



Provider of Choice Workshop

December 8, 2022

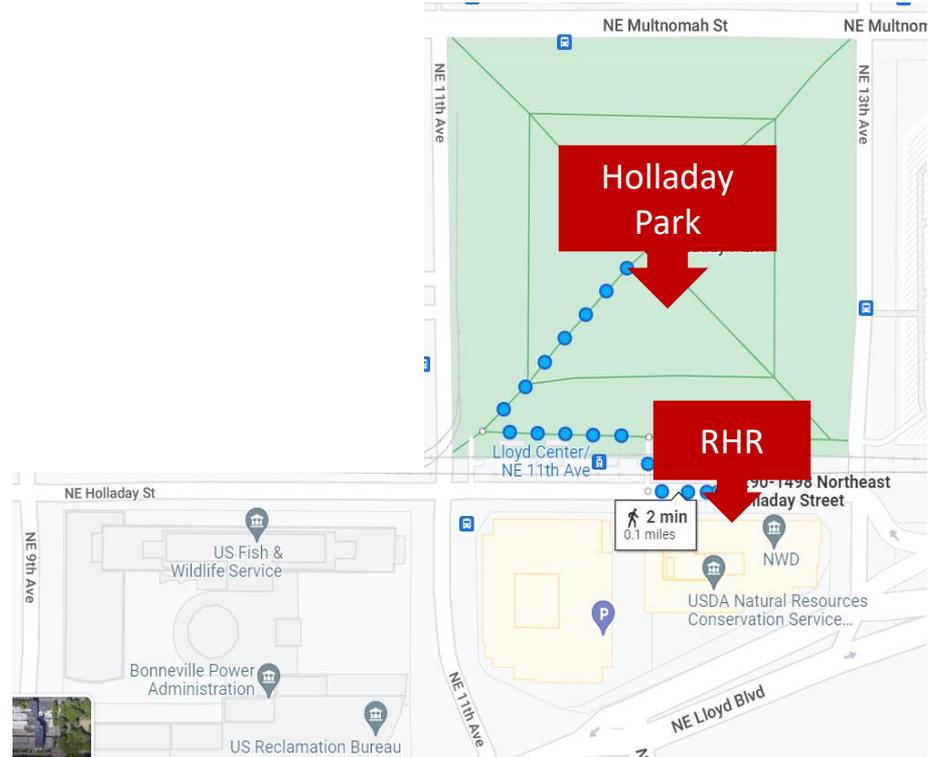
PROVIDER OF CHOICE

**POST
2028**



Safety Moment

- The Rates Hearing Room has two exits.
- In event an alarm sounds, please meet at Holladay Park across the street.



Culture Moment





Today's Workshop

Michelle Lichtenfels, Program Manager

Agenda

Time Start	Time End	Topic	Presenter(s)
9 am	9:05 am	Intro and Expectations	Michelle Lichtenfels
9:05 am	10:45 am	Executive Remarks and Q & A	Suzanne Cooper and Kim Thompson
10:45 am	11:00 am	B R E A K	
11:00 am	12 pm	Firm Power Products Overview	Rob Burr
12 pm	1:30 pm	L U N C H	
1:30 pm	2:30 pm	Proposed Product Updates	Rob Burr
2:30 pm	2:45 pm	B R E A K	
2:45 pm	3:50 pm	Above RHWM	Sarah Burczak
3:50 pm	4 pm	Wrap Up	Michelle Lichtenfels

Format

- Presenters will take pauses for questions; there is scheduled Q & A time.
- Questions will be addressed in the order received.
 - If you are in the room and on Webex, you may raise your hand in Webex or physically raise hand.
- Please state your name and organization.
- If a question/opportunity for feedback arises during a presentation, please:
 - In-person: Raise your hand; when called on, use microphone to speak
 - Webex: Write it in the Webex chat or raise your Webex hand; when called on, mute/unmute yourself.

RHR Microphone:

Press the horizontal button to turn on and off. **RED** icon and **RED** light on mic = **ON**



Webex:

Mute/unmute

Mute

Start video

Share

Record

Hand icon

Smiley icon

More options icon

Close icon

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.



Suzanne Cooper

**Senior Vice President of
Power Services**



Kim Thompson

**Vice President of Northwest
Requirements Marketing**





Question & Answer



BREAK



Firm Power Products Overview

Rob Burr, Policy Specialist

Regional Dialogue Core Products

- Under Regional Dialogue, **Bonneville offers three products** (or purchase obligations, as they are defined in the contracts):
 1. Load Following
 2. Block
 3. Slice/Block
- Three core products provide different options to public power customers to choose from to serve their own load.
- BPA provides service at the Priority Firm Tier 1 rate as well as options to have Above-RHWM Load served at a Tier 2 rate.





