

Responses to comments on BP-20 Generation Inputs and Other (Long-Term Rates Analysis) topics are provided below. Many parties submitted comments regarding other rate-related issues as well as tariff and business practice issues; BPA will respond to these comments at a later date, either in writing or orally.

BP-20 Generation Inputs Comments

- 1|** “BPA’s use of fixed costs from all of the Federal Columbia River Power System does not follow cost causation. ... [I]t is M-S-R’s understanding that only a modest subset of BPA’s hydro resources are capable of providing the required ancillary services. Yet all BPA hydro resources are included in the cost of service calculation, which does not follow cost causation or benefits.”

(Commenter – MSR)

Staff Response:

The proposal is to use a total system cost allocation approach, and consistent with this type of cost allocation approach, it includes all the costs that were incurred to reach BPA’s current level of capacity, specifically: financing costs, annual flat power purchases, and certain statutory obligations. While CGS is not flexible enough to provide balancing reserves effectively, it is part of the embedded cost of capacity in BPA’s total system. Further, BPA’s system is operated as a whole and CGS’s base load generation is optimized in concert with the capabilities of all available resources to most efficiently meet all of BPA’s obligations.

- 2|** “Costs of regulatory assets are included that were “guaranteed” by BPA for the sole benefit of a somewhat different group of customers for facilities that were never completed some 40 years ago. These facilities provide no benefits to Gen Inputs customers.” *(Commenter – MSR)*

Staff Response:

The inclusion of the WNP-1 & WNP-3 debt is reflective of the shift from a resource specific methodology to a total system methodology. See the response to (1). It is true that the uncompleted facilities provide no generation benefit to Gen Inputs customers – they provide no generation “benefit” to anyone - nevertheless, these debts are a part of the ‘fixed’ portion of BPA’s revenue requirement which is the basis for these rates. Further, if the plants had been completed they would have been included, just like CGS is, and would have provided baseload generation that would have increased BPA’s 1 hour critical capacity. Additionally, it is important to remember that BPA manages its debt as a single portfolio - choosing to repay or refinance debt in order to manage a host of competing priorities (e.g. low rates, stable rates, borrowing authority, debt to asset ratios). BPA has been refinancing WNP1 & WNP 3 debt, part of Regional Cooperation Debt, to enable BPA to repay higher cost Federal appropriations. The continued existence of this debt allows BPA to reduce total power costs and benefit its customers – including benefiting gen inputs customers through a lower embedded cost calculation. This refinancing has meant that BPA has effectively

swapped debt. Appropriations, backed by Federal assets, have been retired and, in effect, replaced with lower cost WNP1 & WNP3 debt.

- 3|** “BPA’s hydro system represents a unique mix of very high fixed costs and relatively modest variable costs, since water, the fuel of a hydro plant, is almost zero cost. However, M-S-R understands that BPA’s rates for its Power customers collect most of its revenue from volumetric charges (“variable rates”) and a modest portion from demand charges (“fixed costs”). M-S-R does not understand why that same weighting towards energy does not take place when BPA calculates its Gen Inputs rates, where BPA is proposing to assign nearly 50% of the costs to capacity (demand charges) and 50% to energy charges (“variable charges”).”
(Commenter – MSR)

Staff Response:

Most of Power’s revenue requirement is recovered from firm power sales that consume both capacity and energy. Power primarily uses kWh, kW, and \$/% billing determinants to recover its revenue requirement, with the most revenue coming in the form of fixed dollar per one percent of the system customer charges – roughly 95 percent of PF revenue collection. It is not correct to extrapolate capacity and energy classification percentages from BPA’s billing charges because BPA does not set its power rates based on capacity and energy classification. Rather, BPA’s rate design is a function of negotiated price signals and billing determinants that balanced a number of customer and BPA objectives. The demand charge, for example, is designed to send a price signal to a limited portion of a customer’s overall demand on BPA. TRM BP-12-A-03 at 71. The demand charge was not designed to recover the cost of capacity embedded in the system.

The proposed Variable-Fixed methodology would determine a unit cost of capacity based on the embedded cost of the system in order to charge customers taking ancillary and control area services. It would be used to price the limited amount of capacity provided under ACS rates.

