

WESTERN RESOURCE ADEQUACY PROGRAM

August 11th, 2026

**Data Center & Large Load (DC-LL)
Task Force 14-19 Meeting 2**

AGENDA

1. Task Force Governance Continued
2. Forward Showing to Operations Program
3. Demand Response Capacity Resource QCC Policy
4. WRAP Data Timeline
5. Back-up Generation Flexibility
6. Scoping Continued
7. Next Meeting: September 8, 2026

GOVERNANCE CONTINUED

PRINCIPLES OF ENGAGEMENT

“Task Force members will strive to represent their respective organizations (if part of one) while working in the best interests of the region. A spirit of collaboration will govern discussions, and the Task Force will strive to navigate cordially through conflicts and differences of opinion. Consistent member attendance and engagement at Task Force meetings are critical.”

TASK FORCE GOVERNANCE - LEADERSHIP

"The first act of this Task Force will be to elect Task Force leadership from its membership that shall include a [Chair//Deputy Chair]."



Nominate self or other, either now, or by email

TASK FORCE GOVERNANCE – QUORUM FOR DECISION MAKING

“The quorum for decision making shall require the presence of **eight of the fourteen members**. A lesser number may adjourn the meeting to a later time.”

TASK FORCE GOVERNANCE - VOTING

"This Task Force will strive for and act on the consensus of its members. In the event consensus cannot be reached a decision will be made by [simple] majority vote."

Note this Task Force has 14 members (organizations)

