

Resource Adequacy Decision Process Meeting

September 29, 2022 9 a.m. to 3:30 p.m.



Welcome to the Resource Adequacy Engagement Workshop: The meeting will begin momentarily

Meeting Participation and How to Ask Questions:

- After you join the WebEx Event, you will not be able to unmute yourself until the host recognizes and unmutes you.
- To be recognized for asking a question:
 - 1. Use the "Raise your Hand" option to signal you have a question
 - 2. Or use the Chat option to send a question request to "Everyone"
- When finished the Host will re-mute you. Please remember to re-mute and lower your hand when done speaking.
- Participants on the phone:
 - 1. *'*3' to raise hand and lower hand*

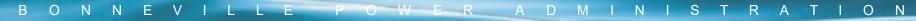




Agenda

Time	Торіс	Presenter
9:00 – 9:15 a.m.	Safety Moment and Introduction	JeffCook
9:15 – 9:25 a.m.	WRAP Update	Russ Mantifel
9:25 – 9:35 a.m.	BPA's Customer Engagement and Decision Making	Russ Mantifel
9:35 – 10:05 a.m.	Forward Showing Data Submittal Update and Position Estimate	Steve Bellcoff
10:05 – 10:20 a.m.	BREAK	
10:20 – 11:50 a.m.	Business Case for WRAP	Steve Bellcoff, Ryan Egerdahl
11:50 – 12:50 p.m.	LUNCH	
12:50 – 1:30 p.m.	WRAP Participation Interaction with other BPA Initiatives	Steve Bellcoff, Ryan Egerdahl, Emily Traetow
1:30 – 1:45 p.m.	BREAK	
1:45 – 2:45 p.m.	Consideration of Customer Feedback	Steve Bellcoff, Emily Traetow, Mai Truong
2:45 – 3:30 p.m.	Questions and Next Steps	Russ Mantifel

Pre-decisional. For Discussion Purposes Only.





Safety Moment and Introduction

Jeff Cook



Remove Home Hazards

• Remove boxes, newspapers, electrical cords and phone cords from walkways.

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• Move coffee tables, magazine racks and plant stands from high-traffic areas.

R

- Secure loose rugs with double-faced tape, tacks or a slip-resistant backing — or remove loose rugs from your home.
- Repair loose, wooden floorboards and carpeting right away.
- Store clothing, dishes, food and other necessities within easy reach.
- Immediately clean spilled liquids, grease or food.
- Use nonslip mats in your bathtub or shower. Use a bath seat, which allows you to sit while showering.

Introduction

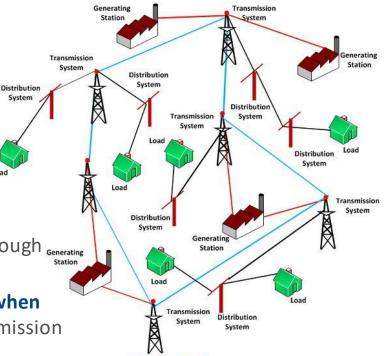
- On September 13th, BPA initiated its public process to develop an agency decision on whether to participate in the binding phase (3B) of the Western Resource Adequacy Program
 - Should BPA join Phase 3B?
 - If yes, which binding season should BPA select?
- Today, BPA will be sharing its evaluation based on its findings from Phase 3A participation

BONNEVILLE POWER ADMI

Why is BPA Engaging in WRAP?

- We don't operate as an island
- A regional Resource Adequacy program:
 - Provides a clear, uniform standard with accountability and commitment from each participant to meet it
 - Puts bounds around how much capacity BPA is responsible for providing
 - Creates transparency of individual resource plans
 - Creates potential for cost and resource savings through Generating Station
 diversity benefits
 - Provides an additional source to purchase supply when deficit or sell supply when surplus subject to transmission availability & system operational requirements

Pre-decisional. For Discussion Purposes Only.







WRAP Update

Russ Mantifel



Western RA Program Updates

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• Winter 2022-23 forward showing evaluation from program operator expected by Oct 27

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- Summer 2023 forward showing data submittal due Oct 4
 - Summer 2023 forward showing evaluation from program operator expected by Nov 15
- Upcoming WRAP Participation Info Sessions on Oct 4 & 14

Western RA Program Updates

- Asking for commitment from participants by December 16, 2022
 - If WPP has FERC approval, this will begin signing of the WRAP Participation Agreement (WRAPA)
 - WRAP needs to have a commitment to ensure funding for WPP and SPP to set up critical program components
- WRAP engagement opportunities and more information
 - See WPP website for information on the public webinars, approved task force proposals, video overviews and the latest WRAP updates @ <u>https://www.westernpowerpool.org/</u>
 - Contact <u>wrap@westernpowerpool.org</u> to be added to WRAP mailing list

CURRENT PHASE ACTIVITIES





TRANSITION TIMELINE

Non-Binding Forward Showing

Winter 22-23, Summer 23, Winter 23-24, Summer 24, Winter 24-25

Transition Seasons (Ops and FS)

Summer 25, Winter 25-26, Summer 26, Winter 26-27, Summer 27, Winter 27-28



Non-Binding Operations Program

Summer 23 (trial – will include testing scenarios), Winter 23-24, Summer 24, Winter 24-25

Binding Program Without Transition Provisions

Summer 28 and all seasons following





BPA's Customer Engagement and Decision Making

Russ Mantifel



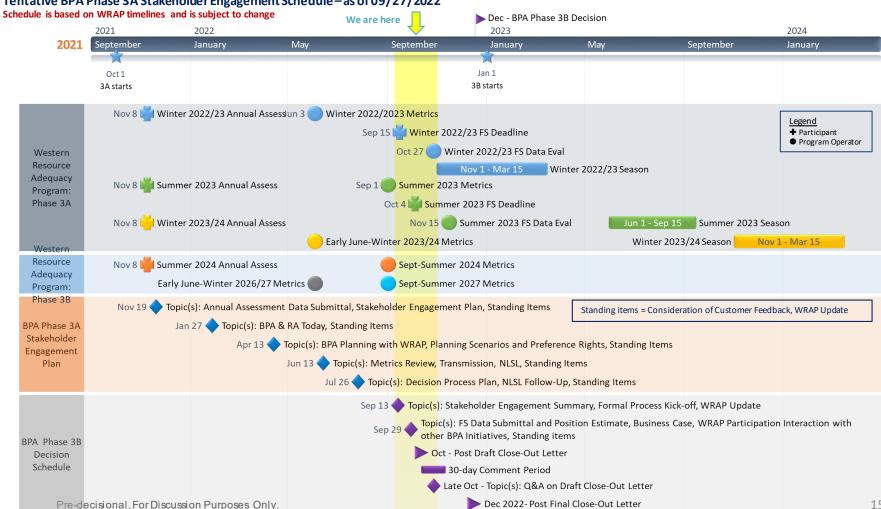
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BPA Milestones – 3B Decision

Close Out Phase 2B/ Phase 3A Implementation Planning (2020/2021)	BPA Customer Engagement	Decision on Non- Binding Forward Showing	Non-Binding Forward Showing Winter (2022/23) and Summer (2023)	Decision on Binding Phase (Fall/Winter 2022) and BPA Customer Engagement	
 BPA staff/executive resources participate in WRAP workgroups Finalize Phase 2B deliverables Develop implementation plan for Phase 3A WPP hires Program Operator 	 July 29, 2021 – Share BPA perspective on program details and implementation issues Aug 20, 2021 – Publish draft letter to the region (Aug 20-Sep 3) Aug 25, 2021 – Public meeting to provide clarification on issues in draft letter 	• Sept 29, 2021 - Final letter to the region with decision on participation in NBFS phase of WRAP program	 Complete program and governance design Submit data for detailed modeling to establish Resource Adequacy value and PRM Compile FS data Winter 2022/23 Summer 2023 Refine design/modeling requirements based on continued learnings Continue engagement with BPA customers/ stakeholders 	 Public Process - BPA customer review and input prior to decision Consider lessons from NBFS and program/ governance design Present FS submittal results Evaluate ability to meet BPA's WRAP Participation Principles 	

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TRANT



Tentative BPA Phase 3A Stakeholder Engagement Schedule – as of 09/27/2022

From Phase 3A Engagement to Decision Process

•Annual Assessment Data Submittal (Nov 19, 2021)

- BPA and RA Today (Jan 27, 2022)
- •BPA Planning with WRAP (Apr 13, 2022)
- Planning Scenarios and Preference Rights (Apr 13, 2022)
- •BPA Metrics Review (Jun 13, 2022)
- •Transmission Overview (Jun 13, 2022)
- •NLSL and AHWM Unspecified Resources (June 13, 2022 and July 26, 2022)
- Consideration of Customer Feedback (Standing Item)
- •FS Data Submittal (Coming soon -

Sept 29, 2022)

3A Engagement Workshops

(Nov 2021 – July 2022)

Decision Process (Sep – Dec 2022)

Summary of Engagement Workshop topics
Consider NBFS and governance design
Close out Consideration of Customer Feedback
Business Case proposition
Evaluation of BPA WRAP Participation Principles
Post draft close-out letter in Oct w/ 30 day comment period

Administrator Decision on whether to join WRAP 3B Binding Program
Post final close-out letter

> Final Close-out Letter (Dec 2022)

Phase 3B Binding Program (Jan 2023)

•Begin participation in WRAP 3B Binding Program, if:

•BPA decides to join •All relevant conditions are met

Pre-decisional. For Discussion Purposes Only.



Decisions

- Should BPA join the WRAP Phase 3B, binding program?
 - Yes
 - No
- If yes, which binding season should BPA select?

Participation Principles for Binding Program

- 1. BPA's participation is consistent with its statutory, regulatory and contractual obligations.
- 2. BPA will maintain reliable delivery of power and transmission to its customers.
- 3. BPA's participation is consistent with a sound business rationale.
- 4. BPA's participation is consistent with the objectives of Bonneville's Strategic Plan.
- 5. BPA's evaluation of WRAP participation includes transparent consideration of the commercial and operational impacts on its products and services.





FS Data Submittal and Position Estimate

Steve Bellcoff

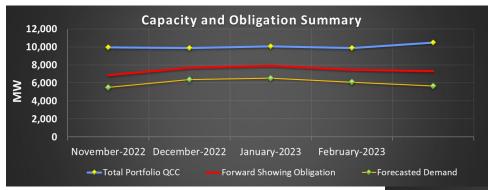


Winter 2022/23 Forward Showing

- Data Submittal Completed September 15, 2022
- Single Workbook
- BPA did not file for any exemptions
 - Resource/Contract or Transmission
- Coordinated with other participants to align forecast among submittals (Slice customers, Powerex, PSE, PGE)
- WRAP BPA Position: Satisfies Resource Capability and greater that 75% firm transmission reservations (pending validation by Program Operator)

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Winter 2022/23 Forward Showing





Pre-decisional. For Discussion Purposes Only.

