

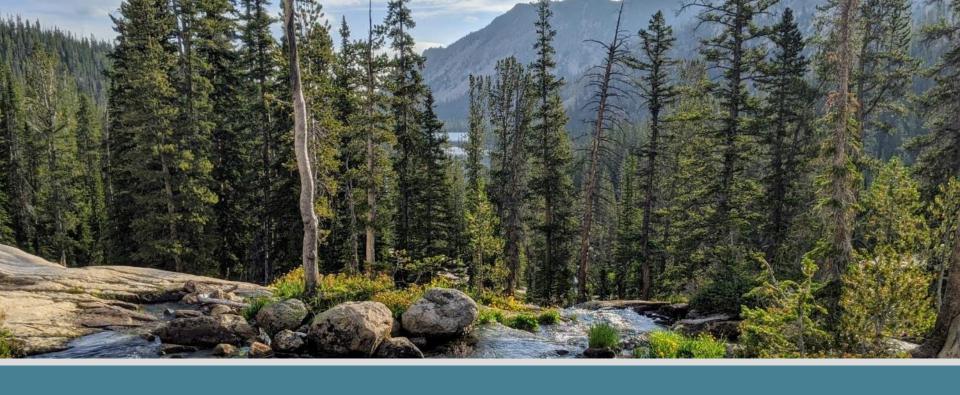
Provider of Choice Workshop:

Non-federal Minimum Threshold, Carbon, and a Look
Ahead

January 19, 2023







Today's Workshop

Michelle Lichtenfels, Program Manager, Provider of Choice

Agenda

Time Start	Time End	Topic	Presenter(s)	
9 am	9:05 am	Intro and Expectations	Michelle Lichtenfels	
9:05 am	9:45 am	Non federal Minimum Threshold	Lindsay Bleifuss and Mark Tucker	
9:45 am	10:00 am	BREAK		
10: 00 am	11:30 am	Carbon Reallocation Concept Direction	Alisa Kaseweter	
11:30 am	1 pm	LUNCH		
1 pm	2 pm	Reflections on Dec 14 Customer Presentations	Michelle Lichtenfels; all	
2 pm	2:45 pm	January 24-25 Workshop Plan	Sarah Burczak	
2:45 pm	3 pm	Wrap-up and Future Workshop Dates	Michelle Lichtenfels	

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:
 - Webex: Write it in the Webex chat or raise your Webex hand; when called on, mute/unmute yourself.



Workshop Roles & Expectations

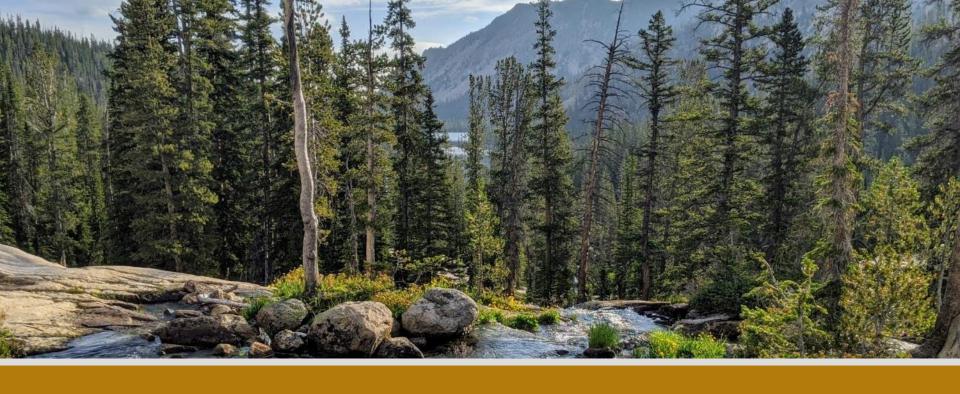
Bonneville: Provide open and inclusive opportunities for feedback.

Participants: Provide feedback and share perspectives.

All: Respect one another and assume good intentions.

Bring a constructive mentality.





