



Provider of Choice Workshop: Peak Net Requirements and April Regional Meetings

April 20, 2023

PROVIDER OF CHOICE

**POST
2028**





Today's Workshop

Agenda

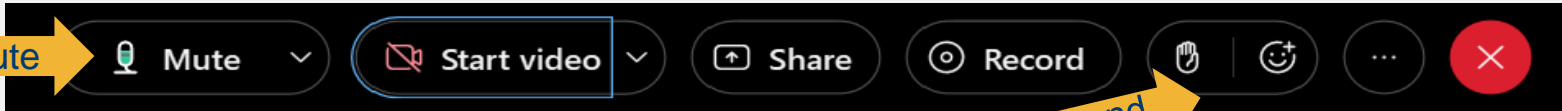
Time Start	Time End	Topic	Presenter(s)
9 am	9:05 am	Welcome, Format, Workshop Expectations	Kelly Olive
9:05 am	11:00 am	Peak Net Requirements	Sarah Burczak, Scott Wilson
B R E A K Est'd @ 10:15 a.m.			
11:00 am	12:00 pm	L U N C H	
12:00 pm	3:30 pm	April Regional Meeting Presentation	Suzanne Cooper, Kim Thompson, Sarah Burczak
B R E A K @ 2:00 p.m.			
3:30 pm	4:00 pm	Roadshow Recap and Wrap up	Suzanne Cooper, Kim Thompson, Sarah Burczak

Format

- Presenters will take pauses for questions.
- Questions will be addressed in the order received.
- Please state your name and organization.
- If a question/opportunity for feedback arises during a presentation, please:
 - Write it in the Webex chat or raise your Webex hand; when called on, mute/unmute yourself.

Webex:

Mute/unmute



Raise hand

Workshop Roles & Expectations

Bonneville: Provide open and inclusive opportunities for feedback.

Participants: Provide feedback and share perspectives.

All: Respect one another and assume good intentions.

Bring a constructive mentality.





Peak Net Requirements

Sarah Burczak, Policy Lead

Scott Wilson, Western Customer Service Manager

BPA Serves Load



- BPA's purpose for offering long-term power contracts is to **serve firm load net of a customer's resource's energy and peaking capability**.
 - BPA determines what is eligible firm load through the **Net Requirements calculation**.
- It is **not within BPA's authority** to sell firm power to enable market participation by a customer under Section 5(b)(1) of the Northwest Power Act.
 - That includes providing replacement energy that could otherwise be served by customers' non-federal resources so that those customer-owned non-federal resources can be used in a market.

Planning Obligations

- **Planning standards are not new**; every entity that takes on meeting its load has a planning obligation today.
 - Every load-responsible entity uses a planning standard but each entity may use a different planning standard.
- A planning obligation, also known as planning reserves, is **not considered a firm load**.
 - Therefore, Net Requirements load **does not include planning obligations**.
- BPA, as a load-responsible entity, holds the appropriate planning obligations in reserves to mitigate risks of load and resource uncertainty and to meet its firm load obligations under a variety of conditions.

How BPA Determines Planning Obligation

The amount of reserves BPA holds is based on the load obligation placed on BPA. This is driven by the product a customer elects for service.

- If a customer elects a **load following product**, BPA assumes the **planning obligation** for meeting loads on an hour-to-hour basis. BPA will then determine how it accounts for planning reserves in order to meet its load obligation.
- If a customer elects a **planned product**, BPA assumes the planning obligation to ensure delivery of a planned amount of power. The **customer assumes the planning obligation** for meeting its hour-to-hour load obligation. Under a planned product, customers retain immense flexibility in how they plan to use their resources and are responsible for ensuring actual loads are served.

Net Requirements in Planning v. Operations

There is only one net requirement methodology; there is no difference between the net requirement methodology used in the planning horizon compared to operational horizon.

	Planning Horizon	Operational Horizon
Load Following	BPA calculates a net requirement. Today, that is mainly used to determine how much load a customer can be served at a Tier 1 rate (or below their CHWM) and Above-RHWM load a customer may have in the upcoming rate period.	BPA will meet the load in any given hour. BPA will confirm resources are being deployed as expected and will charge accordingly for variances. BPA's planning reserves fill the gap between planning and operational horizons
Planned Products (i.e. Block and Slice/Block)	BPA calculates a net requirement to adjust the Block product and Block portion of the Slice/Block products. It also helps to determine the Tier-1 eligible load and Above-RHWM load for the upcoming year.	BPA will deliver the amount of power agreed to in the planning horizon. Customer takes on obligation to meet loads beyond planned power provided. BPA planning reserves ensures planned delivery is met, customer plans for needs between planning and operational horizons

What Has Changed?