Load Following



Load Following Product Overview

- **Serves a customer's net requirement** load on an hourly basis, and meets the customer's peak load.
 - Is a **full-service product** in which customers can elect to rely entirely on Bonneville to meet their **full net requirements needs** (both up to and Above-RHWM Load).
 - Can be a **partial-service product** if customers elect to apply a non-federal resource to serve all or a portion of its Above-RHWM Load.
- Meets customers' energy and capacity needs – **effectively covering full peak requirements.**
- Provides load-following service for metered load less non-federal resources applied to load.

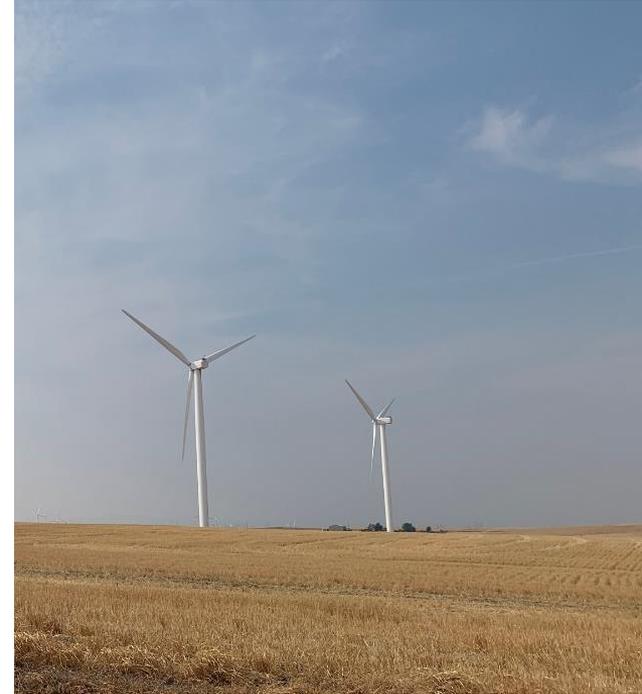
Product Overview (Cont'd)

- Provides firm power service to meet a customer's **actual total retail load** net of the customer's dedicated Section 5(b) resources.
- Bonneville supplies the power needed to meet a customer's net firm power load in **any given hour**.



Customer Resource Treatment

- Dedicated resources can be applied in pre-established amounts, or simply as the resource generates.
- Depending on the size and type of resource, the customer may be required to purchase **Resource Support Services** (RSS) from Bonneville to account for the cost of resource unpredictability and shape.



Provider of Choice Concept Paper

Load Following Product Proposal:

- Bonneville proposes to continue to meet hourly loads net of a customers' dedicated resources.
- BPA proposes to continue meeting resource adequacy requirements under this product.
- BPA is open to finding ways that remove barriers and increase opportunities for Load Following customers to develop generating resources and will explore approaches to equitably address any capacity needs associated with those resources.





Block Product



Block Product Overview

- Provides a predefined amount of power each hour and can be purchased in two different shapes;
- **Flat annual block shape**, which provides the same amount of power every hour in a defined year.
- **Shaped block of power** which is shaped to the customer's forecast net requirement.
 - Shaped blocks of power can vary by month and between heavy and light load hours (HLH and LLH) and are based on the customer's actual FY 2012 net requirements shape.

Block Product Overview (Cont'd)

- Customers must **manage their own resources** and **acquire additional power to meet their loads**.
- **Partial requirement product** designed to **provide more flexibility** and potential opportunity in how **customers manage their loads and resources**.
- Block customers can opt to have Bonneville serve their additional power needs under a Tier 2 product if they elect to do so.

Provider of Choice Concept Paper

Block Product Proposal:

- Bonneville proposes to offer a similar design, serving loads net of a customer's planned dedicated resource capabilities in predefined quantities and shapes.
- Bonneville proposes to offer a **standalone Block product** as well as a **Block product with Shaping Capacity** option.
- Bonneville is exploring modifications that may improve these product offerings and is exploring redesigning the Shaping Capacity option to better meet customer needs.



