery Failure Period; and twenty times for the third and subsequent non-waived Energy Delivery Failures in a Cumulative Delivery Failure Period. For purposes of applying the Delivery Failure Factors under this Section 20.7.4 or the review referenced in Section 20.7.5, multiple Energy Delivery Failures occurring in one day shall be treated as a single instance of failure.

20.7.4.2 If the deficit is not fully covered by other Participants through the Operations Program, the Delivery Failure Factor is twenty-five times for the first non-waived Energy Delivery Failure in a Cumulative Delivery Failure Period; and fifty times for the second and subsequent non-waived Energy Delivery Failures (regardless of whether the prior instance(s) of delivery failure were fully covered by other Participants) in a Cumulative Delivery Failure Period.

20.7.4.3 Revenues from Delivery Failure Charges assessed in cases where the deficit was fully satisfied by other Participants will be used to reduce WPP costs that are recovered under Schedule 1, WRAP Administration Charge. Revenues from Delivery Failure Charges assessed in cases where the deficit was not fully met by other Participants will be collected by the WPP and provided to the Participant that had an unserved deficit.

20.7.4.4 Notwithstanding anything to the contrary in this Section 20.7.4, the Delivery Failure Charges assessed on a Participant, regardless of application of the Delivery Failure Factor, shall not exceed, over the course of a Summer Season and the immediately succeeding Winter Season, the dollar amount that, as more fully detailed in the Business Practice Manuals, would have been assessed cumulatively under Section 17 as Deficiency Charges if the Participant had one or more Forward Showing Capacity Deficiencies over the course of such Summer Season and Winter Season in the same MW amounts as the highest MW amount of Delivery Failure experienced by such Participant in each Month of such Summer Season and Winter Season. The maximum dollar amount described herein shall be calculated on an ongoing basis during such Summer Season and Winter Season, and increased or reduced accordingly, without awaiting the end of the combined period of such Summer Season and Winter Season.

20.7.5 In addition to assessment of the Delivery Failure Charge, a third or subsequent instance of non-waived delivery failure, when all such delivery failures are fully covered by other Participants, or a second or subsequent instance of non-waived delivery failure when such instance is not fully covered by other Participants, will subject the Participant to review for expulsion from the WRAP.

20.8 Voluntary Response to Increased Deficiencies Identified After Pre-Schedule Day

20.8.1 A Participant that identifies an unmet need for energy for any hour of an Operating Day that is in excess of assistance provided or to be provided by Holdback Requirements or Energy Deployments established hereunder may, in accordance with procedures specified in the Business Practice Manuals, notify WPP of the need for such assistance. WPP will establish a portal or other procedure, as specified in the Business Practice Manuals, to facilitate provision of assistance, on a voluntary, bilateral basis, by other Participants to the Participant that identified the unmet need. Compensation, terms, and conditions of any resulting bilateral transactions will be determined by the affected parties outside of this Tariff. While Participant response to any such notification is voluntary, Participants are encouraged to provide assistance to other Participants in the circumstances described in this subsection, in consideration of the mutual support each Participant has agreed to provide to each other Participant by its agreement to participate in the WRAP, including this Operations Program. Voluntary provision of assistance by one Participant to another Participant hereunder shall follow priority tiers during the Transition Period based on the status or condition of the Participant seeking assistance, with the first priority afforded to Participants during a Binding Season (as to such Participant) that had no Monthly Capacity Deficiency for the applicable Month, or that paid a Deficiency Charge that was not reduced under the Transition Period provisions of Part II of this Tariff; the second priority afforded to Participants during a Binding Season (as to such Participant) that obtained relief from a Monthly Capacity Deficiency and Deficiency Charges for the applicable Month under the Transition Period provisions of Part II of this Tariff; and the third priority afforded to Participants during a Non-Binding Season (as to such Participant).

21. Operations Program Settlements

21.1 Nature of Operation Program Settlements

21.1.1 Operations Program settlements are bilateral transactions; they are not purchases from or sales to a central market.