- 4|** “Do the savings achieved by BPA’s conservation program reduce what would otherwise be BPA’s obligation to make augmentation and/or Tier 2 purchases? If the answer is yes or that it depends on whether a customer would elect to use a Tier 2 purchase to serve load in lieu of conservation savings, why is conservation not treated the same as augmentation and Tier 2 purchases for purposes of the proposed alternative embedded cost calculation?” *(Commenter – WPAG)*

Staff Response:

Yes, the conservation program does reduce the need for BPA to make augmentation and/or Tier 2 purchases. Conservation is not included because we know of no appropriate method for determining how much conservation is currently “increasing our

capacity” by decreasing our capacity need. Therefore, the proposed method leaves the MWs out of the equation and removes the costs so that the unit cost isn’t distorted.

- 5| “If BPA removed the savings achieved by its conservation program, would it affect the 1 Hour Peak Critical Capacity of the FCRPS? If yes, how and by how much?” *(Commenter – WPAG)*

Staff Response:

The 1 Hour Peak Critical capacity value does not include conservation savings, so removing it wouldn’t change anything. Also see response to the question (4).

- 6| “Are Residential Exchange Settlement costs among the costs included in the numerator in the proposed alternative embedded cost calculation? If not, why?” *(Commenter – WPAG)*

Staff Response:

Residential Exchange costs are not included because the Residential Exchange is a financially settled exchange that does not affect BPA’s capacity. Even if power was purchased and physically exchanged, it would be a one-for-one transaction that would not affect BPA’s capacity.

- 7| “While the proposed changes to the embedded cost methodology would hold most of the balancing reserve rates harmless compared to the current settlement, the VERBS rate for solar would increase 50%. Such an increase in the solar rate is unwarranted and inconsistent with BPA’s comments at the April 24th Generation Inputs Workshop (slide 5) that solar penetration is relatively small and that at this time it is not worth the staff resources to develop operations and rate designs to decrease the impacts of solar integration to the system. Regardless of where the larger discussion on the embedded cost methodology goes, Renewable Northwest recommends that BPA develop a rate approach for solar integration that: 1) recognizes the current de minimis impact to the total BAA balancing reserve requirement and, 2) takes into account that BPA is postponing implementation of holding reserves diurnally to take advantage of the unique characteristics of solar and to minimize the integration burden on BPA’s system (and decrease the cost of providing VERBS to solar resources).”
(Commenter – RNW)

Staff Response:

With respect to the notion of a 50% increase due to this methodology, the solar rate decreased 2 cents per kW under the proposed method compared to the status quo method. The rate under settlement cannot be compared to the rate calculated through the methodology as it was a black-box settlement. Please note, the “Solar Average rate” for settlement presented in the workshop represented the average of 30/15 and hourly scheduling. This was a mistaken comparison because the other two methodologies were presented using hourly scheduling as the assumption. The hourly solar rate under settlement is \$0.28 per kW (not \$0.24). The status quo methodology would have been \$0.38 per kW in BP-18. The proposed method would have been \$0.36 per kW in BP-18. If they were to be compared, this would mean a 28.6% increase from settlement rates.

This rate reflects solar’s “de minimis impact to the total BAA balancing reserve requirement” because the ISD methodology allocates reserve quantities to solar based on its impact on the BAA, and that is the basis for the solar rate.

- 8| “What would be the billing determinates for BPA’s new load balancing reserve ACS rate? Would the billing determinates be different for customers depending on whether they are NT (e.g., monthly peak) or PTP (e.g., contract demand) transmission customers?” *(Commenter – WPAG)*

Staff Response:

BPA is proposing that following and balancing reserve costs currently in the PF Tier 1 rate be recovered from the ACS rates, most likely the Regulation and Frequency Response (RFR) rate. The RFR Rate billing determinant is total load in the BPA Balancing Authority Area (BAA). The RFR Rate will only be charged to load in the Balancing Authority Area because generation is already being charged for regulation, following, and imbalance balancing reserves through the DERBS & VERBS rates.

