



Western Resource Adequacy Program

RAPC Meeting

January 4, 2024; 10am-12pm PPT

Participant	Name	Participant	Name
APS	Kent Walter	PacifiCorp	Mike Wilding
Avista	Kevin Holland	PGE	
BPA	Jeff Cook	Powerex	Mike Goodenough
Calpine	Bill Goddard	PSE	Tricia Fischer
Chelan	Shawn Smith	PNM	John Mayhew
Clatskanie	Chris Roden	SRP	Grant Smedley
EWEB	Kevin Cardoza	SCL	Siobhan Doherty
Grant	Rich Flanigan	Shell	Ian White
Idaho	Ben Brandt	Snohomish PUD	Jeff Kallstrom
NorthWestern	Joe Stimatz	Tacoma	Ray Johnson
NV Energy	Lindsey Schlekeway	TEA	Ed Mount

Objectives

1. Provide the RAPC with updates on project progress
2. Seek RAPC input on progress and any administrative actions

Meeting Agenda

Call to Order	
10:00	<ol style="list-style-type: none"> 1. Attendance 2. Anti-trust Statement 3. Approve Agenda <i>Calpine moves and Northwestern seconds to approve the agenda. The agenda is approved unanimously at 10:06 AM.</i> 4. Approve Minutes from last meeting <i>Chelan moves and Calpine seconds to approve the minutes. The minutes are approved unanimously at 10:06 AM.</i>
PA/PO Report	
10:07	<ol style="list-style-type: none"> 5. PA Update <i>BPMs on the way. Members meeting on January 3rd – hybrid options. General update with what is going on with the WPP. Not WRAP exclusive. Official notion of membership being introduced to WPP.</i>
Ongoing Business	
10:12	<ol style="list-style-type: none"> 6. Workgroup Updates – Forward Showing Workgroup – <i>Rebecca S.</i>



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	<p><i>Meeting next Tuesday for summer metrics. Jeff Cook from BPA asks for greater detail. Charles Hendrix – added weather years back to 1980, up to 43 weather years – added 2021, 2022 for summer 25 study. First study to include this data.</i></p> <ul style="list-style-type: none"> – Operations Workgroup – <i>Ryan R.</i> <i>Found some issues with the treatment of CR in the Sharing Calculation, fix will be applied in the operations client. Addressing issues as they come. Making some progress on shadow calculation of settlement prices.</i> – Storage Hydro User group – <i>Steve B.</i> – Single Entity Subregion Connectivity – <i>Rebecca S.</i> <i>Doodle poll to meet ASAP. Workgroup to discuss BPA comments.</i> – MBR Workgroup - <i>Mike W.</i> <i>Entities are working on filings that would go to FERC. Those should be shared with the WPP once put together.</i> – Market Impacts on Sub-Region Connectivity Workgroup – <i>Tyler M.</i> – Long-Term Metrics Workgroup – <i>Phillip P.</i>
	<p>7. Business Practice Manual Updates <i>WPP provides a brief update on business practices to come for March. Includes BPMs 102, 104, 106, 107, 108, 202, 203, 209, 304 – covered in attached presentation. 204 and 205 coming for June – drafted but requiring Tariff changes.</i></p>
New Business	
11:04	<p>1. New RAPC Chairs <i>Mike W. has finished his term – looking for a new RAPC Co-Chair. Volunteers can email Rebecca Sexton or Katie Gregor - to vote at the next meeting.</i></p>
External Affairs	
	[None]
Good of the Order	
11:11	<p>2. RAPC In-Person Meeting <i>March 28th at APS.</i></p> <p>3. Participant topics requests for next meeting <i>No topics requested from Participants.</i></p>
Closed RAPC	
	[None]
Upcoming	
11:17	4. Next meeting: January 18 th
Adjourn Meeting is adjourned at 11:17 AM	

Current Participants: APS, Avista; BPA; Calpine; Chelan; Clatskanie; EWEB; Grant; Idaho Power; NorthWestern; NV Energy; PacifiCorp; PGE; Powerex; PNM; PSE; SRP; SCL; Shell; Snohomish PUD; Tacoma Power, The Energy Authority

WPP forums will not foster or allow communications or practices that violate antitrust laws. Please avoid discussion of topics that would result in anti-competitive behavior, including but not limited to: availability of or terms of services and sales, design of products, price setting, or any other activity that might unreasonably restrain competition.