21.1.2 Operations Program transactions use existing transaction systems and processes.

21.1.3 The WPP will calculate and post settlement quantities and prices based on the Energy Deployment and Holdback Requirement, in accordance with procedures specified in the Business Practice Manuals for provision of transaction information by and among Participants and WPP, but WPP has no role in the transaction itself. WPP is not a settlement entity.

21.1.4 Settlement Prices calculated under Section 21.2 shall recognize pricing differences among Subregions. Where the seller and buyer are located in the same Subregion, the Applicable Price Index shall be the price index specified for that Subregion in the Business Practice Manuals. Where the seller and buyer are located in different Subregions, the following components of the settlement price calculation in Section 21.2 will be calculated using the Applicable Price Index for the Subregion that provides the higher index price: (i) Possible Block Sale Revenue; (ii) Total Settlement Price; (iii) Energy Declined Settlement Price; and (iv) Realtime Value of Unheld Energy. If a third participant is involved by providing transmission service rights between Subregions, the Participant that provided holdback or Energy Deployment shall receive the settlement price of the Subregion from which the holdback or Energy Deployment was sourced, and the Participant that provided Subregion to Subregion transmission service rights pursuant to Section 19.3.1 shall receive the difference between each Subregion's Total Settlement Price, or zero, whichever is greater.

21.2 Settlement Price Calculation. Settlement prices shall be calculated in accordance with the following, as more fully set forth in the Business Practice Manuals.

21.2.1 A Participant assigned a Holdback Requirement on a Preschedule Day for any hour of an Operating Day shall be paid the Holdback Settlement Price times the MW quantity of the Holdback Requirement. A Participant that provides energy to another Participant pursuant to an Energy Deployment shall be paid the Energy Declined Settlement Price, defined in Section 21.2.4, times the MWhs of energy provided to such other Participant, and its total payments shall be reduced by the Energy Declined Settlement Price times the MWhs of energy that would have been provided under a Holdback Requirement but were declined by the other Participant. A Participant

assigned a Holdback Requirement also shall be paid, when applicable, a Make Whole Adjustment, as provided below in Section 21.2.5.

21.2.2 A Participant that had a negative Sharing Requirement for any hour of an Operating Day, which was incorporated in the calculation of Holdback Requirements of any Participants for such hour, determined as of the Preschedule Day, shall pay the Holdback Settlement Price times the MW quantity of such negative Sharing Requirement. In addition, any Participant that had a negative Sharing Requirement that was incorporated in the calculation of a Holdback Requirement shall contribute to the payment of the Make Whole Adjustment based on its negative Sharing Calculation. A Participant that declines energy that would have been provided under a Holdback Requirement shall be credited the Energy Declined Settlement Price times the MWhs of energy declined by such Participant.

21.2.3 The Holdback Settlement Price shall equal the Total Settlement Price minus the Energy Declined Settlement Price.

21.2.4 The Energy Declined Settlement Price shall equal the lesser of (i) 0.80 times the Total Settlement Price, or (ii) the Applicable Real-Time Index Price for the hour.

21.2.5 The Make Whole Adjustment is applied in the event that the settlement revenue and the estimated value of the non-dispatched energy is less than the estimated revenues the selling entity would have received had such entity not been subject to a Holdback Requirement and had sold a day-ahead block of energy with a MW value equal to the maximum amount of Holdback Requirement for the hours in the block, and is determined as follows:

Make Whole Adjustment (when applicable) =
Possible Block Sale Revenue
– Final Settlement Revenue
– Realtime Value of Declined Energy
– Realtime Value of Unheld Energy

Where:

Realtime Value of Declined Energy = Energy Declined × Energy Declined Settlement price

provided that Declined Energy is only applicable to those hours where there was a positive Holdback Requirement.