Results yet to be validated BONNEVILLE POWER A MINISTR

Forward Showing Results

Forward Showing Results									
Capacity Summary									
	Season	November-2022	December-2022	January-2023	February-2023	March-2023			
Resources	Winter	17,220.2	17,369.2	17,692.3	17,211.2	17,768.7			
Contract Purchases	Winter	335.0	385.0	410.0	360.0	335.0			
Contract Sales	Winter	7,494.5	7,734.3	7,856.0	7,574.5	7,527.6			
RA Transfer Purchases	Winter	0.0	0.0	0.0	0.0	0.0			
RA Transfer Sales	Winter	0.0	0.0	0.0	0.0	0.0			
Additional Planned Outages	Winter	0.0	0.0	0.0	0.0	0.0			
Total Portfolio QCC	Winter	10,060.8	10,019.8	10,246.4	9,996.7	10,576.1			

Peak Demand Summary								
Season November-2022 December-2022 January-2023 February-2023 March-2023								
Forecasted Demand	Winter	5,504.0	6,373.8	6,514.3	6,090.5	5,642.1		
Demand Response (DR) Programs	Winter	0.0	0.0	0.0	0.0	0.0		

B O N N E V I L L E P O W E R A D

Forward Showing Results

Requirements Summary									
Season November-2022 December-2022 January-2023 February-2023 March-2023									
Program Monthly PRM	Winter	21.6%	17.7%	19.0%	19.9%	26.9%			
Peak Demand - DR Programs + PRM	Winter	6,692.9	7,502.0	7,752.0	7,302.5	7,159.9			
Operating Reserves Adjustment	Winter	153.8	159.5	162.4	155.5	154.8			
Forward Showing Obligation	Winter	6,846.7	7,661.5	7,914.5	7,458.0	7,314.7			
Surplus/Deficient Capacity	Winter	3,214.1	2,358.4	2,331.9	2,538.7	3,261.4			
Forward Showing Requirement Met	Winter	Yes	Yes	Yes	Yes	Yes			

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Results yet to be validated BONNEVILLE POWER ADMINISTRAT Summer 2023 Forward Showing

- Submittal due October 4th
- Data compilation under way
- Plan to summarize in the same fashion as Winter submittal
 - Incorporating any changes requested by SPP for evaluation
 - Continuing to study and understand WRAP accounting for firm transmission

Phase 3A – Advanced Assessment

• Purpose:

- Provide the initial data that will be used in the performance of Loss of Load Expectation (LOLE) assessment, Qualifying Capacity Contribution (QCC) assessments, and establish program PRMs.
- BPA Submittal:
 - BPA's initial data shared at the November 19, 2021 RA engagement workshop.
- Outputs:
 - Resource QCC's
 - PRM's (Program, MidC, SWEDE)

Phase 3A – Advanced Assessment

- Resource QCC:
 - Storage Hydro
 - Run of River
 - VER
 - Thermal

For full presentation on program level QCC level, see <u>WPP's Public Webinar</u> <u>Materials from September 9, 2020</u> BONNEVILLE POWER ADMIN

Storage Hydro Resources

• Definition:

 Storage Hydro – hydro resource with one hour or greater of storage, not in coordination with another project.

• QCC Methodology:

 Customized WRAP Storage Hydro Methodology for determining the QCC of storage hydro projects in the Western RA Program. The methodology considers 10 years of each resource's actual historic output (2011 – 2020), water in storage, reservoir levels, and both power and non power constraints.

Storage Hydro Resources - QCC

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							Forward Showing Submite
							Submittal
Facility Name 🚽	Generation Type 🖵	November-202 -	December-202 -	January-202 🚽	February-2023 👻	March-2023 👻	mittai
Libby (LIB)	Hydro	583.0	573.8	478.5	447.3	428.0	
Albeni Falls (ALF)	Hydro	8.3	9.6	10.8	10.4	10.5	
Hungry Horse (HGH)	Hydro	234.4	227.6	226.3	210.3	296.6	
Grand Coulee (GCL)	Hydro	4,456.8	4,732.5	5,048.3	4,638.5	4,792.7	
Chief Joseph (CHJ)	Hydro	2,246.0	2,254.5	2,285.5	2,223.0	2,220.7	
Dworshak (DWR)	Hydro	336.2	436.0	439.7	438.9	434.0	
Lower Granite(LWG)	Hydro	679.2	598.6	617.1	672.9	653.9	
Little Goose(LGS)	Hydro	684.2	647.4	739.3	732.6	719.5	
Lower Monumental(LMN)	Hydro	359.6	395.4	401.0	383.3	394.8	
Ice Harbor(IHR)	Hydro	406.6	385.9	405.7	417.4	494.3	
McNary(MCN)	Hydro	983.5	989.9	1,000.7	978.9	1,003.4	
John Day (JDA)	Hydro	1,937.0	1,912.8	1,823.5	1,798.8	1,891.9	
The Dalles (TDA)	Hydro	1,596.4	1,561.2	1,578.5	1,503.4	1,577.9	
Bonneville(BON)	Hydro	950.4	886.5	897.5	938.7	960.5	
Detroit (DET)	Hydro	102.1	98.9	98.1	105.8	106.5	
Green Peter (GPR)	Hydro	81.7	80.8	80.1	87.8	90.1	
Foster (FOS)	Hydro	21.9	21.5	22.1	22.5	21.9	
Cougar (CGR)	Hydro	24.4	18.9	19.9	24.8	27.8	
Lookout Point (LOP)	Hydro	88.7	80.3	79.6	94.2	105.6	
Hills Creek (HCR)	Hydro	32.3	31.3	31.5	32.8	33.8	
Lost Creek (LOS)	Hydro	54.2	55.3	40.1	55.4	55.4	1

Pre-decisional. For Discussion Purposes Only.

Run of River Resources

• Definition:

 Run-of-river hydro (ROR) – Hydro resource with less than one hour of storage, not in coordination with another project.

• QCC Methodology:

- ELCC (Effective Load Carrying Capability) analysis of historical data performed by Program Operator (PO)
- ELCC evaluated by month

Run of River Resources - QCC

Facility Name 🚽	Generation Type 🧊	November-202 -	December-202 -	January-202 🗸	February-2023 👻	March-2023 👻
Anderson Ranch	Hydro - Run Of River	12.3	13.6	14.1	14.7	14.1
Big Cliff	Hydro - Run Of River	6.5	7.2	7.4	7.7	7.4
Black Canyon	Hydro - Run Of River	3.2	3.9	4.8	6.4	8.1
Boise Diversion	Hydro - Run Of River	0.0	0.0	0.0	0.0	0.1
Chandler	Hydro - Run Of River	2.6	1.8	7.1	9.0	11.8
Cowlitz Falls	Hydro - Run Of River	27.3	28.5	27.7	25.4	22.5
Dexter	Hydro - Run Of River	5.2	5.8	6.0	6.2	6.0
Dworshak Hatchery	Hydro - Run Of River	1.7	1.8	1.9	2.0	1.9
Green Spring	Hydro - Run Of River	2.2	5.0	6.2	8.1	7.4
McNary Fishway	Hydro - Run Of River	6.6	7.1	2.7	7.2	9.2
Minidoka	Hydro - Run Of River	1.3	3.9	3.3	4.2	6.8
Palisades	Hydro - Run Of River	26.4	39.1	39.7	44.4	74.6
Roza	Hydro - Run Of River	4.5	4.4	4.5	6.6	10.6

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Forward Showing Submittal

VER Resources

- Definition:
 - Variable Energy Resource (VER) wind and solar resources.
- QCC Methodology:
 - ELCC (Effective Load Carrying Capability) analysis of historical data performed by Program Operator (PO)
 - ELCC evaluated by month and by zone. VER resource zones defined based on climate/fuel supply (not transmission)

Wind Zones

WRAP

POWERED BY WPP



Solar Zones



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VER Resources- QCC

Facility Name 🚽	Generation Type 📮	November-202 -	December-202 🗸	January-202 🗸	February-2023 👻	March-2023 👻
Klondike	Wind	4.7	3.8	4.3	7.2	11.2
Stateline	Wind	20.9	18.1	15.9	16.1	16.0

Forward Showing Submittal

Thermal Resources

• Definition:

- Thermal resources Generating resources, such as those fueled by coal or natural gas, in which heat energy is converted to electricity.
- QCC Methodology:
 - Unforced capacity (UCAP) analysis of historical data performed by Program Operator (PO)
 - Using six years of historical data (removing the worst performing year) for each season.



Thermal Resources - QCC

Facility Name 🚽	Generation Type 🧊	November-202 -	December-202 🗸	January-202 🗸	February-2023 👻	March-2023 👻
Columbia Generation Station_1	Nuclear	1,194.1	1,194.1	1,194.1	1,194.1	1,194.1

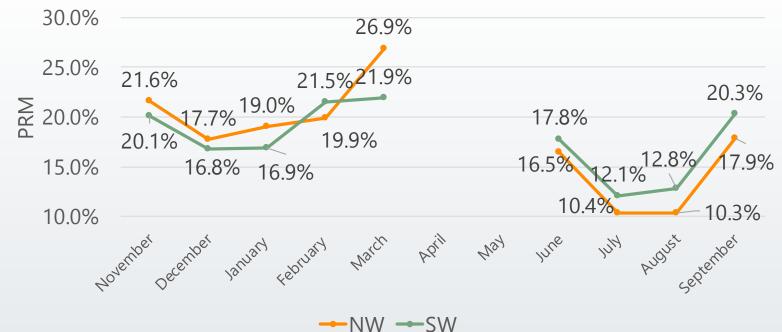
Forward Showing Submittal

Phase 3A – Advanced Assessment

• Planning Reserve Margin:

- PRMs are program level based
- Forward Showing Workbooks can use a combination of NW and SW levels based on participant location, load location, and number of workbooks submitted.

PRM – 2023-2024 (UCAP)





PRM – NORTHWEST (UCAP)





PRM – SOUTHWEST (UCAP)







BREAK







Business Case for WRAP

Steve Bellcoff Ryan Egerdahl



BONNEVILLE POWER ADMINISTRATIOI

Presentation Overview

- Review/Background
- Phase 3A and 3B
- WRAP Program Design Overview
- BPA Status Quo
- Value Proposition

BPA Planning Responsibility

- BPA is responsible to plan in the long term, short term, and in realtime, to assure an adequate power supply to meet its contractual obligations, given operational uncertainties.
 - Load Following Deliveries on a real time basis
 - Block Deliveries under the planned fixed monthly shape
 - Other Contract Deliveries under the planned delivery shape

What is a Capacity Resource Adequacy Program?