Block With Shaping Capacity



Block with Shaping Capacity

- Customers who purchased a stand alone block product are given the **option to add Shaping Capacity** to their Block Purchase.
- The shaping option establishes a daily range for each month within which a customer **may reshape the daily HLH energy** amount of its Block purchase.
- Option was contractually added to its **take-or-pay purchase** of power as Bonneville must reserve that capacity to meet a customer's shaping request.
- No customers chose block with shaping product option under RD.

Provider of Choice Concept Paper

The Provider of Choice concept paper outlined:

- A successful redesign of the Block product could provide needed peaking flexibility but without the operational complexity of Slice.
 - Has potential to better meet Block customers' peak net requirements needs.
- Aim is to have a conversation on what product features customers are interested in exploring.
- Any discussion should act as a starting point on what Block product features BPA should consider.



Shaping Capacity and Products

Block

- Customers may choose between two shapes for the Block product:
 1. A Flat Block which delivers an equal amount of power in all hours of the year.
 2. A Shaped Block, which shapes federal power deliveries to the customer's forecasted monthly Net Requirement for a specified year.

Block with shaping capacity

- Customers purchasing the stand-alone Block product have an option to add Shaping Capacity to their Block purchase.

Slice/Block product

- Shaping Capacity is not available for the Block portion of the Slice/Block product.

Block with Shaping Capacity

1. Block with Shaping Capacity only offered as a standalone Block product.

- No shaping capacity is offered under the Slice/Block product, as Slice already includes proportional flexibility of the system.
- BPA would need to explore how product can be designed to serve load.



Block with Shaping Capacity (Cont'd)

2. Shaping capacity could provide a closer alignment to the load following product but still remain a planned product.

- The Shaping Capacity option establishes a daily range for each month within which a customer may reshape the daily HLH energy amount of its Block purchase.
- The product allows customers to change their HLH numbers potentially up to pre schedule when customers have - close to - real time information about what their load will be.

Block with Shaping Capacity (Cont'd)

3. Allow a one-time election to change Block shape.

- Under Regional Dialogue, the shape of the block was locked in for the life of the contract.
- Load shapes may change with expected electrification. Therefore, BPA would consider allowing this shape to be updated at one point during the contract.
- Further discussion is required to understand how implementation would work including whether it would be a one time decision by the customer or a set election window.

Block with Shaping Capacity (Cont'd)

4. The Block product only allows for up to 60 percent of the monthly MWhs to be placed in the HLH period.
- BPA has had requests to explore increasing the 60 percent ratio.
 - BPA could consider changes to the ratio but it will also need to ensure peak amounts are consistent with any established peak net requirements methodology.
 - Would need to define constraints on any additional flexibility provided under this product.

Block Discussion

What should BPA consider for this product option redesign?

What might be missing?



Slice/Block



Slice/Block Overview

- The Slice/Block product provides for the combined sale of **two distinct power products** to meet a customer's planned annual net requirements:
 - The Slice product and the Block product.
- The **Block portion** of Slice/Block is similar to the standalone Block product.
 - Has less flexibility in shape than under the standalone Block product because the Slice portion provides significant shaping flexibility.
- The **Slice portion** of the Slice/Block product is a federal system sale of power that includes firm requirements power, hourly scheduling rights and surplus power.

Slice/Block – Block Portion

- The Block component of the Block/Slice product **provides a specified annual amount of energy equal to a customer's net requirement**, less its Slice amount.
- The **annual amount of Block energy can change as needed** to absorb changes to annual and rate case updates. This allows the Slice percentage to remain unchanged throughout the contract.



Slice/Block – Block Portion (Cont'd)

- The **Block portion** of the product must be equal throughout a month although customers **can opt for a flat annual or flat within-month shape**.
- The annual amount of Block is calculated as the difference between the **customer's planned annual net requirements load and the firm Slice amount** from the Slice product.
- **Partial requirement product** designed to provide more flexibility and potential opportunity in how customers manage their loads and resources.

Slice/Block – Slice Portion

- The customer's Slice output is **calculated based on a percentage of the annual firm portion of the Tier 1 system.** And is a sale of firm power.
- At certain times during the year the **Slice product may deliver more or less power** due to water availability and system operations. So generally, the better the water year, the more energy is available under Slice.

Slice/Block – Slice Portion (Cont'd)

- Slice customers **take on the variability risk as part of the product.**
 - Product is not designed to match a customer's load shape, or necessarily cover their load amounts in any given time frame.
- The Slice product includes **Requirements power and Surplus power** (when available)
 - The Requirements portion must be used to meet a customer's retail load.
 - The surplus portion may be used as the customer chooses.
- Customer is responsible for:
 - Meeting its load on a hourly, daily, monthly, and annual basis.
 - Supplying any amount of power needed to meet its load beyond the Slice/Block purchase.
 - Meeting any deficits and for disposing of any surplus energy.
 - Scheduling all Slice (and Block) energy to its ultimate destination.

