



**WESTERN**  
POWERPOOL

# Western Resource Adequacy Program

201 Operations Program  
Timeline

## Revision History

Manual Number	Version	Description	Revised By	Date
201	1.0	Operations Program Timeline	Ryan L. Roy	3/15/2023
201	1.1	Operations Program Timeline	Ryan L. Roy	6/13/2023



## 201 Operations Program Timeline

### Introduction

The Operations Program Timeline Business Practice Manual (BPM) outlines the high-level activities and associating timing of those activities that occur for the period starting from seven days prior to the Operating Day (OD) and ending on the OD for each OD of the Binding Season. Further details on each activity, such as data submission requirements, interactions with the Program Interface Tool (PIT), details of the Sharing Calculation, and details of the calculation of Holdback Requirement, are addressed in other Business Practice Manuals.

### Intended Audience

This BPM is intended for Western Resource Adequacy Program (WRAP) Participants and other interested individuals or entities. This BPM is particularly useful for those individuals that are responsible for, and support, participation in the Operations Program on a day-to-day basis. This might include trading and scheduling staff, front-office technology and systems support staff or others responsible for managing the short-term load resource balance.

### What You Will Find in This Manual

This document includes three sections, which cover i) the period leading up to the Preschedule Day, ii) the Preschedule Day itself, and iii) the OD.

### Purpose

To provide an overview of the WRAP Operations Programs activities that may impact business processes or front-office activities of current or potential Participants. The activities and associated timings expand on the information provided in the Tariff.

### Definitions

All capitalized terms that are not otherwise defined in this BPM have the meaning set forth in the Tariff. Any capitalized terms not found in the Tariff that are specific to this BPM are defined in the Section labeled [BPM 201 Specific Definitions](#).

### BPM 201 Specific Definitions

**Program Interface Tool or PIT:** The end-user, web-based technology solution that Participants will utilize to interact with the Operations Program. This may also be referred to as the WRAP Operations (Ops) client.

**Uncertainty Factor:** An amount of capacity to be included in the Sharing Calculation to account for possible increases in the forecast between the Preschedule Day and the



OD of expected load or forced outages, and possible decreases in the forecast between the Preschedule Day and the OD of expected output of Variable Energy Resource (VER) or Run-of-River Qualifying Resources (ROR).

## Background

### Multi-Day-Ahead Assessment

The Operations Program includes a Multi-Day-Ahead Assessment which will look ahead the next seven ODs. By 05:20 Pacific Prevailing Time (PPT) on each Western Electric Coordinating Council (WECC) scheduling day each Participant will submit to the Program Operator (PO) an hourly forecast of i) expected load, ii) output of VERs, iii) output of ROR, iv) expected Contingency Reserve requirement and v) total forced outages including outages on transmission facilities associated with imports utilized by the Participant to meet its Forward Showing Capacity Requirement. These inputs are further described in *BPM 202 Participant Sharing Calculation Inputs*. The data submittal should follow the format specified in the Input Date File Specification document which will be located at an appropriate location on the Western Power Pool website. The PO will use the data submitted by Participants and a program defined Uncertainty Factor amount to calculate an indicative Sharing Calculation value for each Participant. This calculation is considered indicative for all ODs in the assessment window except those days being scheduled on the current Preschedule Day. The calculation is indicative because it does not result in a binding assignment of Holdback to Participants. This information will be given to Participants through the Ops Client.

If the Multi-Day-Ahead Assessment indicates low risk of a potential Sharing Event, the PO may consider early release of a portion, or all of the capacity forecasted to be surplus to a Participant's needs as indicated by a positive Sharing Calculation result. This process is further explained in *BPM 204 Holdback Requirement*. Additionally, if the Multi-Day-Ahead Assessment indicates the potential for a Sharing Event that exceeds the amount of forecasted surplus capacity, the PO will notify the Participants that there is the potential for insufficient holdback to meet the total deficit as calculated by the Sharing Calculation. This allows Participants time to look for alternatives to better manage calculated deficiencies.

Figure 1 shows two examples of the timing associated with the Multi-Day-Ahead Assessment. This figure is developed prospectively meaning it is from the perspective of the current day and looks forward.

In example one the current day is the first Friday on the timeline. Using information provided from Participants the PO will conduct the Multi-Day-Ahead Assessment as



described above. In this example the Multi-Day-Ahead Assessment window is from the first Saturday through the second Friday on the timeline. The first day (Saturday) in the Multi-Day-Ahead Assessment is not of interest because the process of running the Sharing Calculation result and allocating holdback has already been completed. The second and third days (Sunday and Monday) represent the days being scheduled and will potentially result in a binding holdback obligation. Days 4 through 7 are indicative and may change with subsequent updates to input data.

In the second example the current day is the first Monday on the timeline. Using information provided from Participants the PO will conduct the Multi-Day-Ahead Assessment as described above. In this example the Multi-Day-Ahead Assessment window is from the first Tuesday through the second Monday on the timeline. The first day (Tuesday) represents the day being scheduled and will potentially result in a binding holdback obligation. Days 2 through 6 are indicative and may change with subsequent updates to input data.



	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
Example 1	Today (Preschedule Day)		Day being Scheduled	Day being Scheduled							
	Data submission (OD and Multiday)	Multi-Day-Ahead Assessment									
Example 2				Today (Preschedule Day)	Day being Scheduled						
				Data submission (OD and Multiday)	Multi-Day-Ahead Assessment						

Figure 1. Indicative Multi-Day-Ahead Assessment and corresponding data submissions.