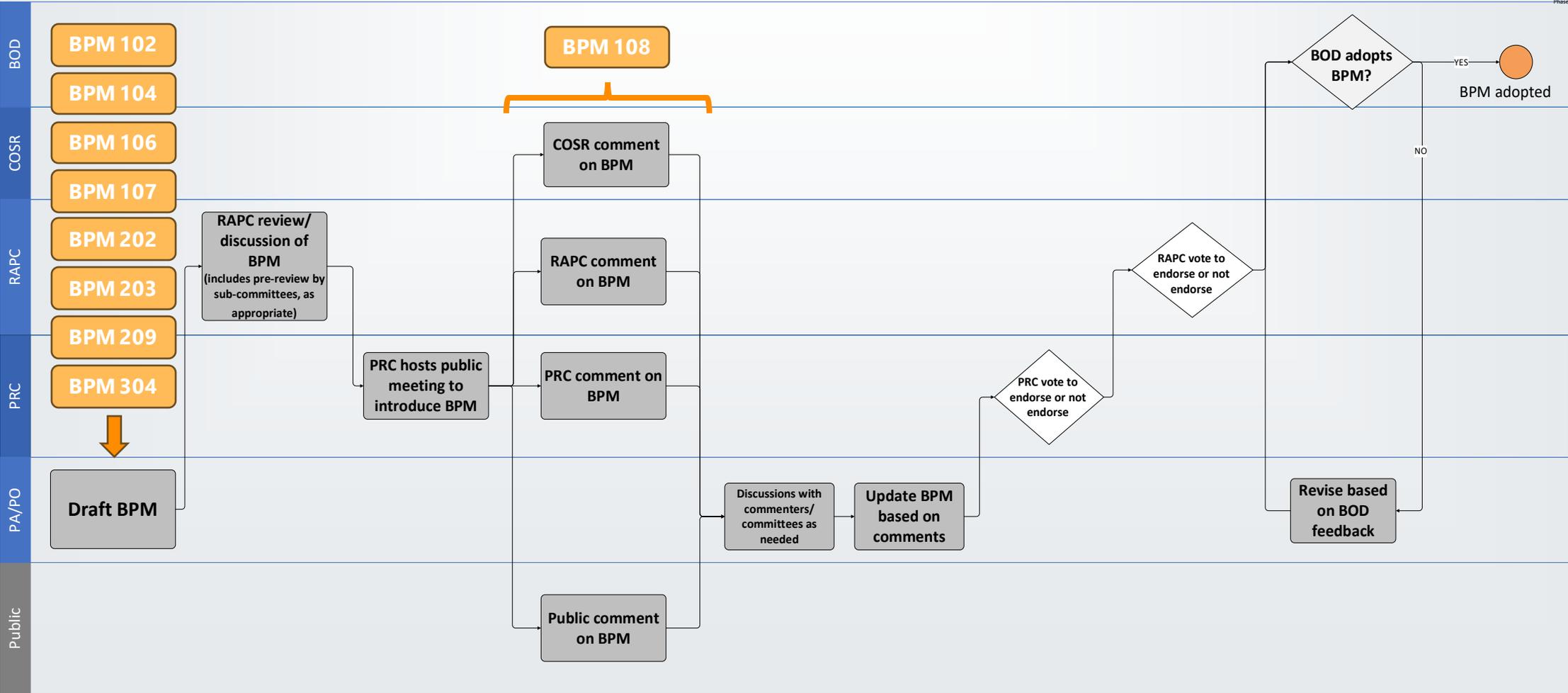


WESTERN RESOURCE ADEQUACY PROGRAM

January 4, 2024

Resource Adequacy Participants Committee

BPM PROCESS FLOWCHART



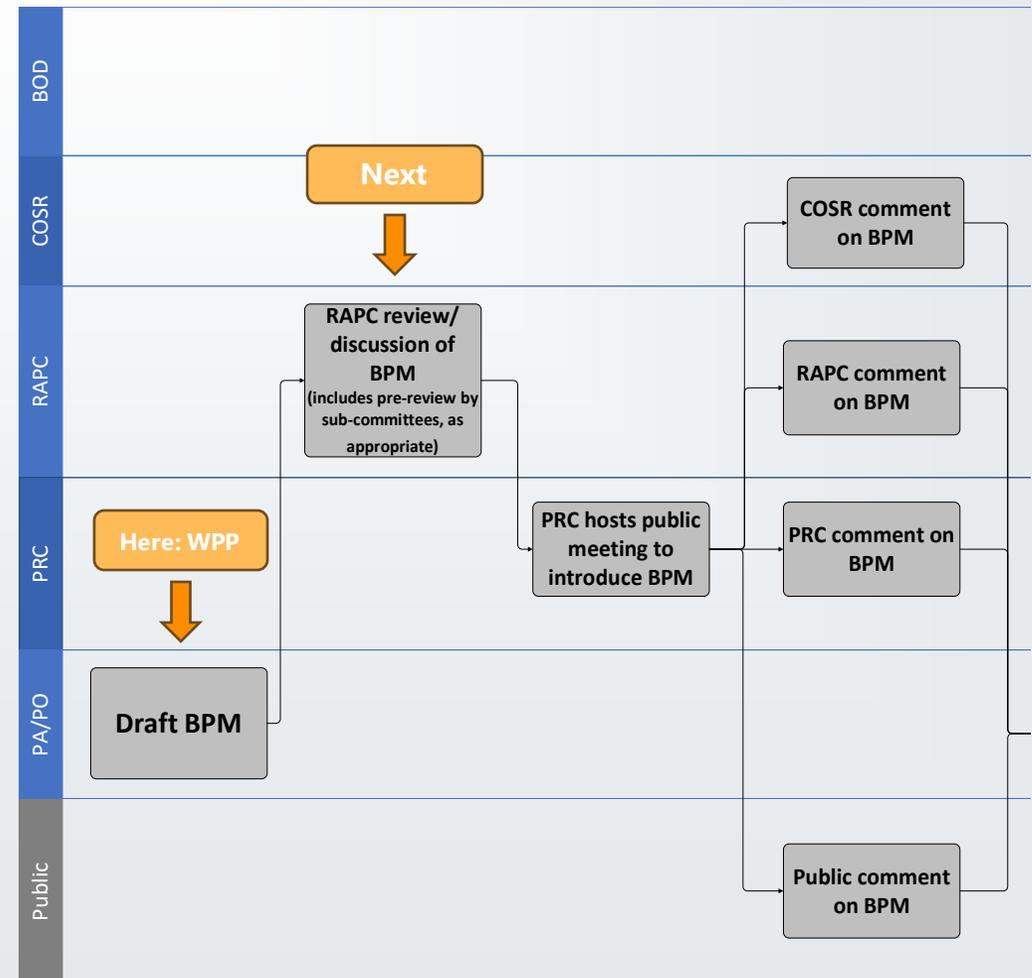
BPM ARCHITECTURE

BPM Series	Topic	Current Active #s
100s	Forward Showing	101 – 109
200s	Operations Program	200 – 210
300s	Change Management	300 – 304
400s	Ancillary	401 – 402

BPM	Topic	Board Approval			
		8/23/23	12/6/23	3/7/24	6/13/24
101	Advance Assessment		<input checked="" type="checkbox"/>		
102	Reliability Metrics			<input type="checkbox"/>	
103	FS Capacity Requirement			?	
104	Capacity Critical Hours			<input type="checkbox"/>	
105	Qualifying Resource	<input checked="" type="checkbox"/>			
106	Qualifying Contracts			<input type="checkbox"/>	
107	FS Deficiency Charge			<input type="checkbox"/>	
108	FS Submission Process			<input type="checkbox"/>	
109	FS Transition Period		<input checked="" type="checkbox"/>		
201	Operations Timeline	<input checked="" type="checkbox"/>			
202	Sharing Calculations			<input type="checkbox"/>	
203	Sharing Calculations Inputs			<input type="checkbox"/>	
204	Holdback Requirement				<input type="checkbox"/> *
205	Energy Deployment				<input type="checkbox"/> *
206	Settlement Pricing	<input checked="" type="checkbox"/>			
207	Settlement Process				?
208	Credit [Reserved]				
209	Energy Delivery Failure Charge			<input type="checkbox"/>	
210	Operations Transition Period		<input checked="" type="checkbox"/>		
301	PRC Workplan Development		<input checked="" type="checkbox"/>		
302	PRC Proposal Development		<input checked="" type="checkbox"/>		
303	Expedited Review Process		<input checked="" type="checkbox"/>		
304	WRAPA & Schedule 1 Changes			<input type="checkbox"/>	
401	New Participants			?	
402	Data Release			?	
		3	6	9-12	3-6

BPM 102 – FS RELIABILITY METRICS

- » How the PO runs the Loss of Load Expectation (LOLE) study, including description of scope
 - Analyzes the ability of generation to reliability serve the WRAP region
- » Use of Load Resource Zones (LRZs) to distinguish weather when modeling resources
- » How Qualifying Resources will be modeled
- » How the PO sets the Monthly FS Planning Reserve Margins (FSPRMs)
 - LOLE for the applicable year does not exceed one event-day in 10 years for summer and winter seasons
 - Determined with probabilistic methods by altering capacity and forecast demand



