



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

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

FROM: Brian Booth, Chief Energy Resources Officer; Megan Capper, Energy Resources Manager; Jon Hart, Power Planning Supervisor; Aaron Bush, Energy Resource Analyst

DATE: September 22, 2023

SUBJECT: PURPA Standards Initial Analysis – Demand Response and Vehicle Electrification

OBJECTIVE: Information

Issue

As discussed at the September Board meeting, recent legislative changes to the federal Public Utility Regulatory Policies Act (“PURPA”) require EWEB to consider and respond to new demand response (DR) and electric vehicle charging programs (EV) standards. Since the September Board meeting, staff have solicited customer feedback, and developed initial analysis on whether the standards are appropriate for EWEB. This memo provides updates on staff’s analysis and draft findings. The purpose of these draft findings is to help the Board and the public more effectively provide comment and feedback. The Board will be asked to issue a determination on the new standards at the November Board meeting.

Background & Discussion

At the September Board meeting, the Board approved a new PURPA Hearings Process, which is being used to solicit public feedback and consider the new EV and DR standards. The public will have time to comment during the October Board meeting (after staff’s presentation), and the written comment period is running from September 8 through October 14. Final public comment will inform the recommended determination of whether the standards are appropriate for EWEB. For additional background on PURPA, please see the [September Board materials](#).

Consideration and Determination

PURPA requires that EWEB determine whether the new DR and EV standards are “appropriate” for EWEB before November 14. Specifically, EWEB must “make a determination concerning whether or not it is appropriate to implement” the new EV and DR standards to carry out the purposes of the PURPA. The PURPA purposes are to:

- Promote conservation of energy
- Promote efficient use of facilities and resources
- Provide equitable rates to customers

Adopting a PURPA standard is an indication of overall policy direction and should reflect the strategic direction of the utility and its existing circumstances. Adoption of a standard is also a snapshot in time. If EWEB adopts the standards and finds that they are no longer appropriate at a future date, EWEB may change utility practices or policies accordingly, without reopening the old determinations. EWEB has adopted numerous PURPA standards in the past, and our business practices and policies have changed without having to reconsider the relevant standards.

Public Feedback

Staff are still collecting public feedback on the standards. Prior engagements around the 2023 Integrated Resource Plan leads us to believe customers will be supportive of adoption. Given that customer feedback is important to this process, staff will be conducting additional outreach to community members before the October 14 comment deadline.

Staff Initial Analysis on Appropriateness of PURPA Demand Response and Electric Vehicle Standards

As discussed at the September Board meeting, the two new standards are broadly aligned with EWEB's strategic direction and existing or planned programs. After incorporating and considering public feedback, staff *will likely recommend to adopt the standards, with clarifications, in November*. More specifically, staff believe that there is little downside to adopting the standards, given that this allows EWEB to maintain consistent messaging with customers about the utility's direction and increase awareness about anticipated changes in rates or programs.

Staff from the following departments were involved in analysis and discussion to date:

- Customer Solutions
- Power Planning
- Financial Services and Rates
- Climate Policy
- Communications

The sections below discuss the standards in more detail and describe why they are broadly appropriate for EWEB. They also discuss why additional clarifications are needed for EWEB to adopt the standards.

PURPA Demand Response Standard

The proposed PURPA demand response standard is described below. It states that utilities should promote demand response practices and permits utilities to design rates for these.

Demand-response practices

(A) In general

Each electric utility shall promote the use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand.

(B) Rate recovery

A nonregulated electric utility may establish rate mechanisms for the timely recovery of the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A).

Appropriateness of the Demand Response Standard for EWEB

The standard is appropriate for EWEB, but needs clarification. As discussed in the September Board memo, the demand response standard is aligned with our strategic direction. The following highlights the reasons why demand response practices, (A) above, are appropriate for EWEB:

- Demand response was selected as a cost-effective resource in the Integrated Resource Plan (IRP) and is part of the Action Plan.
- Demand response can reduce our peak planning obligations and reduce the need to purchase new generating resources.
- Demand response potential is expected to grow as electric vehicles, smart thermostats, and other ‘DR capable’ technologies become more prevalent.
- Resource mix and load changes (renewable resources and electrification) point to greater needs and opportunities to shift peak load through DR.

While the standard is broadly appropriate for EWEB, there are existing barriers to implementation. These include:

- EWEB is in process of completing advanced metering infrastructure (AMI) installation and billing systems upgrades (EWEB Enterprise Solutions, EES) that are necessary for demand response and dynamic rates.
- EWEB has several steps to take before we can meet the standards (designing and implementing programs, designing rates, etc.).
- Currently there is not a price signal for customers to implement demand response. EWEB will assess demand response potential as part of the IRP.

Several of these ‘barriers’ are more related to section (B) of the standard, establishing rates for demand response, than they are to the appropriateness of demand response for EWEB.

If EWEB decides to adopt the DR standard, our determination will need to include clarifications on EWEB’s specific circumstances. For example, the determination language would address actions EWEB would take (including those we have already committed to) that move us towards DR implementation. Adopting the standard would *not* mean that EWEB will immediately enact comprehensive DR programs and rates.

