Resource Planning Advisory Group feedback report

Meeting details

- Tuesday, July 29, 2025, 10:00 a.m. - 1:00 p.m.
- Virtual webinar hosted by PSE and facilitated by Triangle Associates
- Links to:
  - Presentation
  - Meeting recording

Feedback

The following records participant questions and PSE responses from the public comment opportunity and comments submitted via online feedback form or email to isp@pse.com. Meeting materials are available on the Integrated System Plan website. *PSE responses are shown in teal italics.*

Note: PSE aims to provide clarity in responses but subsequent follow-up may be required at times. Please direct any follow-up clarifications to isp@pse.com.

RPAG member feedback

1. Quinn Weber on behalf of Washington Utilities and Transportation Commission (UTC) staff, August 5, 2025 via isp@pse.com

Staff notes that allowing public participants to come on camera is a welcome addition to the public comment period and thanks PSE and Triangle Associates for facilitating that change.

Thank you for your feedback.

Around 2:15 PSE refers to state building codes, Staff wants to make sure PSE is also accounting for the fossil fuel zero goal by 2031 from **statute (RCW 19.27A.020)** subject to I-2066 continuing to be found unconstitutional**.**

PSE has engaged services from a consulting company (Cadmus Group) to conduct the ISP/CPA (Conservation Potential Assessment) study, which involves estimating the impacts for electrification, energy efficiency, and codes and standards. Carbon reduction targets and relevant statutes are accounted for in this assessment.

Slide 45: Will PSE be accounting for large municipalities within its gas service territory that also have carbon reduction goals? Are there practical reasons to only include Seattle other than it has explicitly stated building emissions performance standards?

PSE intends to account for all major policies that could potentially impact gas customers and sales within PSE's service territory. In terms of municipalities that have carbon reduction goals, the Seattle Building Emission Performance Standard is explicitly accounted for because this municipal code is currently in effect and potentially impacts 18% of PSE's commercial sales. Broad carbon reduction goals by municipalities or jurisdictions that do not include mechanisms that may directly impact PSE's customers or PSE's operations are typically not reflected because such policy objectives lack specificity to enable modeling and planning.

Slide 47, PSE still plans for growth, though nearly negligible. Staff would like to see the analysis to substantiate this assumption. Does PSE have a scenario where gas customer growth is negative before 2045?

PSE's F25 base case gas customer growth forecast is informed by several factors. Despite recent policies discouraging gas adoption, PSE is observing positive customer additions, although at a decreasing rate. Because of this continued trend in customer growth, uncertainties around policies, and conversations with local home developers, PSE forecasts gas customer growth at a very low rate (0.1%). PSE is open to reviewing the gas customer growth model and assumptions with Staff in more detail, if desired.

The ISP scenarios that PSE is developing in partnership with Cadmus consider varying levels of electrification. At higher levels of electrification, these scenarios will include negative gas customer growth before 2045.

What data does PSE have about how the phasing out of line extension allowances has impacted customer counts?

The phasing out of line extension allowances occurred in tandem with the implementation of the 2021 Washington State Building Code and additional availability of incentives for home electrification, so it is difficult for PSE to attribute a specific proportion of the decline of gas customer growth to this phase out with confidence. However, our gas residential customer growth model does include a variable

approximating the stages of declining line extension allowances over the phase out period. Prior to 2023, the model estimated that 480 customers were added annually due to the availability of the line extension allowance, with that number of customers declining in proportion to the phase out of the allowance until 2025. Outside of the modeling/estimation approach, PSE has heard from developers that they are considering the cost of paying for line extensions in their plans.

Between slide 46 and 47 PSE slides have different X axis; one goes to 2045 and the other to 2050. Staff requests consistent time horizons out to 2050.

Our goal is to use consistent labeling for charts displaying similar information. Thank you for drawing our attention to the inconsistency on the axis in one of the charts. We will keep a note of this for our future presentations.

It would be prudent for PSE to consider that the Washington Department of Ecology will adaptively manage its allowance auctions to bring covered emissions in line with state emissions goals. As well as modeling customer responses to price signals.

PSE has engaged a consultant to help with studying the impact of electrification on PSE's gas and electric system. A part of this study involves how increasing electrification creates an upward force on gas prices which makes electrification more economically appealing. This pattern creates a feedback loop in which electrification and gas prices cause each other to accelerate. The consultant conducted a detailed study to estimate all these impacts. PSE plans to present this study in a future RPAG meeting.

