



# Provider of Choice Planned Product Workshop

September 19, 2023

**PROVIDER OF CHOICE**

**POST  
2028**





# Today's Workshop

## Michelle Lichtenfels

# Today's Agenda

Time Start	Time End	Topic	Presenter(s)
9 am	9:10 am	Welcome and Overview	Michelle Lichtenfels, Program Manager, Provider of Choice
9:10 am	9:40 am	Scope & Market Compatibility	Sarah Burczak, Policy Lead, Provider of Choice
9:45 am	10:15 am	Load Following and Block Products	Rob Burr, Policy Specialist, Provider of Choice
10:15 am	11:30 am	Block with Shaping Capacity	Scott Wilson, Senior Account Executive
11:30 am	12 pm	Discussion	All
12 pm	1 pm	L U N C H B R E A K	
1 pm	1:30 pm	Slice/Block	Kayla Cisco, Slice Team
1:30 pm	2:55 pm	Discussion	All
2:55 pm	3 pm	Wrap up	Michelle Lichtenfels, Program Manager, Provider of Choice

Note: Morning and afternoons will include short breaks. Start and end times are approximate.

# Workshop Objectives

Discuss intent and features of a proposed Block with Shaping Capacity product.

Work towards a shared understanding of the impact of a day-ahead market on BPA power products.



# Workshop Roles & 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.

# Formal Comment Period

Note that this workshop is not designed to address elements of policy embedded in the Draft Provider of Choice Policy. See Workshop Scope slides for more detail.

Please direct all formal comments **related to the Draft Provider of Choice Policy** to the BPA public comment page: [Public Comments \(bpa.gov\)](https://www.bpa.gov/public-comments).

Comments received via the public open comment process will be considered as part of the record of decision.

- The open comment period will remain open through the end of the day on October 13, 2023.

# Comments on This Workshop

- Please share feedback **on this workshop** by October 24 to [Post2028@bpa.gov](mailto:Post2028@bpa.gov)
  - Please note that direct responses will not be provided.
- Feedback will help inform future fall product workshops.