What Slice Is Not

The Slice/Block product is not a sale of operational rights, Tier 1 system resources, resource capability, or transfer of control of any federal resources.

Federal operating agencies **retain all operational control of all resources** that comprise the FCRPS at all times.



Provider of Choice Concept Paper

Slice/Block Proposal:

- Included a peak net requirements calculation for the Slice/Block product in Provider of Choice contracts.
 - Calculate monthly peak net requirements: peak load that exceeds the firm peaking capability of a customer's resources.
 - In months where a customer receives excess firm capacity, flexibility of the Slice could be limited and BPA would have the right to reduce the excess firm capacity to serve other requirements loads – down to the customer's peak net requirement level.
 - Bonneville will explore rate design considering these product changes.
- Review RSO test and explore approaches that might streamline implementation.

A scenic view of a mountain stream flowing through a dense forest of evergreen trees. The stream is surrounded by large, smooth rocks in the foreground and middle ground. The background features rolling mountains under a blue sky with light clouds. The word "LUNCH" is overlaid in large, white, sans-serif capital letters in the center of the image.

LUNCH



Proposed Product Updates

Rob Burr, Policy Specialist

Product Changes - Post 2028

When considering product design changes - Bonneville must carefully consider improvements that fit the context of today, expectations for the future, and that account for lessons learned during Regional Dialogue.

Principle

- Contracts provide long-term supply of electric power **through standardized products and services** and transparent processes.

Product Changes - Post 2028

Market Initiatives

- Concept paper stated that, “Bonneville has not factored in future market participation in the design of products and services, since such markets have not yet been developed”
- Bonneville may engage in full participation of day ahead markets SPPs Markets+ and CAISO – EDAM
 - Will have an impact on product design offered by Bonneville.
 - Slice/Block product.
 - Block with Shaping Capacity.

Peak Net Requirements

- Bonneville was capacity rich going into Regional Dialogue but that may not be the case going forward. **Bonneville is working collaboratively with customers to develop a peak net requirement metric to address this statutory requirement.**
- PNR requirement is dormant in current contracts.
- Implementation of a peak net requirement would need to be applied across all Bonneville's product offerings.
- PNR Task Force established to design a metric to measure capacity.
 - Proposed methodology will be presented at a future workshop.

Carbon

BPA recognizes the importance to its customers and constituents of the carbon content of the power BPA sells. Per the Provider of Choice Concept Paper, BPA proposes to:

- Convey the environmental attributes, including carbon content and RECs, to public power customers that are served with firm requirements power at a specific Tier 2 rate.
- Convey RECs commensurate with the actual MWhs purchased from BPA. This provides a direct correlation between power purchased from BPA and RECs.
- Our intent is to discuss carbon early in calendar year 2023.
- See workshop materials from Oct. 26 for more detail.



BREAK



Above-RHWM Load Service

Sarah Burczak, Policy Lead

Above-RHWM Service

- One of the foundational principles of tiered rates under the Regional Dialogue contracts was that customers had the choice of how to meet future load growth and were insulated from the costs of other customer choices.
 - This preserved the value of the federal base system to Tier 1 rates.
- Under the tiered rate construct, a customer's firm net requirement power load is split into load below a customer's RHWM and Above-RHWM load.
 - Power sold to supply a customer's load that is at or below its RHWM is subject to the PF Tier 1 rate.
 - Load that is above its RHWM is served with power priced at an applicable Tier 2 rate or through non-federal resources.
- Tier 1 and Tier 2 costs are kept separate and distinct.
- Tier 2 cost pools are also kept separate from each other.

Election Periods Above-RHWM

Under Regional Dialogue customers had four options for serving Above-RHWM load:

1. Non-Federal Resource (Specified or Unspecified).
2. BPA *Flat Block* Purchase at a Tier 2 rate.
3. Combination of the two above.
4. The Load Shaping rate for Above-RHWM load below 1 aMW.

