Resource Planning Advisory Group feedback report

Meeting details

- Tuesday, May 15, 2025, 1:00 p.m. - 3:00 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 staff, May 22, 2025 via isp@pse.com

Staff is pleased that PSE is looking at incorporating climate change impacts into hydro generation.

Staff appreciates the change to 3 minutes for public comment but encourages PSE to continue improving on public involvement opportunities in the ISP process.

Thank you for your feedback. PSE is committed to a robust public involvement process throughout the development of the 2027 ISP and will continue to look for opportunities for improvement.

Slide 37: Staff believes that it would be advisable to assume that battery storage can be modeled in all the transmission zones within the region.

PSE plans to model storage in all transmission zones for the 2027 ISP.

Staff echoes the question posed by Lisa Schwartz. “I am curious about no transmission zones from California being included in this map” (question edited for clarity.)

California isn’t included as a transmission zone due to a few factors. California resources would require at least one additional wheel of transmission for delivery, which adds to the overall delivered cost of resources as compared to the Washington and Oregon zones. In addition, clean energy resources in southern and central Oregon have similar resource profiles to resources in northern and central California. Lastly, the amount of transmission to deliver resources from California would have the same limits as the Oregon transmission zones. As a result, the modeling of a California transmission zone would not increase the throughput of transmission from southern Oregon to PSE.

Slide 49: While Staff does not have a definitive answer on what exactly PSE should use as a risk adder, Staff believes that it is important that PSE figure out a few ways to model risk. Using something like a yield curve as Staff brought up can be one way, but Staff would like to see risk reflected in a variety of ways (for example, through sensitivities as the Company has done in past IRP cycles with gas prices). This seems like an area ripe for further discussion.

PSE is looking at several options for sensitives in the 2027 ISP around risk associated with emerging resources and policies. For example, we may assume ITCs and PTCs are available through the planning period, but we can look at a sensitivity where they are no longer available and how that can change the portfolio builds and costs. We plan to revisit this topic at the June 24, 2025 RPAG meeting for further discussion.

2. Stefan de Villiers on behalf of Washington State Office of the Attorney General Public Counsel Unit, May 23, 2025 via isp@pse.com

Public Counsel thanks PSE for its discussion of emerging technologies and their projected costs during the last RPAG meeting. We appreciate the acknowledgement that any cost projections are uncertain at this stage and understand PSE's request for feedback on cost uncertainty adders. Our inability to provide such feedback in the abbreviated setting of an RPAG meeting reflects only that this topic is complicated and warrants further discussion. Where technologies are new or not yet commercially feasible, it is difficult to estimate the cost of adding them to PSE's system.

PSE's planning should reflect this. If PSE plans to include resources like nuclear SMRs, alternative fuels, geothermal energy, 100-hour storage, or even offshore wind in its ISP, it should also acknowledge that these technologies may not be available on the timeframe it envisages, or may be far more expensive than it projects. As such, the ISP should also explicitly analyze what PSE would do if roadblocks emerge and implementation of these technologies does not match its planning. Without such analysis, PSE risks developing a plan with no backups to address ratepayer cost or compliance with the law.

PSE intends to address uncertainty into its ISP modeling and plans to discuss this topic further with the RPAG during the June 24, 2025. Some approaches to address uncertainty in the modeling could be using an adder to the capital cost to capture if the resources are more expensive than anticipated, or a sensitivity where there are no emerging resources available and see what the builds and costs look like in order to meet demands and CETA requirements.

3. Outstanding RPAG member questions and feedback, in-meeting, May 15, 2025

1. Is the 10% requirement from 1589 a binding constraint or is it dependent on economic feasibility?

PSE will use the technical potential and commercial and technical feasibility to inform the demand response analysis in the ISP. More information on how demand response will be analyzed in the ISP will be shared in a future RPAG meeting when more details are available.

2. Why are there no transmission zones from California affecting alterative resource planning?

Please see our response to UTC Staff in section 1.