- The Western Resource Adequacy Program (WRAP) **introduced a regional planning standard** that is reflected in the Planning Reserve Margin (PRM) established by the program.
- WRAP established a common planning standard, PRM, for those that join the **voluntary** regional program.
 - The WRAP standard may be **more or less stringent** than the previous planning standard each individual utility had been planning to.
- WRAP is intended to ensure load-responsible entities have resources that are adequate to meet their loads, subjecting entities that fail to plan accordingly to penalties.

Request For Separate PNR Process

- Calculating a customer's Net Requirements is a required element of any power sales policy.
- BPA will not create a separate process to determine a methodology to calculate a customer's resource's peaking contribution, aka Peak Net Requirement (PNR) methodology.
- BPA offered focused time on the issue through the PNR Task Force and believes the region is better served by including the topic within the broader Provider of Choice effort in the timeline outlined in the next slide.

PNR Timeline

Provider of Choice Policy Phase

- BPA will define an Energy and Peak Net Requirement in the draft policy.
- BPA believes that defining PNR methodology and implementation at the start of the contract is important because expected electrification load as well as other load obligations placed on BPA could create deficits in the next contract period.

Provider of Choice Contract Development Phase

- BPA will defer implementation discussions until the rates and contract development phase.
- This will allow a more robust conversation of how PNR fits with other product design elements that were not intended for discussion at this stage.

Product Design Considerations

- In addition to exploring PNR implementation, evolving markets and programs need to be considered. Those include:
 - WRAP for which the implementation details and Business Practices are still being developed as the program moves into the binding phase.
 - Day-ahead markets as BPA explores the development of Southwest Power Pool Markets+ as well as the California Independent System Operator's Extended Day-Ahead Market.
- As signaled before, **BPA's intent is to make products compatible with a day-ahead market.** Therefore, it is logical to consider all changes holistically in the next stage of the process.

PRM Product

- Bonneville is open to exploring development of a Planning Reserve Margin product.
- The product would be offered **if there is surplus power available and it would be sold at a rate set to market prices.**
- Additional discussions about the product including what could be offered and how it may be priced would be part of detailed product and rate conversations in the next phase of the process.





Net Requirements Methodology

Net Requirements Methodology Goals

1. **Create a methodology** for Net Requirements that is durable and sustainable.
2. The methodology should **address the diverse types of non-federal resources** (fuel based) used by utilities to account for their different firm energy and peaking capabilities.
3. **Uses standard planning considerations and definitions** that accounts for normal expectations, such a expected loads
4. Net Requirements should be **agnostic of BPA product**.
 - Customer requests/selects from products offered by BPA in contract that best fit their specific needs.
 - Products offered by BPA do not define Net Requirements calculations (energy or peak).

Key Components of Methodology

- Determine non-federal resource power (energy and peak); remaining power needed to serve load can be supplied by BPA.
- Power Metrics
 - Energy is a volume of power over time.
 - Peak is an amount of power at an instant (or over a defined period of time).
 - Energy and peak methodologies look at two distinctively different metrics of power needs, which are related to each other.
- Components recognize risk/uncertainty around forecasted values in methodology.

Energy Net Requirements

Total Retail Load – Dedicated Resources

Energy Net Requirements* includes:

Total Retail Load = 1:2** forecasted energy load on an annual basis

Dedicated Resource = Forecasted firm energy output from dedicated resource on an annual basis (as established in contracts)

* The load eligible for service at PF rates discussed are public utility net requirements less NLSL.

** Expected load under normal weather conditions; 1 in 2 chance of occurring.

Peak Net Requirements

Total Retail Load – Dedicated Resources

Peak Net Requirements* includes:

Total Retail Load = 1:2** forecasted peak hour load on a monthly basis

Dedicated Resource = Peak monthly capability for dedicated resource,
based on adjusted WRAP QCC methodology

* The load eligible for service at PF rates discussed are public utility net requirements less NLSL.