Realtime Value of Unheld Energy = (Maximum Holdback MW in Block – Holdback MW Requested) × Applicable Index Price

21.2.6 The Total Settlement Price used in the above calculations shall be determined in accordance with the following formula:

Total Settlement Price = Maximum of (Minimum of (Hourly Shaping Factor × Day Ahead Applicable Index Price × 110%, 2000 $/MWh), 0)

where:

Hourly Shaping Factor is based on the most recent High-Priced Day for the relevant season, defined as a day in which at least one hour has a system marginal energy cost ("SMEC") greater than $200/MWh, and shall be calculated as follows:

1 + {[CAISO Hourly Day Ahead SMEC - CAISO Average Day Ahead SMEC (on- or off-peak hours)] / [CAISO Average Day Ahead SMEC (on- or off-peak hours)]}

Day-Ahead Applicable Index Price is the day-ahead heavy load/light load ICE Index price that is specified in the Business Practice Manuals for the Subregion applicable to the location of the delivering entity, applicable to the day and hour of the energy delivery. If donated transmission was used to facilitate holdback, the Applicable Index Price shall be the higher of the two subregional day-ahead index prices for that portion of the holdback.

Real-Time Applicable Index Price is the real-time index price that is specified in the Business Practice Manuals for the Subregion applicable to the location of the delivering entity, applicable to the day and hour of the energy delivery.

SCHEDULE 1

WESTERN RESOURCE ADEQUACY PROGRAM ADMINISTATIVE COST RECOVERY CHARGE

The Western Power Pool's Costs of administering and operating the Western Resource Adequacy Program including, without limitation, all costs incurred or obligated by WPP as Program Administrator, all costs paid or payable by WPP to the Program Operator or other service providers, all costs of the Board of Directors in directing, supervising, or overseeing the WRAP, and the costs of maintaining a reasonable reserve as provided in Section 1 of this Schedule 1, shall be recovered from Participants pursuant to the charges set forth in this Schedule 1.

Section 1. WRAP Costs

1. As used herein, Costs shall mean WPP's costs, expenses, disbursements and other amounts incurred (whether paid or accrued) or obligated of administering and operating the WRAP as described above, including, without limitation, operating expenses, general and administrative expenses, costs of outside services, taxes, fees, capital costs, depreciation expense, interest expense, working capital expense, any costs of funds or other financing costs, and the costs of a reasonable reserve as provided herein.

2. The Costs included in a WRAP Administration Charge assessed for a Month shall be the Costs determined as being incurred for that Month, including, without limitation, for each Month, one-twelfth of any annual charge(s).

3. The Costs included in the WRAP Administration Charge for a reasonable reserve shall be those designed to establish over the first twelve months that this WRAP Administration charge is in effect an amount equal to 6% of the expected Costs, exclusive of such reserve, for one year; and to maintain such reserve thereafter at an amount equal to 6% of the expected Costs, exclusive of such reserve for the then-current year. WPP shall record on its income statement deferred regulatory expense, and WPP's balance sheet will reflect as a cumulative deferred regulatory liability, revenues collected under this Schedule 1 that are in excess of the Costs exclusive of such reserve and taking account of and including any accrued tax expense effects of this regulatory liability. The deferred regulatory liability will be reduced when after-tax WPP revenues collected under this Schedule 1 during any Month are less than the Costs exclusive of such reserve. Within thirty days after the end of each Year, to the extent WPP determines that the deferred regulatory liability exceeds 6% of WPP's revenues that were collected under this Schedule 1 during such Year, such excess amounts in the deferred regulatory liability shall be refunded evenly over the applicable billing determinant volumes in the remainder of the subsequent Year through credits to charges to then-current customers under this Schedule 1.

Section 2. WRAP Administration Charge

Each Participant shall be assessed each Month a WRAP Administration Charge equal to the sum of the Base Charge and the Load Charge,

where:

The Base Charge for each Participant equals the Base Costs divided by the number of Participants being assessed the Base Charge for the Month for which the WRAP Administration Charge is being calculated;

The Load Charge for each Participant equals the Load Charge Rate of the Load Services Costs divided by the sum of the Median Monthly P50 Peak Loads of the Participants being assessed the Load Charge for the Month for which the WRAP Administration Charge is being calculated, times that Participant's Median Monthly P50 Peak Load;

And where:

Base Costs means the Costs for the Month of the Base Services Cost Centers shown in the WRAP Cost Assignment Matrix, plus the Base Services Percentage times the Costs for that Month of the Dual Benefit Cost Centers shown below in Section 4: WRAP Cost Assignment Matrix;

Load Services Costs means the Costs for the Month of the Load Services Cost Centers shown in the WRAP Cost Assignment Matrix, plus the Load Services Percentage times the Costs for that Month of the Dual Benefit Cost Centers shown in the WRAP Cost Assignment Matrix; and

Median Monthly P50 Peak Loads means, for each Participant, the median of the Monthly P50 Peak Loads used in the FS Capacity Requirement of such Participant for two Binding Seasons corresponding to the two FS Submittal most recently validated by WPP.

