POST-2028 CONTRACT HIGH WATER MARK DISCUSSION November 9, 2022

This presentation is made in good faith to help facilitate further discussions between BPA and its preference customers regarding post-2028 system size and allocation alternatives. The concepts contained herein have not been adopted or endorsed by any WPAG member.

System Size and Allocation: Three Types of Utilities

- Group 1: Utilities that have achieved significant conservation savings during the RD Contracts (the "high conservation utilities")
- Group 2: Utilities that have experienced significant load growth during the RD Contracts (the "high load growth utilities")
- Group 3: Utilities that have not had (significant) load growth or performed significant amounts of conservation during the RD Contracts (the "flat/declining utilities")
- Any durable post-2028 allocation methodology must balance the needs of all three groups to achieve broad public power support

Group 1: High Conservation Utilities

- These utilities have done lots of conservation during the RD Contracts
- In many cases the amount of conservation they have achieved has resulted in their net requirements being less than their RHWM
 - Want to preserve their current Tier 1 headroom from conservation for the next contract
- BPA's Concept Paper proposed to include a conservation adjustment, the question is what conservation data to use:
 - All self-funded reported conservation (FY 22-26) = 66 aMW
 - All self-funded reported conservation (FY 18-26) = 118 aMW
 - All self-funded reported conservation (FY 12-26) = 241 aMW
 - All reported conservation (FY 12-26) = 806 aMW
 - All reported and unreported conservation (FY 12-26) = ?!
- May be open to some level of augmentation if it would allow them to preserve the CHWM headroom they have achieved through conservation

Group 2: High Load Growth Utilities

- Have seen their loads grow extensively during the RD Contracts
- Significant above-RHWM loads and exposed to high market and/or Tier 2 prices
- Want as much Tier 1 as they can get
- Stand to benefit the most from BPA's proposal to "reset" CHWMs
- Reset would provide them with additional Tier 1 and reduce their above-RHWM load all other things being equal
- Willing to consider augmenting the Tier 1 system to further reduce or eliminate their exposure to Tier 2 and/or market prices

Group 3: Flat/Declining Utilities

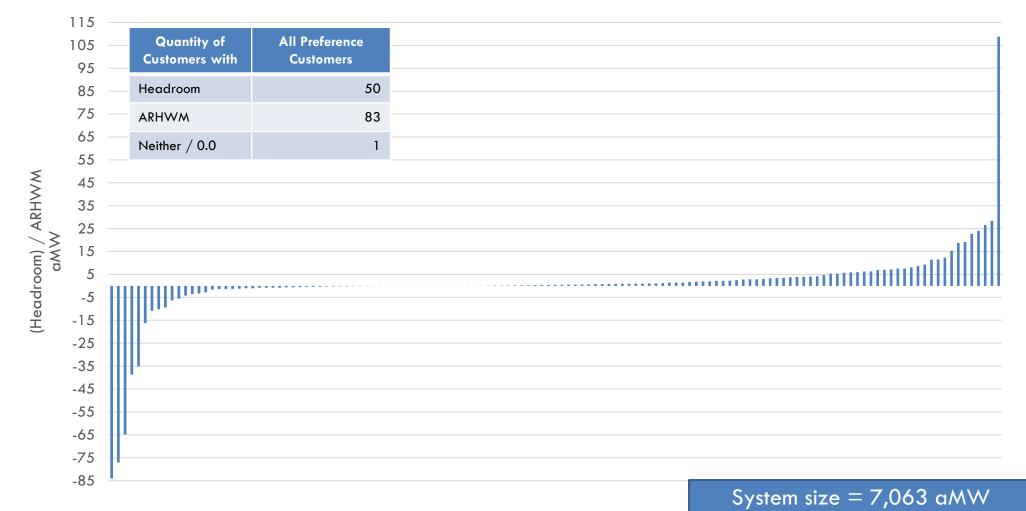
- Loads are relatively flat compared to the loads used to set their RD CHWMs
 - Little to no load growth (or load loss!)
 - Modest amounts of conservation during Regional Dialogue
- For utilities that have lost load during the RD Contracts, a reset of CHWMs would reduce or eliminate any headroom they might have
- If the sum of post-2028 CHWMs exceeds the size of the system, a reset of CHWMs followed by a pro rata scale down will result in these utilities having:
 - Less Tier 1 than they have today
 - New above-RHWM load to start the new contracts
- Without targeted action, the benefits for flat/declining utilities from Tier 1 augmentation are limited