- 9| “It appears that BPA’s proposal would apply the new ACS rate against a customer’s monthly peak. What is the cost causation connection between a customer’s monthly peak and the amount of balancing reserves they need/use to balance their load?” *(Commenter – WPAG)*

Staff Response:

The RFR Rate billing determinant is total load in the BPA BAA, not a customer’s monthly peak. Setting aside applicability to transfer customers through the Power rates, the RFR Rate will only be charged to load in the BAA because generation is already being charged for regulation, following, and imbalance balancing reserves through the DERBS & VERBS rates.

10 | “Did BPA consider or analyze using a load balancing reserve ACS rate based on actual use of balancing reserves rather than a load customer’s monthly peak similar to what BPA does for the DERBS rate? If no, why not? If yes, could BPA please share that analysis and its reasoning for not proposing such an approach?” *(Commenter – WPAG)*

Staff Response:

Total load in the BAA is reflective of actual use of balancing reserves for load. See the response to (9).

11 | “BPA’s ancillary service Gen Inputs rate is not competitive. BPA has indicated that it VERBS customers will reduce their subscription to BPA’s VERBS service from approximately 4800 MW to 1900 MW- a loss of 2900 MW of customer volume over a period of approximately four years. Public filings indicate the high VERBS rates play a part in the departures. Those remaining VERBS customers likely do so not by choice but due to a lack of any realistic alternative. The methodology being proposed does nothing to address this issue, as it results in approximately the same rates as the old methodology.” *(Commenter – MSR)*

Staff Response:

The cause of VERBS customers leaving the BPA BAA is complex and would require more information to thoughtfully evaluate, such as the impact of the CAISO EIM and requirements of operating a Balancing Authority Area. The specifics of each resource-owner’s situation would need to be considered as well as a host of considerations that were likely evaluated when the decision was made.

12 | “M-S-R understands that BPA intends to reflect market rates for the energy component in its ancillary service, thus creating the very likely result that the demand charge plus the energy charge (schedules 9 & 10) in the Pro Forma Tariff will be materially higher than the fully allocated cost of the assets designated to provide ancillary services, meaning the rates are above cost-based rates.” *(Commenter – MSR)*

Staff Response:

The capacity component of the charge represents only a portion of BPA’s power costs – roughly half. BPA’s embedded capacity cost compensates BPA for holding capacity and standing ready to provide energy when needed. When that capacity is used to produce power, BPA must recover additional energy revenue in order to recover the other half of its full revenue requirement. Said another way, if BPA fully subscribed the capacity of the system at its embedded cost but produced zero energy with that capacity, BPA would be short its revenue requirement by roughly \$1 billion.

13 | “Renewable Northwest appreciates the move to 1-hour capacity measures as it is a better measure of BPA’s ability to provide within-hour services. However, the use of “critical water” rather than “average water” would seem to systematically (on average) underestimate the amount of flexible services BPA is able provide from it units. More discussion on this question is needed.

Renewable Northwest appreciates that this new methodology would remove the risk exposure (PNRR and CRAC) component of the VERBS rate.” *(Commenter – RNW)*

Staff Response:

Critical water is being used because this method is using all firm/critical values. By design, this is a conservative estimate for how much capacity BPA will have during a particular water year. Consistent with that conservative design, one of BPA’s largest risks (inventory risk) is mitigated. Commensurate with this conservative rate design, we are proposing to not include exposure to BPA’s risk mitigation tools (e.g., Cost Recovery Adjustment Clause, financial reserves, and Planned Net Revenues for Risk) that are applicable to power rates that are set on average inventory expectations.

14 | “BPA clarified that it intends to continue the practice of assigning the first 400 MWs of capacity to native load service, and reserves will only be available to support services such as VERBS if there is more than 400 MWs of capacity available. However, the lower priority is not reflected in pricing of the reserves products.” *(Commenter – MSR)*

Staff Response:

This characterization is not accurate. BPA must hold a minimum of 400MWs of capacity to maintain system reliability. This minimum does not mean that the 400 MWs of capacity will be used to manage load error exclusively. Operationally, the full amount of the balancing reserves held, 400 MWs or otherwise, will be used to manage total system error regardless of the amount of error produced by load in a particular moment in time. At the current reserve levels and under BPA’s current operational practice, it is far less likely that BPA will not be able to provide the full planned capacity amounts from the FCRPS. Given the low expected frequency of the planned FCRPS capacity not being available, we do not believe any price adjustment as proposed is justified at this time.