If before or during a Binding Season, a Participant has need to update their Monthly P50 Peak Load for allowable reasons, those updated Monthly P50 Peak Loads will be replaced and the Median Monthly P50 Peak Load value recalculated upon validation of the change in participating load.

A Participant joining the Program will supply data such that WPP can validate Monthly P50 Peak Loads for the first two Binding Seasons for which the Participant will submit an FS Submittal for use in calculating Load Services Costs until these FS Submittals are submitted and reviewed in the normal timeframe.

Section 3. Maximum Charge Rates

3.1 Notwithstanding anything to the contrary in this Schedule 1, the sum of the Base Charges for all Months in a Year shall not exceed the Annual Maximum Base Charge of $59,000/Year, and the sum of the Load Charge Rates for all Months in a Year shall not exceed the Annual Maximum Load Charge Rate of $199/MW. WPP shall, to the extent reasonably practicable, provide two-months' notice prior to WPP's filing at FERC of an application to change the Maximum Base Charge or the Maximum Load Charge Rate, provided that nothing herein shall limit the Board of Director's authority and discretion to seek at FERC a change in the maximum rates in the time and manner the Board determines in the best interests of the Western Resource Adequacy Program. For purposes of clarity, these specified maximum rates on the Base Charge and the Load Charge do not limit the level of the Cash Working Capital Support Charge established under Section 5 of this Schedule 1, nor do they limit the amount of the default Allocation assessment provided under Part I of this Tariff.

3.2 To facilitate Participant planning, the WPP shall prepare, and provide to the RAPC, good faith, non-binding estimates of: (i) reasonably anticipated WRAP budgets for three Years beyond the most recently approved WRAP budget, including sensitivity analyses for reasonably identified major contingencies; (ii) reasonably anticipated numbers of Participants and MWs of Winter and Summer P50 Loads for each such Year; and (iii) reasonably anticipated highest monthly Base Charges and Load Charge Rates for each such Year. All assumptions and estimates in such forecasts and analyses shall be in WPP's sole discretion, which may be informed by RAPC discussion of such topics.

Section 4. WRAP Cost Assignment Matrix

	BASE COSTS	LOAD COSTS	DUAL BENEFIT
Program Administration (non-participant)		100%	
Program Administration (Participant engagement, RAPC facilitation)	100%		
WRAP portion of WPP BOD costs			50%/50%
Program Operations Staffing and Overhead		100%	
Program Operations Technology		100%	
Legal Services		100%	
Independent Evaluator		100%	

Section 5. Cash Working Capital Support Charge

5.1 In addition to the WRAP Administration Charge, each Participant shall be assessed a Cash Working Capital Support Charge, to support WPP's maintenance of sufficient funds on hand to make payments required for the operation and administration of the WRAP on a timely basis. Cash Working Capital Support Charges shall be designed to maintain a Cash Working Capital Fund that, at its maximum level over a twelve-month cycle, equals approximately nine-twelfths of the expected annual payment due from the WPP to the Program Operator for its Program Operator services.

5.2 A Participant shall pay a Cash Working Capital Support Charge no later than thirty days after that Participant executes a WRAPA. The Cash Working Capital Support Charge due following WRAPA execution equals the Cash Working Capital Support Charge Rate, calculated as the Cash Working Capital Fund at its required maximum twelve-month cycle level divided by the sum of the Median Monthly P50 Peak Loads of all Participants, times that Participant's Median Monthly P50 Peak Load.

5.3 To the extent the Cash Working Capital Fund is adequately funded at the time a new Participant executes a WRAPA, the revenue from such Participant's payment of the Cash Working Capital Support Charge shall be distributed to all Participants that previously have paid a Cash Working Capital Support Charge, pro rata based on the Median Monthly P50 Peak Loads of all Participants that have previously paid such charge.