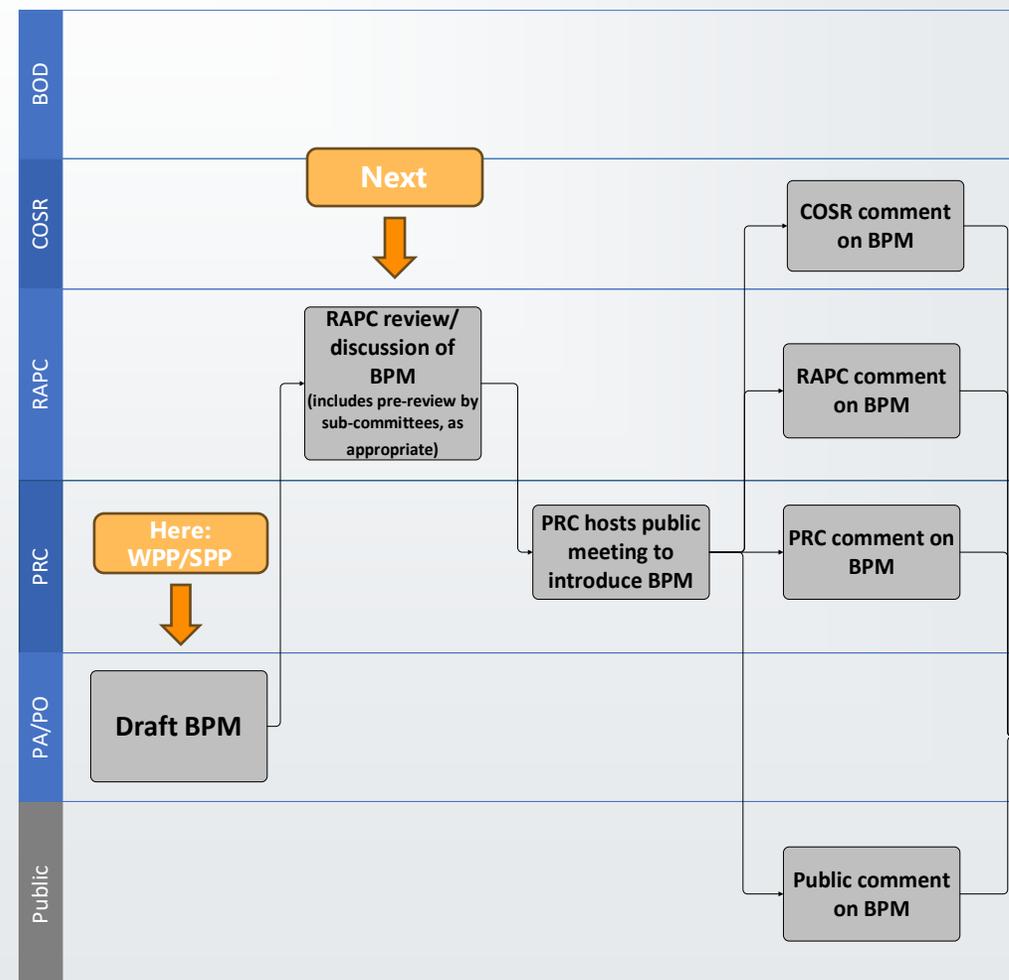
BPM 104 – FS CCH's

» Describes the Capacity Critical Hours (CCHs) Methodology

- CCH are hours where net regional capacity need is expected to be above the 95th percentile
- Used in methodology to determine the QCC of storage hydro, thermal, RoR, non-dispatchable resources, and contracts

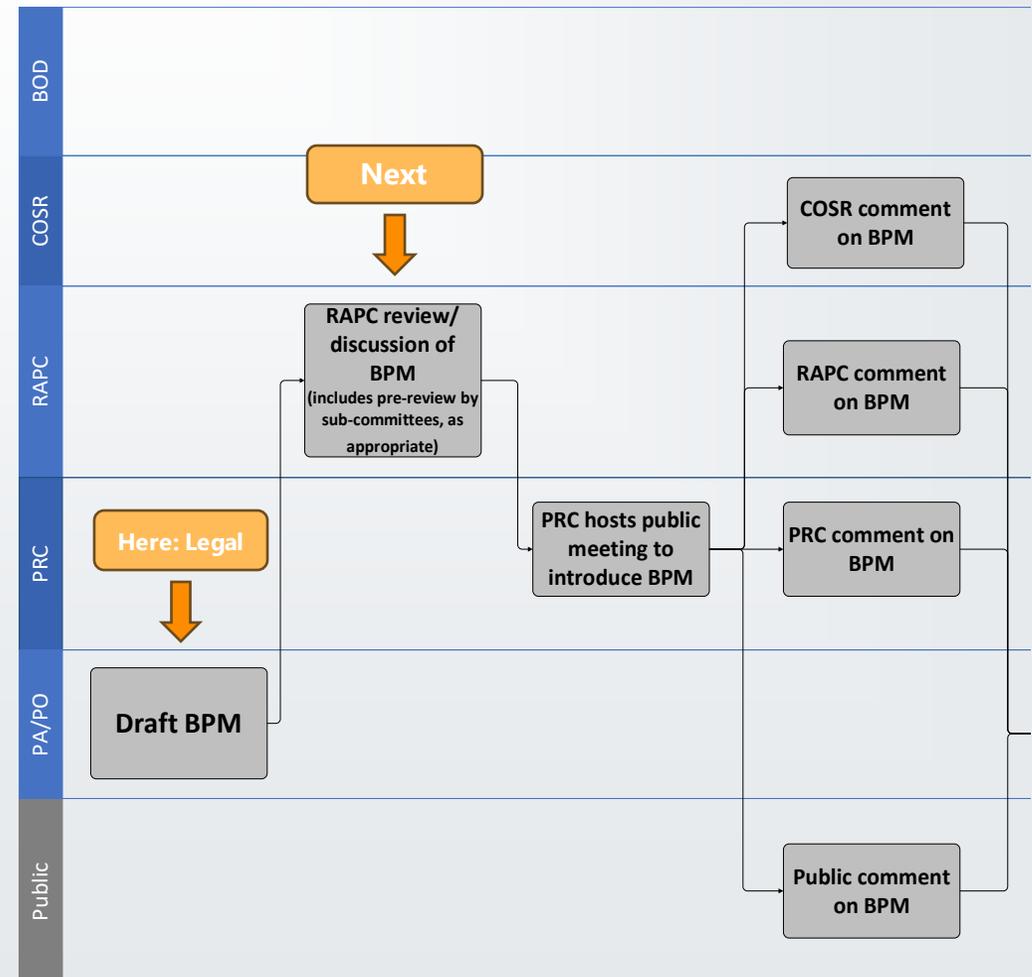
» How Regional Interchange Assumptions are determined