Non-federal Resource Minimum Threshold

Mark Tucker, Supervisory Public Utilities Specialist Lindsay Bleifuss, Power Account Executive

Non-federal Resource Minimum Threshold

- The Regional Dialogue contract requires all* resources greater than 200 kW nameplate to be listed in Exhibit A of the contract.
 - They must be metered, with data accessible to BPA.
 - This allows enforcement of the 'Take-or-Pay' provision.
 - BPA Power believed 200 kW was the minimum threshold to provide BPA resource visibility and certainty for serving customer loads.
- Currently, the power sales and transmission contracts have similar size thresholds for resources to be included in the contracts.





*This refers to all resources within a customer's distribution territory that are either owned by the customer or a consumer, and/or contract resources of which the customer purchases the output. 'Merchant' resources developed solely for sale to unrelated entities are metered, but not listed in a customer's Exhibit A, even when physically connected to the customer's distribution system.

Context

- Under Regional Dialogue contracts, a customer must designate in Exhibit A any customer or (retail) consumer-owned resource in excess of 200 kilowatt nameplate.
- Over the past several years, customers have expressed concern that this threshold is too low, and is a disincentive to adding a small resource.
- Customers have requested additional flexibility to add new resources in the next contract period, including increasing the 200 kW threshold.



Provider of Choice Concept Paper

BPA **committed to analyzing** an increase to the non federal resource threshold from 200kW to 1MW nameplate.

- Customers have requested additional flexibility to add new resources in the next contract period.
- Concept Paper proposed analyzing raising Power threshold from 200kW to 1 MW for metering and inclusion in Power Sales contracts.

January 2023: Concept Update

Bonneville has analyzed the feasibility of raising both the **Power Services** and **Transmission Services** minimum thresholds from 200 kilowatt (kW) to 1 MW.

After careful consideration, BPA plans to raise the Power Services minimum threshold in the Provider of Choice Draft Policy:

Power Services:

Will raise the minimum threshold to 1 MW.

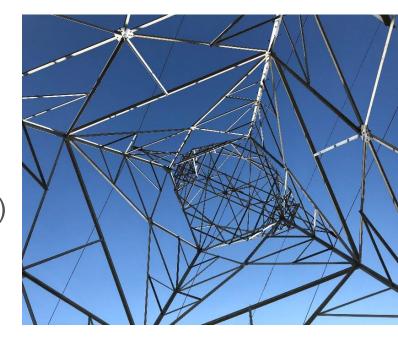
Transmission Services:

Will retain a threshold of 200 kilowatt (kW).

Transmission Services Considerations

What are the reasons Transmission will retain a lower threshold of 200Kw?

- Technical and operational issues that can arise from increasing numbers of Distributed Energy Resources (DERs)
- Transmission requires meter data for various purposes
- Additional considerations



1. Operational Challenges

DER Penetration:

- Numerous studies, including one from WECC, and NERC outage investigations have looked at challenges that DERs, including DERs on distribution systems, can pose to high-voltage transmission and made recommendations.
- Generally, the studies recommend increased visibility of these resources for reliability, in order to balance frequency and voltage, and to ensure adequate reserves.
- Current FERC NOPR on Inverter Based Resources (RM-22-12-000) directs NERC to develop reliability standards for Inverter Based Resources, including distribution-connected DERs.
- This is a growing concern for BPA, and increasing the Transmission metering threshold would be a move in the opposite direction.

2. Transmission Meter Data Uses

- Calculating bills for Network Transmission (NT) customers:
 - Behind the meter resources are added to customer load at the time of monthly system peak to calculate NT bills, per FERC Order 888
- Providing Control Area Services, such as balancing reserves, for resources in BPA's Balancing Authority Area, as required by NERC standards:
 - These are calculated using meter data.
- Balancing voltage and frequency within the Balancing Authority area:
 - Visibility to all generating resources is beneficial
- Evaluating and validating load forecasts and planning studies