Around 2:31 Phillip Popoff discusses elasticities. Staff has concerns about the use of "elasticities" in modeling. Staff raises the following concerns about elasticities:

- Traditionally, elasticities are modeled such that a percent change in price corresponds with a percentage change in demand multiplied by a given coefficient. Were price to linearly increase, this would correspond with a slowing or asymptotic loss in demand rather than an accelerating loss in demand associated with a positive feedback loop and a normally distributed set of household fuel-switching thresholds.
- Elasticities, as a micro foundation, operate on the assumption that a given customer has flexibility in their demand; this might be substitutes or the ability to simply go with less. Utility customers have some ability to modify their demand, but it has a lower bound. especially for space heat. Given that the utility is a monopoly, customers have limited options for substitutes and such substitutes are not marginal, but rather are large step-wise functions.
- Staff instead encourages PSE to consider the fuel-switching logic of a given customer and then to extrapolate from that logic a heterogeneous distribution of customers that is representative of PSE's customers.

We appreciate your feedback. We recognize that the traditional concept about elasticities cannot be applied in this case because a customer cannot just go with less as a response to higher prices. As explained above, PSE is taking into account price responsiveness via the electrification impact study, which was conducted by the consultant.

2. Outstanding RPAG member questions, in-meeting, June 24, 2025

It would be good to better understand what criteria PSE is using to assess which data centers to include. I am not sure I understand the distinction if it is just based on who owns the data center and what it is used for now.

Connection inquiries move through several stages of study before the final step of actually connecting to PSE's system. The criteria used to determine whether a large load should be explicitly included in the demand forecast is based on how far along the request is in the study process. In PSE's base case, the load forecast includes several new large loads, expected to total less than 100 MW at PSE's winter peak. These projects are categorized as "highly certain" to proceed to actual connections, and they are distinct from historical customer growth trends that are otherwise captured in PSE's demand modelling. Within this group there are large infrastructure, schools, manufacturing, and technology focused projects – including data centers. PSE will consider additional larger levels of potential data center growth in scenario modeling.

Is black start (EV) capability mostly for peak shaving? Black start capability should benefit the public and should be something the homeowner pays for.

One of the use-cases of bidirectional charging in a residential application is grid backup for resiliency. PSE is scoping technology demonstrations for vehicle-to-home applications with several different hardware/software providers, some of which include a black start battery to power the communications and systems necessary to power the home with the vehicle in the case of a power outage. As part of this technology demonstration PSE will assess the potential benefits of various use cases to inform future product or service tariff design.

For the 2 predominant residential V2X OEMs, Ford and GM, both include Black Start (aka Dark Start) batteries in the SunRun Home Integration System and GM Energy V2H enablement kit respectively. The bidirectional chargers, invertors, switch gear, and black start batteries are not sold separately and must be purchased together and used in conjunction to enable both back-up power and grid parallel V2H use cases.

Furthermore, dark start batteries can be used for emergency preparedness to enhance Public Safety Power Shutoff and Emergency Load Reduction efforts to support wildfire mitigation programs.

Public feedback

3. Don Marsh on behalf of Sierra Club Washington State Energy Committee and Washington Clean Energy Coalition, August 4, 2025, public comment opportunity

I'm Don Marsh, speaking today on behalf of the Sierra Club Washington State Energy Committee and also the Washington Clean Energy Coalition.

I've been watching PSE's load forecasts since 2013, when PSE initiated the Energize Eastside transmission upgrade project. In 2015, PSE justified that project using peak demand growth rates higher than 2% per year. At the time, we suspected that there were problems with PSE's forecasting methodology, and the prudency of that project is still in question.

Ironically, we now have the opposite concern with PSE's current forecasts that predict electric growth between 1.2 and 1.5% annually. It appears to us that PSE is, perhaps illegally, failing to account for load growth that might occur as a result of switching from gas to electric power as mandated by HB 1589 and the Climate Commitment Act. The problem is clearly illustrated on slides 40 and 42, which show almost no impact on electric loads and peaks due to building electrification. We find this surprising and an unacceptable risk for plants, animals, and future generations of humans.

We believe that the entire reason for a joint gas and electric Integrated System Plan is to coordinate the transition from dirty gas to clean electricity. By this measure, PSE is falling woefully short of the future envisioned by the legislature. We ask PSE and the UTC to reaffirm their commitment to the ISP process and bolster the company's electrification plans immediately.

Thank you for your comment.

4. Tom Kraemer on behalf of Third Act Washington, July 29, 2025, public comment opportunity.

Mr. Kraemer submitted a written transcript of his public comment, which is shown below in #5 along with PSE's response.