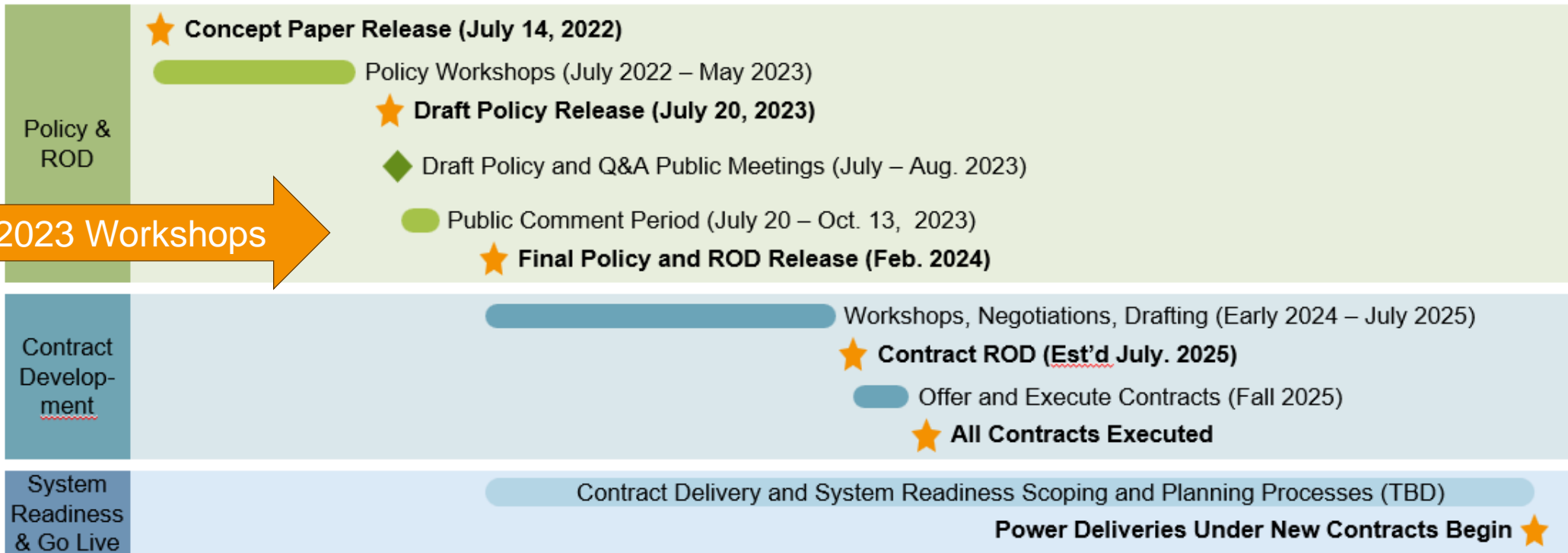


# Fall 2023 Product Workshops

Date	Topics
<b>September 19</b>	<ul style="list-style-type: none"><li>• Day-ahead market compatibility</li><li>• Product compatibility with day-ahead markets<ul style="list-style-type: none"><li>○ Load Following</li><li>○ Block and Block with Shaping Capacity</li><li>○ Slice/Block</li></ul></li></ul>
<b>November 14</b>	<ul style="list-style-type: none"><li>• Market-enabling contract language</li><li>• Product discussions (cont'd)<ul style="list-style-type: none"><li>○ Block with Shaping Capacity</li><li>○ Slice/Block</li></ul></li></ul>
<b>December 12</b>	<ul style="list-style-type: none"><li>• Product design discussions (cont'd)</li><li>• Overview of Policy Implementation and Contract Development phase</li><li>• Public Rate Design Methodology (PRDM) timeline</li></ul>



# Provider of Choice Timeline



Fall 2023 Workshops →

Updated August, 18, 2023



# Product Design Workshop Scope

Sarah Burczak

# Scope

- **Fall 2023 workshop series will:**
  - Start exploring product design for Provider of Choice products.
  - Explore what it means to have a day-ahead compatible product.
- **Spring 2024 workshops will:**
  - Build off of direction from fall workshops series.
  - Integrate any additional final policy elements
  - Integrate additional markets information into product design considerations.
- **Note that the 2029 Public Rate Design Methodology (PRDM) process will be a separate and parallel effort led by the BPA Rates team. A process overview and timeline is anticipated to be shared at the December 12 workshop.**