- A capacity RA program ensures there is adequate generating capacity available and known transmission agreements in place for deliverability
 - To meet a region's forecasted peak hourly demand (plus required reserves), with a high level of confidence
- Capacity RA requirements are set by:
 - Determining a region's forecasted peak hourly demand in a year, season, or month using a pre-determined peak hourly load forecasting methodology
 - Having a defined threshold for firm transmission rights, to move the generation from resource to load

BONNEVILLE POWER ADMINISTRATION

WRAP

• What WRAP does:

- Implements a binding forward showing framework that requires entities to demonstrate they have secured their share of the regional capacity need for the upcoming season
- Implements a binding operational program that obligates members with calculated surplus to assist participants with a calculated deficit on the hours of highest need
- Leverages the binding nature of the operational program, together with modeled supply and load diversity, to safely lower the requirements in the forward showing and help inform resource selection for the region, driving investment savings for members and their end use customers

BPA Responsibility under WRAP

- BPA is responsible to plan to assure an adequate power supply to meet its contractual obligations, as well as plan for the uncertainty of loads and resources (PRM) in the Forward Showing and Operational Periods
 - Load Following Deliveries on a real time basis
 - Block Deliveries under the planned fixed monthly shape
 - Other Contract Deliveries under the planned delivery shape





Phase 3A and 3B



WRAP – Phase 3A and 3B

- Phase 3A, program development (October 1, 2021 December 31, 2022)
 - BPA's engagement/advocacy has resulted in the incorporation of many design aspects to ensure the program is implementable and will meet BPA and customers' with planning and adequacy needs:
 - Establishment of a governance structure and Tariff
 - Design of a binding forward showing and operations program, which accounts for large storage hydro in a way that recognizes its value to the region
 - Binding program that includes non-binding seasons for testing of Forward Showing and Operations Program, along with a transition period that allows participants to join without full risk of penalties, as the program is established
 - Program and other participants, acknowledgement and willingness to work together and with BPA to agreement, and the understanding of statutory differences that require Non-Conforming Participation Agreement(s).

Phase 3B (Binding Phase) of the program is scheduled to begin January 1, 2023, pending FERC approval of WRAP Tariff

- Implementation of fully binding forward showing and operational programs
- Begins with several non-binding forward showing and operational seasons, targeted are preparing participants for participation and finalization of design and development efforts
- Include a three year transition period, Summer 2025 through Winter 2027/28
- Fully implementation of all aspects of the program for Summer 2028 and beyond
- WRAP/WPP governance structure put into place and functioning

Pre-decisional. For Discussion Purposes Only.





WRAP Program Design Overview



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PROGRAM DESIGN OVERVIEW Forward Showing Program

- » Establishes a regional reliability metric (1 event-day in 10 years LOLE)
- » Utilizes thoughtful modeling and analytics to:
 - » Determine historical summer and winter **capacity critical hours** (CCHs) data sets for the region
 - » Determine each resource type's **qualifying capacity contribution** (QCC) to the regional capacity needs
 - » Determine a planning reserve margin (PRM) which is applied to peak load forecast based on P50 metric
- » Showing requirement includes deliverability component
 - » Firm or conditional firm transmission to meet 75% of P50 + PRM (paired with exception framework)
- » Participant compliance obligation (7 months in advance of binding season) = physically firm resources to meet P50 + PRM

Determine Program Capacity Requirement



Determine Resource Capacity Contribution



Compliance Review of Portfolio



QUALIFYING CAPACITY CONTRIBUTIONS

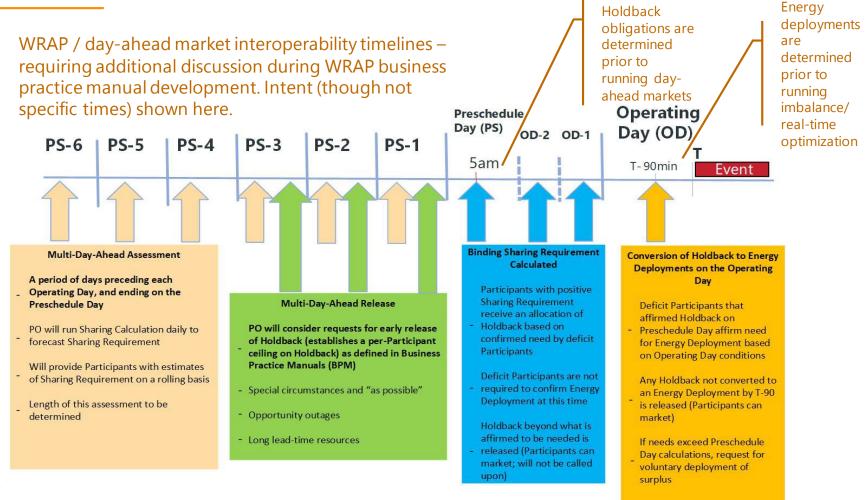
Resource Type	Accreditation Methodology
Wind and Solar Resources	Effective Load-Carrying Capability (ELCC) analysis
Run-of-River Hydro	ELCC analysis
Storage Hydro	WPP-developed hydro model that considers the past 10 years generation, potential energy storage, and current operational constraints.
Thermal	Unforced capacity (UCAP) method.
Short Term Storage	ELCC Analysis
Hybrid Resource	"Sum of parts" method where energy storage resource will use ELCC and generator will use appropriate method as outlined above
Customer Side Resources	Can either register as a load modifier or as a capacity resource

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- » Evaluates participants operational situation relative to Forward Showing assumptions (for load, outages, VER performance)
- » Obligates participants with calculated surplus to assist participants with a calculated deficit on the hours of highest need
- » Deficiency forecast on day before Operating Day (Preschedule Day) establishes Holdback Requirement for surplus participants
- » Surplus Participant that fails to provide assigned Energy Deployment must pay Energy Delivery Failure Charge









BPA Status Quo



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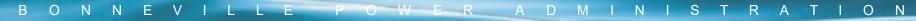
BPA Status Quo

• What is Status Quo?

- Traditional definition would be:

BPA continues to operate as we do today retaining the current system in which BPA maintains responsibility for defining and meeting resource adequacy for its load service obligations, in a PNW without regional Resource Adequacy program.

Today's changing landscape causes a second definition:
 BPA continues to operate as we do today retaining the current system in which BPA maintains responsibility for defining and meeting resource adequacy for its load service obligations, in a Pacific Northwest where a regional Resource Adequacy Program has been established that BPA is not a participant in.





Value Proposition



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Value Proposition Topics

- Objective/Evaluation
- Evaluating the Balance
- WRAP Program General Benefits/Costs
 - Program Benefits
 - Summary Program Benefits
 - Summary Program Costs
- BPA Benefits/Costs
 - BPA Benefits
 - BPA Costs/Risks
- Summary

- Appendix
 - A. General WRAP Benefits
 - B. WRAP Benefit/Cost Specific to BPA
 - C. WRAP Costs Program Fees and Charges
 - D. WRAP Costs BPA Program Fees and Charges
 - E. BPA Internal Cost of WRAP Participation
 - F. Potential WRAP Costs

Objective / Problem Statement

The Western Power Pool (WPP) is launching the next phase, 3B the Binding Program Phase of the Western Resource Adequacy Program (WRAP) on January 1, 2023.

Q - Should BPA join the WRAP Phase 3B, binding program?

- Yes
- No

Evaluation Scope

- BPA is evaluating joining the binding phase of the WRAP, or Phase 3B.
- Assumption
 - BPA will assume full performance of the Binding WRAP program, as it is expected to look after transition period in Summer 2028.
- BPA will evaluate:
 - Expected benefits of a fully functioning RA program
 - WRAP program costs (to participate)
 - Magnitude of potential exposure to CONE charge (in the FS period) and Failure to Deliver charge (in the Operations period)

• Positive evaluation of the items above provides benefits to BPA over the status quo

*Note – Currently only have Winter 2022/23 FS data submittal results (pending validation from the Program Operator)

BONNEVILLE POWER ADMINISTRATION Evaluating the Balance

-Standardized generation reliability methodology -Diversity benefits across the program footprint -Resource planning with visibility across the region -Increased options for power operations/commercial choices -Information to inform future investments

-WRAP fees and charges (administration and management)
 -BPA staffing and systems costs
 -Operational changes (How we do business today)
 -Compliance costs (deficiency charges)



Pre-decisional. For Discussion Purposes Only.





WRAP Program General Benefits/Costs



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Program Benefits

- WRAP provides generation reliability benefits (increased visibility, transparency, consistent application of metrics and methodologies) while working within existing systems and bi-lateral market frameworks.
- WRAP preserves the autonomy of each individual participant to plan and make their own decisions on how to serve load. Participants will continue to be responsible for determining what resources to use to meet the regional metrics, working with their regulators where applicable, and independently conducting resource planning as may be required.
- WRAP establishes a standard FS Capacity Requirement by adding a PRM to the forecasted P50 peak load forecast for each participant. The PRM is established to meet a modeled 1 day in 10 year (season) Loss of Load Expectation (LOLE), established through the diverse mix of load and resources across the participant's footprint.



Program Benefits

initiation of a sharing event and relying on other participants that have surplus (or positive) forecast, in relation to their FS projection, to provide help meeting that projected demand.

The FS Program establishes the baseline values for the components of the sharing calculation while the **Operations Program determines the real-time differences** in these values to initiate a qualifying sharing event. Program monitors forecasted loads, forced outages, Variable Energy Resources (VER) performance, reserves, etc...

Pre-decisional. For Discussion Purposes Only.

- WRAP provides the required **framework to unlock the region's diversity** in an equitable and reliable manner.

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WRAP establishes standard evaluation of participant capacity available and a predefined transmission rights threshold to cover the projected demand. Creates standard process to utilize programs diversity to help participants experiencing capacity shortage, through the







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Summary – Program Benefits

Programmatic	 Standardized reliability metric – 1 day in 10 year LOLE metric Preserves local planning autonomy Allows access to the diversity of resources and loads over large collaborative footprint Increases transparency of resource need across participants Increases visibility to identify potential generation reliability risks Reduces likelihood to overbuild resource as a group Generation that is surplus to one participant could be utilized to meet another participant's deficit Viewed as 'Resource of Last Resort' and Settlements established to incentive solving deficiencies outside of the program designed around 12-20 hours per year
Forward Showing	 Increased visibility, transparency, and consistent application of metrics and methodologies Standard application Planning Reserve margin (PRM) Creates standard calculation of Capacity Adequacy Recognizes the value of Firm Transmission Rights
Operations Program	 Increased visibility, transparency, and consistent application of metrics and methodologies Unlocks the diversity benefits of large collaborative footprint Establishes standard evaluation of sharing capability/need Settlement for holdback and energy deployment, include Make Whole payments and settlement at above market rates

Pre-decisional. For Discussion Purposes Only.