Above-RHWM Load Election Dates

Notice Deadline		Purchase Period
November 1, 2009	for	FY 2012 – FY 2014
September 30, 2011	for	FY 2015 – FY 2019
September 30, 2016	for	FY 2020 – FY 2024
September 30, 2021	for	FY 2025 – FY 2028

Tier 2 Rates - Above RHWM Service

- Under Regional Dialogue, three rate options were designed for customers who chose not to develop their own resources for some or all of their Above-RHWM load (Tier 2 rate options.)
 1. Load Growth Rate.
 2. Short Term Rate.
 3. Vintage Rate.
- Rate options were designed at rates reflecting BPA's marginal cost of acquiring the additional power - Tier 2-priced power.
- BPA did not include costs of Tier 2 power priced in Tier 1 rates.

1. Load Growth Rate

- Available to Load Following customers who elected to have BPA as the primary service provider for a majority of its load service.
- Purchase commitment for the duration of the contract.
- BPA managed resource acquisitions, to meet Above-RHWM load of customers, in this cost pool, and melded the costs of these resource acquisitions into the cost pool over time.

2. Short-Term Rate

- Available to all customers taking a core product and with Above-RHWM load amounts not being met with another Tier 2 rate alternative, or being supplied by non-Federal resources.
- All applicable costs of power from resources and purchases were allocated to this rate pool.

3. Vintage Rate

- Available to all customers purchasing power under the Tier 2 Short-Term rate.
- Designed for customers who require more information about the price and source of resource types, such as renewables.
- Customers signed a Statement of Intent (SOI) committing them to purchase under the Tier 2 Vintage rate for a specified term.
- SOI parameters included.
 - (a) Purchase duration; (b) Type of resource(s); (c) Range of initial costs and cost cap of raw resource output; (d) Minimum quantity of interest necessary.
- BPA acquired the resource amounts committed by customers only if BPA can meet the conditions stated in the SOI.

Provider of Choice Concept Paper

Bonneville proposed **two options** for Above-RHWM load service during the Provider of Choice contract term:

1. Federal Above-RHWM service
2. Non-federal Above-RHWM service

Propose customers make a one-time election for either of these services prior to the Provider of Choice contract term.



Above RHWB Service Considerations

- Concept paper outlined a need for **prudent utility planning** to ensure that **Bonneville fully understands its load obligations.**
- Any notice period for **switching to another Tier 2 rate** or **applying a non-federal resource** needs to be sufficient to ensure that new resources can be acquired if necessary.
- Commitments also need to allow BPA lead time to **efficiently acquire cost-effective resources.**
- Under Regional Dialogue, it was estimated that the 3-year notice and 5-year commitment are the **minimum needed to make development of new resources by customers or BPA feasible.**
 - When new contracts are signed BPA has to have full visibility on how customer loads are being met.

Federal Above-RHWM Service

Federal Above-RHWM Service:

- Customers would elect to have Bonneville serve Above-RHWM loads with firm requirements power sold at a Tier 2 rate.

Benefits:

- A one-time election for this service would allow BPA to better plan.
- This could include looking at cost-effective, carbon-free options if resource acquisition is required.
- A larger, robust election for Above-RHWM product could provide better rate stability for power purchased at the Tier 2 rate.

Non-federal Above-RHWM Service

Non-federal Above-RHWM Service:

- Customers would elect to serve Above-RHWM loads with non-federal resources and be responsible for managing their own load growth.
- Limited option to request service for a defined amount of power at the Tier 2 rate from Bonneville prior to each rate period subject to possible limits based on resource availability. Option would be limited by resource, cost and carbon content available.

Benefits

- Allows for limited opportunity to purchase power from BPA if non-federal development takes longer to plan.

Risks

- There may not be firm power from the federal system or the market available to offer a backstop option. Customer would be taking on more risk for power service.

Questions

What type of flexibility are customers looking for in election periods?

Considerations:

- Long-term position v. ability to choose options on a more frequent basis.
- Short-term elections could lead to exposure of both market price and carbon content of market purchases.

What type of Above-RHWM offerings are customers looking for?

Considerations:

- Carbon free product offering.
- One option to maximize portfolio approach v. multiple offerings with different tracking?