5.4 To the extent, and at such time, WPP determines that an incremental addition to the Cash Working Capital Fund is needed due to such causes as, for example, an expected increase in the annual payment to the Program Operator, each Participant shall be assessed an Incremental Cash Working Capital Support Charge equal to the desired incremental addition, divided by the sum of the Median Monthly P50 Peak Loads of all Participants being assessed the Incremental Cash Working Capital Support Charge for the Month for which the Incremental Cash Working Capital Support Charge is being calculated, times that Participant's Median Monthly P50 Peak Load.

ATTACHMENT A

Western Resource Adequacy Program Agreement

This Western Resource Adequacy Program Agreement ("Agreement") dated as of _____ ("Effective Date") is entered into by and between Western Power Pool Corporation ("WPP") and _____ ("Participant"). WPP and Participant are each sometimes referred to in the Agreement as a "Party" and collectively as the "Parties."

In consideration of the mutual promises contained herein, and other good and valuable consideration, the receipt of which is hereby acknowledged, the Parties agree as follows:

1. The Parties agree that this agreement shall be governed by the rates, terms, and conditions of the Western Resource Adequacy Program Tariff ("Tariff") and all such rates, terms, and conditions contained therein are expressly incorporated by reference herein. All capitalized terms that are not otherwise defined herein shall have the meanings ascribed by the Tariff.

2. Participant wishes to participate in the Western Resource Adequacy Program ("WRAP") administered by WPP under the Tariff.

3. Participant certifies that it satisfies all of the following qualifications:

    3.1 Participant is a Load Responsible Entity as that term is defined in the Tariff.

    3.2 Participant commits to complying with all applicable terms and conditions of WRAP participation as set forth in the Tariff and Business Practice Manuals adopted thereunder, including all Forward Showing Program and Operations Program requirements.

4. Participant will register all resources and supply contracts and shall disclose any other obligations associated with those resources and supply contracts.

5. Participant represents and warrants that it is authorized by all relevant laws and regulations governing its business to enter into this Agreement and assume all rights and obligations thereunder.

6. It is understood that, in accordance with the Tariff, WPP, as authorized by its independent Board of Directors, may amend the terms and conditions of this Agreement or the Tariff by notifying the Participant in writing and making the appropriate filing with FERC, subject to any limitations on WPP's authority to amend the Tariff as set forth therein.

7. Participant agrees to pay its share of all costs associated with the WRAP, as calculated pursuant to Schedule 1 of the Tariff. The manner and timing of such payment shall be as specified in Schedule 1 of the Tariff.

8. WPP agrees to provide all services as set forth in the Tariff.

9. Term and termination. This Agreement shall commence upon the Effective Date and shall continue in effect until terminated either by WPP by vote of its Board of Directors or by Participant's withdrawal as set forth herein. WPP and Participant agree that participation in the WRAP is voluntary, subject to the terms and conditions of this Agreement and the Tariff. The date upon which a Participant's withdrawal is effective and its participation in the program terminates is referred to as the "Withdrawal Date."

9.1 Normal Withdrawal: In general, Participant may withdraw from this Agreement by providing written notice to WPP no less than twenty-four months prior to commencement of the next binding Forward Showing Program period. Once notice has been properly given, Participant remains in a "Withdrawal Period" until the Withdrawal Date.

9.1.1 During Participant's Withdrawal Period, Participant remains subject to all requirements and obligations imposed by the Tariff and this Agreement, including but not limited to all obligations imposed in the Forward Showing Program and Operations Program and obligation to pay Participant's share of all costs associated with the WRAP.

9.1.2 All financial obligations incurred prior to and during the Withdrawal Period are preserved until satisfied.

9.1.3 During the Withdrawal Period, Participant is not eligible to vote on any actions affecting the WRAP that extend beyond the Withdrawal Period.

9.2 Expedited Withdrawal: Participant may withdraw from this agreement with less than the required twenty-four month notice as set forth below. Participant shall negotiate with WPP regarding the timing of the Expedited Withdrawal.