# Scope (Cont'd)

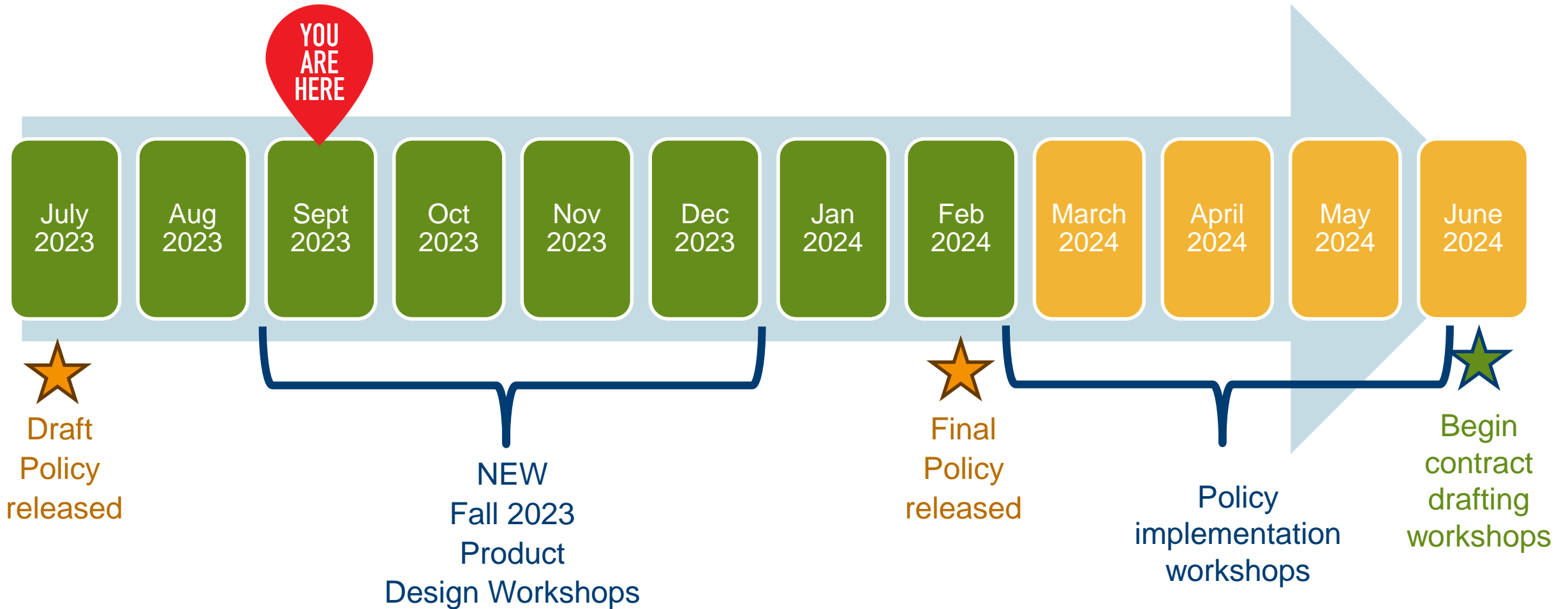
## In scope for Fall 2023 Provider of Choice workshops:

- Product design and day-ahead market compatibility.
  - Note: Focus is on products for PF-eligible load. As noted in the draft Policy, it is the intent to model NR product offering off of the standalone Block product.
- Draft contract provision that may be needed for day-ahead market participation.

## Not in scope but to be addressed includes:

- Scheduling and scheduling services.
  - This includes transfer service and any complexity introduced by other balancing authorities operating in another day-ahead market.
- Non-federal resource requirements and any rules that would need to be established.
- Environmental attributes associated with product elections.

# Product Design Timeline



# Assumptions

In order to hold these fall workshops, Bonneville needs to make several assumptions about decision still under review. Bonneville will need to:

- (1) Assume that the draft Policy is adopted as the final Policy, and
- (2) Assume that Bonneville is joining a specific day-ahead market.

