



Capacity Discussion

PPC Rates and Contracts

August 24, 2021

PROVIDER OF CHOICE

— POST-2028 —



Agenda

- Comments from July 27th Non-Federal Resource Session
- Follow-up Requests from June 22th Capacity Session
 - [Link to spreadsheet](#)
 - Background on Tier 1 block shapes and shaping capacity
- Customer Led Presentations
 - Slice/Block customers
- Next Steps



Comments from July 27th Non-Federal Resource Session

PROVIDER OF CHOICE

— POST-2028 —



Topic	Comment Summary	BPA Response
Thresholds	<ul style="list-style-type: none"> • Three comments want BPA to continue to explore raising the contract threshold of 200kW for the contract, metering threshold, and interconnection requirements. • One comment states there is not much revenue risk raising the threshold to 1MW. Many customers do not access the market directly and it is not practical to schedule generation from small resources. There is very little benefit of un-forecasted energy efficiency or generation due to BPA’s Tiered Rate Design and annual true up process for Tier 1 energy. Treat and plan for small resources similar to energy efficiency. • One comment does not support increasing the threshold due to unknown cost shifts. Suggests if BPA does raise threshold, include a cap for resources exempt from the 200kW threshold. Could use a percentage of customers’ TRL as cap to help minimize risk of cost shifts. • One comment states that Transmission issues should be further explored to determine actual needs and the reliability risks associated with a threshold over 200 kW. 	<ul style="list-style-type: none"> • Though there is not consensus, BPA hears customer support for continuing to explore raising the 200kW resource threshold. Such exploration should also consider tools or mechanisms to help mitigate the risk of cost shifts. • While Post-2028 does not address Transmission specific issues, BPA recognizes that this is a cross-function discussion.
Threshold Analysis	<ul style="list-style-type: none"> • One comment states revenue risk modeling is highly dependent on price assumptions and should only be viewed as one indication of revenue potentially at risk. • One comment states 1) even under a very low market scenario compared to current markets, the overall revenue risk to BPA of raising the threshold to 1 MW is quite small. 2) if market prices are higher, there is little to no revenue risk to BPA and, perhaps instead, a benefit to BPA of these resources because they provide BPA with more energy to sell on the secondary market at these same high prices. 	<ul style="list-style-type: none"> • BPA appreciates the comments and welcomes refinement to the assumptions and modeling approach. • BPA encourages customers to test their own pricing assumptions within the model.

Topic	Comment Summary	BPA Response
Purchase Periods	<ul style="list-style-type: none"> All comments support eliminating current purchase period design and exploring new options. One comment states BPA’s option is too restrictive, mix of BPA and non-Federal resources should remain an option. Two comments are encouraged by BPA’s willingness to look at alternatives and interested in learning more about the BPA proposed option. 	<ul style="list-style-type: none"> BPA hears support for continuing to explore less restrictive Notice and Purchase Period approaches, including consideration and refinement of BPA’s concept presented on July 27.
Green Exception	<ul style="list-style-type: none"> One comment states that BPA has the authority to reconsider the sunset provision. There have been changes to environmental regulatory landscape since the 2007 Regional Dialogue Policy. Advantageous for BPA and its customers to consider options such as a new Green Exception or other innovative offerings that could provide additional value. 	<ul style="list-style-type: none"> BPA hears the interest for innovative product options including a potential new Green Exception, though any such options should have broad customer support and applicability.



Capacity Discussion: Background Session Follow-up and Customer Presentation

PROVIDER OF CHOICE

— POST-2028 —



Today's discussion & the 6 steps

In today's session BPA will lead with a follow up presentation on Block Shapes and Shaping Capacity products offered under Regional Dialogue. Then customers will present some ideas for potential enhancements or modifications to the Slice/Block and Block products.





Background on Tier 1 Block products

PROVIDER OF CHOICE

— POST-2028 —



Background on Block with Slice product

- A Slice/Block customer's annual average Tier 1 block amount is set equal to:
 - the lesser of its RHWMM or forecast annual Net Requirement, minus
 - its annual average Critical Slice Amounts (customer's slice percentage multiplied by Adjusted Annual RHWMM Tier 1 System Capability)
- The monthly Tier 1 block amounts are based on the customer's Tier 1 Block shape election, see shape options below. The customer's shape election is set for the term of the agreement.
 1. Flat Annual Block Shape – megawatt amounts equal in all hours of the year
 2. Flat Within-Month Shape – Monthly amounts are shaped to the customer's net requirement using the customer's Monthly Shaping Factors. Within-Month amounts are scheduled as flat as possible.
- The Block portion of the Slice/Block product does not include any within-month shaping options. BPA provides flexibility and capacity to customers via the Slice portion of the Slice/Block product.

Background on Block-only product

- A customer's annual average Tier 1 block amount is set equal to the lesser of its RHWMM or forecast annual Net Requirement.
- The monthly/diurnal Tier 1 block amounts are based on the customer's Tier 1 Block shape election, see shape options below. The customer's shape election is set for the term of the agreement.
 1. Flat Annual Block Shape – megawatt amounts equal in all hours of the year (except for Shaping Capacity amounts, if applicable)
 2. Block Shaped to Net Requirements – Monthly amounts are determined using the customer's Monthly Shaping Factors. Within-Month amounts may either be:
 - a) Flat – megawatt amounts equal in all hours within a month (except for Shaping Capacity amounts, if applicable)
 - b) Shaped using Diurnal Shaping Factors – HLH Diurnal Shaping Factors may vary by month and may not be greater than 60% in any month.
- Any monthly/diurnal Tier 1 Block shape could have been paired with shaping capacity.

