



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Brown, Carlson, Barofsky, McRae, and Schlossberg
FROM: Megan Capper, Energy Resources Manager, Matthew Schroettig, Power Planning Supervisor
DATE: July 1, 2022
SUBJECT: 2022 Annual IRP Update
OBJECTIVE: Information Only

Issue

The intent of this 2022 Integrated Resource Plan (IRP) update is to provide high-level context and an annual update to the action items established in the 2011 IRP.

Background

Integrated Resource Plans are tools to assist utilities in making long-term generation resource decisions under various scenarios. EWEB completed its last IRP in 2011. Since then, staff have updated the Board annually on the resulting action items. In 2020 and 2021, the Board decided that an electrification study would be the focus of the utility's near-term planning efforts. Staff completed the electrification study in fall of 2021, and the information gathered in it is being used in EWEB's load forecast as well as the 2022 IRP. Staff have begun analytical work on the 2022 IRP and will release an initial draft for Board feedback in December.

Discussion

Summary of 2011 Action Items and 2021 Update

In the 2011 IRP, EWEB concluded it had no immediate need for new resources, recommending reliance on conservation programs to meet future customer load growth, augmented by market purchases in the event of a new large load. The only instance in which EWEB was forecast to have a potential supply shortage over the 20-year study period was during an extreme (one-in-ten) weather event.¹ Below, we highlight the most relevant changes from our last update. Based on the 2011 IRP framework, EWEB's portfolio remains adequate to meet our needs and continues to utilize the market to manage financial risk.

The wholesale energy market continues to be liquid, though prices have risen substantially in recent months and are forecast to remain high through 2023 due to significant price increases in natural gas. EWEB is engaged in the Northwest Power Pool's (NWPP) Western Resource Adequacy Program (WRAP) development, intended to ensure sufficient capacity is available to serve regional load in the face of increasing coal retirements and shifts toward renewable energy in the West. Frank Lawson serves on a small executive team and EWEB is also represented on the Steering Committee and at the Committee level.

The WRAP program has moved to the non-binding implementation phase, and both EWEB and BPA

¹ Peak demand due to cold temperatures.

have signed on as participants. EWEB will need to make a decision on whether to join the binding phase of the WRAP program by the beginning of 2023. If EWEB joins the binding phase of the WRAP, the utility will be required to demonstrate that it has sufficient resources to meet a one-in-two peak load event plus a planning reserve margin or face financial penalties.

Update to Action Items since 2011 IRP

Below is a summary of each adopted action item with discussion of adaptations to fit with current industry, market, and affordability trends.

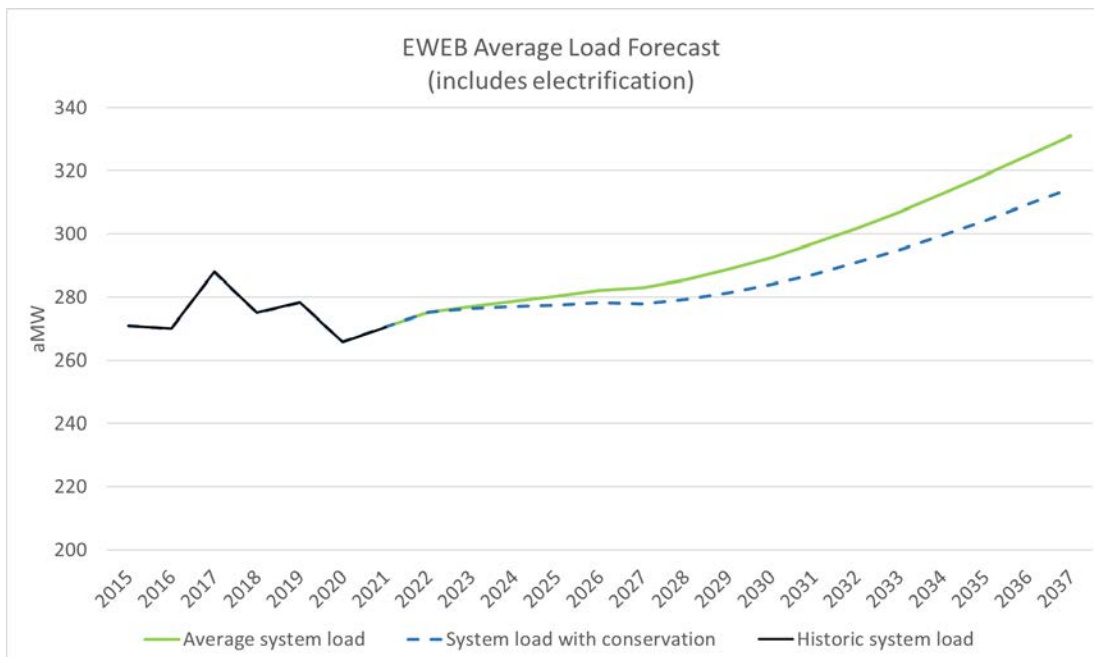
2011 IRP Action Items:	2022 IRP Update:
Meet load growth with conservation.	We have been meeting this action item.
Work with our customers to avoid peaking power plants by using new demand-side management programs.	If the regional generation supply continues to tighten, EWEB will look at both supply-side resources and demand-side opportunities to serve peaking needs.
Continue to cultivate regional partnerships.	We continue to work with regional partners to influence regulatory and policy outcomes that reflect customer interests.
Enact new large load strategy, if needed.	We have a tariff in place for any new large load.
Annually update key planning assumptions and look for material changes.	The update of assumptions is ongoing. We are configuring and implementing new planning models and adopting best practices to address recent industry changes as part of the 2022 IRP.