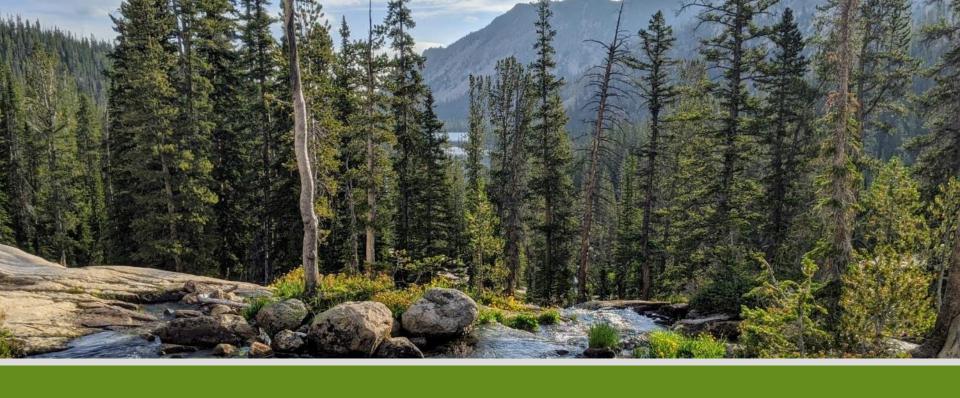
3. Additional Considerations

- In addition to regulators, industry groups including NATF, NAESB and IEEE are studying this issue. Additional recommendations and standards are expected.
- Improvements in time and cost required to install a transmission meter.
 - BPA requires a Generation Interconnection or Integration request for all resources interconnecting to or operating within our BAA 200kW and greater.
 - BPA has made improvements since 2017 to reduce time and cost to customers
 - · Customers can purchase, install, maintain own meters to BPA standards
 - BPA time to complete interconnection process for small resources is typically short, usually no studies required
 - · Additional requirements apply to resources greater than 3MW and for power marketing
 - BPA does not require a separate meter, can call into customer meter that meets BPA standards.

Transmission Threshold Summary

- The 200kW threshold is appropriate given the significant risks associated with raising the threshold and recent studies and guidance from regulators.
- If standards are developed by FERC, NERC or WECC, as expected, BPA will comply.
- Improvements to interconnection process for generators under 3MW have enabled BPA to meet customer schedules.
- Note: BPA will seek to minimize implementation challenges that arise as a result of the differing thresholds.





Carbon Reallocation Concept Direction

Alisa Kaseweter, Climate Change Specialist

Carbon Focus Areas

BPA recognizes the importance to its customers and constituents of the carbon content of the power BPA sells.

Areas BPA is focused on:

- Continued accurate and transparent accounting of fuel mix and GHG emissions.
- Supporting customers by considering cost-effective opportunities to achieve an even cleaner federal system.
- Conveying attributes (RECs, emissions) consistent with power purchases and rate elections.



Carbon Focus (Cont'd)

As proposed in the Concept paper, BPA intends to:

- Convey RECs commensurate with the actual MWhs purchased from BPA. This provides a direct correlation between power purchased from BPA and RECs.
 - The allocation would be an application of BPA's Tier 1 fuel mix and federal resources that created RECs to Tier 1 MWhs purchased.
- Convey RECs and emission attributes to customers electing 1) Tier 2 rate and 2) the NR rate per customer election to purchase power at that particular rate.
 - These attributes would be accounted for separately from accounting for attributes of power sold at Tier 1 rate.





Carbon and Contract Length



Feedback Requested - Contract Length

- In the Provider of Choice Concept Paper, BPA proposed 20 year contracts that would expire in 2045.
- BPA acknowledges that CETA's 100% clean standard requirements that goes into effect January 1, 2045 may be a driver for contract length.
 - Does a 19 year term ending September 30, 2044 allow subsequent contracts to better address future needs?
- BPA requests feedback on contract length related to customer ability to meet carbon objectives.





Carbon Reallocation Concept



Customer Reallocation Concept Overview

Customers requested that BPA administer a **reallocation of RECs** from the base allocation discussed on the previous slide.