3. Please provide information about newly built SMR and their ability to store waste.

Nuclear fuel storage in the United States is overseen by the Nuclear Regulatory Commission (NRC). While no single regulation explicitly mandates on-site spent nuclear fuel (SNF) storage, nuclear plants must maintain spent fuel on their premises due to the absence of a permanent national disposal facility. This situation persists despite the Nuclear Waste Policy Act of 1982, which originally designated Yucca Mountain, Nevada, as the nation's permanent deep geological repository. Recent developments include President Trump's Executive Order "Reinvigorating the Nuclear Industrial Base," which directs the Secretary of Energy to submit a comprehensive report by January 18, 2026. This report will recommend national policies for managing SNF and high-level waste, while also addressing advanced fuel cycle capabilities to ensure a safe, secure, and sustainable long-term solution. The current primary regulatory framework for SNF storage is contained in 10 CFR Part 72, which establishes licensing requirements for both wet storage (spent fuel pools) and dry cask storage systems.

Washington state's Columbia Generating Station (CGS), which has a traditional water-cooled reactor, currently stores all of its SNF on-site. CGS SNF management follows a two-stage process: 1) Initial Storage: After six years in the reactor core, used fuel assemblies are transferred to a deep, concrete-lined cooling pool adjacent to the reactor; 2) Long-term Storage: Following approximately five years of cooling in the pool, the assemblies are relocated to above-ground dry cask storage. These robust containers, constructed of concrete and steel, are engineered to provide both radiation shielding and passive cooling for the spent fuel.

SNF regulations may change in the future as advanced nuclear generation IV small modular reactors differ from traditional water-cooled reactors, including with respect to the more-highly enriched fuel they utilize (HALEU- high-assay low-enriched uranium) and the respective SNF produced. While the specific characteristics of generation IV SMR SNF depends on the reactor design, there is a potential for comparative differences from traditional reactors in terms of SNF volume, composition, form, and the need for novel waste management approaches. SMR companies are required to engage with the NRC regarding SNF, and we know some SMR companies are engaging with state regulators, accounting for an on-site storage period of up to 80 years, building proprietary storage and spent fuel handling systems, and engaging with the DOE on permanent storage solutions.

What's the assumed in-service date for 100-hour storage?

PSE will address this further in the June 24, 2025 RPAG meeting.

Public feedback

1. Don Marsh on behalf of Washington Clean Energy Coalition, April 27, via isp@pse.com

PSE's presentation in docket UE-240537 was helpful but raised questions due to its age (almost 9 months old) and subsequent developments regarding BPA's decision and encouraging progress on the EDAM governance question. Can you tell us when PSE will publish an update with more details on PSE's modeling and assumptions? These decisions are directly pertinent to RPAG's mission as well as progress towards clean energy implementation, reliability, and customer costs.

You can find our Markets+ update on our website here: PSE | PSE joins Markets+ regional energy market. PSE has no further updates at this time. Recent market decisions by PSE and BPA are not expected to impact PSE's 2027 ISP analysis.

2. Don Marsh on behalf of Washington Clean Energy Coalition, May 14, 2025 via isp@pse.com

4. Where can the public see the RPAG charter that members will be asked to adopt in principle?

PSE will share the final updated RPAG charter on the ISP website once it is adopted by RPAG members and finalized. PSE shared a summary of proposed charter updates in the March 25, 2025 RPAG meeting.

5. Slide 59 states that May 22 is the deadline for submitting comments. Is there another implied deadline for when the Feedback Report will be finalized and no further discussion about the contents of the report is allowed? I note that I ran into this deadline, unknown to me, for the last Feedback Report. I was surprised and disappointed that PSE cut off any corrections or clarifications with no notice that a deadline was approaching.

The feedback window for any RPAG meeting or public webinar is open one week prior to a meeting through one week after each meeting. Feedback received outside of this window will be added to the following meeting's feedback report.

6. What is the process for correcting omissions or incorrect statements in the Feedback Report? It appears that the process is ad-hoc currently.

We do our utmost to correct omissions or errors in public-facing documents in a timely manner when those are brought to our attention.

7. Does PSE reserve the right to edit or exclude a written or oral comment from the Feedback Report for any reason? If so, what are the reasons and does the RPAG charter state this clearly?

Comments PSE receives in the public comment opportunity, via email at isp@pse.com, or via online form, are recorded in full in each feedback report. We may occasionally correct minor errors, but we do not intentionally omit or edit any written or oral comments received within the feedback window.

On behalf of the Washington Clean Energy Coalition and the Sierra Club Energy Committee, I am requesting PSE to address these questions during the meeting.

As the agenda for the May 15 RPAG meeting was finalized and posted on our website prior to receiving your comments, we did not modify our agenda to include responses to your feedback.