CHWM Model Comparison

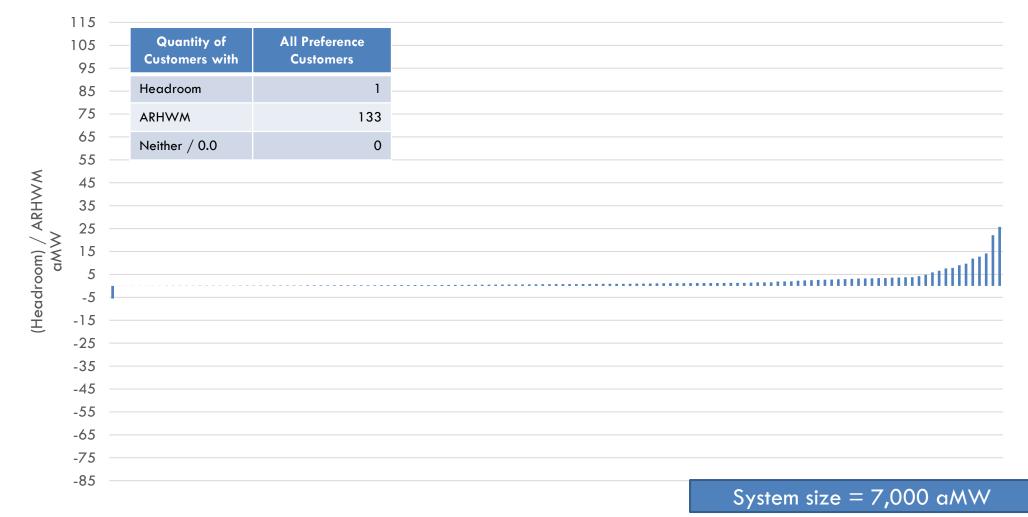
PPC CHWM Model

- Model only uses FY25 data
- Non-federal resource and conservation data consistent with BPA's model
 - > Has the capability to incorporate unreported conservation
- Model has additional flexibility and sensitivity capability