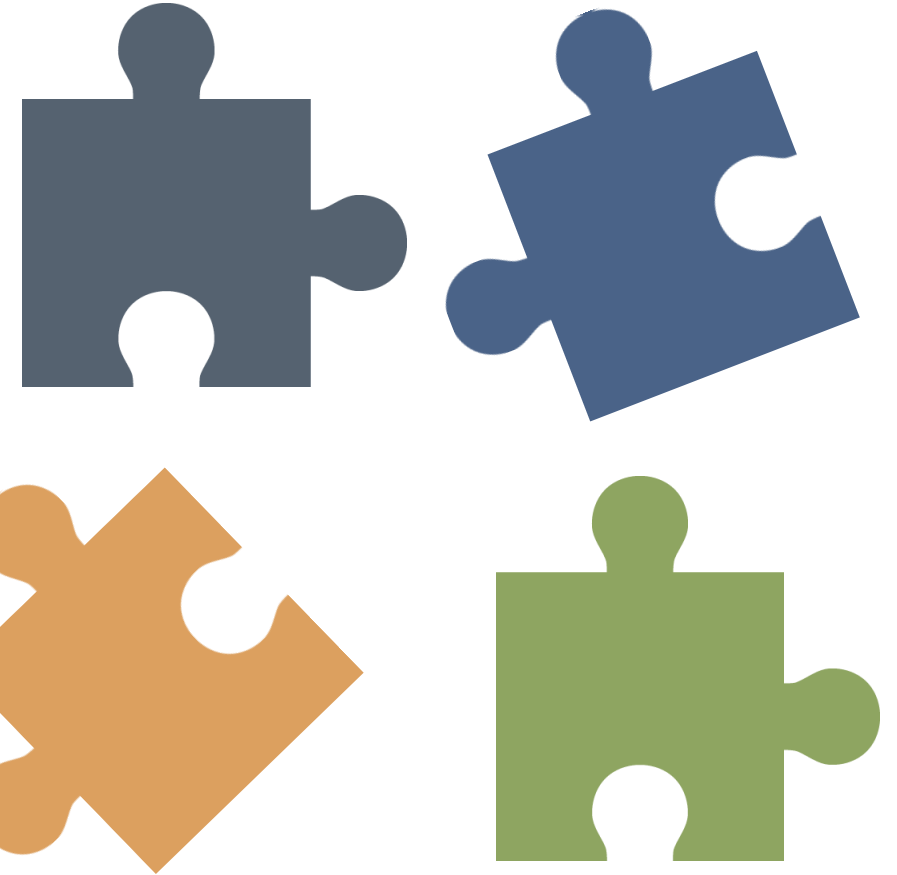
Although Bonneville is making these assumptions for purposes of these workshops, **Bonneville has not made final decisions regarding joining a day-ahead market, or the Provider of Choice Policy.** Bonneville will continue to evaluate each through their established processes.

# Day-ahead Market Compatibility

## Bonneville incoming mindset:

Bonneville's product design should not drive day-ahead market design.

Rather, products and their implementation may need to adapt to day-ahead market function and features.





# Product Intent & Design



# Load Following Intent & Design

## Intent

Offer a product in which BPA takes on obligations to meet customer's net requirement on an hourly basis.

Customer benefits from load service certainty.

## Design

Meets a customer's load on an hourly basis.

- BPA takes on load-responsible-entity obligations.

Provides opportunities to:

- Develop non-federal resources; shaping service may be required.
- Select among all Above-RHWM options.

# Planned Product\* Intent & Design

## Intent

**Provide customers advanced assurance** on the amount of power Bonneville will provide and degree of flexibility in taking that power to load.

**Offers customers flexibility** in how they use their non-federal resources to meet loads.

## Design

Provides energy to meet annual net requirement on a planned basis\*\* but **does not guarantee meeting the customer's actual hourly needs.**

The **customer is responsible** to use its non-federal resources to meet any load in excess of its planned BPA purchases.

**Customer retains planning obligations**, including resource adequacy, to meet its Total Retail Load (TRL).

**Proposed offerings:** Block, Block with Shaping Capacity and Slice/Block.

\*Planned products include Block, Block with Shaping Capacity, and Slice-Block.

\*\*At forecasted energy net requirement.



# Load Following Product

Rob Burr

# Load Following

- The **Load Following Product** will continue to supply customers power to meet their hourly PF-eligible load net of their non-federal resources.
  - This includes meeting a customer's peak load in any given hour.
- **Planning Obligation**
  - Bonneville will assume the planning obligation for a Load Following customer.
  - As Bonneville has decided to join WRAP and resource adequacy is part of Bonneville's planning obligations, Bonneville will assume the WRAP obligation for a Load Following customer's PF-eligible load.

# Load Following (Cont'd)

- Like all products, a decision to join a Day Ahead Market may trigger some basic Load Following design changes, like data or scheduling requirements.
- Product will likely require the least adjustment to fit with future day-ahead market participation because Bonneville will continue to take all actions needed to meet customer loads.
  - An example of a potential change is that non-federal resources may have some additional requirements to align with WRAP or to meet day-ahead market scheduling deadlines.



