MEMORANDUM



EUGENE WATER & ELECTRIC BOARD

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TO: Commissioners McRae, Barofsky, Schlossberg, Brown, and Carlson

FROM: Brian Booth, Chief Energy Resources Officer, Megan Capper, Energy

Resources Manager; Ben Ulrich, Lead Energy Resource Analyst

DATE: February 23, 2024

SUBJECT: Integrated Resource Planning - 2025 Energy Resource Study Kickoff,

Stakeholder Engagement & Analytical Plan

OBJECTIVE: Information and Board Direction

Issue

The 2023 Integrated Resource Plan (IRP) was the first in an iterative process to ensure EWEB can continue to provide safe, reliable, affordable, and environmentally responsible power as we prepare to reassemble our electricity supply portfolio by 2028. Staff have prepared a scope of work and analytical plan for the Energy Resource Study (ERS) which will help prepare the organization for making Bonneville Power Administration (BPA) product decisions in 2025. Staff are seeking commissioner support for the direction of the 2025 Energy Resource Study.

Background

BPA sells power from 31 federal dams and a nuclear plant (called the Federal Columbia River Power System or "FCRPS"), which provide EWEB with cost-based, low-carbon, dispatchable power. Historically, BPA's costs have been relatively low due to the size and scale of these legacy assets. EWEB's current 17-year take-or-pay¹ BPA power contract is called the Regional Dialogue Contract and is set to expire in September 2028. This BPA contract costs EWEB approximately \$80 million annually and provides roughly 80% of EWEB's energy. Negotiations for BPA's next contract offering, referred to as the Provider of Choice (PoC) contracts, are underway. The regional negotiations involve in-depth discussion and analysis of various power products that BPA intends to make available to their customers², as well as other contract and rate principles. For example, this includes contract details such as billing determinants and organized market compatibility. Customers expect to be asked to sign BPA PoC contracts in December of 2025.

In August 2023, the Board adopted the 2023 IRP Action Plan and since that time, staff have made progress on many of the actions. A progress update has been provided in Appendix A. One of the 2023 IRP Actions was preparing to publish the next iteration of the IRP in mid-2025. The

¹ In a take-or-pay contract, the buyer takes the product from the supplier or pays the supplier a penalty. Effectively, EWEB is committing to purchase power from BPA whether or not EWEB actually takes delivery of such power. 2 BPA customers include over 130 NW entities including NW public utilities, like EWEB, and a few direct use industrial customers

timing of the BPA product decision aligns well with the completion of the next iteration of the IRP in mid-2025. Given the strategic importance of this decision, staff believe studying both the quantitative and qualitative impacts of a BPA product decision on the utility will help prepare the Board for this important resource decision. The BPA product EWEB chooses will create the foundation of EWEB's future resource portfolio.

Key Context – Bonneville Products and Services

A comprehensive analysis of EWEB's 2025 BPA product decision will require consideration of the following contract design elements.

Tiered Rate Design

BPA sells power from the Federal Columbia River Power System, which is a finite resource. In 2028, BPA plans to maintain a tiered rate system, dividing costs into Tier 1 (existing FCRPS and some renewable contracts) and Tier 2 (additional resources procured by BPA to meet demand beyond the Tier 1 system capability). Customers are allocated a share of BPA's Tier 1 system, which sets a cap on the amount of power they can receive at the Tier 1 cost-based rate. Under EWEB's 2023 IRP load forecast, EWEB would likely outgrow its Bonneville Tier 1 power allocation due to population growth and increased adoption of electric vehicles and other electrification. In such cases, EWEB would need additional resources to meet its 'Above-High Water Mark' (AHWM) load, beyond the capped Tier 1 power. EWEB has the flexibility to choose how it procures resources for AHWM load. EWEB currently receives only Tier 1 power, but in the future, could choose to either contract for a BPA Tier 2 federally resourced power product, or procure non-federal resources to serve AHWM load.