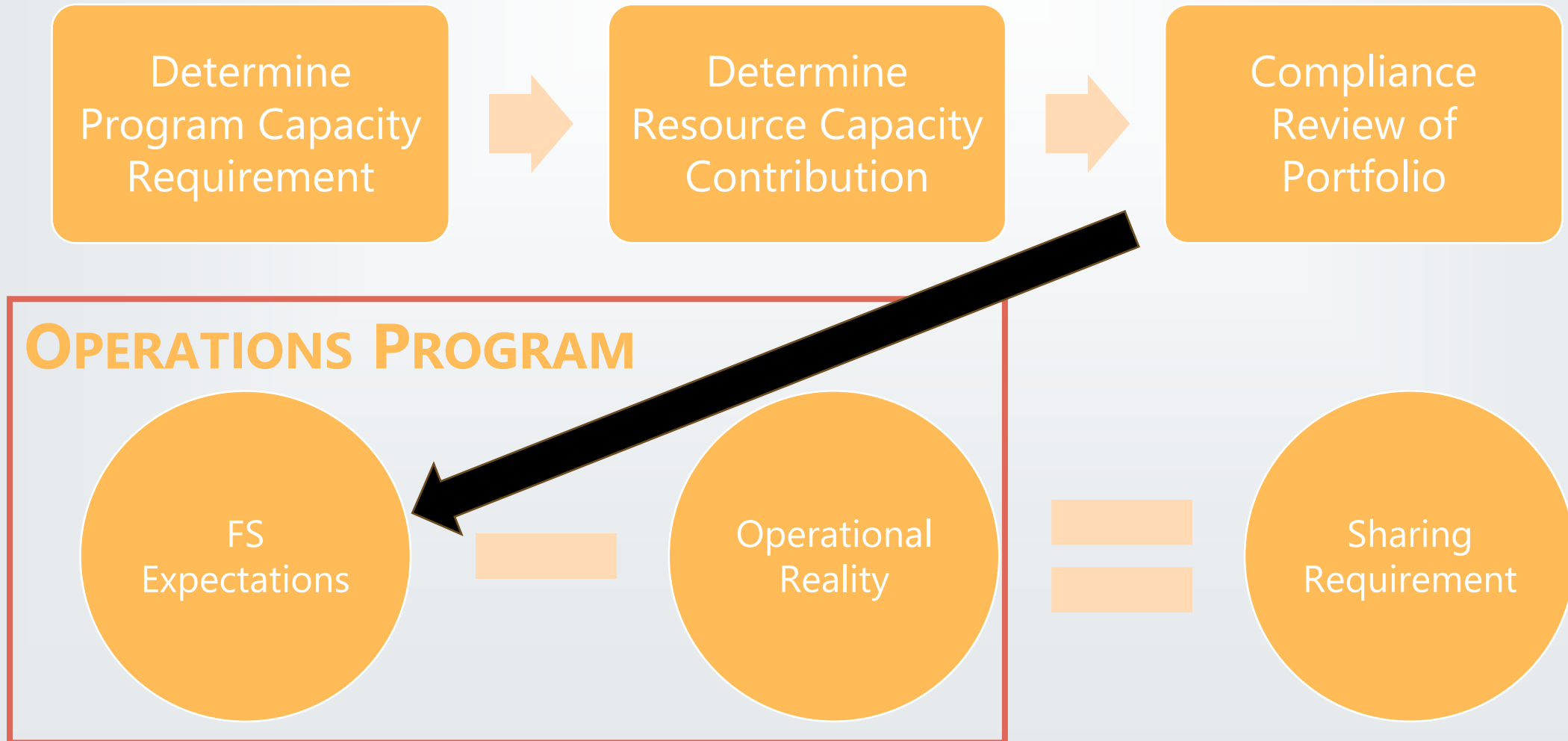
TASK FORCE MEETINGS

“This Task Force’s meetings shall be [two] hours long and held [biweekly] through [December]. As needed, meetings will be extended with at least one week’s notice. Additional or replacement meetings may also be required by Task Force leadership and scheduled with advance notice. Task Force membership will be notified of meeting dates at least 5 days in advance. Task Force leadership may also call special meetings that will be noticed in advance as soon as practicable.”