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Summary – Program Costs

Programmatic

- WRAP Tariff established Maximum Rates:
 - Participant: Maximum \$59,000 per year
 - P50 Load: Maximum \$199 per MW per year





WRAP Program BPA Benefits/Costs



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BPA Benefits

Programmatic	 Standardized reliability metric – 1 day in 10 year LOLE metric - utilized across program participants and region Gives BPA (and LF customers) ability to plan for physical resources needs under their own criteria Creates standards for load forecasts and resource capability across participants. Creates common language for discussion of resources and associated capabilities Increases transparency of resource need, clearly identifying potential capacity risks
Forward Showing	 Knowledge and transparency of interconnected neighbors meeting standard
Operations Program	 Unlocks the diversity benefits of large collaborative footprint Ability to provide holdback when surplus (opportunity for BPA) Ability to receive holdback when deficit (another tool for BPA to meet existing obligations) Compensated at above market prices for holdback and energy deployment Preserves the option to join SPP Markets+

Pre-decisional. For Discussion Purposes Only.

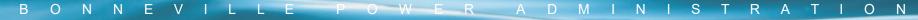
BPA Costs/Risks (potential financial consequences)

Programmatic	 Maximum Estimated Program Cost: \$96,250 per month, one time capital support charge \$866,250
Forward Showing	 Meeting FS capacity requirements may require acquisition of physical resource and/or firm transmission rights (in some situation) Failing to meeting FS capacity requirements, before the end of cure period results in Deficiency Charge (Cone) – significant costs based on MW deficiency
Operations Program	 Supplying participant may be subject to the Failure to Deliver Charge if fails to deliver WRAP issued energy deployment Having Capacity held for BPA at day-ahead, creates a holdback settlement even if energy deployment is not requested Utilizing the program as 'Resource of Last Resort' to keep the lights on comes with a Settlement cost above market price

BONNEVILLE POWER ADMINISTRATION

Summary

- BPA has a planning responsibility for its customers to assure adequate power supply to meet obligations to our customers.
- WRAP is a RA Capacity program that helps ensure there is adequate generating capacity available using regional metrics. WRAP relies on a binding forward showing and operational program to assure participants secure their share of capacity and obligates participants to assist one another to meet calculated deficits.
- WRAP will implement a **governance structure** to assure that participants and regional stakeholders are able to provide input into proposed changes to the program and have access to aggregate information from the program.
- Participation by BPA will require a non-conforming agreement to ensure consistency with BPA's legal obligations and authorities.
- **BPA's input** is reflected in the **design of WRAP's binding program** forward showing, operations program and governance structure.
- Finally, **WRAP** has a transition plan that considers phasing in value of grandfathered agreements.
- The programmatic benefits such as a standard reliability metric, the assurance that interconnected neighbors are meeting the program standard due to a binding forward showing program, and the ability to access load and resource diversity from a binding operations program outweigh the programmatic costs, risks of incurring deficiency charges, and need to meet program requirements.





Appendix A General WRAP



General WRAP Benefits

- WRAP creates a **standardized methodology** for generation reliability in the region, allowing BPA (and its customers) to be assured that other participating entities are planning for and/or acquiring the physical resources needed to serve load based on the same criteria
 - Status Quo Individual utilities and Load Serving Entities (LSEs) currently carry out planning and procurement of resources in a variety of ways with varying degrees of oversight. In the absence of a standardized methodology utilities rely on different methods and planning standards.
 - WRAP Standard Practices WRAP establishes a standard reliability metric (1-in-10 LOLE) and the associated modeling to derive an appropriate PRM for the region based on that reliability standard.

General WRAP Benefits

- WRAP creates a **standardized methodology** for establishing the capacity contribution of resources, allowing BPA (and its customers) to recognize a standardized resource contribution level for planning and/or acquisition of physical resources
 - **Status Quo** Individual utilities and developers plan resource contributions in a variety of ways with varying degrees of accuracy, evaluation, and oversight.
 - WRAP Standard Practices WRAP standardizes the calculation of capacity contributions from resources (ELCC, QCC), assuring that all participant account for the capacity contribution of a specific resource type in the same manner. Standard practices results in better informed resource planning processes, and resource selection by participants, over-procurement is expensive for everyone, and under-procurement poses a reliability risk by placing undue reliance on market purchases.





Appendix B WRAP Benefit/Cost Specific issues to BPA



WRAP Benefits/Costs – BPA Specific

- WRAP unlocks diversity across its participants in a equitable and reliable manner. The benefits (reduced Planning Reserve Margin) are primarily derived through the diversity of load across the participants, and the diversity of the overall resource stack. Absent an RA program an entity would need to carry enough capacity to meet its own peak load plus a planning metric entirely on its own. Participants PRM's can be reduced because the diversity is realized through planning the system to a regional coincident peak rather than the sum of individual utility non-coincident peaks.
 - The nature of BPA's federal hydro system provides a responsive peaking capability, but is limited by the variability of fuel supply (water) creating a energy constrained system. BPA's traditional planning tools look at the high variability of the water supply and how it will meet the energy obligations placed on it system. At this time, BPA does not believe that it will change its energy planning methodologies based on the Diversity Benefits that WRAP provides. PRM is a capacity planning measure, BPA does recognize that at such a time that it becomes capacity limited, that the WRAP diversity benefit would be realized.

WRAP Benefits/Costs – BPA Specific

- WRAP defines a participants program load as the LRE's P50 Total Retail Load (TRL). All loads associated with each participant are evaluated, assuring that the program has a full reflection of peak capacity needed across the entire program footprint. WRAP includes a load exclusion provision, allowing specific discrete load that the LRE is not the supplier for to be excluded from program calculations, under mutual agreement of the load and participant.
 - As an LRE, BPA would be responsible for the TRL of its Load Following (LF) customers in WRAP. In some cases LF customers TRLs includes more than simply the obligations placed on BPA, including loads served by; dedicated non-fed resource, ARHWM loads served by specific non-federal resources, ARHWM loads served by unspecified resources, and NLSL (not served by BPA).
 - As an LRE, BPA would utilize all physical federal resources, contract purchases, and LF customer physical resource to meet the Forward Showing Capacity Requirement.

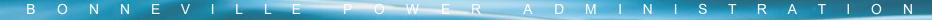
WRAP Benefits/Costs – BPA Specific

- Risk to BPA: WRAP only recognized capacity from physical resources or contracts sources from physical resources. Without resource information for the remainder of the loads not served by BPA, it places a potential risk and costs on the Federal System. Under WRAP, BPA must allocate Federal System capacity, to those loads BPA is not responsible for, it also has the potential to create a deficit position requiring resource acquisition or deficiency charge under the Forward Showing Requirements.
- Mitigation of Risk: BPA has established two solution concepts to account for these Load not served by BPA, or known physical resource. BPA has presented these as a NLSL concept and a ARHWM unspecified load concept (See June 13, 2022 and July 26, 2022 workshop presentations). For NLSLs not served by BPA, it allow for customers to exclude the specific load from WRAP, submit of physical resource information, or payment of a charge for the Federal System to provide RA for those loads. For ARHWM it provides for a credit to those customers who submit resource information. Both of these proposed concepts mitigate risks placed on BPA as the WRAP LRE, by these loads not served by BPA

WRAP Benefits/Costs

- WRAP requires physical resources, and does not recognize capacity from sources that cannot be traced to physical resources. All resources (physical or contractual) must be registered and receive a program QCC. In order for contract purchased to be accounted for in the program they require an attestation, known as a Joint Contract Accreditation Form (JCAF), documenting source, capacity, and limitations, in order to receive a contract QCC. WRAP requirement assures physical resources are being planned, built and/or acquired to meet the regions needs, and that multiple participants are not dependent on the same 'market resource'.
 - Potential Risk to BPA: Both BPA and LF customers utilize WSCC Seller choice contracts, which may or may not qualify under the WRAP physical resources requirements. Existing contract purchases will need to be evaluate against program requirements, and have JCAFs submitted to WRAP, in order to receive contract QCC's. BPA and LF customers ability to procure future contracts that meet WRAP requirement carry a currently unknown risk, of both availability and/or added costs.
 - Current Risk Limited to SILS contracts through 2026 for BPA contracts

Pre-decisional. For Discussion Purposes Only.





Appendix C WRAP Costs Program Fees and Charges



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WRAP Costs (Program Fees and Charges)

- The Binding Program (Phase 3B) has two primary cost pools that contribute to the binding program:
 - **Base Cost or Participant related:** Costs would be participant related and include participant engagement activities, RAPC facilitation, and Board of Director costs.
 - Load Costs or Program Operation: Costs include non participation program administration, program operations (staffing, technology and overheads), legal, Independent evaluator and reserves
- Each Cost Pool is funded differently by participants:
 - **Base Cost:** Are participant costs, equally divided among program participants.
 - Load Costs: Are load based costs identified as a per MW cost. Total costs divided by the total program P50, times individual entities P50 load.

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WRAP Costs (Program Fees and Charges)

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Program Fees and Charges continued

- WRAP annual costs are paid monthly, based on 1/12 of total annual cost by pool:
 - **Base Cost:** Total annual costs equally divided among program participants, and paid 1/12th per month.
 - Load Costs: Total annual costs, divided by Total Program P50 load in MW's, times participants P50 load in MW's, paid 1/12th per month
- WRAP Tariff established Maximum Rates for each cost pool:
 - **Base Cost:** Maximum \$59,000 per year.
 - **Load Costs:** Maximum \$199 per MW per year.
- WRAP Cash Working Capital Support Charge
 - One time charge, equal to 9/12th of participants annual cost (or equal to sum of 9 month monthly cost)
 - Paid within 30 days of executing participation agreement.

*P50 load = Median Monthly P50 Peak load

Pre-decisional. For Discussion Purposes Only.