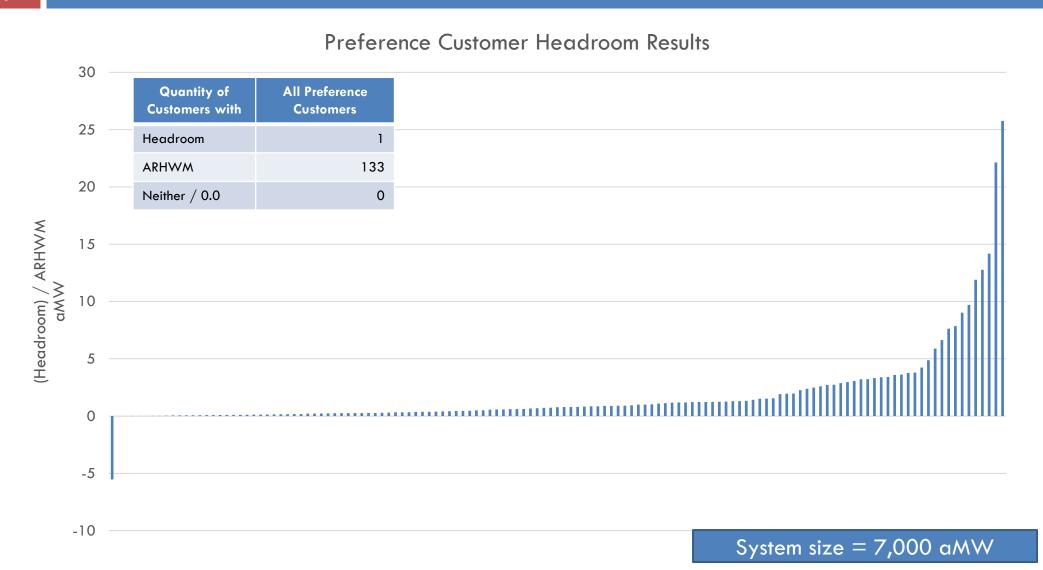
Current State as of BP-24



BPA Concept Paper Proposal



BPA Concept Paper Proposal (Closer Look)



BPA Concept Paper Proposal

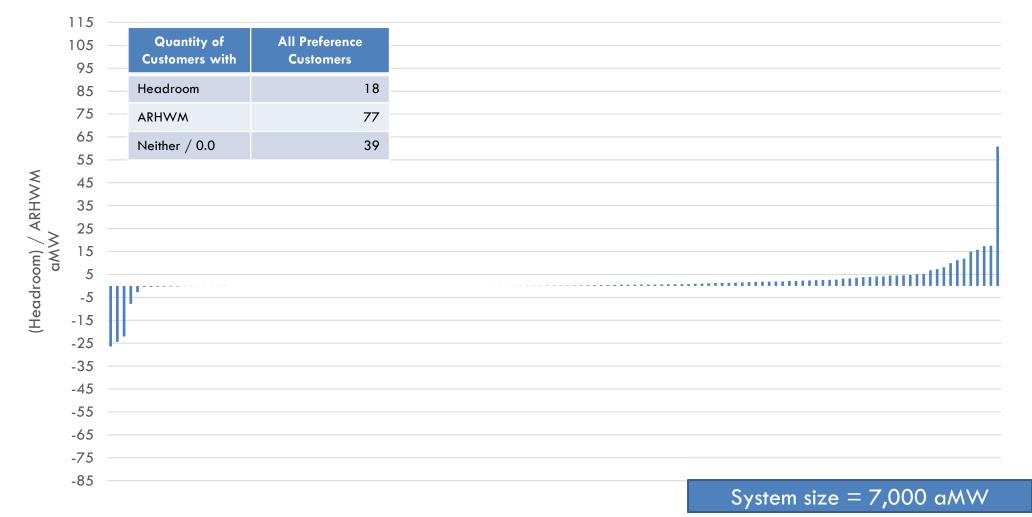
Key Assumptions and Adjustments

- Reset Post-2028 CHWMs based on updated loads and resources
- Self Funded Conservation FY 22-26 = 65.6 aMW
- Sum of initial reset CHWMs = 7,239 aMW
- System Size = 7,000 aMW
- Pro rata scale down of CHWMs so that System Size = ∑Post-2028 CHWMs = 7,000 aMW