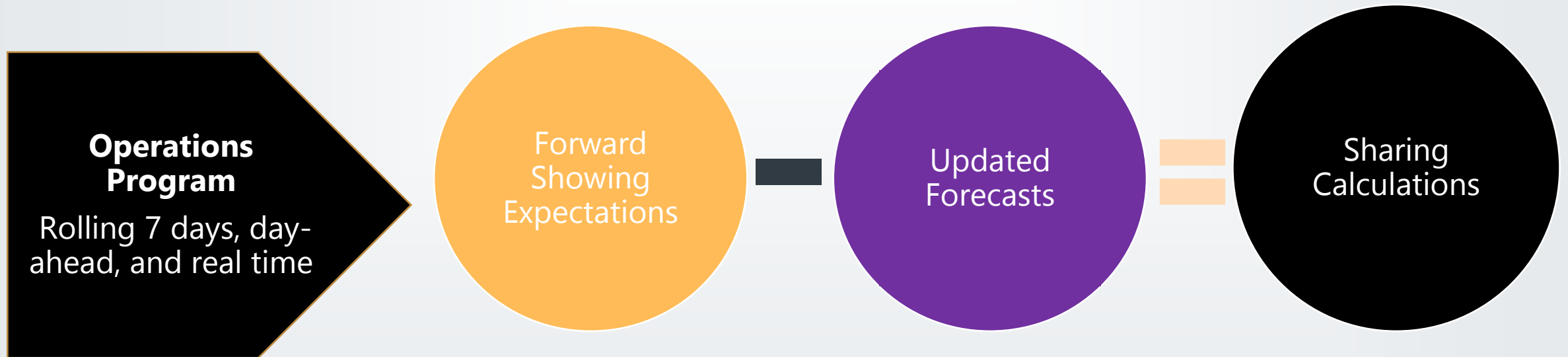
FS TO OPS

WRAP DESIGN OVERVIEW

FORWARD SHOWING



OPS PROGRAM SHARING CALCULATION



BPM 103 – FS CAPACITY REQUIREMENTS

- **§7 Excluding Load**

- As described in BPM 108 FS Submittal Process, a Participant will include **all loads in its FS Demonstration for which it is responsible: i.e. all loads within the Western Interconnect (that are not participating in another resource adequacy program or represented by another WRAP LRE) for which the Participant has an obligation to forward procure capacity to meet any portion of the load or for which the Participant is the exclusive wholesale electricity provider to a load serving entity.**
- A Participant may seek to **exclude loads** from WRAP participation. This is distinct from a Participant modifying its P50 Peak Load Forecast to account for additions and removal of load. As part of its FS Demonstration, the **Participant will attest that the Participant is not the exclusive wholesale provider for the load** (see Appendix B - Load Exclusion). As part of its FS Demonstration, the Participant will also provide documentation of **notice to the end-use customer** of the Participant's intent to exclude the load from WRAP in [the form provided on the WPP website](#) and acknowledged via signature by a senior official of the end-use customer. Excluded load may not be included in the Operations Program. Excluded load must be separately metered, such that the excluded load may be removed from load forecasting information to be provided in the Operations Program, as further discussed in [BPM 202 Participant Sharing Calculation Inputs](#), and from the Historical Load Data utilized [...] Loads may not be partially excluded.

- **Appendix B - Load Exclusion Senior Official Attestation**

- I, the undersigned, who as [title], serves as a senior official of [Participant], hereby request that the [load identifier from FS Submittal] be excluded from [Participant's] P50 Load Forecast calculation. **I attest that [Participant] is not the exclusive wholesale electricity provider for this load.**

BPM 103 – FS CAPACITY REQUIREMENTS

Equation 1 – FS Capacity Requirement

$$\text{FS Capacity Requirement} = \text{FS Capacity Requirement Unadjusted} + \text{Contingency Reserve Adjustment}$$

where

$$\begin{aligned} \text{FS Capacity Requirement Unadjusted} \\ = (\text{P50 Peak Load Forecast}) * (1 + \text{FSPRM}) \end{aligned}$$

and

$$\begin{aligned} \text{Contingency Reserve Adjustment} \\ = \text{Contingency Reserve Adjustment_Generation} \\ + \text{Contingency Reserve Adjustment_Load} \end{aligned}$$

BPM 202 – SHARING CALCULATION INPUTS

- Definitions

- **Operations Program Capacity Need:** A Sharing Calculation component that refers to the total hourly capacity requirement a Participant has forecasted in the Operations Program. The Hourly Capacity Need is the sum of a Participant's Load Forecast adjusted for **Demand Response** Capacity Resource (i.e. load reduction) plus the hourly forecasted CRO and the Uncertainty Factor.

- Equation 1 – Simplified Sharing Calculation

$$\text{Sharing Calculation} = \text{FS Capacity Requirement} - \text{Operations Program Capacity Need} + \text{Performance Adjustments}$$

where

$$\text{FS Capacity Requirement} = (\text{P50 Peak Load Forecast}) * (1 + \text{FSPRM}) + \text{Contingency Reserve Adjustment}$$

and

$$\text{Operations Program Capacity Need} = \text{Load Forecast} - \text{Demand Response Capacity Resources} + \text{CRO} + \text{UF}$$

and

$$\text{Performance Adjustments} = \Delta \text{Forced Outages} + \Delta \text{RoR Performance} + \Delta \text{VER Performance}$$

Demand Response Capacity Resource, as defined in the Tariff, refers to a capacity resource with a demonstrated capability to provide a reduction in load or otherwise control load. Its value is treated as a reduction to the hourly Load Forecast in the Operations Capacity Need component of the Sharing Calculation.

DR CAPACITY RESOURCE QCC

WRAP TARIFF – DR DEFINITIONS

- **Demand Response:** A quantifiable load reduction or otherwise controllable load for which a Participant has two mutually-exclusive options to use to affect its FS Capacity Requirements in a FS for a Binding Season: (1) leave the effects of historically deployed **demand response** as part of its load provided for the Advance Assessment; or (2) utilize as a **Demand Response Capacity Resource**.
- **Demand Response Capacity Resource:** A Qualifying 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 utilized to meet a Participant's FS Capacity Requirement.