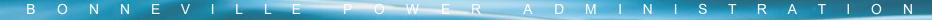
Appendix D WRAP Costs BPA Program Fees and Charges

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WRAP Costs (BPA Program Fees and Charges)

- Calculation of BPA Maximum annual cost:
 - **Base Cost** = \$59,000.
 - Load Costs = \$199/MW * 5504 MW = \$1,096,000
 - Total Annual Cost = Base Cost + Load Cost = \$59,000 + \$1,096,000 = \$1,155,000
 - Monthly Cost = 1/12 of Total Annual Cost = \$96,250
- Additional first year cost:
 - Cash Working Capital Support Charge = (Total Annual Cost)*(9/12)
 - (\$1,155,000)*(9/12) = **\$866,250**

*P50 load = Median Monthly P50 Peak load





Appendix E BPA Internal Cost of WRAP Participation



WRAP Costs (BPA Internal Costs)

- BPA expects that current FTE level support the current expectations of BPA's
 Internal staff needs to support participation in WRAP
- BPA does NOT have a clear understanding at this time of staffing or IT system requirements for the Operations Program, but initially believe that can be included under current staffing and budgetary levels
- Program Costs and Benefits (including settlement payments) would be applied to Non-Slice Cost Pool
 - Program Fees would come from current budgets

Cost/Benefit	Allocation
BPA Staffing/Systems Costs	Composite Cost Pool
WPP Assessed Fees/Charges	Non-Slice Cost Pool
Costs/Benefits of WRAP Participation	Non-Slice Cost Pool





Appendix F Potential WRAP Costs



Potential WRAP Costs

- **Potential Forward Showing costs** Meeting FS capacity requirements could lead to new costs for a participants:
 - Physical Capacity acquisition If participant is short of capacity, participant acquires physical resource in a time frame that they may have historically not acquired them, and/or resource that the participant has historically used to meet load do not qualify for a QCC value under program requirements, such as unsecure WSPP contracts (Seller Choice contracts)
 - Firm Transmission acquisition If participant does not have adequate firm transmission reservation, they may need to acquire or get in the que to purchase firm transmission. WRAP includes additional processes for transmission exceptions where acceptable
 - Deficiency charge from Failure to meet FS requirement (CONE charge) WRAP process includes a 60 day process from FS submittal for notification of Deficiency, and then a 60 day cure period for the participant to reconcile any deficiencies (resource capacity and/or firm transmission), failure to reconcile deficiencies during cure period results in CONE Charge from WRAP. Program expectation is that a FS Deficiency Charge would never be made, that participants will meet the requirement before the end of cure period.

Pre-decisional. For Discussion Purposes Only.

Potential WRAP Costs - CONE

Deficiency Charge (CONE Charge)

- Deficiency charge from Failure to meet FS requirement

• Basic Principles of Deficiency Charge:

- Deficiency charge is based principally on the largest monthly failure for the forward showing year * annual CONE * CONE factor
 - Additional monthly failures are incrementally penalized, but at a monthly rate
- Deficiency charge is intentionally high, to incentives physical resource planning
 - Additive CONE Factor removes any incentive for additional failures after an initial failure
- If a deficient participant pays the CONE charge, that Participant is considered to have met their FS
 Capacity Requirement able to fully participate in the Operations Program
- Program Expectation is that no Deficiency Charge is ever collected

Potential WRAP Costs - CONE

Deficiency Charge (CONE Charge) continued

• Basic Mechanics of Calculating Cone Charge:

- 1. Identify the maximum monthly deficit from the season
- 2. Determine the "first stage" penalty as follows

Max Season Deficit * (Annual CONE *1000) * Season Annual Cone Factor.

Seasonal CONE Factor scales depending on the programs aggregate deficit - can vary from 125% to 200%.

- 3. Calculate Incremental monthly failures within the season at a \$-kW month rate consistent with the Annual CONE * a CONE factor of 200%.
- 4. Penalty is charged immediately after failure to cure capacity deficits by the end of the seasons forward showing cure period
- See <u>WRAP Task Force Proposal</u>

Potential WRAP Costs - CONE

Deficiency Charge (CONE Charge) continued

• Deficiency Charge Examples:

Rough estimate of charge to illustrate potential magnitude

- 1. 100 MW deficit in January = \$11.5M
- 2. 100 MW deficit in August = \$11.5M
- 3. 100 MW deficit in January and August = \$13M
- 4. 100 MW deficit in every month, Winter and Summer season = \$24M
- 5. 10 MW deficit in August and 50 MW deficit in January = \$6M
- 6. 20 MW deficit in January and 30 MW deficit in February = \$3.5M

Potential WRAP Costs - Settlements

- Key requirement of Operations Program is the settlement and pricing methodology to support Holdback and Energy deployments.
 - Assuring that settlement prices are reflective of market value of energy in both dayahead and real-time:
 - Adequately reflects the opportunity costs of holdback, if energy is not deployed
 - Reflects a premium for both holdback and energy deployment

See Settlements and Pricing WRAP Public Webinar 2022-02-24

Potential WRAP Costs - Settlements

Holdback and Energy deployment Settlements continued

- Settlement Pricing based on multiple index prices, shaping factors, and a 110% multiplier in order to set multiple settlement prices
 - Total Settlement Price = MAX(MIN(\$2000, Hourly Shaping Factor ×Applicable Index Price×110%),0)
 - Energy Declined Settlement Price = MIN(Applicable Powerdex (or similar) hourly index, Settlement Price × 80%)
 - Holdback Settlement Price = Total Settlement Price Energy Declined Settlement Price
 - Final Settlement (for any applicable hour) = (Holdback Settlement Price × Holdback MW Requested)+(Energy Settlement Price × Operational Energy MWh Dispatched)

See Settlements and Pricing WRAP Public Webinar 2022-02-24

Pre-decisional. For Discussion Purposes Only.

Potential WRAP Costs - Non-Delivery Charge

- To assure holdback and deliver of energy deployment, WRAP developed a Participant Charge for non-delivery of program issued deliveries, including the following criteria:
 - Robust framework in which non-delivery events are evaluated and may be waived if they meet program-defined criteria
 - Participant is requested to deliver holdback and fails to do so without a valid waiver / exemption, they will be subject to a non-delivery charge for every hour of non-waived delivery failure
 - Hourly non-delivery charge is max of applicable day ahead and real-time price on hour on non-delivery multiplied by the penalty factor, penalty factor scales based on number of non-delivery instances in both seasons of the year and whether the energy that wasn't delivered was able to be served by another Participant
 - Penalties are intended to be high enough that non-delivery is not an economic option
 - Potential impact of non-delivery is load shedding so charge for non-delivery intended to provide a significant incentive to deliver holdback energy as requested, However, not intended to compound in such a way that the Participant charge for non-delivery becomes punitive
 - Individual Participant will be capped at the CONE equivalent non-delivery charge ceiling



Non-Delivery Charge continued

If a Participant fails to provide energy and that deficit is entirely covered by other Participants of the WRAP, the penalties are as follows:

First day with non-waived delivery failure(s)	5 times the index price of the default centroid for the undelivered megawatt hours (MWhs)	
	(MWhs)	

Second day with non-waived delivery failure(s) 10 times the index price of the default centroid for the undelivered MWhs

Third day or more with non-waived delivery
failure(s)20 times the index price of the default centroid for the undelivered MWhs and be
cause for review for expulsion by the Delivery Failure Review Committee

If a Participant fails to provide energy and that deficit is not entirely covered by other Participants of the WRAP, the penalties are as follows:

First day with non-waived delivery failure(s)	25 times the index price of the default centroid for the undelivered MWhs
Second day with non-waived delivery failure(s)	50 times the index price of the default centroid for the undelivered MWhs and be cause for review for expulsion by the Delivery Failure Review Committee





LUNCH





WRAP Participation Interaction with other BPA Initiatives

Steve Bellcoff Ryan Egerdahl Emily Traetow



BPA's WRAP Engagement

- Original participant in region's development of WRAP
- Focus of WRAP development
 - Develop RA program that is consistent with BPA's statutory requirements
 - Preserve preference
 - Continue to work within BPA's regional dialogue contractual obligations
 - Meet Resource Adequacy program needs with a focus physical resources

• Ongoing WRAP work

- Evaluation of initial Forward Showing periods
- Development of Operations Program
- Continued design through Business Practice Manual development

WRAP Interact with Other Ongoing BPA Initiatives

• BPA's WRAP engagement

- Participation in program dates back to 2019
 - Provided significant contributions to program development in phases 1, 2A, 2B and 3A
- BPA conducted ongoing public engagement through phases 2B and 3A
- Other ongoing BPA Initiatives (outside WRAP)
 - Regional Dialogue Rate Period work
 - Resource Program
 - Contract Discussions (Regional Dialogue and Provider of Choice)



Regional Dialogue Rate Period work

Pre-decisional. For Discussion Purposes Only.

Regional Dialogue

- BPA is responsible to plan in the long term, short term, and in real-time, to assure an adequate power supply and transmission rights to meet its contractual obligations, given operational uncertainties.
 - Load Following Deliveries on a real time basis
 - Block Deliveries under the planned fixed monthly shape
 - Other Contract Deliveries under the planned delivery shape
- BPA will set rates in order to recover costs to meet
 obligations

Costs of Assuring Adequate Power Supply

- Tiered Rates Methodology (TRM) provides guidance on how costs and benefits should be allocated to Priority Firm Power rates.
 - To the extent the cost/benefit is determined to be a new category of cost/benefit, then the principles in the TRM can be applied and treatment determined through a 7(i) process.
 - Costs not otherwise expressly allocated in the TRM will be allocated to Cost Pools based on the principles of cost causation, meaning the costs will be allocated to the Cost Pool(s) that benefits from such costs.
 - Allocation of costs among the Composite, Non-Slice, and Slice Cost Pools recognize the types of costs distinct to the type of service associated with each Cost Pool.

Costs of Assuring Adequate Power Supply

- To ensure proper cost allocation among Cost Pools, BPA will allocate the cost of certain Federal resource acquisitions as follows:
 - Capacity for following customer load—costs allocated to the Non-Slice Cost Pool.
 - Acquisitions other than the foregoing—costs allocated to the Cost Pool determined in the applicable 7(i) Process.

Cost/Benefit	Allocation
BPA Staffing/Systems Costs	Composite Cost Pool
WPP Assessed Fees/Charges	Non-Slice Cost Pool
Costs/Benefits of WRAP Participation	Non-Slice Cost Pool

NLSL and Unspecified Resources

Background

- Under Regional Dialogue, BPA gave its customers the contractual right to serve load with "unspecified resource amounts." A customer can serve NLSL or Above High Water Mark (AHWM) load with unspecified resources and hold the full responsibility of bringing the megawatts to meet those loads.
- Under Regional Dialogue contracts, BPA's customers serving load with unspecified resources are not required to provide BPA with information regarding a source of power; in general, beyond a megawatt number BPA does not know its source until it is scheduled/tagged for delivery at preschedule.



NLSL Implication for WRAP

- Issue: Accreditation of unspecified resources for NLSL served by customers, not BPA
- Under WRAP, in order for resources to be accredited and have a Qualifying Capacity Contribution (QCC) in the program, the resources serving load must be physical resources, or the power supply contracts must be traceable to a physical resource. This information is provided to the program during the Forward Showing (FS) timeframe which is 7 months in advance of a season.
- BPA will encourage customers to move towards resources that meet the requirements of resource adequacy and the WRAP
- See June 13, 2022 and July 26, 2022 workshop presentations



NLSL Not Served by BPA - Treatment

Option 1 - Documented Resources:

 Customer submits resource documentation providing WRAP resource QCC value equal to or greater than NLSL prior to Forward Showing Data submittal for each binding season.

Option 2 - Load Exclusion:

 Customer utilizes WRAP load exclusion process for each individual discrete load (NLSL), to exclude that load from WRAP. Exclusion results in reduction of BPA's WRAP load by specific excluded load amount (specific discrete load). Load must be excluded prior to WRAP Advanced Assessment (2 years before a binding season), through execution of WRAP Load Exclusion attestation.