The intent of this concept is to have BPA reallocate RECs (from the federal system) between customers that opt to receive and pay for the RECs, and other customers that would relinquish RECs in exchange for the payment.

- In theory, this would be considered a "single transaction" under CETA and thus the reallocated RECs would be bundled with the underlying power.
- BPA understands a major motivation for this reallocation is Washington utilities' belief this enables them to claim they are using 100% renewable and nonemitting power under CETA. Thus, those utilities believe they would no longer have renewable procurement requirements under Washington's I-937.

Customer Reallocation Concept- Overview

- The concept assumes that other customers presumably those without state GHG reduction requirements or local interest –would be willing to relinquish some or all of their base allocation of RECs in exchange for a credit on their power bill or credit back to a rate pool.
- Customers would express interest in obtaining or relinquishing RECs in a pre-defined election period. Actual base allocation and reallocation of RECs would be done by BPA after the end of a given calendar year.

Reallocation Example

During a predefined election period:

Customer A

 Washington customer elects to receive and pay a premium for up to 10,000 additional RECs from the federal system.

Customer B

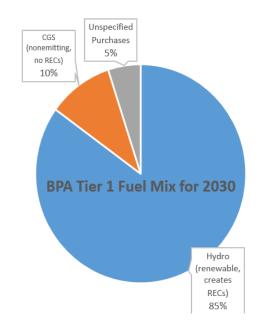
 Washington customer elects to receive and pay a premium for up to 20,000 additional RECs from the federal system.

Customer C

 Idaho customer elects to relinquish up to all of its allocation of RECs from the federal system in exchange for a credit on its power bill.

Reallocation Example (Cont'd)

	Customer A	Customer B	Customer C
MWhs purchased from BPA in 2030	100,000 MWh	200,000 MWh	35,295 MWh
Base REC allocation	85,000 RECs	170,000 RECs	30,000 RECs
RECs reallocated to/from customer	10,000 RECs	20,000 RECs	- 30,000 RECs
Final REC allocation	95,000 RECs	190,000 RECs	0 RECs
Potential state compliance result	CETA: Customer A can retire enough RECs to claim use of 100% renewable and nonemitting power for the year.	CETA: Customer B can retire enough RECs to claim use of 100% renewable and non- emitting power for the year	N/A. Customer C has no state GHG reporting or compliance obligation.





Reallocation Example Analysis

This concept does not equate to BPA delivering 100% carbon-free power to customers that opt to receive additional RECs.

- BPA sells power produced from a system of federal and nonfederal resources. The system is not likely to be 100% carbon-free by 2030.
 - This is not currently feasible as markets and accounting practices do not enable entirely carbon-free purchases to occur efficiently and cost-effectively.

This concept has limited use. It can potentially enable WA utilities to meet CETA compliance obligations and could be used for local utility goals.

 It does not necessarily equate to claims on renewable and nonemitting power under other GHG reduction or clean energy programs. For example, it could not be utilized for cap-and-trade/invest compliance, which is strictly a fuel type accounting.

BPA-Identified Considerations

BPA has assessed this concept from a variety of angles:

- 1. **REC availability**: Would there be enough RECs available from customers willing to relinquish them in order to meet the demand for those RECs?
- 2. **Consistency with objectives**: Is it consistent with the Prov. of Choice goal that the "contracts support customers meeting national and regional objectives?"
- 3. **CETA requirements**: Would the concept meet Washington CETA requirements?
- 4. Regional efforts: Does this support broader regional efforts to reduce GHG emissions?
- 5. **Durability**: Is the concept durable over the duration of the Prov. of Choice contracts?
- 6. Administrative impact: What is the anticipated administrative impact?
- 7. **Legal**: What are the legal considerations?
- 8. **Other**: What are the other foreseeable implications, such as alignment with Administration's effort on carbon reduction?



1. REC Availability

1. Would there be enough RECs available from customers willing to relinquish them in order to meet demand for those RECs?