BPM 105 – QUALIFYING RESOURCES §4 QCC

§4.6 Demand Response

- **DR** can be utilized as a Qualifying Resource if it is greater than 1 MW in aggregate (see **§3.3**) and can be demonstrated to be controllable and dispatchable by the Participant or host utility. **DR** programs that register as Qualifying Resources will be assigned a seasonal QCC value (one value for each Binding Season) and will need to meet testing criteria and demonstrate load reduction (see **§3.4.2.3**) for a period of up to five continuous hours. A **DR** program may be able to demonstrate load reduction for a period beyond five continuous hours, but cannot receive QCC above 100% of what is demonstrated for the five hour duration. Programs that are not able to provide five hours of load reduction will have their load reduction prorated over the course of five hours for the determination of QCC value. Participants registering a **DR** Qualifying Resource must either i) demonstrate that the **DR** program was not operated historically and has therefore not impacted the Historical Load Data provided by the Participant for determination of their P50 load value, or ii) provide historical information about the operations of the **DR** program such that the load reduction impacts of the **DR** program can be removed from the historical data prior to determination of the P50 load value.
- The QCC value of the **DR** Qualified Resource is determined by multiplying the maximum load reduction (in MW) the resource is capable of sustaining by the number of hours the resource can demonstrate such sustained load reduction capability (up to five hours, maximum) divided by five.
- A **DR** Qualifying Resource will be reflected in the FS Submittal as a capacity resource by submitting it as a 'Resource' in the FS Submittal. As with all resources, the QCC value of the **DR** Qualifying Resource will count toward a Participant meeting its FS Capacity Requirement.
- If **DR** does not meet the criteria of a Qualifying Resource, its contribution to the load reduction may be captured in the historical data used to calculate the P50 load in the FS.

§4.6.1 New, Expanded, or Late Registered DR Resources

- **DR** programs intended to be used as Qualifying Resources in the first Year of operation or expansion of an existing program or **DR** programs not registered at the time of the Advance Assessment will be reported at 50% of the expected capability, unless validated by testing the program to 100% of the claimed capability prior to the Binding Season. See the section related to DR testing requirements (within Section 3.4.2) for more information

DR TF PROPOSAL: DR DURING CCH

- **Draft Proposal** : Demand Response availability during CCH
- **Method:** Adapt existing methodology used for
 - Thermal Resources not required to report GADS data (BPM 105 §4.2.3)
 - Non-Dispatchable, Must Take Resources such as PURPA (BPM 105 §4.8.2)
 - Contract QCC in the FS Submittal (BPM 106 §2)

DR QCC TASK FORCE SUMMARY

- DR methodology currently calculates a single seasonal average QCC supported by a 5-hour Capability Test
- This methodology cannot capture the operational realities of actual DR Programs and increases risk in the Ops Program
- The Task Force Proposal would calculate **monthly average QCC values** based on potential **performance during CCH** constrained by **availability**
- **Capability Tests** would be based on max hourly daily limit, or one hour for resources with weekly/monthly dispatch limits
- A **DR Tool** has been developed that includes **blackouts & fatigue**

DR TOOL FUNCTIONALITY

- **Blackout** (hour/day/week/ month) on dispatch constraints
- **Daily** (hourly) dispatch constraints
- **Weekly** (hourly) dispatch constraints
- **Monthly** (hourly) dispatch constraints
- **Hourly Fatigue** functionality extend to all permutations
- **Daily Fatigue** functionality for all permutations