5. Tom Kraemer on behalf of Third Act Washington, August 4, 2025 via isp@pse.com

I was surprised to hear at today's RPAG meeting that gas demand is expected to continue growing in the post HB 1589 world, and to see the very slow gas load reduction shown in today's graphics. The intent of HB 1589, as stated in the law itself, is for PSE to transition its customers off the direct use of fossil fuels, meaning gas. That will require managing demand loads through electrification and other means.

Any growth of gas usage, or even the minimal reduction shown in slide 46 is inconsistent with reducing emissions to meet the 95% reduction required by 2050 and strict interim levels (45% reduction by 2030 and 70% by 2040) required under HB 1589. I was glad to hear Phillip Popoff's response that this is just a reference case, and greater reductions will be seen as planning progresses. "Looking at it all together," as he said, in the future, integrated planning of the two utilities and using incentives to electrify heating loads must drive gas use down.

HB 1589 does not include a ban on natural gas, and it does not change PSE's obligation to serve natural gas to our customers. Additionally, nothing in the bill forces electrification. The law does require PSE to model several scenarios with various levels of electrification.

6. Rosemary Moore, July 25, 2025 via isp@pse.com

I have numerous concerns and questions about PSE's drive to move to clean energy sources. In no particular order, I would like to raise a few of my concerns, as follows:

I asked for a PSE staff member to reach out to discuss Community Solar with me. Despite the fact that this was promised, no-one ever reached out to me.

Please contact our energy advisor team at https://www.pse.com/en/rebates/ask-advisor-form.

In the past I have contributed to Solar and Green Power programs. However, I do not understand why PSE doesn't simply buy Green Power and or Solar Power from other sources to replace fossil fuels without asking individuals to pay extra for small amounts only.

Thank you for participating in these optional clean programs. These programs are intended to help customers in their personal clean energy choices while also helping fund grants for solar project at local community organizations. At the same time PSE is aggressively pursuing new clean energy generation for all our customers. Since 2019 we have signed contracts for more than 6,000 MW of renewable energy resources, enough to power 530,000 homes annually. Those numbers will continue to grow.

PSE claims to be concerned about customer costs but many utilities (including I suspect PSE) hire experts who propound an inflated cost of capital to justify a high return on capital projects. And PSE seeks rate hikes every few months.

As a regulated utility, electric and natural gas tariffs are on file with the state Utilities and Transportation Commission (UTC). The tariffs outline PSE services and rates. Any changes to the tariffs require review and approval of the (UTC).

PSE fails to bury cables to protect them from inevitable outages during windstorms.

While transmission lines can be placed undergrounded, PSE historically constructs neighborhood transmission lines above ground. Underground transmission lines present several hurdles, including enough space in the public right of way for the trench and vaults needed to place the line underground, ability to address the increased environmental impacts, and substantial cost sharing from the local jurisdiction/customers to pay for the increased cost of putting the line underground. The cost to construct an underground line are roughly ten times greater than above ground lines. Burying a transmission line also takes more construction time than an above ground line due to the time it takes to clear vegetation, dig trenches, relocate existing utilities, and install large vaults for the length of the project. Depending on the difficulty of trenching, burying the line could add four to seven months to the construction phase.

PSE holds 3 hour RPAG meetings which are slow and repetitive and when many people are at work! and allows limited customer feedback. I conclude that PSE wants to deter widespread real customer engagement.

PSE welcomes feedback throughout the planning process and has implemented public and technical meeting tracks so that customers can engage at the time and level that works for them. All meetings are recorded and available on YouTube for those that cannot attend in real time.

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Thank you for the feedback. You can send feedback of unlimited length via email to isp@pse.com.

PSE did not provide sufficient time for reflection when asking questions during the 7/22/25 meeting.

It is always a challenge to create an agenda that works for everyone. This is, in part, why we offer multiple ways to provide feedback.

Hydrogen must be Green; failing that it is not a good replacement fuel.

We are exploring the use of renewable hydrogen or “green” hydrogen to run combustion turbines that produce electricity at our generation facilities.

"Natural" gas is not clean; reliance on this risks further land being turned over to agriculture, increasing green house gases and other pollutants while losing carbon capturing forests.

PSE is committed achieving state requirements for the electric system of being greenhouse gas neutral by 2030 and 100% clean by 2045. However, given the limited availability of dispatchable clean energy we anticipate natural gas will be an important bridge fuel until new, clean resources become available.

Last but not least, PSE should invest in creating more renewable energy - wind, solar, geothermal, with good battery storage and stronger transmission, to get off fossil fuels more quickly.

We agree. PSE is taking an all-of-the above approach and is actively exploring each of the options mentioned here.