15 | “The Regional Dialogue Guidebook from June of 2010 on BPA’s website states that the Load Following service includes Energy Imbalance Service (page 10). While Energy Imbalance Service under BPA’s transmission tariff is an energy based service, BPA could not promise to provide that service as part of the Load Following product without simultaneously assuming it would set

aside sufficient balancing reserves to deliver imbalance energy when called upon to balance load. In other words, Power Services’ commitment to include the Energy Imbalance Service in the Load Following product included the implicit promise that Power Services would also provide the capacity necessary to meet that commitment. Does BPA agree with this understanding? If yes, how is BPA’s proposal consistent with it? If no, why not?” *(Commenter – WPAG)*

Staff Response:

BPA is not proposing a change to the way energy imbalance is treated. BPA is only proposing to bring the way the capacity is billed into alignment with all other balancing/operating reserve capacity products that load following customers already pay for.

16| “What effect, if any, would the additional spill for fish passage ordered by Judge Simon have on the capacity amount shown on page 16 of BPA’s April 24, 2018 Generation Input presentation?” *(Commenter – WPAG)* “Renewable Northwest appreciates this analysis but would like to see additional sensitivities on how the new methodology performs under a range of operating and financial scenarios. For example, Renewable Northwest would appreciate a demonstration of how the new method would perform under the new “spill regime” imposed on BPA.” *(Commenter – RNW)*

Staff Response:

Due to the nature of a method which primarily uses “no risk” values to calculate the unit cost, most changes do not affect the rate. Here is a summary of potential sensitivities of interest:

<i>Variable Change</i>	<i>Effect on Method</i>	<i>Why</i>
Actual Water Conditions	<i>None</i>	<i>1937 water is used for calculations</i>
Net Secondary Revenue	<i>None</i>	<i>Net Secondary Revenue Credit is not included in the method</i>
Financial Reserves / CRAC Triggering	<i>None</i>	<i>CRACs and PNRR are not included</i>
Included Costs	<i>Significant Effect</i>	<i>For included costs the embedded cost of capacity would change by \$0.01/kW-mo for every \$1,620,308 in changed cost, using BP-18 capacity values.</i>
Spill Operations	<i>Minor Effect</i>	<i>Since 1 hour critical capacity is being used, spill operations should have only a small effect (this has not been fully modeled yet).</i>

Other Comments

- 1 | “Request to Update Long-Term Financial and Rates Analysis: To the extent BPA is not already planning to do so, WPAG respectfully requests that BPA update its Long-Term Financial and Rates Analysis Reference Case Results (the “Reference Case”) and release it with its Integrated Program Review (“IPR”) materials prior to the IPR workshops scheduled for June of 2018. An updated Reference Case will help customers respond to BPA’s IPR proposals and also help customers understand the long-term financial and rate impacts of the new financial policies BPA is currently evaluating and proposing to adopt, including the proposed leverage policy, changes to the financial reserve policy and BPA’s soon to be released access to capital proposals.” *(Commenter – WPAG)*

Staff Response:

The long-term financial and rates analysis, or reference case, was developed and provided by BPA for discussion with customers and stakeholders as part of the Focus 2028 effort. Focus 2028 was a forum with the region about how BPA could meet its statutory obligations and public responsibilities, while maintaining financial strength. Participants were particularly interested in BPA’s long-term rate trajectory. BPA published the October 2015 Reference Case as a result.

The reference case provided BPA with a long-range view of BPA’s financial health and rates. The results from the reference case were not reflective of decisions or policy stances that BPA had set for the future. The results represented an extension of commitments at that time, policies and rates into the future with no judgment on how these positions may change in the future.

At the conclusion of Focus 2028 in the spring of 2016, BPA committed to updating the reference case once more with 2016 Integrated Program Review initial proposal information.

BPA shifted its attention from Focus 2028 to the development of its 2018-2023 Strategic Plan. Lessons learned from the Focus 2028 effort, like the desire to see more cost-management discipline, were incorporated into the development of the plan. BPA is now focused on implementing the four strategic goals outlined in the strategic plan and does not plan on updating the reference case.