WRAP DATA TIMELINE

ADVANCE ASSESSMENT TIMELINE

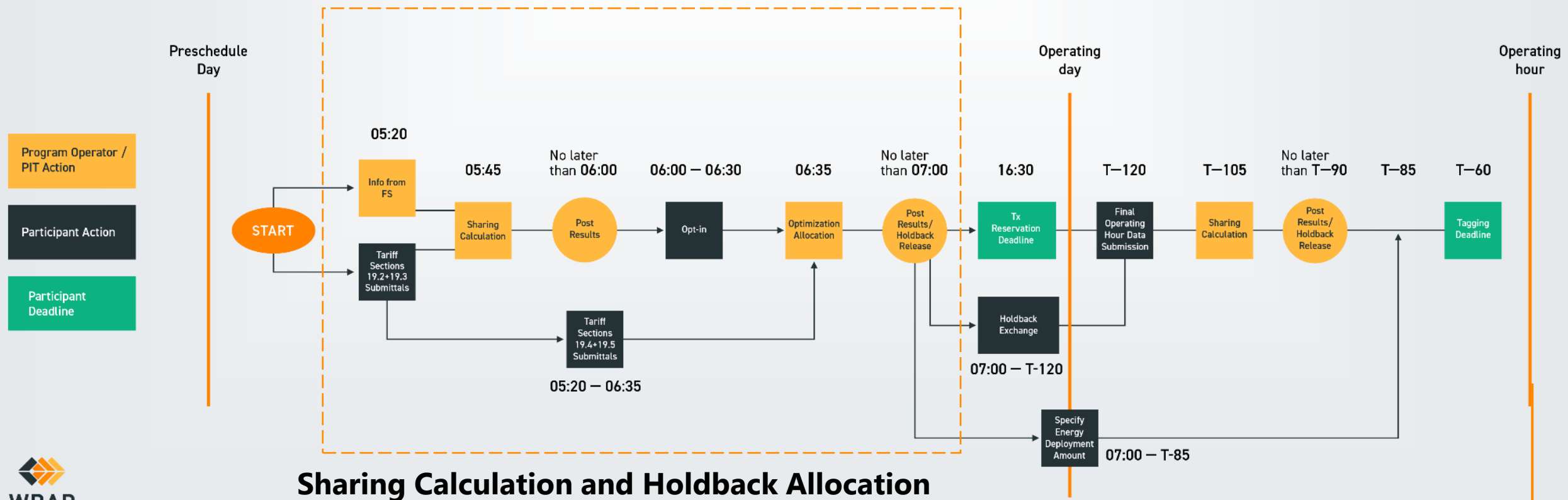
Activity/Milestone	Summer	Winter	Activity/Milestone	Summer	Winter
Program Operator sends out Advance Assessment Data Request	January 15 (T-2)		Program Operator sends out Advance Assessment Data Request	January 15, 2028	
Participant provides data to Program Operator for Advance Assessment	March 1 (T-2)		Participant provides data to Program Operator for Advance Assessment	March 1, 2028	
Participant Reviews input data	April 1 – April 15 (T-2)	October 1 – October 15 (T-2)	Participant Reviews input data	April 1 – April 15, 2028	October 1 – October 15, 2028
Program Operator provides Participants with draft modeling outputs	September 15 (T-2)	February 15 (T-1)	Program Operator provides Participants with draft modeling outputs	September 15, 2028	February 15, 2029
Participant reviews modeling output data and addresses any discrepancies with Program Operator	September 15 - October 1 (T-2)	February 15 - March 1 (T-1)	Participant reviews modeling output data and addresses any discrepancies with Program Operator	September 15 – October 1, 2028	February 15 – March 1, 2029
Program Operator publishes final modeling outputs	October 31 (T-2)	March 31 (T-1)	Program Operator publishes final modeling outputs	October 31, 2028	March 31, 2029
Deadline for Board of Directors review and approval of Binding FSPRM	January 31 (T-1)	June 30 (T-1)	Deadline for Board of Directors review and approval of Binding FSPRM	January 31, 2029	June 30, 2029
FS Deadline for Binding Season	October 31 (T-1)	March 31 (T-0)	FS Deadline for Binding Season	October 31, 2029	March 31, 2030
Binding Season	June 1 – September 15 (T-0)	November 1 – March 15 (T-0 – T+1)	Binding Season	June 1 – September 15, 2030	November 1 – March 15, 2030-2031
Season for which an Advisory FSPRM is Supplied	June 1 – September 15 (T+3)	November 1 – March 15 (T+3 – T+4)	Advisory Binding Season	June 1 – September 15, 2033	November 1 – March 15, 2033-2034