# Block Product

Rob Burr

# Block Product - Draft Policy

- The **Block product** provides firm power each month on a planned annual basis to meet a customer's planned annual net requirement load in pre-defined quantities and shapes.
- Bonneville will offer the product in two shapes:
  - 1) Flat block across the year or 2) Shaped block that shapes into monthly amounts.
    - Bonneville is evaluating if it will offer monthly amounts in equal amounts across all hours instead of in heavy load hour and light load hour splits.
- Bonneville will allow customers one recalculation of their block shape during the contract period.

# Block Product Features

- Establish hourly amounts for the month.
  - The Block does not follow load hour to hour.
- Establish customer's monthly net requirements shape at the start of the contract based on the customer's actual load shape.
- Bonneville assumes the planning and supply obligation for the Block amount. Beyond that A the customer has the resource planning and supply obligation for their total retail load.
- Bonneville does not anticipate any major impacts to the standalone Block product as part of a future day-ahead market participation decision, as hourly amounts are established at the start of the year and will not be variable in a day-ahead market time frame.



# Block Discussion

**Day-ahead markets** – Block product should work under a market scenario as hourly Block amounts are known prior to the beginning of the year.

- Bonneville and customers know the exact amounts of power they are getting and can plan accordingly.
- Customers are responsible for any actions needed to meet their load beyond what Bonneville provides.
- Bonneville obligation is known, and Bonneville can plan the system accordingly.

**Diurnal Shaping** – Traditional distinctions between HLH and LLH no longer appear to make sense because the lines between HLH and LLH have been blurred.

- Saturation of renewables has greatly impacted the value of power at different times of the day.
  - Saturation of solar during daylight hours.
- Significant flexibility needed at dawn and dusk times due to renewable service shapes.
- Often traditional LLH times are priced higher than HLH.



# Block with Shaping Capacity Option

Scott Wilson

# Block with Shaping Capacity: Overview

Customers electing the standalone PF Block product will be able to add the Shaping Capacity option.

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

# Block with Shaping Capacity: Intent

## Intent

Provide planned amount of power to meet net requirements load, which includes planning obligation for BPA-supplied power.

Provide flexibility in operational period to better match BPA provided power to anticipated load variation.

Maintain customer accountability to meet actual loads beyond the flexibilities designed into product, including meeting any planning obligation requirements for their total retail load.

## Design

Shaping Capacity can be added to customers standalone Block purchase.

Shaping Option establishes a daily range for each month within which a customer may reshape the daily energy amount of its Block purchase.

Provide planned amount of power to meet net requirements load.

# Shaping Capacity: Summary

Bonneville proposes a Block with Shaping Capacity option and proposes addressing key product features in the following areas.

1. **Base block calculation**
  1. The Base Block Amounts by Month
  2. Amount of Shaping Capacity Available
2. **Heavy and Light Load Hours**
3. **Timing for Schedules**
4. **Expanded Flexibility**
5. **Ramping Requirements**
6. **Monthly Energy Requirement**
7. **Rate for Shaping Capacity**

# 1. Block and Shaping Capacity Calculation

## Design: 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

- Based on the difference between the customer's forecast monthly flat net requirements load and the expected monthly peak net requirement.

## 2. Heavy and Light Load Hours

### Rationale:

- Bonneville believes the traditional distinctions between rigid heavy and light load hours will change over time, with changes in perceived value in the future.
  - The customer could move their Block using the shaping capacity to create such a distinction.

### Design:

- Under this proposal there would no longer be a hard-coded distinction for Heavy and Light Load Hours.

# 3. Timing for Schedules

## Rationale:

- Product delivers shaping capacity to customers on pre-determined schedule.
- 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.



# 4. Expanded Flexibility

## Rationale:

- Expand the product's flexibility to enable customers to more closely follow load once they have better load information.