** Expected load under normal weather conditions; 1 in 2 chance of occurring.

PNR Calculation Example (January)

Component	Value
Assumptions	<ul style="list-style-type: none"> a. Total Retail Load Peak = 1,000 MW b. WRAP Qualified Capacity Contribution (QCC)= 100 MW c. Planning Reserve Margin (PRM) = 19% d. Contingency Reserves (CR) BPA carrying = 3%
Dedicated Resource Calculation	<p>WRAP QCC adjusted for Resource Share of PRM and CR served by BPA: = WRAP QCC – (0.5*(PRM – CR))*WRAP QCC = 100 MW – (0.5*(19%-3%))*100 MW = 92 MW</p>

Total Retail Load – Dedicated Resources = Peak Net Requirements

$$1,000 \text{ MW} - 92 \text{ MW} = 908 \text{ MW}$$



April Regional Meeting Presentation

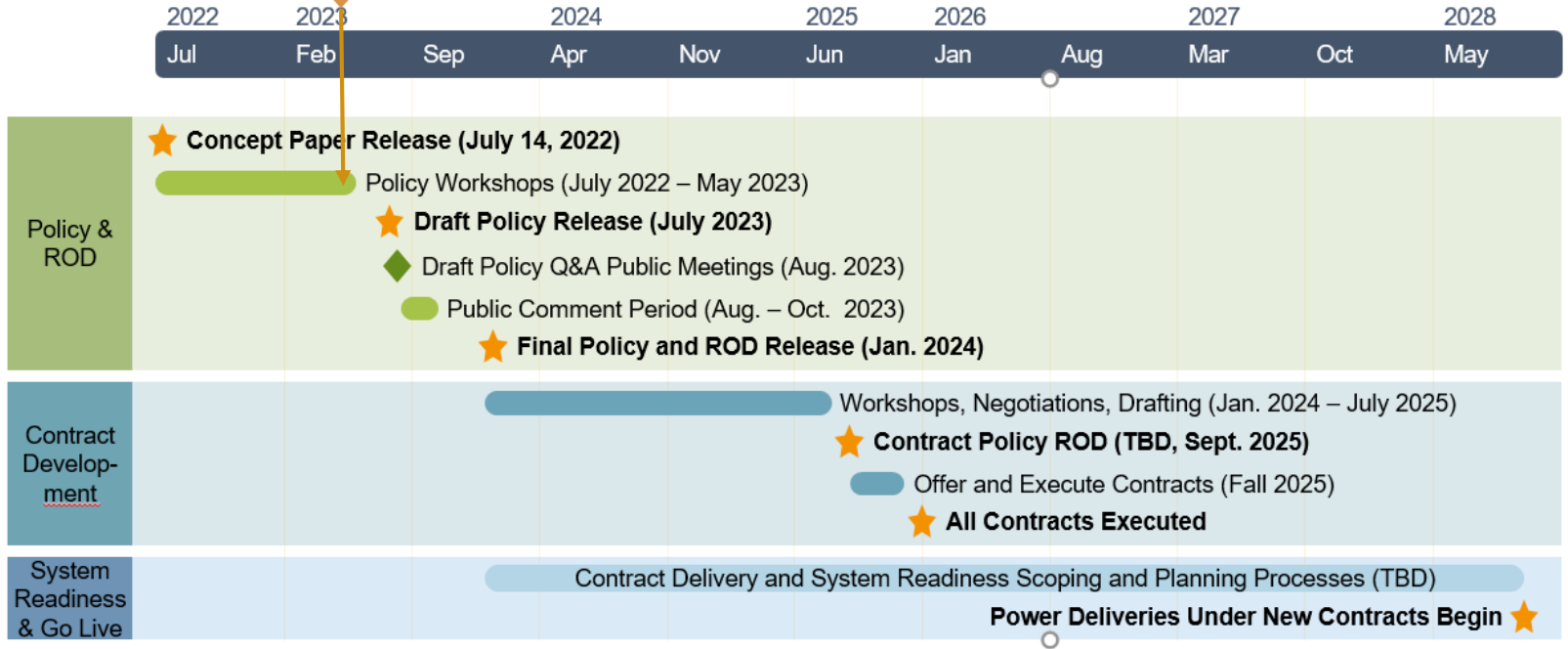


Schedule & Feedback

Mark Your Calendar

Date	Time	Location	Workshop Topics	Post-Workshop Feedback Request Date
May 24	9am – 12 pm	BPA Rates Hearing Room and Webex	<ul style="list-style-type: none">• Executive level summary of Provider of Choice draft policy direction• Updates from April presentations	-

Timeline



Last Updated 12/1/2022

Feedback



- Please share your initial feedback by **April 28**.
- Please send to your Power AE and/or **Post2028@bpa.gov** with a copy to your Power AE.
- Please note that direct responses will not be provided.



Thank You.

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