FORWARD SHOWING TIMELINE

	Winter Season	Summer Season
FS Deadline	March 31 of each Year	October 31 of each Year
Program Administrator serve Deficiency notices	By May 30 of each Year	By December 30 of each Year
FS Cure Deadline	July 29 of each Year	February 28 of each Year

OPERATIONS PROGRAM TIMELINE

- Preschedule Day and Operating Day Schedule (BPM 201 – March 2026 version)



CURRENT HOLDBACK TIMELINE PSD (PPT)

- **PSD 05:45** Sharing Calculation undertaken
- **PSD 06:00** Sharing Calculation results posted
- **PSD 06:00-06:30**
 - Opportunity to resolve deficits outside of WRAP
 - SWEDE Participants submit transfer capabilities
 - Submit Voluntary Holdback
- **PSD 06:30** Deficient Participants will notify amount of Holdback requested
- **PSD 06:35** Execute allocation methodology
- **PSD 07:00** Allocation results posted and Holdback release
- **PSD 07:00 and OD T-120** Opportunity for surplus entities to exchange Holdback obligations
- **PSD 07:00 to OD T-85** Specify Energy Deployment Amount

CURRENT HOLDBACK TIMELINE OD (PPT)

- **PSD 07:00 and OD T-120:** Opportunity for surplus entities to exchange Holdback obligations
- **OD T-120:** Notify any bilateral Holdback exchange and final submission of forecast data
- **OD T-105:** Final run of Sharing Calculation
 - **Note:** for the deficit/receiving Participant, this informs how much of the amount heldback on its behalf it wants to have deployed
- **PSD 07:00 to OD T-85** Specify Energy Deployment Amount
- **OD T-60:** E-Tag creation request must be completed

BACK-UP GENERATOR FLEXIBILITY (WORK-IN-PROGRESS)

CUSTOMER RESOURCES (BPM 105)

- Behind the meter
- Must be **controllable and dispatchable** by the Participant
- Not already used to modify Participant's load forecast
- **Example interaction with DR QCC Tool (availability over CCHs)**

BACK-UP GENERATION PERFORMANCE (DRAFT)

- Air-permit-limited back-up generation
 - Can be fast and dependable
 - **May be energy- and dispatch limited**
- e.g. [CFR §63.6640](#) (**R**eciprocating **I**nternal **C**ombustion **E**ngines)
 - "any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year [...] is prohibited."

SCOPING CONTINUED

DC-LL - PROPOSAL SCOPING

- Original consolidated Concepts:
 - 2025-CRF-014 / Amazon / Large Load Exclusion
 - 2025-CRF-019 / PacifiCorp / Data Center Loads
- In addition, the Demand Response Task Force requests you discuss including two issues within the scope of your Task Force:
 - Behind-the-meter generation tied to load (e.g., if a data center has behind-the-meter generation sized greater than its current load, how should WRAP account for its ability to reduce demand as it builds out and its load increases); and
 - Inter-Participant Load Shifting (e.g., if a data center in WRAP Participant A's territory reduces its load to demonstrate its demand reduction capability but simultaneously increases its load at a data center in WRAP Participant B's territory to compensate for compute).