2028 Power Product Design

BPA is preparing to provide long-term contracts spanning 17-20 years, offering customers a variety of power products to choose from. BPA's plan is to have customers sign contracts in 2025, commence operations in October 2028, and conclude by September 2044. These product options will be cost-based and priced relative to the level of service provided by BPA. Products will range from full-service (Load Following) to minimal-service (Slice/Block). With full-service products, BPA does not provide a set amount of power, but instead manages risk on the customer's behalf and provides services to meet load variation. With minimal-service products, such as EWEB's current Slice/Block product, EWEB gains the ability to best optimize our resources and, in the future, dispatchable loads through direct market access, while balancing risk as outlined by EWEB's risk management policies and procedures. Many utilities who utilize minimal-service products from BPA believe that they can better manage their resource needs on their own, rather than relying on BPA for those services.

BPA Rate Design

Currently, there are four different product types being discussed in the 2028 Provider of Choice process, but the terms, conditions, and level of service have yet to be finalized in the negotiation process. Staff plan to bring more details regarding the different products to the Board later this year.

Because each of these products provides different levels of service from BPA, they will cost different amounts. EWEB staff are actively engaged in BPA's product and rate design processes.

A key principle of BPA rate design is that BPA should be cost-neutral between product offerings, meaning that customers pay for the services they receive and are not being cross-subsidized. EWEB staff continue to advocate for products that can meet our needs and will be priced fairly.

Discussion

A standard Integrated Resource Plan has two main parts: an Energy Resource Study (ERS) and an Action Plan. For the 2025 IRP, staff will prepare an ERS which will compile useful information for making the BPA product decision in 2025. The completion of this ERS in mid-2025 would allow for EWEB management to review the study results before preparing a BPA product recommendation and a first draft of an IRP action plan. In Q4 2025, the Board will review management's recommendation and finalize an Action Plan, including a BPA product selection.

To prepare for these Board actions, staff have developed a timeline of Board presentations and stakeholder engagement through 2025. A draft timeline has been provided in Appendix B. In addition, staff have prepared an analytical plan for the 2025 Energy Resource Study which will gather information that will be useful for making the BPA product decision.

2025 Energy Resource Study Focus and Questions

Specific focus will be given to scenarios and sensitivities which illustrate the differences between BPA's power products. In addition, staff propose to include any findings from the Demand Side Potential Assessment, which can help the utility better understand the role of conservation and demand response in EWEB's future resource portfolio.

Key questions that the 2025 Energy Resource Study intends to address:

- 1. How would different BPA product decisions impact EWEB's resource portfolio?
- 2. Which resources could be used to serve EWEB's future load growth?
- 3. How much energy efficiency and demand response should EWEB pursue in the future?

2025 ERS Analytical Plan

This analysis will gather both quantitative and qualitative aspects of BPA power product offerings and their impact on EWEB. Using our modeling and analysis, staff plan to provide estimates and forecasts to quantify the financial impacts of each product choice. In addition, qualitative considerations like resource diversity, local control, resiliency, and risk management impacts of the BPA product choice will be documented as part of the study.

EWEB's Forecasted Resource Needs and Non-Energy Requirements

The first key element of the analytical plan will be the load forecast. Staff will estimate EWEB's load 20 years into the future and estimate the costs of meeting all of EWEB's energy resource needs. Load forecast uncertainty will likely be a key sensitivity in the study, to understand how variations in the load forecast might change the outcomes of various product decisions.

The resource needs of the utility will also be influenced by our reliability standards. EWEB is a

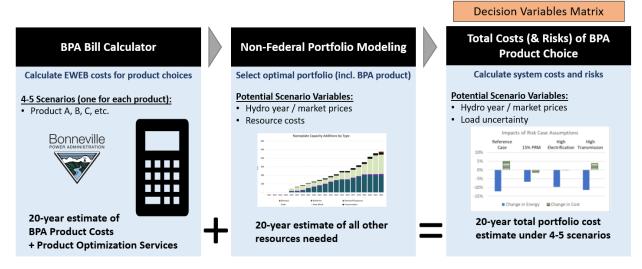
participant in the Western Resource Adequacy Program (WRAP) which requires that participating utilities procure adequate resources to help ensure regional reliability. This program would be binding for EWEB in 2028, which means that EWEB would need to either procure enough generating capacity to meet the program requirements, or pay a penalty for non-compliance. As such, the 20-year load forecast, as well as these WRAP reliability standards, will directly impact the amount and timing of EWEB's future resource needs, and will be a focus of this 2025 Energy Resource Study.