Key Takeaways

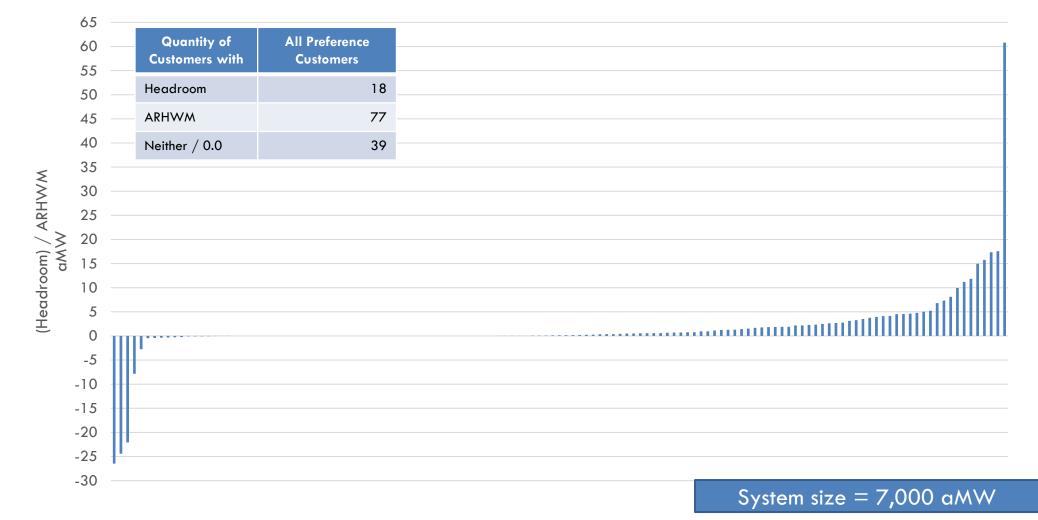
- Almost all utilities would start with above-RHWM load
- High load growth utilities would have much more load served with Tier 1 because the headroom of the high conservation and flat/declining utilities is redistributed to them via the CHWM reset
- The CHWMs of the high conservation and flat/declining utilities is reduced twice resulting in less access to Tier 1 compared to the current state
 - > 1st reduction from the CHWM reset
 - > 2nd reduction from the pro rata scale down
- High conservation utilities look flat under this scenario because the conservation adjustment is relatively small

No Worse-Off Alternative



No Worse-Off Alternative (Closer Look)





No Worse-Off Alternative

Key Assumptions and Adjustments

- Reset Post-2028 CHWMs based on updated loads and resources
- Self Funded Conservation FY 2018-2026 = 118 aMW
- Sum of initial reset CHWMs = 7,319 aMW
- System Size = 7,000 aMW
- If a utility's FY 2026 net requirement is less than or equal to its FY 2026 RHWM, its Post-2028 CHWM is fixed equal to its FY 2026 net requirement and it is not subject to a pro rata reduction (i.e., Post-2028 CHWM floor)
- Pro rata scale down would only impact those utilities with a FY 2026 net requirement greater than their FY 2026 RHWM and only to the extent their FY 2026 net requirement exceeds their FY 2026 RHWM
 - > Until ∑Post 2028 CHWMs = System Size = 7,000 aMW
 - > Conservation adjustment amounts not subject to scale down