- Describes the effect of market conditions on imports and exports into the WRAP footprint



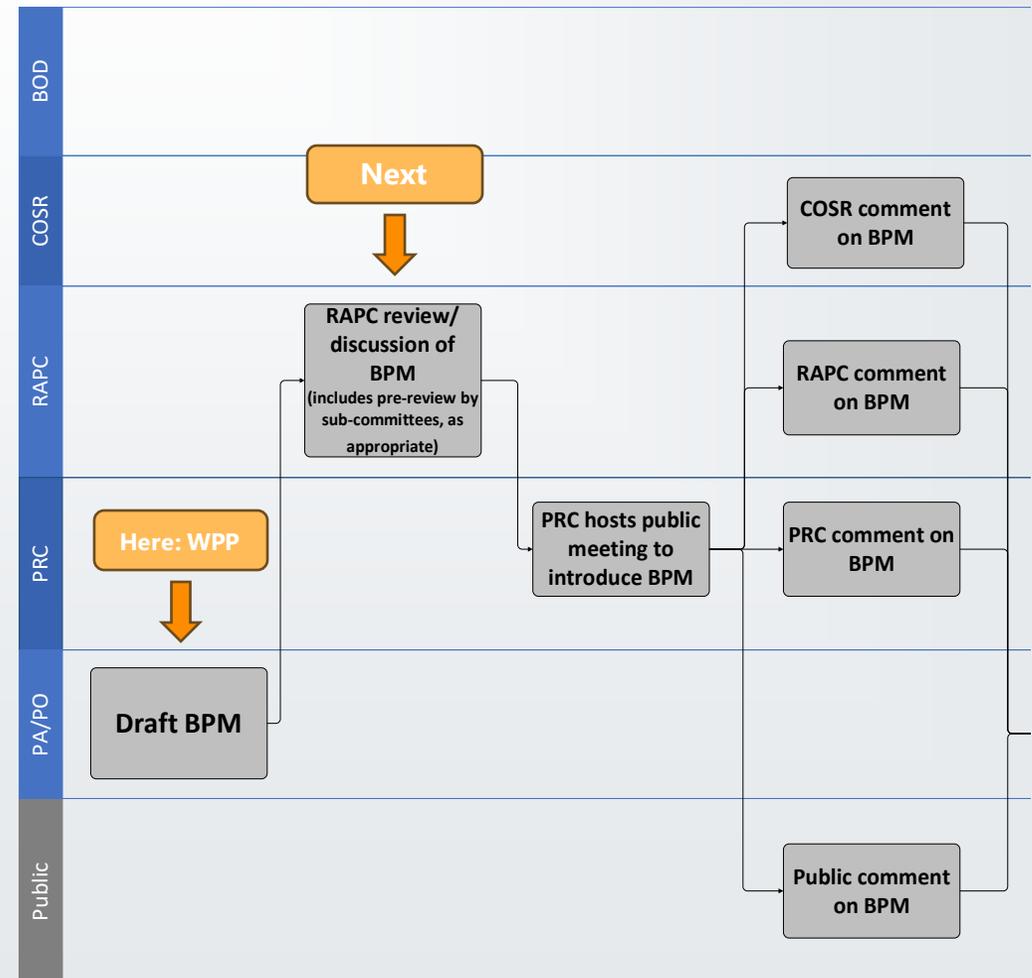
BPM 106 – QUALIFYING CONTRACTS

- » Explains when a Joint Contract Accreditation Form (JCAF) is required to ensure resources are not double counted
- » Outlines the calculations for determining Net Contract QCC
- » Explains the process of Resources Adequacy (RA) Transfers
 - Transfer of FS Capacity Requirement
- » Includes attestations required for qualifying contracts