2025-CRF-014 / AMAZON / LARGE LOAD EXCLUSION

2025-CRF-019 / PAC / DATA CENTER LOADS

AWS/PAC

14/19

DATA CENTER /LARGE LOADS

L

2025-CRF-014 / AMAZON / Large Load Exclusion

WRAP Area: FS Demonstration	Tariff Change: Yes	Time Score: Long
Lead Sponsor: Paul Garrett pdg@amazon.com		Co-Sponsor:
Summary: Clarification of Load Exclusion for Independently Adequate Large Loads		
Description of the issue: (This comment submitted on behalf of Brandon Oyer, Director, AMER Energy & Water, Infra. Perf Services) Amazon Data Services, Inc. (ADS) appreciates the opportunity to submit this Change Request form for the Western Power Pool's (WPP) Western Resource Adequacy Program (WRAP). Most of ADS' load in Oregon is included in WRAP through Bonneville Power Administration as the transmission provider and Load Responsible Entity. ADS requests WPP to amend WRAP BPM 103 – "Participate Forward Showing Capacity Requirements" to clarify that loads with sufficient backup generation can elect to exclude their load from the Load Responsible Entity's load forecast.		

2025-CRF-019 / PAC / Data Center Loads

WRAP Area: FS Capacity Requirement	Tariff Change: Yes	Time Score: Long
Lead Sponsor: Benjamin Faulkinberry benjamin.faulkinberry@@pacificorp.com		Co-Sponsor:
Summary: Program Consideration of Data Center Additions and Other Large Non-Conforming Loads		
Description of the issue: A substantial portion of projected utility load growth is driven by large, non-conforming, high-load-factor resources such as data centers. As these loads represent an increasing share of the WRAP footprint, existing modeling practices and policy frameworks may require adjustment. WRAP should explicitly incorporate this trend when establishing Forward Showing capacity obligations for Participants. Furthermore, WRAP must ensure that Participants introducing these loads earlier, or maintaining portfolios with higher concentrations of such resources, are not disproportionately burdened with capacity requirements necessary to achieve the regional 1-in-10 LOLE reliability standard.		

INTER-PARTICIPANT LOAD SHIFTING (DEMAND RESPONSE TASK FORCE)

Certain DR configurations may shift load across participants during Capacity Critical Hours rather than reducing net system load.

Example: Data Center 1 in Participant A reduces load while Data Center 2 in Participant B increases load.

This may overstate regional capacity and create inconsistencies in accounting.

Recommendations:

- Require demonstration of net load reduction at a regional or subregional level.
- Consider limiting or adjusting QCC for cross-participant load shifting programs.
- Require disclosure or attestation regarding such practices.

Behind-the-Meter Generation Tied to Load

(DEMAND RESPONSE TASK FORCE)

The Task Force should consider how to appropriately accredit demand response resource testing that is directly tied to a specific load, particularly where behind-the-meter generation is used to offset that load (e.g., a data center with co-located generation). In these cases, the demand response capability is effectively dependent on the size of the underlying load, which may be in the process of **being built out over time**.

During the initial testing period, the full load may not yet be realized, creating a situation where the resource cannot demonstrate its full potential load reduction capability under the existing testing framework. The full demand response may not be realized because the load may continue to be ramping online at the time of testing (i.e. continued ramping to and through the WRAP season.) A large load under development may only be partially energized at the time of testing, but the behind-the-meter generation is capable of fully offsetting the ultimate build-out load.

If the demand response resource is able to demonstrate that it can fully offset the existing load at the time of testing, it should be eligible to receive accreditation up to the full expected load at build-out for the applicable month/season.

This approach would better reflect the forward-looking reliability contribution of the resource while avoiding unnecessary under-accreditation due to timing mismatches between load growth and testing requirements. This approach is only enabled where load and DR resource ramp together - thus a shortage in DR also translates to a reduced amount of load and the load/resources are known with an ability to test a portion of the resource within the appropriate testing window.

The Task Force may consider allowing this through documented load forecasts, staged validation requirements, or conditional accreditation subject to future verification.

NEXT MEETING: SEPTEMBER 8TH, 2026