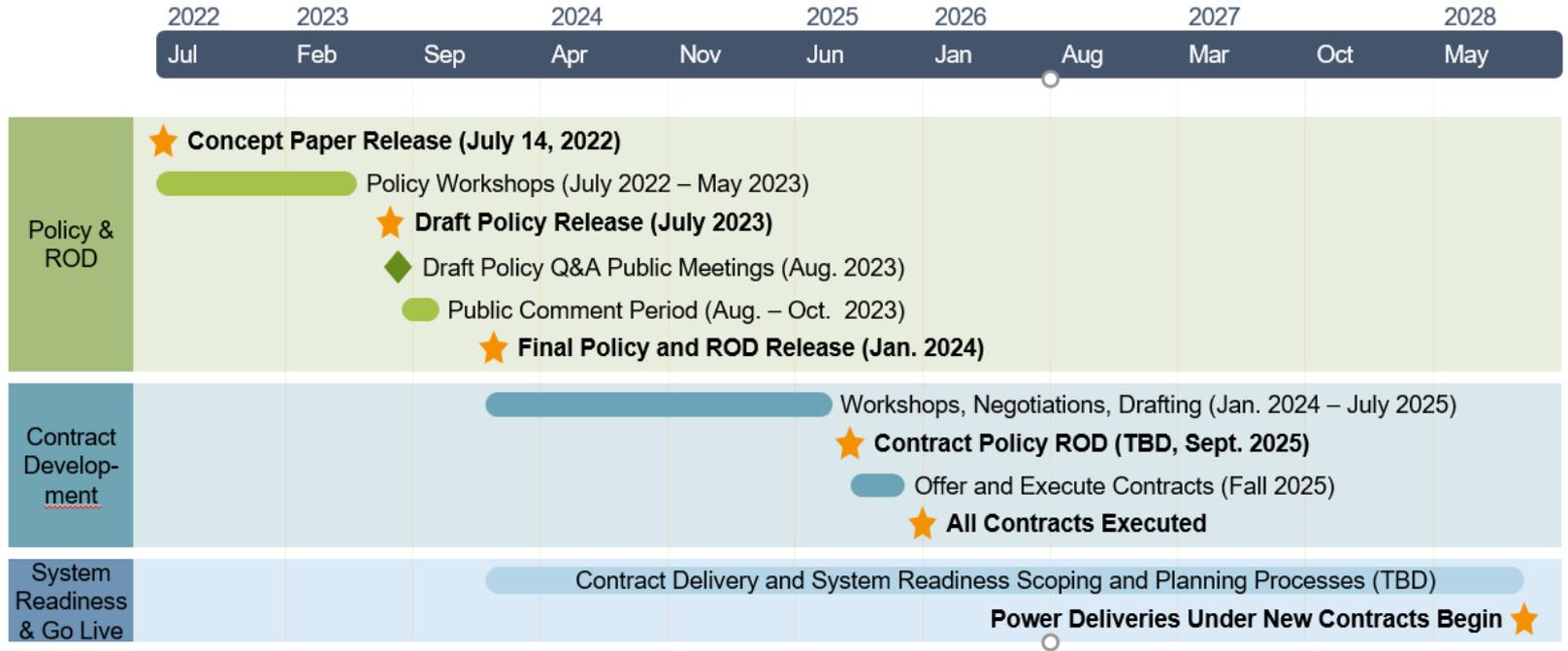
Schedule & Feedback

Michelle Lichtenfels, Program Manager

Schedule Update

- Moving draft policy release from late spring 2023 to late **July 2023**.
 - **Increased** number of workshops prior to draft policy.
- Following draft policy release, BPA will hold a small number of regional workshops to **promote understanding of draft policy** and answer questions.
 - There will be one comprehensive presentation on the draft policy in **late July**.
 - Subsequent regional meetings will provide Q&A opportunities.
- **Public comment period** will be 60 days.
 - Mid-August to Mid-October 2023

Schedule Update



Last Updated 12/1/2022

Detailed Policy Workshop Schedule

- **Two workshops per month**
 - First workshop of each month will be held via Webex
 - Second workshop of each month will be in-person with Webex option (hybrid); 1 or 1.5 days.
- **April** workshop locations TBD; four sessions focused on sharing an early draft policy framework.
- **May** workshops will focus addressing what was heard in April.
- There will be **July** and **August** workshops focused on the Draft Policy.



Mark Your Calendar

Date	Time	Topics	Objective
Dec. 14, 2022	9 am – 3 pm	<ul style="list-style-type: none">• LDD, IRD, NLSL, and Transfer• Customer Presentations	“Phase 1” overviews

BPA Event Calendar: <https://www.bpa.gov/learn-and-participate/public-involvement-decisions/event-calendar>

Feedback



Informal comments accepted and feedback requested:

- Share feedback by **December 22** with your Power AE and/or **Post2028@bpa.gov** with a copy to your Power AE.
- Please note that direct responses will not be provided.
- Send customer requests to present to **Post2028@bpa.gov**.



Thank You.

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