Proposed BP-24 power settlement terms:

- A Load Following customer with a New Large Single Load (NLSL) will be subject to a monthly charge in FY 2025 if the customer does not submit to Bonneville, by September 15, 2024 for the summer 2025 season, either: (a) an approved exclusion attestation for the NLSL in accordance with the WRAP; or (b) QCC resource information for any non-federal resources serving the NLSL.
 - GRSP rate: FY 2025 monthly rate is \$2.73/MWh.
 - GRSP billing determinant: The qualifying forecast NLSL amounts for October 2024 through September 2025 (in megawatt hours) to be identified in Exhibit D of the customer's CHWM contract.
- BP-24 power rates terms would only go into effect if BPA joins 3B and elects a binding season that is within the BP-24 rate period.

Pre-decisional. For Discussion Purposes Only.

AHWM Unspecified Resources - Treatment

Option 1 - Documented Resources:

- Customer submits resource documentation providing WRAP resource QCC value equal to or greater than AHWM unspecified resource amount.
- Must be submitted prior to the forward showing time period (7-months in advance of the season.)
- BPA issues a credit for customers that use physical resources to meet their non-federal resource obligations for service to AHWM Load (specified and unspecified resources).

Option 2 - Status quo:

• Customer continues to use unspecified resource amounts to serve its AHWM Load and does not provide any additional resource documentation to BPA.

Proposed BP-24 power settlement terms:

- A Load Following customer with non-federal resources serving Above-RHWM Load will be eligible to receive a monthly credit in FY 2025 if the customer meets the WRAP forward showing qualifying capacity capability (QCC) requirement for such non-federal resources. The customer must submit QCC resource information to Bonneville by September 15, 2024 for the summer 2025 season.
 - GRSP rate: FY 2025 monthly rate is negative \$2.73/MWh.
 - GRSP billing determinant: The qualifying non-federal resource amounts for October 2024 through September 2025 (in megawatt hours) to be identified in Exhibit D of the customer's CHWM contract.

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• BP-24 power rates terms only go into effect if BPA joins 3B and elects a binding season that is within the BP-24 rate period. Pre-decisional. For Discussion Purposes Only.

Credit Calculation

- The Resource Adequacy Incentive terms proposed in the BP-24 power rate settlement will only be applicable if Bonneville begins participation in the WRAP 3B Binding Program and elects a binding summer 2025 season (June 2025 through September 2025).
- The proposed rate of \$2.73/MWh (negative \$2.73/MWh for the credit) is based on BPA's embedded cost of capacity for 4 months (June through September) spread out over one year.



Resource Program

Pre-decisional. For Discussion Purposes Only.

Resource Program

- Analysis of suite of metrics
- Evaluates solution for most limiting deficit metric
- Creates optimized resource portfolio for solving deficits
- Results are seen as a guide and not a decision framework
- WRAP Impacts
 - Creates potential additional metric(s) to evaluate or reference
 - Optimized solution sets may need evaluated against WRAP metric



Contract Discussions

(Regional Dialogue and Provider of Choice (post-2028)

Contract Discussions

- BPA will honor its Regional Dialogue contractual obligations, and allow customers to continue to utilize unspecified resources, while encouraging them to move towards resources that meet the requirements of resource adequacy and the WRAP.
- BPA will continue to meet its existing contractual obligations. Similarly, BPA expects customers purchasing federal power under existing Regional Dialogue power sales contracts to meet their obligations and to exercise attendant rights. BPA does not believe WRAP will create impediments or barriers affecting BPA or its customers' contractual performance.
- BPA recognizes that Regional Dialogue Contracts expire in 2028. A decision to fully join WRAP would introduce several issues that may need to be addressed in future product offerings through the Provider of Choice process. There may need to be new planning requirements around the accounting and application of non-federal resources, both specified and unspecified.





BREAK







Consideration of Customer Feedback

Steve Bellcoff Emily Traetow Mai Truong





Summary of Key Questions & Considerations

Summary of Key Questions & Considerations

- At the September 13, 2022 public meeting, customers requested a summary of key questions & considerations. Primary topics in the WRAP Public Considerations Tracker Spreadsheet are:
 - Stakeholder Engagement
 - Power Rates
 - Preference Obligation
 - BPA Products and Services
 - Existing Contractual Commitments (Regional Dialogue)
 - Provider of Choice
 - Business Case for WRAP

Stakeholder Engagement

• Summary of considerations:

- Request for timely, robust discussions with stakeholders throughout Phase 3A and opportunities for public comment and review before making a final decision
- Request for a "Customer Impact Summary" similar to the agency's EIM decision process used to track issues for the agency's WRAP decision process
- If BPA joins Phase 3B, continue stakeholder engagement to keep customers informed on its progress

• Summary of BPA response:

- BPA conducted extensive engagement process throughout Phase 3A, including maintaining the "WRAP Public Considerations" tracking spreadsheet
- If BPA joins Phase 3B, BPA intends to check-in with customers twice a year, through the first year of binding seasons

Power Rates

• Summary of considerations:

- Rates recovery for costs associated with WRAP participation
- Rates impact to power products

• Summary of BPA response:

BPA outlined expectations on BPA rate treatment of costs and benefits in today's (Sept 29, 2022) "WRAP Participation Interaction with other BPA Initiatives" presentation

Cost/Benefit	Allocation						
BPA Staffing/Systems Costs	Composite Cost Pool						
WPP Assessed Fees/Charges	Non-Slice Cost Pool						
Costs/Benefits of WRAP Participation	Non-Slice Cost Pool						

 The Resource Adequacy Incentive terms proposed in the BP-24 power rate settlement will only be applicable if Bonneville begins participation in the Western Resource Adequacy Program (WRAP) Phase 3B Binding Program and elects a binding summer 2025 season (June 2025 through September 2025).

Preference Obligation

• Summary of considerations:

- Request for scenarios on WRAP impacts to BPA power planning and preference
- WRAP participation impacts to preference

• Summary of BPA response:

- BPA developed detailed presentations on BPA's planning processes and how they would interact with WRAP, as well as, scenarios on how the WRAP might change BPA's current process of marketing surplus power, but continue to preserve preference for public customers. See Apr 13, 2022 workshop presentations.
- BPA will provide notice to preference customers if BPA determines that it has surplus capacity or energy that can be offered for sale, as it does today. As the WRAP develops its Business Practice Manuals, BPA will continue to monitor as to whether additional notice provisions are needed.

BPA Products and Services

• Summary of considerations:

- WRAP participation impacts to BPAT transmission service
- WRAP participation impacts to NLSL and AHWM loads using unspecified resources
- Changes to application of UAI charge if BPA joins binding program

• Summary of BPA response:

- No changes are expected:
 - To BPA's OATT or Business Practices
 - To how customers acquire transmission service;
 - To how BPA operates and manage its transmission system; or
 - To scheduling and tagging requirements, or curtailment procedures.
- BPA shared the WRAP's load exclusion process and developed solution concepts for NLSL and AHWM loads using unspecified resource.
 - Proposed BP-24 Power settlement terms includes an RA incentive
- No change to application of UAI charge from WRAP participation

Existing Contractual Commitments (Regional Dialogue)

- Summary of considerations:
 - Perceived disconnect between Regional Dialogue contracts rates, terms and conditions, and the WRAP
 - Allow changes to elections during Regional Dialogue period?
- Summary of BPA response:
 - BPA's participation in WRAP does not alter its obligations under Regional Dialogue contracts
 - Election deadlines are outlined in existing contracts and are not expected to change

Provider of Choice

- Summary of considerations:
 - WRAP is impacting customer's decisions on post-2028 contracts
- Summary of BPA response:
 - If BPA decides to join the WRAP, clear evaluation and the expectation of WRAP would be part of product design and implementation in the Provider of Choice conversation for post-2028 contract elections

Business Case for WRAP

• Summary of considerations:

- What are the benefits associated with joining WRAP?
- What are the costs associated with joining WRAP?
- Will BPA need to purchase in order to meet WRAP requirements?
- Summary of BPA response:
 - BPA outlined potential costs and benefits for both the forward showing and operations program in today's (Sept 29, 2022)
 "Business Case for WRAP" presentation
 - At this time, BPA does not see a need to purchase additional capacity to meet WRAP requirements



WRAP Public Considerations Tracking Update

Addressing Phase 3A Letter Commitments

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- BPA is fulfilling its commitment to work with customers and stakeholders made in the Phase 3A Letter to the Region
- Managing a "WRAP Public Considerations" tracking spreadsheet (posted on the BPA Resource Adequacy webpage) to resolve the open questions and key considerations in order for BPA to make a well-informed decision on participation in Phase 3B

Considerations Tracking Update

- Status:
 - 109 questions and considerations to-date (September 2022)
 - 79 questions and considerations resolved to-date (September 2022)
 - There may still be outstanding items at the time BPA's final decision is made
- BPA will be addressing items identified for resolution at today's public meeting. Category themes:
 - Program Impacts
 - Decision Process
 - BPA Products and Services
 - Cost Allocation / Rates

Guide to Reading These Slides

Theme

- High level or summarized themes BPA captured from comments/feedback.
- May include specific comments as beneficial to the conversation.

BPA Response

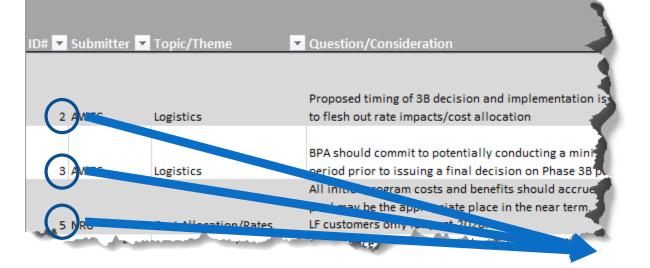
- BPA's response to themes or specific comments.
- May have a single response for multiple comments.

Indicates the specific comment IDs being addressed for the topic, as captured in the considerations tracking spreadsheet

Q/C#: 2, 3, 5, etc.

Guide to Reading These Slides

Considerations Tracking Sheet Example



Q/C#: 2, 3, 5, etc.

Program Impacts

Theme

BPA Response

Please provide the attestation that BPA will require of a customer, coordinating with BPA, to exclude all or a portion of an NLSL load from BPA WRAP coverage?

Whether and how BPA will consider any type of limit on the amount of eligible NLSL load that can be excluded, and whether the consideration for that limit would be a BPA decision, or whether BPA views that as a determination made at the WRAP level.