Meet Forecast Load Growth with Conservation

EWEB continues to meet all load growth with conservation. Annual conservation targets are based on our 5-year average load growth forecasts. Since 2011, EWEB has experienced flat or declining loads. As a result, updates to the load forecast have reduced forecasted conservation targets significantly since the 2011 IRP. EWEB continues to fund conservation measures which meet the level of activity required to be reimbursed for our conservation investment in BPA. In addition, EWEB targets conservation measures that help reduce EWEB’s peak load.

EWEB’s load decreased in 2020 due to impacts of COVID-19 and rebounded in 2021 as unemployment rates stabilized. EWEB expects that with increasing rates of electrification, load growth could outpace current levels of conservation by the late 2020’s. Conservation will be treated as a resource in the 2022 IRP and staff will provide information on cost effectiveness and resource potential as part of the IRP process.

Figure 1. EWEB Historic Average Loads and Forecast



Partner with Customers to Avoid New Peaking Power Plants

EWEB has previously conducted seven demand response (DR) demonstration projects (four residential and three commercial/industrial). These projects demonstrated that control technologies generally work well, but metering, telemetry, and validation methods are required. After concluding these DR demonstration projects, staff determined that weak wholesale market price signals, both to justify upfront costs and to incentivize meaningful customer behavior, made DR a suboptimal solution at that time. Staff will be discussing demand response treatment in the 2022 IRP at the August Board meeting. As needed, markets continue to be a near-term solution in lieu of a peaking power plant.

Resource-Specific Decisions

Several EWEB-owned resources have been rendered non-operational in recent years (Leaburg) or are scheduled to retire in the next several years (Trailbridge). Best available information about retirement dates or operational availability will be included in the 2022 IRP. Generation staff are currently working in collaboration with the Board and the McKenzie Valley Community to set the direction of the Leaburg Hydro Electric Project toward either a power producing asset or a storm water conveyance asset.

Continue to Leverage Regional Partnerships

EWEB staff continues to advocate on behalf of customer owners to preserve and enhance the value of our power portfolio, consistent with our community's values. Building upon decades of successful partnership, EWEB influences BPA decision-making through regular input at the policy and rate case levels. As a key focus area, EWEB staff are actively participating in the development of the BPA 2028 contract framework. Additionally, staff engages with decision makers at the state, regional, and federal levels on energy and transmission policy.

Pursue New Large Load Strategy, if Needed

A key discussion in the 2011 IRP was how to serve a new large load, since it is unlikely conservation could ramp up quickly enough to offset such load growth. The IRP recommendation was to rely on

existing resources, conservation (where possible), and market purchases to meet the increased demand. That recommendation will continue to be the best approach for the utility.

Annually Update Key Planning Assumptions

As part of the 2022 IRP process, staff have been revisiting all major assumptions for long-term planning. This includes load forecasting updates, including the electrification study, best-available information on energy efficiency and demand response potential and products, as well as potential new resource options for the utility in the future. Staff plan to present a list of supply-side resource options to be considered in the 2022 IRP to the Board in August.

2022 IRP Update – Next Steps

Management is providing this annual update as part of its commitment to the 2011 IRP. Staff will continue to exercise the flexibility inherent in the 2011 IRP to meeting its objectives, including supporting EWEB's affordability goals. Staff are actively conducting analysis and modeling for the 2022 IRP and will be engaging with the Board throughout the remainder of 2022 on specific topics.

Requested Board Action

This update is for informational purposes only.