- In a relatively normal water year there would be enough RECs to reallocate to WA customers to enable all WA customers to claim use of 100% renewable and nonemitting power under CETA.
 - Assumes nearly all ID and MT customers are willing to relinquish all of their RECs.
- Several reasons why there may be not enough RECs available:
 - Low water year. Less hydro generation = less RECs created + more market purchases = more RECs needed.
 - Not all non-WA customers will be willing to relinquish RECs.
 - Local interests in RECs.
 - New state or national requirements.
 - Perceived better value for the RECs in other markets.

2. Consistency With Objectives

2. Is it consistent with the Provider of Choice goal that the "contracts support customers meeting national and regional objectives?"

- There are different pathways for complying with CETA, and BPA can support customers in complying with CETA whether or not BPA does this reallocation.
 - Under certain assumptions, reallocation could enable some/all WA customers to claim they are using 100% renewable and nonemitting resources for CETA starting in 2030.
 - BPA and the FCRPS can provide mitigation options. Washington customers can acquire RECs directly from other utilities to be used for mitigation for CETA. Customers can still sell RECs amongst themselves.
 - BPA will consider acquiring cost-effective carbon-free resources, which will help support customers in meeting a variety of state programs aimed at reducing GHG emissions, including CETA.

3. CETA Requirements

3. Would the concept meet Washington CETA requirements?

- Preliminary indications: Washington Department of Commerce (at the staff level) informally indicated to BPA that the concept, as currently understood, could work with CETA.
- There is risk it would not end up meeting CETA requirements
 - Commerce could adjust its conclusion following final concept review;
 - CETA could be amended or rules changed; and/or
 - Washington state auditors, who are responsible for verification that CETA is being met, could audit utilities and review BPA's records and determine the concept is inconsistent with CETA.

4. Regional Efforts

4. Does this support broader regional efforts to reduce GHG emissions?

- This concept does not result in decarbonization or reductions in GHG emissions as there would be no difference in BPA resources supplying the power receiving reallocated RECs.
- This concept is tailored to a specific compliance option for one state program. As such, it does not support broader regional efforts.
- This concept could reduce non-emitting resource development by eliminating I-937 obligations of benefitting utilities.

5. Administrative Impact

5. What is the anticipated administrative impact?

- Likely a high workload with aspects that would be controversial amongst customers. BPA foresees that it would need to:
 - Manage election periods and administer a complex system for reallocating RECs.
 - Determine what the "premium" will be for RECs and set rates accordingly.
 - Conduct a base allocation and then reallocation of RECs.
 - Become a middle man for resolving concerns under CETA (e.g., respond to audits, resolve questions about disposition of underlying power and double counting under CETA).

6. Durability

6. Is this concept durable over the duration of the contracts?

- This concept is largely tailored towards compliance for a single state program.
- Changes in CETA could result in reallocated RECs not being able to be used for CETA compliance and thus not achieving the intended results.
- REC supply could be insufficient over time due to new local, state or national mandates and/or utility and community priorities.

7. Legal

7. Legal considerations

- Bonneville's federal statutory marketing program does not include within its scope the authority to implement a "reallocation" mechanism.
- BPA does not have authority to solve customers' CETA requirements through deeming that one customer gets another customers RECs and moving payment from one customer to another. If customers want to buy/sell RECs between each other, after they have received those RECs with their power from BPA, then they are free to do so.

8. Other

8. Other potential implications

- Other utility interest in RECs:
 - Unbundled RECs will be valuable to WA IOUs and other public utilities for mitigation use under CETA or other compliance programs. Utilities receiving RECs as part of their Tier 1 purchase may value the flexibility and optionality of leveraging those RECs to serve other's needs.

– BPA's effectiveness:

 Could negatively impact BPA's credibility as a provider of thorough and transparent fuel mix and emissions data. This could have downstream implications for BPA's ability to effectively advocate for program rules that fairly treat BPA and the FCRPS.

January 2023: Concept Update

- BPA will not further consider the reallocation concept or include it in the Provider of Choice Draft Policy.
- Options remain for customers to obtain RECs from the federal system (beyond their base allocation) to meet CETA requirements and local goals.
 - Customers may make individual arrangements to transfer RECs amongst each other or sell RECs to other utilities.
 - These RECs can be used for CETA mitigation.