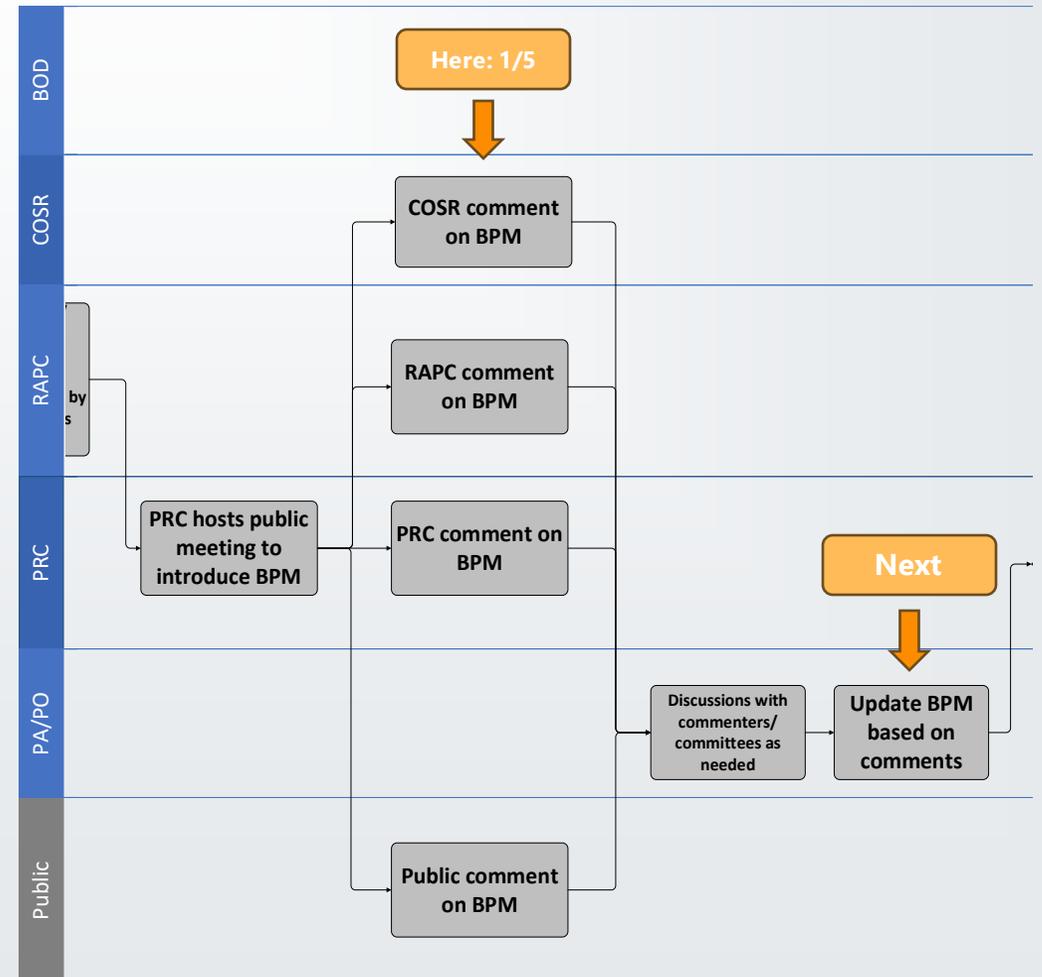
BPM 107 – FS DEFICIENCY CHARGES

- » Describes the calculation of Forward Showing deficiencies
- » How the Forward Showing Deficiency Charge is calculated
 - Determining certain components of the deficiency charge, including CONE
 - Outlines timing of deficiency charges
 - Describes Board appeal process
- » Describes the allocation of revenues received from collection of Deficiency Charges



BPM 108 – FS SUBMITTAL PROCESS

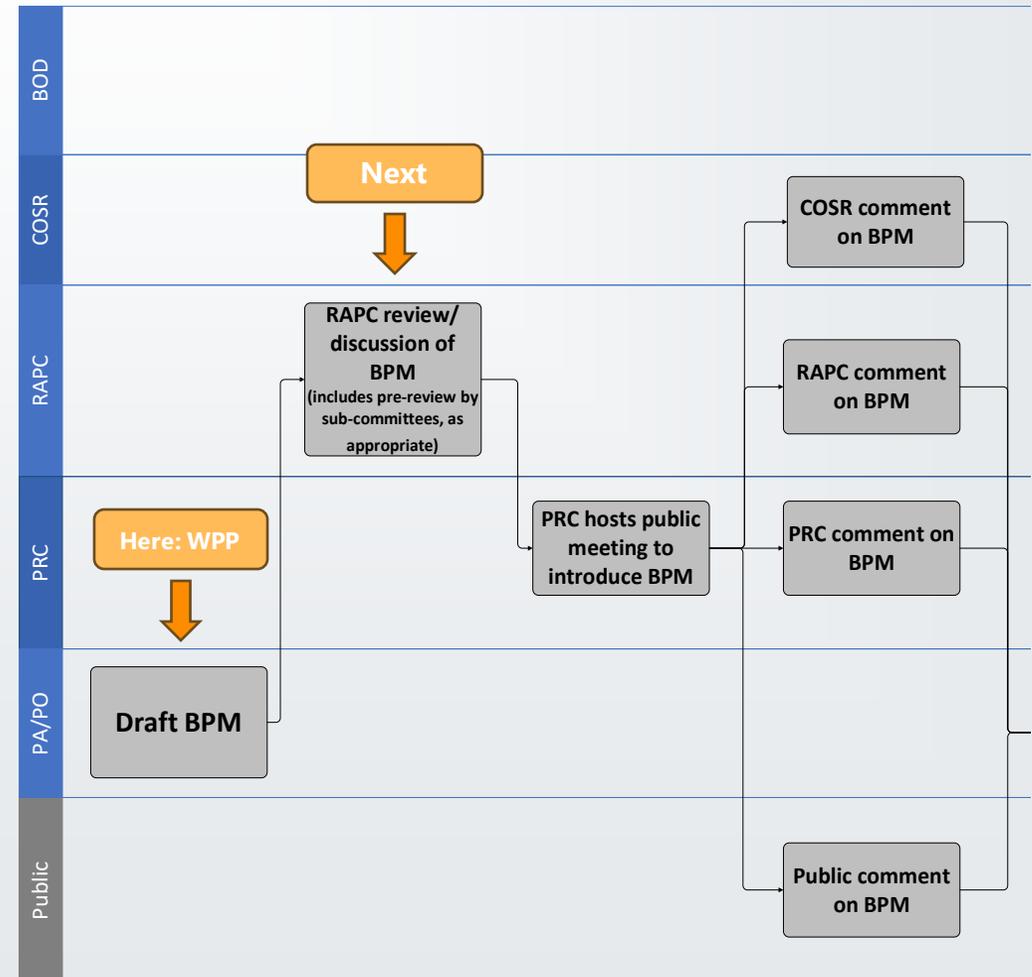
- » When and how each Participant provides their projected load and resource portfolio data to meet FS Capacity and Transmission Requirements
- » Required FS Submittal materials
 - FS Demonstration
 - > Loads, QRs, contracts, Tx, and planned outages
 - FS supporting materials
 - > QR testing, thermals without GADs, hydro resource QCCs, later registered resources and transition exceptions
- » Describes the Cure Period
- » Contains associated Senior Official Attestations