Appropriateness of the DR Standard to carry out the PURPA Purposes

The standard is appropriate for PURPA. The DR standard is almost directly aligned with PURPA's purposes to promote efficient use of facilities and conserve energy. The primary distinction between demand response and energy conservation is that DR targets peak load and efficient use of *capacity*, whereas energy efficiency targets efficient use of *energy* over time. This distinction is reflective of the change in energy system dynamics between the 1970's and today.

In the 1970's most electric generators burned fossil fuels which were scarce and expensive at the time. Conserving *fuel* was the primary goal. In contrast, with the proliferation of renewable resources today, energy is expected to become much less expensive and scarce. However, forecasts and data are showing capacity (the ability to generate as needed at peak times) will become scarcer. In this context, the demand response standard is appropriate to incentivize efficient use of resources and defer investment in new peak generating resources.

Electric Vehicle Charging Programs Standard

The proposed PURPA electric vehicle charging programs (EV) standard is included below. It states that utilities should promote transportation electrification and lists several rate mechanisms intended to do so.

Electric vehicle charging programs

Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that—

(A) promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure;

(B) improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles;

(C) accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles; and

(D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

Appropriateness of the Electric Vehicle Charging Programs Standard for EWEB

The standard is appropriate for EWEB, but needs clarification. As discussed in the September Board memo, the electric vehicle charging standard is broadly aligned with our strategic direction. The following highlights the reasons why promoting electrification of the transportation sector is appropriate for EWEB:

- As described in the September Board memo, EWEB has [several existing programs](#) and

incentives for electric vehicle charging infrastructure.

- EWEB is an aggregator of Oregon Clean Fuels Credits providing financial assistance to help fulfill some of the intentions of the PURPA standard.
- The purpose of the standard, to promote electrification of the transportation sector, is aligned with EWEB's commitment to [CAP2.0](#). These commitments call out specific actions that EWEB will take to help reduce community fossil fuel use (such as promoting electric vehicles).

For these reasons, staff believe that the broad purpose of the standard, to promote vehicle electrification, is appropriate for EWEB. *However, as described below, EWEB would require additional clarifications to adopt the standard.*

- (A) ***Appropriate, but needs clarification.*** While staff agree that it is appropriate for EWEB to promote affordable charging infrastructure, the Standard's use of the term 'equitable' is ill-defined and does not encompass the full range of issues related to access. For example, promoting charging infrastructure does not address whether customers can afford electric vehicles, or whether electric vehicles are best suited to meet our customer's needs. EWEB will want to maintain the ability to design and implement programs that we believe meet our customer's needs and interests. Similarly, EWEB will want to address broader issues of general mobility and transportation options and equity rather than follow a narrowly defined 'electric vehicle' standard. By mobility and transportation options, EWEB means non-vehicle transportation methods such as walking, biking with traditional and e-bikes, inter- and intra-city public transit options including use of electric buses and shuttles, bike and EV car-share programs, and the intersection or linking of these systems throughout the community. In general, EWEB's programs go above and beyond the standard in considering equity issues.
- (B) ***Appropriate, but needs clarification.*** EWEB has already implemented a number of programs to increase access to chargers and reduce charging times. However, EWEB cannot unilaterally 'improve the customer experience,' as this is a broader issue related to access, EV design, and higher-level policy. Additionally, increasing charging speeds (and reducing charging time) tends to increase the cost of energy delivery. While it is not mutually exclusive for EWEB to offer faster charging and offer more affordable charging options, there is a tension between these goals that will need to be balanced in future decisions and ratemaking.
- (C) ***Appropriate, but needs clarification.*** EWEB has already implemented a number of programs and incentives to support investment and installation of EV infrastructure by other parties. Supporting third party investment can help bring in additional, outside funding for EV infrastructure and increase opportunities for access. However, many third parties do not have the same mandate to promote the public good as EWEB, and their rate designs or other decisions may not reflect community values or equity considerations in the same way that EWEB would incorporate these.
- (D) ***Appropriate, but needs clarification.*** EWEB expects EV adoption to occur. By incorporating marginal costs into our rate design, we can reinforce the value that Managed EV charging programs create as a tool to mitigate peak load impacts. However, marginal cost recovery may not always result in an 'equitable' outcome, and EWEB will need to consider how affordable charging options intersect with rate design and charging speeds.

Alignment of the EV Standard with PURPA Purposes

The Standard is appropriate for PURPA’s purposes, but needs clarification. In contrast to the DR standard, which would reduce peak load, the EV standard is likely to *increase* peak load. On its face, this is contrary to the purpose of PURPA to *reduce* energy consumption. However, given the societal transition to renewable energy, the standard should be considered in a broader context. Viewed as a mechanism to use renewable energy resources more efficiently for mobility outcomes, vehicle electrification presents an opportunity to take advantage of existing infrastructure and expected generating resource characteristics.

Next Steps

These materials represent staff’s initial analysis of the new EV and DR standards. In November, the Board will be asked to approve resolutions on whether to adopt the standards. *The resolutions will clearly spell out any ‘clarifications’ needed to ensure the standards are appropriate for EWEB.*

Recommendation and Requested Board Action

No action is requested at this time. The information is provided to facilitate Board discussion and feedback.