Conclusions

BPA will support customers in meeting their state GHG emission reduction and clean energy standards in a variety of other ways:

- Continued accurate and transparent accounting of fuel mix and GHG emissions.
- Conveying attributes (RECs, emissions) consistent with power purchases and rate elections.
- Considering cost-effective opportunities to achieve an even cleaner federal system.







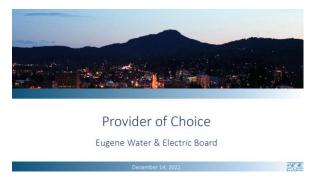
Reflections on Dec. 14 Workshop Customer Presentations

Dec 14 Customer Presentations

At the Dec.14 workshop we heard three presentations from customers:

- Puget Sound Utilities: Seattle City Light, Tacoma Public Utilities, and Snohomish PUD
- Eugene Water and Electric Board
- AHWM Group









Puget Sound Utilities – Interests

- A Balanced Approach to System Size and Allocation.
- Tiered Rates and marginal costs Send proper price signals.
- Non-Federal Resource development tools.
- Interest in Building off WPAG's No Worse Off Framework's thoughtful framing of what equity means for three groups:
 - Growing, Flat, Conserving.



EWEB – Interests

- System size and allocation decisions should support broader policy goals.
- EWEB is a flat utility but recognizes that all utility perspectives are valid.
- Support for WPAG's proposal or similar. Acts as a starting point for a balanced solution.
- Create a solution where the majority of flat or declining utilities are served with Tier 1 day one of the next contract.



Provider of Choice

Eugene Water & Electric Board

December 14, 2022

W.E

AHWM Group – Interests

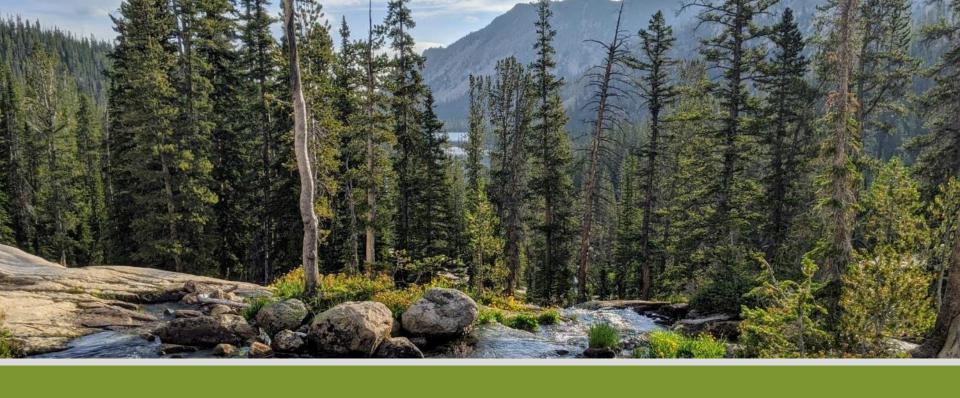
- Tier 1 augmentation to minimize AHWM exposure at start of contract.
- Resource acquisition strategy discussions.
- Nonfederal resource integration terms and costs.
- Opportunity to leverage federal funding for resource development.
- Tier 1 that aligns with statute and reflects interests of all types of customers.
- Cost-based pricing for Tier 2.
- Tier 2 offering that provides flexibility and certainty.

ABOVE HIGH-WATER MARK POST-2028 CONSDIERATIONS

December 14, 2022

Chris Allen – Northern Wasco County PUD Blake Weathers – Umatilla Electric Cooperative rin Erben – Pacific Northwest Generating Cooperative





January 24-25 Workshop Plan

Sarah Burczak, Policy Lead for Provider of Choice

Workshop Shift

- Reset conversations to focus on policy design and policy intent.
- Consider proposals in packages that build.
 - Adding compatible elements into the stack rather than focusing on individual elements.
- Drive towards a Draft Policy in July 2023.
 - Substantive policy discussions must be complete by late April/ early May.

