



Provider of Choice Block Product Workshop

April 16, 2024

PROVIDER OF CHOICE

**POST
2028**



Slide 7 added on 4/12/2024



Today's Workshop

Agenda

Topic	Presenter(s)	Est'd Time
Welcome	Michelle Lichtenfels	1pm – 1:05pm
Feedback & Reflections: April 9-10 workshops	N/A	1:05pm – 1:30pm
Block Product Discussion <ul style="list-style-type: none"> • Roadmap • Recalculation • Product Switching • Standalone Block – Diurnal Option • Block with Shaping Capacity 	Rob Burr Scott Wilson Kate Patton	1:30pm – 3:55pm
Wrap Up	Michelle Lichtenfels	3:55pm-4pm

Note: Times are approximate. Est'd one break 2:30pm.

Workshop Norms & Expectations

- **Bonneville:** Provide open and inclusive opportunities for discussion and feedback.
- **Participants:** Provide feedback and share perspectives during workshops.
- **All:** Respect one another and assume good intentions. Bring a constructive mentality. Be solution-oriented. Identify “parking lot” items for distracting or off-topic issues.





April 9-10 Feedback

April 9-10 Feedback & Reflections



- Slice product design
- Non-federal resources foundations
- Other

Contract Development

- Assume people read the redlines before coming to workshop. Come prepared with questions and comments.
- At least three-touch approach:
 - 1. Each section – original workshop
 - 2. Each section – follow up at next contract workshop discussion
 - 3. Whole contract template draft – periodic releases
 - Both master template and individual product templates
- Any markups/edits made during workshop will be posted the next day after the workshop (to the greatest extent possible).
- BPA will ensure the appropriate policy staff are in attendance for relevant contract sections.
- Feedback:
 - Send tracked changes and/or comments section-by-section. These will be posted publicly to the PoC website.
 - Can provide feedback in advance of workshop: Post2028@bpa.gov
 - Provide feedback after workshop within 7 calendar days (or as agreed to otherwise): Post2028@bpa.gov
- Contract sections are now posted separately from workshop materials.



Block Policy Implementation Discussion Roadmap

Workshop Objectives

Discussion on the Block product and features of a proposed Block and Block with Shaping Capacity product.



Assumptions

For the product implementation workshops, Bonneville will:

- (1) Take product design direction from the Provider of Choice Policy and ROD where decisions or direction are provided.
- (2) Bonneville will state whether decisions are final and where Bonneville is open to discussion on product design features.

Block Workshop Topics

Topic	Discussion Type	Workshop
<p>Recalculation of block shape. Determine if offering one or two opportunities to reshape block, timing of the recalculation, and what data will be required to complete the process.</p>	Design	April 16
<p>Diurnal Block option. Discussion of what diurnal block option would look like including HLH/LLH split and percentage of block that must be taken in HLH.</p>	BPA proposed design	April 16
<p>Block with Shaping Capacity Components. Discuss what features of product are set for length of contract, by rate period, by year, by month, and by day as well as if product is afforded block shape recalculation.</p>	BPA Decision, may be room for input	April 16
<p>Block with Shaping Capacity Parameters. Design parameters for offering including minimum and maximum take, ramp rates, and how much of the product must be taken in the first half of the month.</p>	Design	April 16 and May

Block Workshop Topics (Cont'd)

Topic	Discussion Type	Workshop
<p>Block with Shaping Capacity and Net Requirements. Review how product would change with annual net requirements process under a low and high load scenario.</p>	BPA Decision	May
<p>Block with Shaping Capacity transmission requirements. Discussion of whether there will be transmission or specific scheduling requirements for the option (NT v. PTP).</p>	BPA Decision	May
<p>Peak Load Variance. Discussion around proposed peak load variance service, which is also a subject of PRDM workshops.</p>	BPA proposed design	May

Block Product Intent

- To serve load by providing additional flexibilities to your block.
- This is not a Load Following product. This is a block product and does not provide the same flexibility.
- Design features build on Planned workshop product details shared September 19, 2023.



Block Shape Recalculation

Provider of Choice Changes

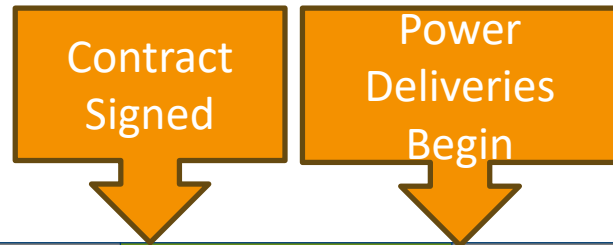
- Under Regional Dialogue, customers were not able to recalculate their block shape after they were set using weather normalized FY 2010 loads.
- The Policy stated that “Bonneville will allow customers one recalculation of their block shape during the contract period.”
- The ROD states that Bonneville would be open to exploring one additional recalculation.

