



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Schlossberg, Brown, Carlson, Barofsky, and McRae
FROM: Susan Ackerman, Chief Energy Officer, Megan Capper, Energy Resources Manager
DATE: June 1, 2021
SUBJECT: 2021 Annual Integrated Resource Plan (IRP) Update
OBJECTIVE: Information Only

Issue

The intent of this 2021 Integrated Resource Plan (IRP) update is to provide high-level context and an update to the 2011 IRP Action Items.

Background

Integrated Resource Plans are tools to assist utilities in making long-term generation resource decisions under various future scenarios. EWEB completed its last IRP in 2011. Since then, staff have updated the Board annually on the plan's action items. With no immediate need for new power resources, EWEB management and Board of Commissioners determined in March 2020 that an electrification impact study will be the near-term focus of the utility's planning efforts. Since then, staff have completed Phase 1 of the Electrification Study and will present preliminary results of Phase 2 in August. Once complete, staff will be ready to direct its efforts back to Integrated Resource Planning.

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 for summer of 2021 have increased due to a below average water year, anticipated warm weather, and continued coal resource retirements in the region. EWEB is engaged in the Northwest Power Pool's (NWPP) Resource Adequacy Program development, intended to ensure sufficient capacity is available to serve regional load in the face of increasing coal retirements and shifts toward renewable energy

¹ Peak demand due to cold temperatures.

in the West. Frank Lawson serves on a small executive advisory team and EWEB staff are also represented on the Steering Committee and at the Committee level. The RA program moved to the detailed program design phase this past fall and is currently in the process of developing a Governance recommendation for program participants. By early 2022 the program will be non-binding with a plan to implement the binding program by 2024.

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.

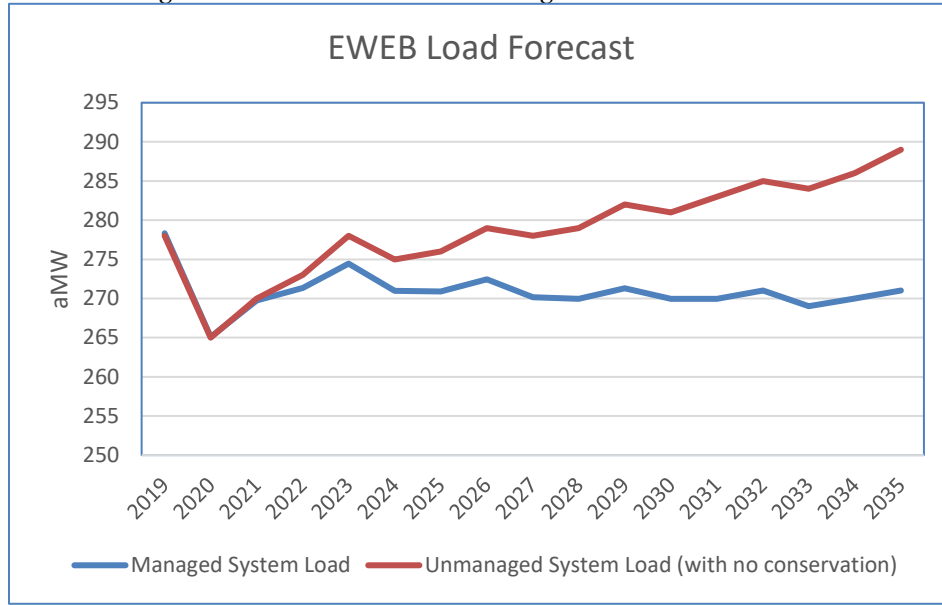
2011 IRP Action Items:	2021 IRP Update:
Meet load growth with conservation.	We have been meeting this action item.
Work with our customers to avoid peaking power plants by using new demand-side management programs.	If the regional generation supply continues to tighten, EWEB will look at both supply-side 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 updating of assumptions is ongoing. We are configuring and implementing new planning models and adopting best practices to address recent industry changes.

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.

Economic impacts of COVID-19 contributed to a decrease in load of approximately 5% between 2019 and 2020. Other than the pandemic, some of the decline can be attributed to a large industrial customer closing permanently in early 2020. A return to average load (270 aMW) is forecasted within the next 12-18 months, with conservation maintaining minimal load growth throughout the current planning horizon. Both energy and peak conservation targets in the load forecast are established as minimums.

Figure 1. EWEB Historic Average Loads and Forecast



Partner with Customers to Avoid New Peaking Power Plants

EWEB has 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 the concluding these DR demonstration projects, staff concluded 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. However, as we begin to see evolutions in regulation, market dynamics, and technology, there may be opportunities to revisit this topic in a future IRP. As needed, markets continue to be a stop gap solution in lieu of a peaking power plant.

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. Additionally, EWEB 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 work for the utility.

Annually Update Key Planning Assumptions

Staff have spent the past year working on the Electrification Study to provide an in-depth analysis of potential electrification in EWEB's service territory. In support of this work, new end-use load modeling tools were developed which can be used in future load forecasting efforts. These tools are kept up to date as new information and assumptions become available, reflecting the best available data to inform resource decisions as they arise.

2021 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. After completion of the Phase 2 Electrification Study in 2021, management anticipates further electricity supply planning work related to enhanced demand forecasting and beginning work on an IRP.

Requested Board Action

This update is for informational purposes only.