Major Intent Questions to Resolve

In what
ways
should the
Tiered Rate
construct
be
modified?

What intent would support augmenting the Tier 1 system size versus maintaining it at the firm capabilities of the FCRPS?

How should actions driven by Regional Dialogue policy be valued in future contracts, particularly when looking at CHWMs?

Process to Date

- Bonneville appreciates all of the workshop participation, written comments and customer proposals that have been shared to-date.
- We have been listening, processing, and analyzing.
- We understand there is still significant differences on key issues of system size and CHWMs as well as little time dedicated to other issues like transfer.

We are intending for a shift in the policy approach to reset conversations and drive towards a compromise proposal.

January 24-25 Workshop Plan

- Discuss policy package starting with foundational policy elements.
- Focus on design intent and purpose of package.
 - Tie back to goals and principles.
 - Ensure common alignment on what future policy should achieve.

Foundational Policy Elements

Rate Construct

 Assuming tiered rates will continue with some modifications.

CHWM Calculation

- Components of the calculation.
- Why decisions fit within design construct.

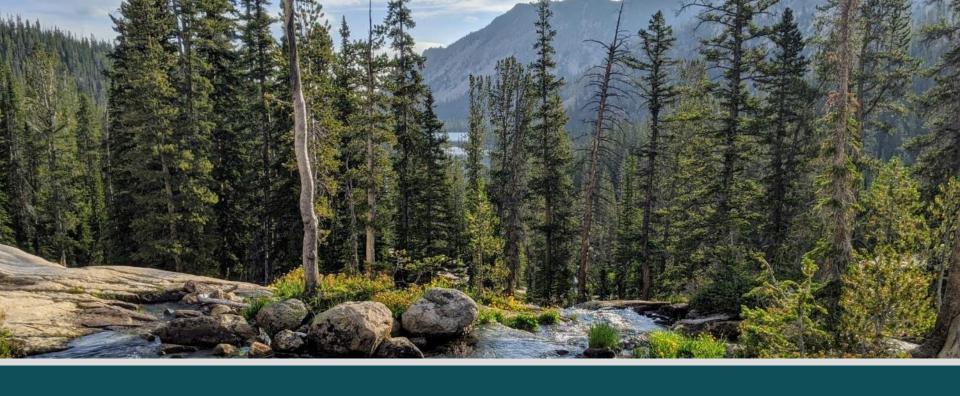
Tier 1 System Size

- Direction for setting Tier 1 system size.
- Note:
 Augmentation, if required, would be a future discussion.

January 24-25 Hybrid Workshop

Structure:

- January 24: Presentation and discussion of BPA proposal.
- January 25: Guided discussions with emphasis on promoting understanding of proposal; promote discussion relative to other proposals that have been brought forward.
- Materials will be posted by EOD January 23.
- Please review in advance and be prepared to attend with questions.



Schedule & Feedback

Michelle Lichtenfels, Program Manager, Provider of Choice

Mark Your Calendar

Date	Time	Location	Workshop Topics
January 24, 2023 January 25, 2023	1 pm – 4 pm 9 am – 4 pm	BPA Rates Hearing Room and Webex	BPA policy package update
February 9, 2023	9 am – 4 pm	Webex only	Build on policy package; Updates on transfer, non federal resources, markets
February 21, 2023 February 22, 2023	1 pm – 4 pm 9 am – 4 pm	BPA Rates Hearing Room and Webex	Build on policy package; Updates from Peak Net Requirements Task Force
March 9, 2023	9 am – 4 pm	Webex only	Build on policy package; Updates on LDD/IRD

Feedback



Requested due date:

- Share feedback by Friday, January 27 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.

Note: BPA is shortening times for initial customer feedback due to the upcoming frequency of workshops and to meet the scheduled draft Policy timeline.

Feedback Requested

 Please provide your organization's considerations and/or feedback on contract length related to meeting carbon objectives, as discussed on Slide 36.





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