- The attestation to exclude load is a WRAP attestation and a WRAP requirement. The WPP has
 identified the attestation and other procedural requirements for this process to be developed under a
 Business Practice Manual.
- BPA, as a WRAP participant, will share those requirements with its customers in the future when it is developed and will work with LF customers with NLSL who wish to exclude their NLSL in WRAP.
- To clarify this point from the June 13, 2022 presentation, "NLSL and AHWM Unspecified Resources," the exclusion of load from the WRAP is clear: Only single line discrete loads can be excluded--by definition a NLSL meets this requirement because it is an individually metered load that is specific and discrete.
 - Each individual NLSL that a LF customer has would be treated as separate individual discrete load. Load exclusion is subject to a mutually signed attestation (yet to be developed by WRAP) to remove load. An LRE (such as BPA) cannot choose on its own to exclude any load or a portion of load. Only discrete loads that the LF customer chooses to exclude would have a signed attestation. BPA will not have the ability to make these determinations unilaterally under the program rules.

Q/C#: 86, 98

Program Impacts

Theme

Provide more details regarding how loads served with unspecified resources will impose costs on the customers of the Federal power system, whether Tier 1 or Tier 2 (or other resource pools).

BPA Response

- Under the WRAP, identified physical resources receive a program QCC (capacity is recognized by the program); unspecified resources do not receive such a recognition in the Forward Showing timeframe.
- Under WRAP's design and accounting for Total Retail load (minus excluded specific load), unspecified resources do not receive QCC credit, as a result they do not count toward meeting the Forward Showing Capacity Requirement. Therefore, BPA would need to provide the capacity needs to meet that Forward Showing Capacity Requirement from other resources that meet the program's requirements. As a result, BPA would purchase power to cover the amount of the customer(s) unspecified resource(s) that do not meet the program. Any cost incurred by BPA to accommodate the customer(s) unspecified resource amount would have to be recovered in BPA's power rates.
- That dedication of resource used to meet the Forward Showing Capacity requirement would mean that any opportunity benefits that other BPA customers could have received from those dedicated resources is not possible during that timeframe. At this time, BPA does not believe it can quantify that opportunity cost, but we have seen recent trends including from our own slice customers, of desire to acquire capacity or the rights to capacity, with significant amounts associated.
- See also 106 and 107 for additional specific details.

Q/C#: 105

Program Impacts

Theme

Identify the benefits, by way of avoided costs, that BPA anticipates will be realized by Tier 2 customers as a result of some preference customers choosing to serve these loads with unspecified resources.

Explain why BPA is not allowing the exclusion of A-RHWM load. Identify the costs and benefits that would be realized by Tier 2 customers as a result of some customers serving AHWM loads with unspecified resources.

BPA Response

- AHWM load is not a single line discrete load, therefore it does not meet the WRAP definition of being a single line discrete load that can be excluded. This is a WRAP definition and not a BPA call, and therefore ARHWM load can NOT be excluded from the WRAP.
- Based on the WRAP rules, the question of costs and benefits to customers with ARHWM load served with Firm Requirement Power at an applicable PF Tier 2 rate isn't relevant. If BPA decides to join the WRAP, starting the binding season that BPA becomes binding, all ARHWM load regardless of how it is served is part of the program load. All load under BPA's submittal would benefit in the same fashion from identified physical resources serving load. Identified physical resources receive a program QCC and are recognized under the program, unspecified resources do not receive such a recognition in the Forward Showing timeframe.
- Because unspecified resources do not receive QCC credit under the program, the federal resources would be identified as serving this load in the Forward Showing time period, or BPA would need to acquire additional resources to serve this load (served by unspecified resources). Because of this BPA's PF rate would recover the cost of serving a load BPA is not ultimately responsible for.
- See also 105 for additional specific details.

Decision Process

Theme

BPA Response

What are the objectives of participating in WRAP and how does WRAP participation compare with other approaches to meeting those objectives? As described in today's (Sept 29, 2022) introduction, a regional Resource Adequacy program:

- Provides a clear, uniform standard with accountability and commitment from each participant to meet it
- Puts bounds around how much capacity BPA is responsible for providing
- Creates transparency of individual resource plans
- Creates potential for cost and resource savings through diversity benefits
- Provides an additional source to purchase supply when deficit or sell supply when surplus, subject to transmission availability & system operational requirements

Decision Process

Theme	BPA Response
What are the anticipated costs of participating in the program? How will those costs be recovered?	 As described in today's (September 29, 2022) presentation "Business Case for WRAP," the anticipated annual participation costs allocated to all participants are the base costs (or participant related) and load costs (or program operation). Additionally, there is a one-time cash working capital support charge. See Appendix C of the Business Case presentation for the detailed WRAP cost breakdown. Binding participants failing to meet program requirements potentially could be subject to the Cost of New Entry (CONE) charge during the FS period or the Failure to Deliver Charge in the Operations period. The costs associated with WRAP participation will be recovered through Power rates as described in the "WRAP Participation Interaction with other BPA Initiatives" presentation.
What are the anticipated benefits of participating in the program? Who are the recipients of those benefits?	See today's (September 29, 2022) "Business Case for WRAP" presentation, specifically the "WRAP Program BPA Benefits/Costs" topic for further information.
Request for BPA to clearly articulate the potential costs and benefits to UEC's members of WRAP participation.	See responses to 13 and 15.
	Q/C#: 13, 15, 101

Decision Process

Theme

BPA Response

BPA has indicated that the forward showing requirement under the RA program is unlikely to be a binding constraint on how BPA plans to meet its load obligations. To the extent BPA does not plan to change its planning process, it cannot say that the lower Planning Reserve Margin ("PRM") gained by participating in the program ultimately leads to benefits for its customers because BPA will still incur the planning costs of its higher planning standard. How will this be factored into BPA's business case for joining the binding phase of the program?

- The nature of BPA's federal hydro system provides a responsive peaking capability, but is limited by the variability of fuel supply (water) creating an energy constrained system. BPA's traditional planning tools look at the high variability of the water supply and how it will meet the energy obligations placed on its system. At this time, BPA does not believe that it will change its energy planning methodologies based on the Diversity Benefits that WRAP provides. PRM is a capacity planning measure. BPA does recognize that at such a time that it becomes capacity limited, that the WRAP diversity benefit would be realized.
- As a result, the business case does not take into account a benefit from the reduced PRM value.



BPA Products and Services

Theme

BPA Response

Does BPA believe that participation will improve the competitiveness of its products and services? If so, how? BPA provides resource adequacy planning as part of its Load Following product simply by the nature of the product. As part of the product, BPA plans to meet both energy and peak load, and always has. The current Slice and Block products are partial service products where the customers have obligated themselves to assume their future planning and resource responsibility for needs beyond their BPA power supply.

• While it is believed that any full requirements product offered by BPA would continue to place full planning responsibility on BPA, specific features and services included with future contract products have not yet been designed.

BPA Products and Services

Theme

BPA Response

Is BPA expected to need to make additional capacity purchases to be compliant with the program? How does this expectation change over time? How could this expectation be impacted by customers' decisions on post-2028 contracts?

- At this time, BPA does not see a requirement purchase additional capacity to meet WRAP requirements. Under today's WRAP calculations, BPA has WRAP Qualifying Capacity available to meet expected near term peak load growth under the program's metric. BPA does not forecast load growth of a magnitude that would change our forecast of need under the current BPA RD contracts. However, BPA is closely looking at our loads in the SWEDE section of the WRAP. BPA continues to evaluate and plan for load service in that region due to the limited transmission in the area. It is possible that additional transmission may be needed to meet WRAP requirements as loads grow in that area.
- If BPA decides to join the WRAP, clear evaluation and the expectation of WRAP would be part of product design and implementation in the Provider of Choice conversation for post 2028 contract elections.
- While BPA has significant WRAP capacity surplus under today's calculation, it is well recognized that new customer elections that utilize that full capacity amount for the next contract period would result in a change of position and potentially a need to acquire additional capacity; however, it is important to note that elections at that level would also come with a need for BPA to acquire energy to serve those loads, as BPA is an energy constrained system. Decisions on any energy acquisition will be based on resources and power purchases available to BPA and would impact its QCCs through WRAP.

O/C#: 1

BONNEVILLE POWER ADMI

BPA Products and Services

Theme

How does the development of post-2028 product options impact BPA's participation in the RA program?

BPA Response

If BPA joins the WRAP, BPA will work with customers to understand product design changes or new product options that may be requested. The decision to join WRAP will occur by the end of 2022 while BPA has several more years to develop and design products for post-2028.

Will BPA allow changes to the purchase period election Exhibits of the Regional Dialogue contracts in order to update specified and unspecified resource amount elections, Tier 2 elections, RSS elections, etc.? Are there any other changes to election rights or deadlines anticipated as a result of BPA's participation in the WRAP? Please explain.

- Under Regional Dialogue, which includes power deliveries through FY 2028, the election deadlines are outlined in existing contracts and are not expected to change.
- For Provider of Choice power deliveries starting in FY 2029, there have been no decisions made on these elections. In its Provider of Choice Concept Proposal, BPA did offer a proposal to have a one-time election for Tier 2 elections but looks forward to hearing other proposals and discussing alternatives as part of the policy process.

BPA Products and Services

Theme

BPA Response

- Follow-up on BPA's response to item #20 (conduct business case sensitivities for post-2028 including LF for all preference customers). Customers selecting different power products post-2028 could impact BPA's business case for participating in WRAP. Some assessment of how varying levels of obligation under the program effect BPA's business case for participation should be conducted, possibly including a scenario where assuming BPA is responsible for all preference customer obligation post-2028.
- BPA does have a statutory responsibility to offer contracts when requested to meet customers' net requirements load. There are two important considerations. The first is under Regional Dialogue, BPA offers three products, one full requirements product and two partial requirements products. The design intent of the Block and Slice/Block product were never to meet full net requirements needs of customers.
- Second, BPA's statutes require it to meet net requirements load not planning reserve margin load. BPA has the responsibility for RA planning for Load Following customers because of the product design to have BPA meet those customers' load in any given hour of the year. This is not built into the product design of the Block or Slice/Block products.
- BPA is willing to discuss product redesign for future contracts during the Provider of Choice process and would consider customer proposals.
- WRAP's standard 2 year exit provision would also allow BPA to exit the program if in the future rate design process it was identified that the program was incompatible with the needs of BPA (and its customers), or products be offered at that time.

Q/C#: 69

BPA Products and Services

Theme

BPA Response

Request to elaborate on what new planning requirements, accounting and application(s) are being contemplated for the post-2028 contracts.

Appears to be a conflict in messages between BPA's intent to encourage resource development under Provider of Choice discussions and the policies related to WRAP for unspecified resources. Has BPA considered allowing a specified portion of load to be served with unspecified resources? Any new planning requirements or accounting for resources would be discussed in the Provider of Choice process. The Provider of Choice policy will address some of these requirements from a policy perspective but details will be refined during the contract development and negotiation process. Clarity on requirements, accounting and application should be provided prior to customers signing final contracts in late 2025.