BPM 202 – PARTICIPANT SHARING CALCULATION INPUTS

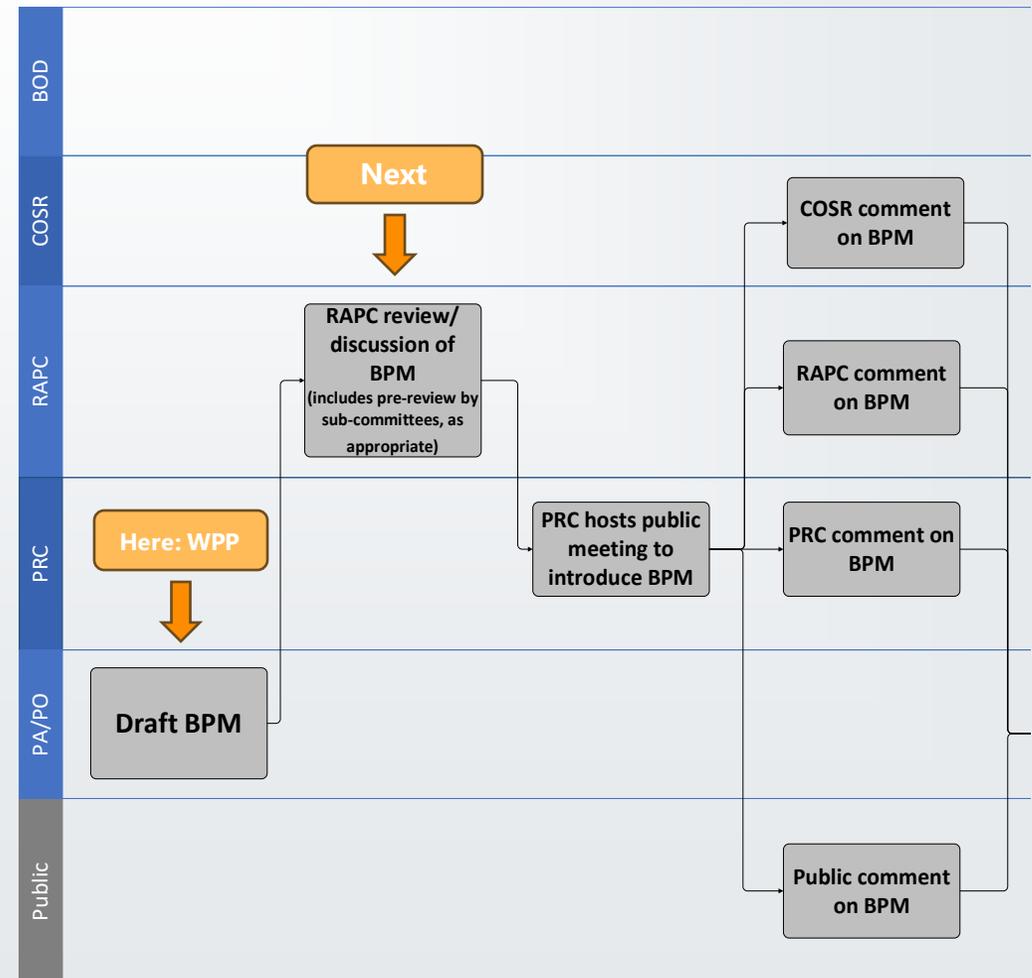
» Describes the Participant provided inputs used for the Sharing Calculation of the Operations Program