### Preschedule Day

The Operations Program will respect the WECC Scheduling Calendar (2023 Scheduling Calendar included for reference)<sup>1</sup>. On the Preschedule Day at 05:45 PPT the PO will execute the Sharing Calculation for each OD being scheduled. The Preschedule Day Sharing Calculation utilizes the same inputs as the Multi-Day-Ahead Assessment and has the same submission deadline of 05:20 PPT. Exceptions to the default scheduling practices will be made for holidays and new months as specified by WECC. When the Preschedule Day is not the day prior to the OD, the PO will rerun the Sharing Calculation each interim day; these runs will not alter the Holdback Requirement set on the Preschedule Day. The Sharing Calculation assessment that is performed on the Preschedule Day sets the Holdback Requirement.

At 06:00 PPT the results of the Sharing Calculation will be made available to Participants in the Ops Client. Between 06:00 PPT and 06:30 PPT Participants will i) have an opportunity to utilize the Day-Head market to address any deficit as calculated by the Sharing Calculation, ii) submit the information necessary to match surplus Participants with deficit Participants for those Participants in a subregion not containing a central transmission hub permitting energy deliveries to that hub from any point within such subregion, and iii) submit any voluntary holdback as defined in *BPM 202 Participant Sharing Calculation Inputs*. By 06:30 PPT deficit Participants will notify the PO using the Ops Client of the amount of holdback they need from surplus Participants in the Operations Program. At 06:35 PPT the PO will execute the allocation methodology pairing surplus and deficit Participants. The results of the allocation will be posted to the Ops Client by 07:00 PPT and includes MW values and surplus/deficit

<sup>1</sup> [https://www.wecc.org/Administrative/09\\_Fulkerson\\_2023-WECC%20Preschedule%20Calendar%20Version-1\\_with%20Sched%20Mtg.pdf](https://www.wecc.org/Administrative/09_Fulkerson_2023-WECC%20Preschedule%20Calendar%20Version-1_with%20Sched%20Mtg.pdf)



Participant pairs. Between 07:00 PPT and 120 minutes before the operating hour surplus Participants can perform bilateral exchanges of holdback via Ops Client. The Preschedule Day is presented in Figure 2.

### Operating Day

Participants provide their final submission of forecast data and finalize and notify the PO of any bilateral exchanges of holdback 120 minutes before the operating hour. The PO utilizes the forecast data to perform a final execution of the Sharing Calculation, which occurs 105 minutes before the operating hour. The results of the Sharing Calculation on the OD are completed no later than 90 minutes before the operating hour and are intended to inform a Participant's decision about the amount of energy to be deployed. The calculation is indicative because the deficit Participant can claim up to the amount of holdback that they were allocated on the Preschedule Day. The Participant responsible for tagging the Energy Deployment must have the tag creation request completed by 60 minutes prior to the operating hour. Tagging and scheduling practices are described in *BPM 205 Energy Deployment*.



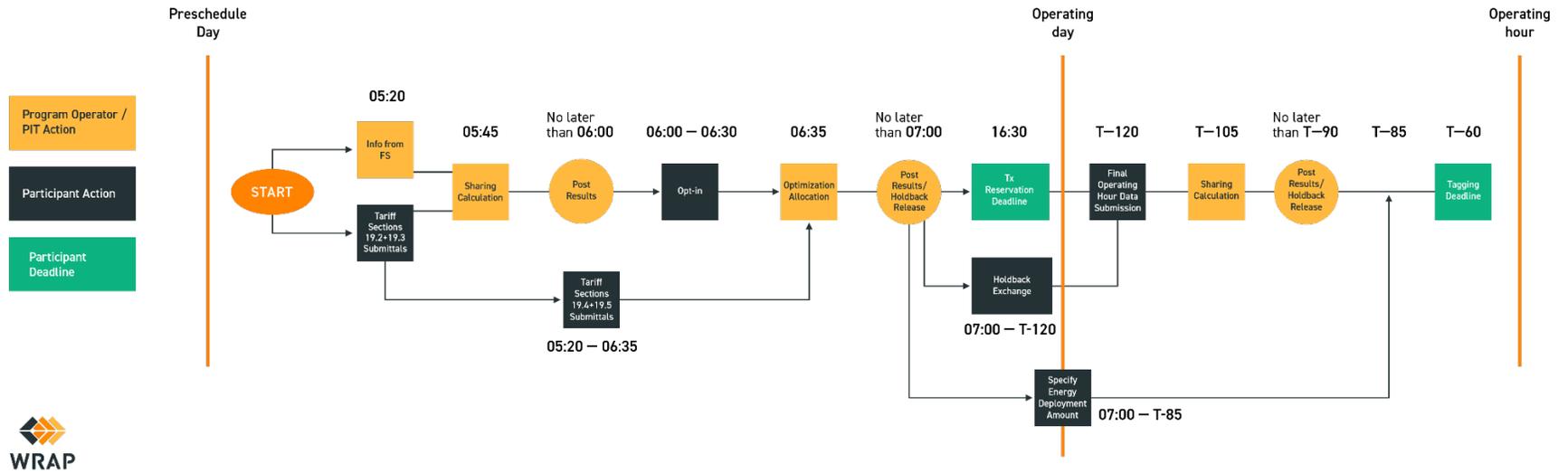


Figure 2. Preschedule day and OD schedule.