## Design:

- 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 would **mimic how loads would look** across lower use times
  - Provides Bonneville operations a minimum guaranteed load.
- Customers would **establish hourly amounts within this range** and would be required to take the full energy amount established for the month.

# 5. Ramping Requirements

## Rationale:

- Allow customer to reshape the block to help meet relatively predictable loads.
- Enables Bonneville to manage risk associated with significant shaping capacity swings tied to rapid changes in market prices.
- Creates a smoother shape without the scheduling cliffs inherent in previous shaping capacity approaches.

## Design:

- 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 schedule across days and months.

# 6. Monthly Energy Requirement

## Rationale:

- Helps reduce unevenness of load obligations across a month.
  - Some months have significant market price swings between the first and second half of the month. This can happen with Spring run off, predictable weather events, and August (when flows are often very different between first and second half of the month).

## Design:

- Customers would 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.

# 7. Rate for Shaping Capacity

## Rationale:

- Create comparable rate structure for capacity across product types.

## Design:

- Shaping Capacity rates would be the same as the demand charge that is applied to the Load Following customers.
  - Note: The specific rate treatment will be worked out as a part of the 2029 Public Rate Design Methodology (PRDM).

# Discussion





# **Slice/Block**

**Kayla Cisco**

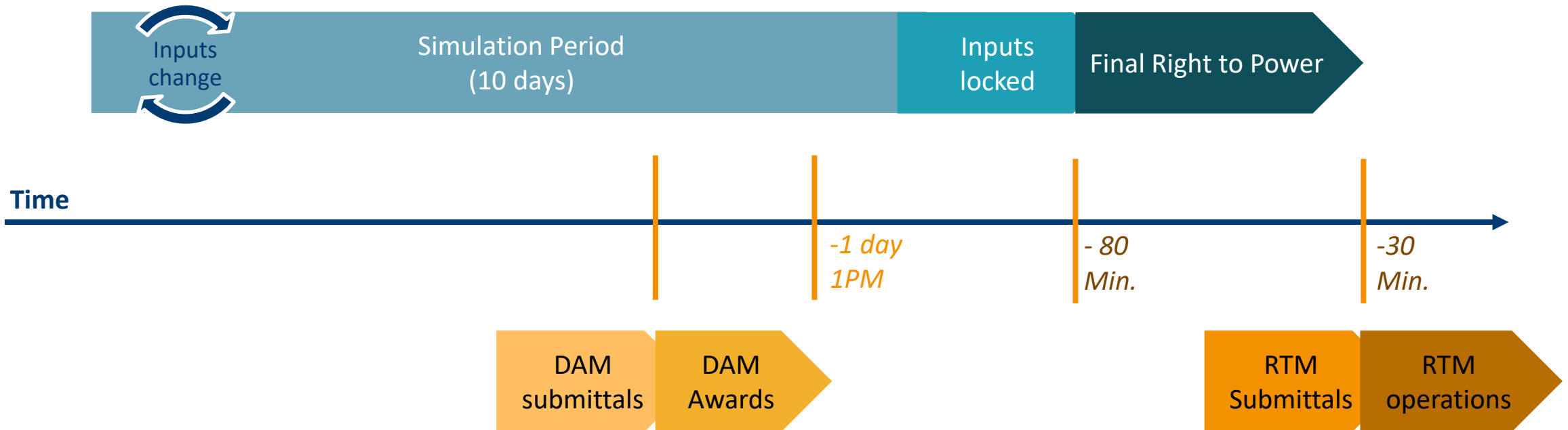
# RD Slice – Unique Product Features

Slice is a product with a number of unique product and scheduling features.

- Energy is delivery shaped to FCRPS capability
- Customers have scheduling flexibility until 30 minutes before the operating hour
- The product includes an advance sale of surplus
- DAM timelines overlap with Regional Dialogue Slice implementation timelines.
- Bonneville currently has Slice load uncertainty in the DA time-period.