In addition to energy and capacity requirements, the analytical plan will also need to account for EWEB's non-energy requirements from various environmental policies and standards. EWEB is currently subject to Oregon Renewable Portfolio Standards (RPS), which requires EWEB to purchase the output of wind, solar, or other designated renewable resources. In addition to RPS requirements, EWEB's Board amended the SD15 Climate Change Policy in 2021 to support a low-carbon electric power portfolio that maintains, on a planning basis, over 90% of annual energy from carbon-free resources and targets over 95% of annual energy from carbon-free resources by 2030 to the extent possible and practical without distinct adverse impacts to customer-owners. Both the legislated Oregon RPS requirements and EWEB's Climate Change policies will serve as requirements for planning EWEB's future electricity supply.

Analytical Process Overview

Staff will use modeling tools to estimate the total cost of each BPA product decision to serve EWEB's load obligations. Each BPA Tier 1 product choice would be treated as its own individual scenario and will assume a given product has been chosen by EWEB starting in 2028. The costs of each product selection will be estimated using a "BPA Bill Calculator." Then, given that product selection, staff will identify a least-cost mix of non-federal resources needed to supplement the BPA Tier 1 product and meet EWEB's future portfolio requirements. Finally, a distinct portfolio of resources will be developed for each scenario (one for each BPA product choice) and the performance of that portfolio can be analyzed under various conditions to understand the risks and uncertainties associated with each portfolio.

Example Analytical Flow:



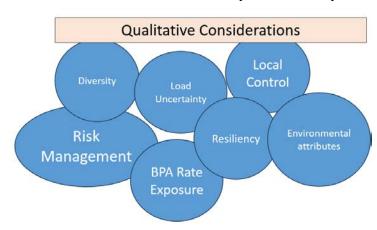
Quantitative and Qualitative Considerations

The modeling and analytics described above can be used to compile a table, or "Decision Variables Matrix", which can be useful for comparing the BPA products to each other. The purpose of the quantitative analysis is to differentiate the products and quantify the financial impacts wherever possible. Staff will utilize existing tools (like Aurora) along with new tools to calculate leastcost portfolios for each product scenario as well as any other relevant costs associated with a particular product choice.

Decision Variables Matrix						
	Product A	Product B	Product C			
BPA Service Level	High	Mid	Low			
BPA Costs (Rates x Billing Determinants)	\$\$\$	\$\$	10,			
Non-Fed Resource Costs	\$ 1	\$\$	\$\$\$			
Additional Services/Product Optimization Costs	onth	585	\$\$			
Total 20-year Portfolio Costs	\$\$\$	\$\$\$	\$\$\$			

The financial estimates will be useful for decision makers to

understand the magnitude of the differences between the various BPA products. However, the financial estimates alone are unlikely to be the only consideration in the BPA product decision.



As staff look into the terms and conditions, pricing and level of service for each BPA Tier 1 product, we will gather qualitative considerations that we believe will be useful in making the final BPA product decision. These qualitative considerations will be important as they can have implications on the complexity of EWEB's operations and portfolio management activities.

Communications and Stakeholder Engagement Plan

EWEB's communications strategy for the 2025 Energy Resource Study will build on the outcomes of the 2023 Integrated Resource Plan communications, while adding an extra key element. A key lesson from the 2023 IRP communications was that intentional effort is required to ensure public engagement from people of diverse backgrounds and interests.

The goals of the 2025 ERS communications strategy are to (1) educate the community about the tradeoffs inherent in energy supply planning and (2) solicit useful community feedback. The communications strategy will have three core elements:

• **Board education:** The ERS team will regularly update the Board with new information

and analysis.