- P50 Peak Load Forecast
- Monthly FSPRMs
- Expected performance by a Qualifying Resource type and any RA Transfers
- Expected Forced Outage Rates by resource type
- Expected Contingency Reserves
- Firm Transmission service rights made available for purpose of Regional Diversity



BPM 203 – PROGRAM SHARING CALCULATION INPUTS

- » Describes the Uncertainty Factor used in the Sharing Calculation of the Operations Program
 - Sharing Calculation input determined by the Program Operator
 - Represents a reasonable margin to account for near-term forecast error
- » Describes how the Program Operator may decrease the Uncertainty Factor by 0.5% in cases where The WRAP Region is surplus

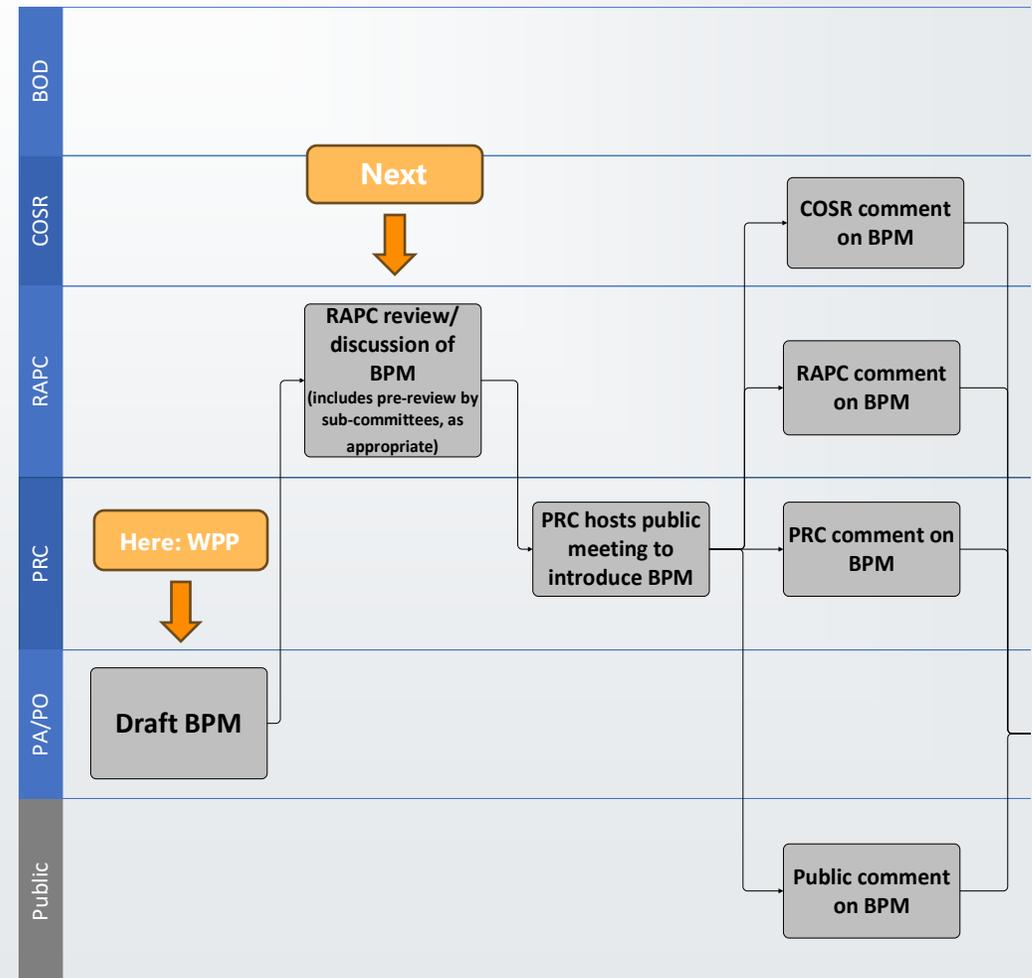


BPM 209 – ENERGY DELIVERY FAILURE CHARGES

» Describes:

- Evaluation of Delivery Failures
- Calculation of the Delivery Failure Charge
- Limits on maximum amount of the charge
- The allocation of revenues received by WPP from payment of charges
- Consequence of repeated Energy Delivery Failures

» Describes the circumstances for obtaining a waiver of the charge and the process by which WPP evaluates and grants waivers



BPM 304 – CHANGES TO SCHEDULE 1/WRAPA

» How changes to the WRAPA and Schedule 1 of the Tariff are processed by the RAPC

- Describes the actions the RAPC may take when a proposed modification is brought forth (by the PA/PO, Board, or Participants)
- How a proposed modification is reviewed by the RAPC and PA/PO
- Describes the actions the Board may take on proposed modifications