# Slice and DAM Timelines Overlap

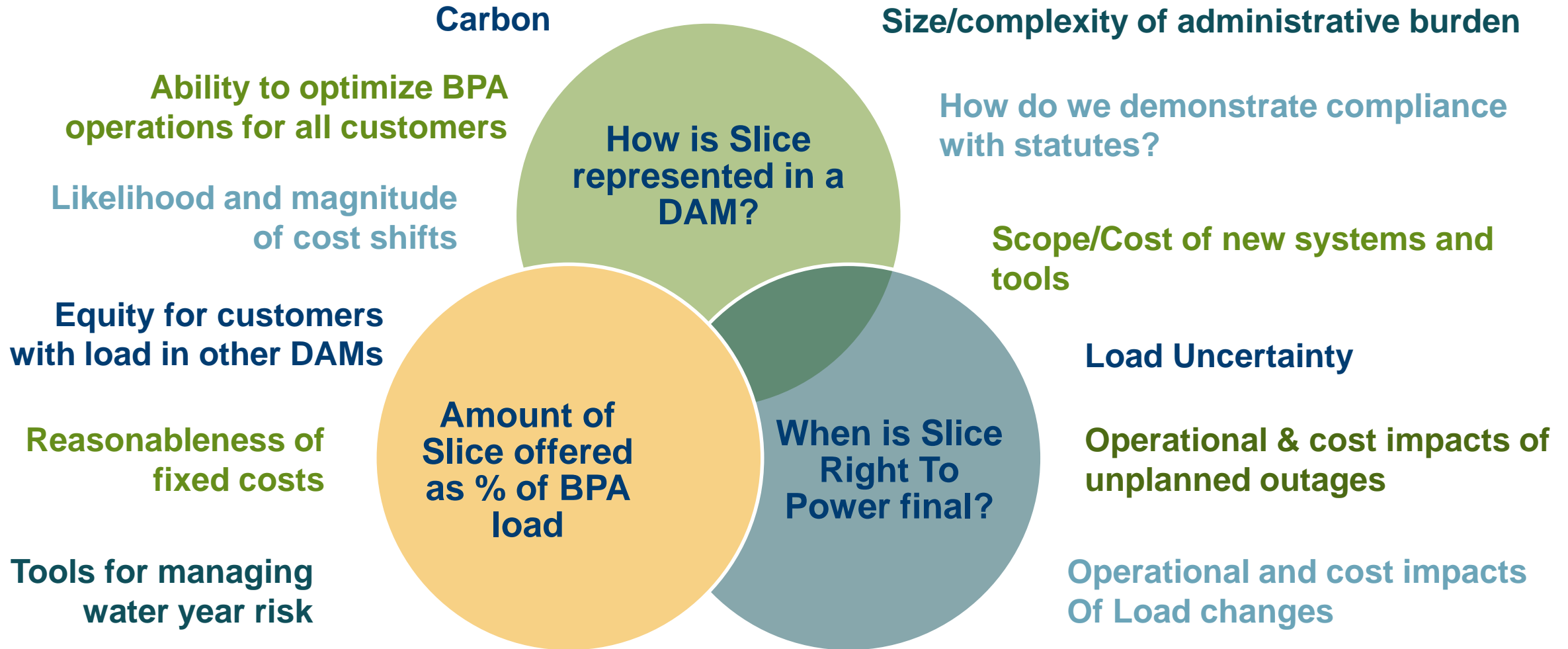
- DAM decisions happen before Slice inputs are locked or Right to Power is final.
- Right to Power is final before real time market (RTM) operations occur.





# Slice Day-Ahead Market Compatibility:

For further discussion at Nov. 14 workshop



# Discussion





**Wrap Up**

# Comments on This Workshop

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*Thank you.*

**Find Us:**

Email: [post2028@bpa.gov](mailto:post2028@bpa.gov)

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