9.2.1 Extenuating Circumstances: The following such events and circumstances shall constitute "extenuating circumstances" justifying a withdrawal on less than twenty-four months. Participant invoking an extenuating circumstance shall negotiate with WPP regarding potential ways to minimize the impact of the expedited withdrawal on all other Participants and WPP. Such extenuating circumstances and any mitigation plan to minimize the impact of the expedited withdrawal must be reviewed and approved by the Board of Directors prior to termination of Participant's WRAP obligations. Regardless of the extenuating circumstance, all financial obligations incurred prior to the Withdrawal Date remain in effect until satisfied.

9.2.1.1 A governmental authority takes an action that substantially impairs Participant's ability to continue to

participate in the WRAP to the same extent as previously; provided, however, that Participant shall be obligated to negotiate with WPP regarding potential ways to address the impact of the regulatory action without requiring a full withdrawal of Participant from the WRAP if possible.

9.2.1.2 Continued participation in the WRAP conflicts with applicable governing statutes or other applicable legal authorities or orders.

9.2.1.3 Participant voted against a RAPC determination and disagreed with a Board of Directors decision to release composite or aggregated data under Section 10.2.1 of the Tariff, provided that such right to expedited withdrawal is exercised promptly after the first time that the Board of Directors determines that the form and format of composite or aggregated data sufficiently protects against the release of confidential or commercially sensitive Participant data. Failure to exercise this right promptly upon the first occurrence of the Board of Directors voting on a specific form and format of composite or aggregated data shall constitute a waiver of the right to expedited withdrawal for any future disclosures of composite or aggregated data in the same or substantially similar form and format.

9.2.1.4 FERC or a court of competent jurisdiction requires the public disclosure of a Participant's confidential or commercially sensitive information, as further described in Section 10.5 of the Tariff; provided however that such right to expedited withdrawal shall be exercised promptly upon the exhaustion of all legal or administrative remedies aimed at preventing the release.

9.2.2 Exit Fee: If the impact of Participant's withdrawal on WRAP operations can calculated with a high degree of confidence and mitigated by the payment of an "exit fee" to be calculated by WPP, an expedited withdrawal will be permitted. Such exit fee shall include (but not be limited to): (i) any unpaid WRAP fees or charges; (ii) Participant's share of all WRAP administrative costs incurred up to the next Forward Showing Program period; (iii) any costs, expenses, or liabilities incurred by WPP and/or the Program Operator directly resulting from Participant's withdrawal; and (iv) any costs necessary to hold other participants harmless from the voluntary expedited withdrawal. The exit fee may be waived to the extent that it would violate any federal, state, or local statute, regulation, or ordnance or exceed the statutory authority of a federal

agency. The exit fee shall be paid in full prior to the Withdrawal Date.

9.2.3 Amendments to Section 3.4 of the Tariff: In the event that amendments to Section 3.4 of the Tariff are approved by the RAPC and Board of Directors, a Participant that voted against such a change may withdraw with less than the required twenty-four month notice, provided that the Participant satisfy all obligations in the Forward Showing Program and Operations Program and satisfy all other financial obligations incurred prior to the date that the amendments to Section 3.4 of the Tariff are made effective by FERC.

9.2.4 Expulsion: The Board of Directors, in its sole discretion, may terminate Participant's participation in the WRAP and may terminate this Agreement with Participant for cause, including but not limited to material violation of any WPP rules or governing documents or nonpayment of obligations. Prior to exercising such right to terminate, the Board of Directors shall provide notice to Participant of the reasons for such contemplated termination and a reasonable opportunity to cure any deficiencies. Such Board of Directors termination shall be after an affirmative vote consistent with the Board of Directors standard voting procedures. Such termination shall not relieve the Participant of any financial obligations incurred prior to the termination date, and WPP may take all legal actions available to recover any financial obligations from Participant.

10. No Waiver of Non-FERC-Jurisdictional Status. If Participant is not subject to the jurisdiction of FERC as a public utility under the Federal Power Act, Participant shall not be required to take any action or participate in any filing or appeal that would confer FERC jurisdiction over Participant that does not otherwise exist. Participant acknowledges that FERC has jurisdiction over the WRAP, including Participant's activities in the WRAP.

[SIGNATURE BLOCKS]