- Under Provider of Choice, BPA remains open to the inclusion of unspecified resources as a resourcing option for customers. BPA recognizes that this is a tool open to customers. However, the Provider of Choice Concept Paper recognized that if BPA decides to join the WRAP, it may need to reassess the resource requirements and costs associated with different resource types for future contracts. This could impact the direction taken for unspecified resources more than other resource types.
- BPA's concept paper also proposed new non-federal flexibility to offset Tier 1 take-or-pay obligation. This option is limited to specified resources built within a customer's service territory. BPA is not considering allowing unspecified resources or resources outside a customer's service territory for this option.

Q/C#: 108, 109

Cost Allocation / Rates

Theme

BPA Response

BPA needs to determine how costs (and benefits) will impact NLSLs prior to making a 3B decision

In the June 13, 2022 presentation, "NLSL and AHWM Unspecified Resources," BPA described the conflicting timing difference between Regional Dialogue contracts (at preschedule) and WRAP participation (7 months in advance of a season) associated with the use of Unspecified Resources. BPA shared solution concept proposals for both NLSL and AHWM Unspecified Resources.

 Presented in today's (Sept 29 2022) presentation on interaction with other BPA Initiatives, BPA continued to expand on those concepts including the design of the credit structure associated with the concepts. These treatments and the associated credit process would be part of standard rate setting and include BPA's rates to be implemented for the binding season elected if BPA decides to join the WRAP.

Cost Allocation / Rates

Theme

Consider rate impacts to BPA's power products

BPA Response

Today's (Sept 29 2022) presentation on interaction with other BPA Initiatives, outlines expectation on BPA treatments of costs and benefits as follows:

- BPA staffing/system costs being applied to the Composite cost pool;
- WPP assessed fees and charges going to the Non-Slice cost pool; and
- other costs/benefits of WRAP participation going to the Non-Slice cost pool.

What is the anticipated rate treatment of program costs/benefits? Does this change if BPA's anticipated position (long vs. short) changes in the program?

Cost Allocation / Rates

Theme	BPA Response
How will BPA recover the costs associated with capacity held out to cover NLSLs?	 In the June 13, 2022 presentation, "NLSL and AHWM Unspecified Resources," BPA described the conflicting timing difference between Regional Dialogue contracts (at preschedule) and WRAP participation (7 months in advance of a season) associated with the use of Unspecified Resources. BPA shared solution concept proposals for both NLSL and AHWM Unspecified Resources.
	• Presented in today's (Sept 29 2022) presentation on interaction with other BPA Initiatives, BPA continued to expand on those concepts including the design of the credit structure associated with the concepts. These treatments and the associated credit process would be part of standard rate setting and include BPA's rates to be implemented for the binding season elected if BPA decides to join the WRAP.
	• See also 87, 88, 97, 105, 106, and 107 for additional specific details

Q/C#: 25

Cost Allocation / Rates – see next slide

Theme

What is the anticipated cost-basis for assessing a charge or penalty for NLSL load that is NOT excluded from BPA's WRAP coverage, but still served with unspecified resources – for example, if documentation for known/existing resources to serve unspecified obligations is NOT submitted? How is the application of a new charge consistent with the RD PSA terms and conditions?

What is the anticipated cost-basis for credits awarded to customers using known/existing resources rather than unspecified resources for serving A-RHWM loads? How is the application of this credit consistent with the RD PSA terms and conditions?

Suggest BPA review rate or cost structures for redundancies if BPA enters binding phase (would UAIs be redundant with penalties BPA may incur for same excess demand) and suggest rates and costs be addressed in BP-24 process.

Cost Allocation / Rates

Updated BPA Response (from July 26, 2022 workshop)

- Load Following customers that meet the WRAP forwards howing qualifying capacity capability (QCC) requirements for non-federal resources reduce the amount of capacity that BPA has to hold to meet RA requirements on behalf of its Load Following customers. This reduction in held back capacity can increase BPA's operational flexibility and net secondary revenues. To encourage customers to submit this forwards howing data and to consider purchasing physical resources for Above-RHWM Load obligations, BPA proposed a credit in its BP-24 settlement terms for customers that meet QCC forwards howing requirements for non-federal resources serving Above-RHWM Load. This credit would only be applicable in FY 2025 if BPA begins participation in the Western Resource Adequacy Program (WRAP) 3B Binding Program and elects a binding summer 2025 season (June 2025 through September 2025).
- Likewise, BPA has proposed that Load Following customers with NLSLs use the WRAP exclusion process if they do not have QCC forward showing information for its non-federal resources serving the NLSL. To encourage Load Following customers with NLSLs to use the exclusion process BPA has proposed a charge in FY 2025 if the customer does not submit to BPA for the summer 2025 season, either: (a) an approved exclusion attestation for the NLSL in accordance with the WRAP; or (b) QCC resource information for any non-federal resources serving the NLSL.
- The proposed BP-24 settlement terms for these resource a dequacy incentives states that new rate language would be included in the 2024 Power Rate Schedules and General Rate Schedule Provisions with applicable billing determinant amounts included in Exhibit D of the customer's Regional Dialogue contracts. The proposed rate is \$2.73/MWh (negative \$2.73/MWh for the credit) and is based on BPA's embedded cost of capacity for 4 months (June through September) spread out over one year.
- Under the WRAP Operations program BPA customers that are obligated to supply power from non-federal resources that fail to be delivered would impact BPA's Net Sharing calculation. Because BPA does not have a method for passing cost associated with this directly to customers, BPA will rely on the applicable Unauthorized Increase charge (UAI) in its power rates to address this problem. While it may be appropriate for the customer to have a UAI penalty and a WRAP penalty based on the specific circumstances, it can be the case that BPA may waive the UAIs when the context justifies it. It may be that if a customer experiences two penalties that seem duplicative and there is no rate impact BPA may consider this in deciding whether to waive a UAI charge. Further BPA may consider UAI language changes if necessary in the BP-26 rate case process.

Cost Allocation / Rates

Theme

Concerned that BPA is requiring customers who signed Regional Dialogue contracts which remain in force until 2028 to discuss and resolve credits/penalties in the BP-24 rate case setting (covering Fiscal Years 2024-25) for services and obligations that were never a part of the contract, but now are "required" due to BPA's potential and entirely elective participation in a voluntary Resource Adequacy program. The disconnect between current contract rates, terms and conditions and the WRAP has not been adequately considered or articulated.

BPA Response

- BPA's authority to participate does not arise from its power sales contract. BPA's authority to participate in the WRAP arises under section 11(b)(6)(i) of the Transmission System Act of 1974, which grants the Administrator authority to acquire power on a short-term basis (5 years and less). WRAP is another tool to be consider to assure the Administrator has an adequate and reliable supply of power to meet his firm contractual obligations.
- BPA will continue to meet its existing contractual obligations. BPA's decisions on WRAP are predicated on a positive business case for the program, which is inclusive of aggregate customer benefits.

Cost Allocation / Rates

Theme

BPA Response

Disconnect between BPA having sufficient QCC on a planning basis, but then asserting a risk of unidentified cost-shifts as the basis for creating and allocating to BPA customers credits and penalties needs far better articulation - including the contractual basis for doing so in the current contract period. Respectfully, there cannot be a "credit" for NLSL WRAP participation without an accompanying cost, and it is reasonable to characterize that cost which will be allocated in BP-24 to some or all of BPA's preference customers as a "penalty".

- WRAP defines load as Total Retail load, as a result if BPA decides to join the program it will be responsible under the program to account for all loads of our LF customers, included NLSL and AHWM unspecified resources.
- BPA recognizes that in holding the responsibility for those loads that are not BPA's responsibility, that it could cause a portion of the Federal System to be used to meet the program requirements. Utilizing the Federal System in this way, would makes that share of the system unusable (for a period of time).
- This utilization of the Federal Resource capacity, places a burden on the Federal system and a lost opportunity. That lost opportunity from the Federal resources directly benefits non-BPA obligation. This potentially shifts costs/benefits between customers from those with NLSLs not served by BPA to all BPA customers and from those utilizing unspecified resources to all BPA customers.
- BPA outlines a solution proposals for each, the NLSL and the AHWM Unspecified resource, in order to
 addresses this cost shift, placing the capacity responsibility (and costs) back on the correct specific customer.
 In order to account for the opportunity costs of capacity, the proposed BP-24 Resource Adequacy incentives
 included in these proposals, are based on BPA's embedded cost of capacity.

Q/C#: 104





QUESTIONS?



Next Steps

- Please submit your feedback @ techforum@bpa.gov by October 13, 2022
- Post draft closeout letter on BPA RA webpage by Mid-October 2022
- Public Meeting #3 will be in late October 2022
- More information on BPA's participation in the Western Resource Adequacy Program can be found on the <u>BPA RA</u> <u>webpage</u>:







APPENDIX



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List of Acronyms

Acronym	Description	Acronym	Description
AHWM	Above High Water Mark	NT	Network Integration Transmission Service
АТС	Available Transfer Capability	OATT	Open Access Transmission Tariff
ВА	Balancing Authority	OPS	Operations
BAA	Balancing Authority Area	РСМ	Preemption and Competition Module
врм	Business Practice Manual	РО	Program Operator
CONE	Cost of New Entry	PRM	Planning Reserve Margin
ELCC	Effective Load Carrying Capability	РТР	Point-to-Point Transmission Service
EIM	Energy Imbalance Market	QCC	Qualifying Capacity Contribution
FERC	Federal Electric Regulatory Commission	RA	Resource Adequacy
FS	Forward Showing	RD	Regional Dialogue
HLH	Heavy Load Hour	RFO	Request for Offer
LLH	Light Load Hour	ROR	Run of River
L&R	Load and Resource	TRL	Total Retail Load
LF	Load Following	тх	Transmission
LOLE	Loss of Load Expectation	UAI	Unauthorized Increase Charge
LRE	Load Responsible Entity	UCAP	Unforced Capacity
LSE	Load Serving Entity	VER	Variable Energy Resource
NLSL	New Large Single Load	WPP	Western Power Pool
NERC	North American Electric Reliability Corporation	WRAP	Western Resource Adequacy Program
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Phase 3A Engagement Summary

- Annual Assessment Data Submittal (Nov 19, 2021)
- BPA & RA Today (Jan 27, 2022)
- BPA Planning with WRAP (<u>Apr 13, 2022</u>)
- Planning Scenarios and Preference Rights (<u>Apr 13, 2022</u>)
- Transmission Overview (June 13, 2022)
- BPA Metrics Review (June 13, 2022)
- NLSL and AHWM Unspecified Resources (<u>June 13, 2022</u> and <u>July 26, 2022</u>)
- Decision Process Plan (July 26, 2022)
- Consideration of Customer Feedback (Standing Item)
- FS Data Submittal Update and Position Estimate (Sept 29, 2022)