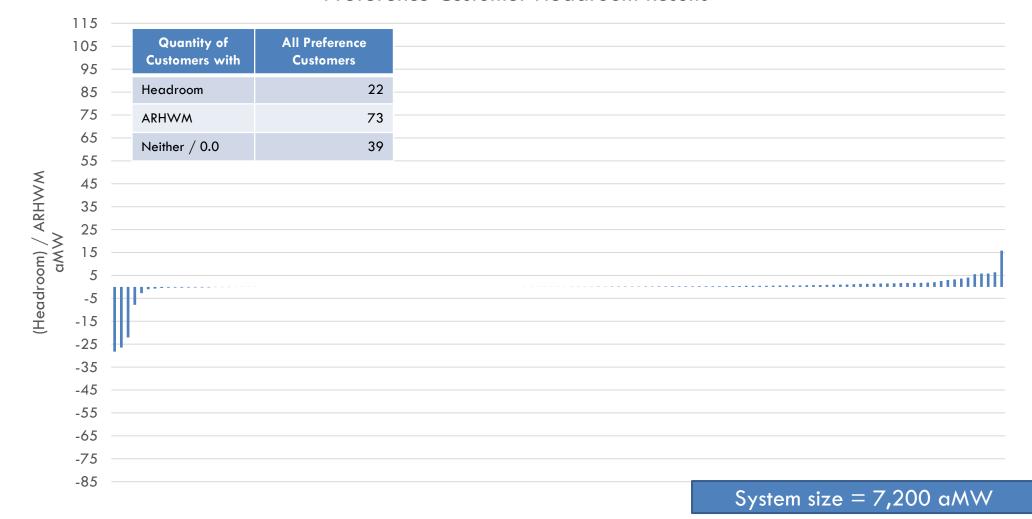
Key Takeaways

- The loads of flat/declining utilities would be load served with Tier 1 at the start of the contract (but no headroom except for conservation adjustment headroom)
- CHWMs of flat/declining utilities are only reduced once via the CHWM reset rather than twice compared to BPA proposal
- High load growth utilities would have more of their load served with Tier 1 than they do now but would still have above-RHWM load
- High conservation utilities would receive some Tier 1 headroom via the conservation adjustment but would generally have less headroom than they have now
- Nobody gets everything they want but they all get something
- Bridge between Regional Dialogue/current state and complete reset

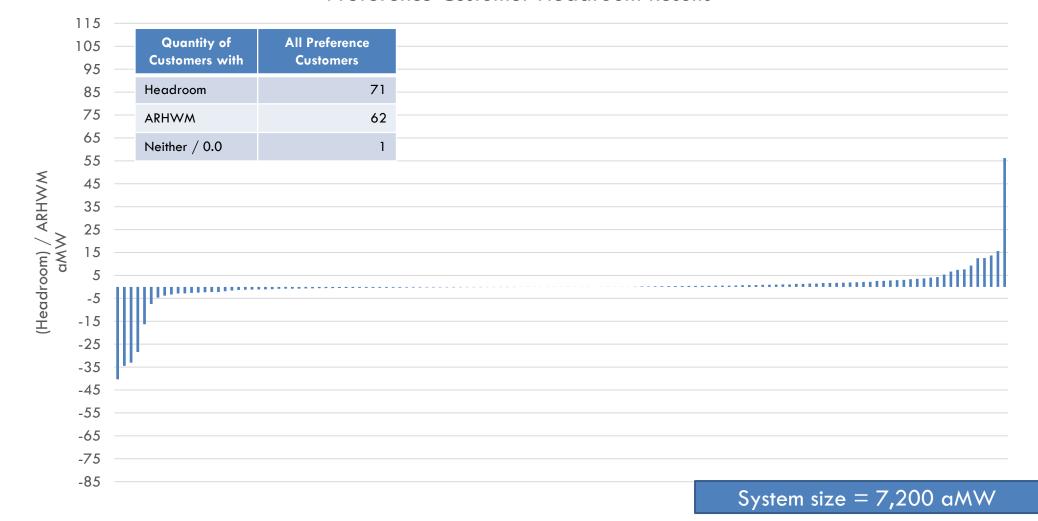
No Worse-Off Alternative w/ Augmentation

- Could use the No Worse-Off Alternative with no Tier 1 augmentation
- Two options if BPA and customers decide to do some Tier 1 augmentation
- Option 1: Calculate Post-2028 CHWMs and scale-down to a larger system size (e.g., 7,200 aMW compared to 7,000 aMW)
 - Every utility pays for augmentation but only the high load growth utilities benefit
 - The FY 2026 net requirements used to establish the Post-2028 CHWM floor for flat/declining utilities also acts as a ceiling under the CHWM calculation
- Option 2: Calculate Post-2028 CHWMs, scale-down to current system size (e.g., 7,000 aMW), then share any augmentation amount pro rata based on FY 2026 net requirements
 - Everyone pays for and benefits from augmentation
 - High load growth utilities receive additional Tier 1/CHWM
 - High conservation and flat/declining load utilities receive Tier 1 headroom

Augmentation Option 1 - No Worse-Off Alternative (Scale-Down to Higher System Size)



Augmentation Option 2 - No Worse-Off Alternative (Pro-Rata Sharing)



Conclusion

- In connection with post-2028 system size and allocation, BPA and preference customers should explore the following in addition to other alternatives:
 - In the event the sum of reset CHWMs exceeds the size of the post 2028 Tier system, establish a CWHM floor for qualifying utilities below which they would not be subject to a pro rata reduction
 - In the event of Tier 1 augmentation, alternatives that seek to share the costs and benefits of augmentation equitably across differently situated customers