- Educational campaign: The Communications team will publish educational content about the ERS and will pursue publicity at regular intervals. Content will generally be tied to the topics the Board is learning about, but also about other energy supply issues. These educational efforts will take place via EWEB's usual channels, including a website, bill inserts, news stories, email newsletters, social media and earned media coverage.
- "Community Table" focus group: EWEB's Communications team will launch a community focus group of less than 20 representatives from diverse interest groups and backgrounds (including low-income representatives, environmental groups, business leaders and others) to journey with us as we plan our energy supply future. Approximately quarterly, EWEB will hold meetings with the Community Table to educate them on the ERS and to take their pulse on the issues. The Communications team will extend invitations to the Community Table in late spring, with a kickoff meeting planned for early summer. To be clear, the Community Table is *not* an advisory committee. Rather, it is an informal opportunity for EWEB and community representatives to learn from each other and have a dialogue.

EWEB's Communications team will also collect public input via email and other methods and summarize it for the Board as part of the final ERS packet.

Recommendation & Next Steps

Staff are seeking Board support on the direction of the 2025 Energy Resource Study Analytical Plan and Communications and Stakeholder Engagement Plan.

Requested Board Action

No formal action requested at this time.

Appendix A - 2023 Action Plan Updates

In addition to kicking off the 2025 IRP, EWEB staff is making progress on many other action items identified in the 2023 Action Plan.

BPA Contract: Megan Capper, Energy Resources Manager and Power Planning staff continue to actively engage in BPA's Provider of Choice regional discussions to define a post-2028 BPA contract. This regional discussion process involves over a hundred utilities who all have a right to cost-based preference power from BPA. The process is well underway as utilities advocate for BPA system allocation, power products, rate design, and contractual terms they would like to see offered in the next BPA contract.

Conservation/Demand Response: EWEB has published a Request for Proposals (RFP) for consulting services to perform a Demand-Side Potential Assessment. This work will estimate the potential (availability and cost) for conservation and demand response within EWEB's service territory. The work is expected to be completed in the next 12-15 months, depending on the RFP responses from consultants.

Existing Resources: In December, the Board approved a resolution to extend the joint operation contract for the 25 MW steam turbine generator located on International Paper's property through September 2028 to align with our current BPA contract. This extension helps fill resource gaps in the portfolio and provides benefits to all EWEB customers, including International Paper.

Market Impact Analysis: EWEB has engaged Utilicast to perform a Power Markets Gap Analysis to help identify the gaps and investments required in systems, processes, and resources EWEB will need in order to participate in new market constructs. Work is currently underway for this analysis.

Ongoing IRP Process Improvements: Power Planning analysts continue to identify modeling improvements in Aurora. Most notably, staff has been working to incorporate monthly capacity targets (instead of annual) into our least-cost portfolio selection process. These monthly targets are anticipated to impact EWEB's least-cost portfolio solutions by identifying a resource mix which helps meet EWEB's growing summer peak needs in addition to our higher winter peak capacity requirements. This enhancement is also expected to better align with the reliability standards utilized in the Western Resource Adequacy Program.

Appendix B – Draft Board Timeline

Year	Board Meeting*	Requested Board Action	IRP Topic	Description	
2024	March	Information & Direction	Kickoff	2025 Integrated Resource Plan & Energy Resource Study Kickoff, Scope & Analytical Plan	
	June	Information & Direction	BPA Products	BPA Product Choice Overview	
	September	Information & Direction	Assumptions	Annual IRP Update & 2025 Energy Resource Study Assumptions	
	December	Information & Direction	Initial Results	Initial Results of BPA Product Analysis	
2025	April	Information & Direction	Modeling Results	Modeling & Sensitivity Results of BPA Product Analysis	
	July	Information & Direction	Study Completion	Presentation of Final Study	
	September	Discussion & Direction	Action Plan	Draft Action Plan & Management's BPA Product Recommendation	
	December	Board Authorization	Action Plan & BPA Product Selection	Finalizing Action Plan and BPA Product Selection	

^{*}Before Board presentations on ERS topics, staff will conduct Community Table focus group sessions to engage in discussions with the community.