Monthly and Diurnal Shaping Factors

- A customer's Monthly and Diurnal Shaping Factors are determined once and are effective throughout the term of the Agreement.
- Monthly and Diurnal Shaping Factors are based on:
 - a customer's FY 2010 Total Retail Load (weather-normalized and irrigation adjusted, in accordance with the TRM) less
 - any FY 2012 Existing Resource* amounts and New Large Single Loads.
- HLH Diurnal Shaping Factors may vary by month and may not be greater than 60% in any month.

* Existing Resource means a Specified Resource listed in section 2 of Exhibit A that Customer was obligated by contract or statute to use to serve Customer's Total Retail Load prior to October 1, 2006.

Shaping Capacity Contract Provisions

- If a customer had elected Shaping Capacity, then such customer would have been able to vary its HLH Block Amounts, up to its aHLH Tier 1 Block amount plus its predetermined Shaping Capacity amounts and down to its aHLH Tier 1 Block amount less its predetermined Shaping Capacity amounts.
- The Shaping Capacity contract template stated that for the HLH period each day, a customer must preschedule an Average Megawatt amount equal to the HLH block megawatt amount the customer would have otherwise received without Shaping Capacity.
- Additionally the contract template stated that the customer must pay for the full amount of Shaping Capacity whether or not it is used. The monthly charge would have been equal to: (i) the maximum hourly contractually entitled-to T1 amount less the average T1 HLH block amount less Contract Demand Quantities (CDQs); multiplied by (ii) the monthly Tier 1 demand rate.
- If BPA had determined that the Shaping Capacity amount for all customers purchasing Shaping Capacity exceeded 200 aMW in any month, then BPA could have unilaterally amended such customers' contracts to limit the amount of variation allowed from one hour to the next.

Shaping Capacity Amounts

- Shaping Capacity amounts would have been listed in Exhibit C of the Block contract and were not subject to change for the term of the Power Sales Contract. Shaping Capacity amounts would have been established for each month by applying the following formula:

$$\left[\frac{\text{FY 2010 monthly peak in MW}}{\text{Monthly HLH load in MWh} \div \text{HLH in month during FY 2010}} \right] \times \left[\text{FY 2012 HLH block amount from section 1.3} \right] - \left[\text{FY 2012 HLH block amount from section 1.3} \right]$$

- “Monthly HLH load” means the HLH load portion of the customer’s measured FY 2010 Total Retail Load (weather-normalized and irrigation adjusted, in accordance with the TRM.) “FY 2010 monthly peak” means the customer’s FY 2010 customer system peak for the month.

Shaping Capacity Example

	A	B
1	Example Customer Inputs	
2	FY2010 December CSP (MW)	150
3	FY2010 December HLH TRL (aMW)	100
4		
5	December Monthly Shaping Factor	12%
6	December HLH Shaping Factor	60%
7		
8	FY2012 Annual Net Requirement (aMW)	50
9	FY2012 December HLH Block (aMW)	75
10	FY2012 December LLH Block (aMW)	64

	C	D
	Example Shaping Capacity Values	
	December Shaping Capacity (MW)	38
	Max FY2012 HLH Block Amount (MW)	113
	Min FY2012 HLH Block Amount (MW)	37
	December Contract Demand Quantity (MW)	14
	Demand Billing Determinant (MW)	24
	December 2021 Demand Rate (\$/kW)	12.78
	Example Demand Charge \$	\$ 306,720

Example December HLH Block Schedule

	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HLH aMW
HLH MW	113	113	94	94	75	75	56	56	37	37	56	56	75	94	94	75	75

Resource Adequacy

- Place holder acknowledgement - for discussion point in the future
- The NWPP RA program or another RA program is likely to exist. While not fully outlined at this time, some areas that may need to be address in future thinking are:
 - Non-Federal resource capacity
 - Unspecified load service capacity
 - Data access/submittal/sharing
 - Peak Loads
 - Capacity effects by product



Customer Led Presentation

PROVIDER OF CHOICE

— POST-2028 —





Next Steps



Feedback and Upcoming Meetings

- BPA seeking feedback regarding Capacity including the Slice Customer presentation by September 7.
- Please provide feedback to post2028@bpa.gov, via discussions with your Power AE, or through your trade organizations as applicable.

	4-6 Weeks Between Background and Discussion
May 27, 10am-noon	HWM & Tier 1 System Background
June 8, 1-3pm	Non-Federal Resources Background
June 22, 1-3	BPA's Statutes, Capacity & Resource Adequacy Background
July 13, 1-3	HWM & Tier 1 System Discussion
July 27, 1-3	Non-Federal Resource Discussion
August 10, 1-3	Carbon Background, Term/Cost Control Background
August 24, 1-3	Capacity & Resource Adequacy Discussion
September 14, 1-3	Transfer & Transmission Background, EE Background
September 28, 1-3	Carbon Discussion
October 12, 1-3	Transfer & Transmission Discussion
October 26, 1-3	Term/Cost Control Discussion and revisit Interests
November 9, 1-3	EE Discussion
Mid-November	REP Background
December 14	
Mid-December	



Thank you for your time today and your ongoing engagement in post-2028 conversations.