Recalculation of Block Shape

Based on the Policy, Bonneville proposes:

- **One Block Recalculation**
 - Halfway through 16-year power delivery window.
 - Calculations will use average of 5 years load data and will not be weather normalized.
- **First Block Shape**
 - Use five-year actual average load data from FY 2023 through FY 2027.
- **Recalculation for Second Block Shape**
 - Use five-year actual average load data from FY 2031 through FY 2035
 - Reshaped Block would take effect in BP-37, starting in FY 2037.
- **Both block shapes would be set through a public process.**

Block Shape Calculation Timing



Rate Case	BP22	BP24		BP26			BP29		BP31		BP33		BP35		BP37		BP39		BP41		BP43			
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044		
1st Period	5 Measurement Years (Actual Load Data)			Rate Case Year			Power delivery years for the block calculation time period.																	
2nd Period									5 Measurement Years (Actual Load Data)					Rate Case Year		Power delivery years for the block calculation time period.								

Recalculation Considerations

Bonneville is open to different design options. Designs will need to weigh:

- **Timing of block shape calculations.**
 - For example, if Bonneville considers more than one block shape recalculation during the Provider of Choice contracts - timing would need to be fixed and not rolling.
- **Adopting weather normalized data v. actual load data for block calculations.**
 - Using weather normalized data creates a significant workload to create and recalculate block shape. However, it does address weather anomalies that may impact monthly shapes.
 - Using actual load data is easier to administer and could allow Bonneville to explore additional recalculation windows.

Discussion

Bonneville is looking for input on design:

- One v. two recalculations.
- Timing of recalculation.
- Average actuals v. forecast.
- Required recalculation or optional.
- Other considerations?



Block and Product Switching

Product Switching Additional Detail

A request to change block product options between the following options will be considered a product switch and will apply to the following change requests:

- A) Moving from a Flat Block to a shaped block.
- B) Moving from a shaped Block to a flat block.
- C) Moving between option A and B and Block with Shaping Capacity.

In the Provider of Choice Policy, Bonneville has determined a, “one-time right for customers to request a change to their product election during the term of the contract.”



Standalone Block – Diurnal Option

Heavy and Light Load Hours

Diurnal Shaping - The Policy states that BPA will offer a diurnally shaped block.

- Bonneville will maintain the monthly flat and monthly diurnal amounts, where the block amount is shaped to the customer's Net Requirement load with the monthly amounts are shaped with up to 60% of the megawatt hours in heavy load hour (HLH) and light load Hour (LLH).
- Defining Diurnal – RD currently uses NERC definition.
 - LLH = hours ending 0100 through 0600 and 2300 through 2400 hours, Monday through Saturday, and all hours on Sundays and FERC defined holidays.
 - HLH = hours ending 0700 through 2200 for each day of the week (excluding Sundays and holidays).



Block with Shaping Capacity

Block and Shaping Capacity Calculation

BPA proposal to design product: The Base Block Amounts by Month

- Flat hourly amounts each month are derived by shaping the customer's annual net requirements into monthly net requirements amounts.

Design: Amount of Shaping Capacity Available

- Shaping capacity would be calculated for the rate period as either 10% of their Tier 1 monthly blocks or their monthly PNR forecast for the rate case minus the applicable Tier 1 monthly block.

Adjustments to Block Shape and Shaping Capacity

- There are several processes that feed into how the Block shape is calculated and also determining shaping capacity.
- For example, Bonneville will perform the net requirements calculation annually versus other factors that can be adjusted on an hourly, monthly or annual cadence.
- Example: annual net requirements calculation.
 - Block shape of energy is shaped according to the annual net requirements calculations. For example, if loads were expected to be 10% lower than a customer's CHWM, each Tier 1 block amount would go down by 10%.
 - Shaping Capacity would also be adjusted annually to align with the net requirement calculation.

Block and Shaping Capacity Adjustments

Time Frame	Changes to Block Shape or Shaping Capacity
Contract Term	<ul style="list-style-type: none"> Block shape will be recalculated at least once. Changing between flat block to shaped block. May occur during product switching window. Customer chooses if they want shaping capacity.
Rate Period	<ul style="list-style-type: none"> Shaping capacity would be calculated for the rate period as either 10% of their Tier 1 monthly blocks or their monthly PNR forecast for the rate case minus the applicable Tier 1 monthly block.
Annual	<ul style="list-style-type: none"> Annual net requirements calculation: <ul style="list-style-type: none"> Block amounts are calculated annually based on the annual net requirements calculation. Each block amount established is adjusted proportionately. For example, if loads were expected to be 10% lower than a customer's CHWM, each Tier 1 block amount would go down by 10%. Shaping capacity would not change as net requirements are adjusted. It would be calculated on a rate period basis.

Adjustments (Cont'd)

Time Frame	Changes to Block Shape or Shaping Capacity
Monthly	<ul style="list-style-type: none">• Shaped block option reshapes annual net requirements amounts into forecast shape of monthly net requirements amounts.• Customer with shaping capacity can vary their take across the month within product constraints.
Daily	<ul style="list-style-type: none">• Scheduled day ahead, customers with shaping capacity can vary their daily Tier 1 block amounts with the established range.
Hourly	<ul style="list-style-type: none">• Scheduled day ahead, customers with shaping capacity can vary their hourly Tier 1 block amounts with the established range.<ul style="list-style-type: none">○ Customers hourly amounts are set the day-ahead and no within day flexibility is offered.○ Customers retain flexibility to change their non-federal resource operations within day.

Shaping Capacity: Proposal Summary

- Bonneville proposed an approach to the Block with Shaping Capacity Product at the Planned Product Workshop on September 19, 2023,
- Bonneville is open to discussions on certain design features of the Block with Shaping product parameters but will need to consider trade offs when considering any additional product flexibility. Today we will focus on the following areas.
 1. Expanded Flexibility
 2. Timing for Schedules
 3. Ramping Requirements
 4. Monthly Energy Requirement

1. Expanded Flexibility

Customers electing the standalone PF Block product in a flat monthly shape will be able to add the Shaping Capacity option.

Shaping Capacity allows the standalone shaped monthly PF Block customer to pre-schedule a shaped block from its planned flat average block.

- Able to vary the flat hourly purchase amounts, increasing the hourly amount up to the shaping capacity amount purchased.
- The hourly amounts may also be decreased by the shaping capacity amount, limited to 60% of the original planned flat hourly purchase amount.
- The lower limit of the shaped block provides Bonneville operations a minimum guaranteed load and guarantees that a significant proportion of the customer's load will be served even when market prices are low.
- Customers would establish hourly amounts within this range and would be required to take the full energy amount established for the month.

2. Timing for Schedules

Delivers shaping capacity to customers on pre-determined schedule.

Rationale:

- Product can lock down the amounts so that Bonneville knows the hourly values with certainty before establishing base operations.
- Does not conflict with Bonneville participation in a day-ahead market.
- Customers could shape block deliveries with better knowledge of hourly loads across the upcoming day and consider their expected needs across the rest of the month.

Design:

- Product would be designed so that it is compatible with a day-ahead timeline.
- Customers would schedule for each day.

3. Ramping Requirements

Current model allows for hourly ramping changes.

Rationale

- Allow customer to reshape the block to better meet relatively predictable loads.
- Helps keep changes tied to expected loads and manages risk associated with swings that might otherwise be tied to following rapid changes in market prices.
- Creates a smoother shape without the scheduling cliffs inherent in previous shaping capacity approaches.

Design

- Bonneville proposes to establish product ramp rates of 10%.
- Each hourly ramping limit would be 10% of the shaping capacity amount, there would be a max and min allowable hourly block amount within the allowed scheduling range.
- Scheduling changes connect to the previous hourly schedules across days and months.

4. Monthly Energy Requirement

Balance energy take across the month.

Rationale

- Product can lock down the amounts so that Bonneville knows the hourly values with certainty before establishing base operations.

Design.

- Customers are required to take between **45%** and **55%** of the energy available to them under the block in the first **14** days of the month.
- Ensures a more even distribution of the energy across the month.
- Additional requirements are worth discussing.
- Note: The specific rate treatment will be worked out as a part of the 2029 Public Rate Design Methodology (PRDM).

Recap of Proposal

Attribute	Regional Dialogue	Provider of Choice
<ul style="list-style-type: none"> Vary flat hourly purchase amounts Increase hourly amount to the shaping capacity amount purchased 	No	Yes
Block Shape Recalculation	No	Yes
Shaping Capacity Limited to Specific hours	Yes	No
Set to Pre-Schedule or DA time frame	Yes	Yes
Ramping Requirement	Yes	Yes
Monthly Energy Requirement	Yes	Yes

Discussion



Next Up

Bring feedback to next workshops.

April 25 workshop (Hybrid)

- Non-federal resources
- Slice





Thank you.

Find Us:

Email: post2028@bpa.gov

Web: [Provider of Choice - Bonneville Power Administration \(bpa.gov\)](https://www.providerofchoice.gov)