3. Don Marsh on behalf of Washington Clean Energy Coalition, May 15, 2025 via public comment opportunity

Good afternoon. Today I want to speak directly to RPAG members and encourage you to ask PSE for improved public participation in the resource planning process.

I will address three problems: the RPAG charter, IAP2 participation levels, and the Feedback Report.

Regarding the RPAG charter, PSE's proposed changes have not been visible to the public. We would like to understand what the changes are and be able to provide our own suggestions. The RPAG is not a secret society, and all aspects of its purpose and process should be transparent.

PSE will share the final updated RPAG charter on the ISP website once it is adopted by RPAG members and finalized. PSE shared a summary of proposed charter updates in the March 25, 2025 RPAG meeting.

Regarding IAP2 levels, the RPAG charter says, "Be clear about the level of engagement on the International Association of Public Participation (IAP2) spectrum in which PSE is engaging the RPAG throughout the IRP process." So far, in the three RPAG meetings that

have been held this year, the IAP2 level has not been stated once. For an advisory group, we would expect most topics to be at the "Involve" level or higher, but most of the topics presented so far appear to be at a lower level.

The International Association of Public Participation (IAP2) is currently revising their spectrum of public participation based on interested party and practitioner feedback and we are adjusting the charter to reflect that. IAP2 is developing a set of proposed changes including potentially "repositioning Inform to underpin all levels, recognizing its foundational role". While this important work is ongoing, PSE has generally focused on the feedback needed in each meeting rather than specify and potentially debate the "level" of engagement that may apply at a given moment in a meeting. PSE is deeply committed to incorporating feedback into our work and has demonstrated this repeatedly throughout development of the ISP. It is accurate to say PSE has committed substantial effort at the inform level in 2025 as RPAG members have requested informative "deep dives" into our modeling process. While providing these deep dives we have and will continue to ask questions and seek input that will help inform the work ahead. Additionally, PSE has "collaborated" with RPAG members and the public on development of scenarios and sensitivities. PSE is also "involving" participants in key modeling assumptions as discussed during the May 15, 2025 meeting where we asked for feedback on how we should address tariff, tax credit, and emerging resources uncertainty in modeling. Engagement will continue to occur at different levels of the IAP2 spectrum throughout the ISP development process.

Regarding the Feedback Report, it appears to be a faithful record of comments received by the public. It is not. PSE uses unstated policies and deadlines to restrict what appears in the report. For example, in the last Feedback Report, I inquired about PSE's analysis and modeling assumptions on BPA's imbalance market decision. PSE just redirected us to an old and opaque presentation to the UTC last August. When I asked for three additional sentences to be added to the Feedback Report, PSE refused, claiming a deadline had passed even though they had just revised the report.

For the record, these are the three sentences I asked PSE to add to the Feedback Report: "PSE's presentation in docket UE-240537 was helpful but raised questions due to its age (almost 9 months old) and subsequent developments regarding BPA's decision and encouraging progress on the EDAM governance question. Can you tell us when PSE will publish an update with more details on PSE's modeling and assumptions? These decisions are directly pertinent to RPAG's mission as well as progress towards clean energy implementation, reliability, and customer costs."

It appears that PSE does not want its analysis to be understood or questioned by the public. Sierra Club will submit written comments asking for more information.

Feedback report deadlines are published in each RPAG meeting presentation deck and on our website. The feedback window opens one week prior to any meeting and closes one week after. We chose to edit the finalized March 25, 2025 feedback report after you brought to our attention that we hadn't fully answered your question about Markets+ in the published feedback report on our website. As we mentioned in our email to you, your additional follow-up questions about Markets+, which were received well outside the feedback window for the March 25 meeting, would be deferred to the May 15 RPAG meeting feedback report (please see section 1 for our response to those questions).

4. Tom Kraemer on behalf of Third Act Washington, May 16, 2025 via isp@pse.com

Given the difficulty PSE has had in meeting its clean energy commitments under CETA, there should be more emphasis on evaluating and ensuring the availability of clean resources, rather than just the identification of generic resources. "Market availability" is mentioned on slide 5 as a factor, but what is PSE doing to ensure it? There is a slide devoted to how the evaluation of hydro power is being updated. This has been a major issue identified in failing to meet clean energy standards. But hydro power is inherently and increasingly unpredictable, because of climate change, uncertain commitments by BPA and international agreements outside PSE's control. PSE should do more work to assure availability of clean resources, both DERs and utility scale, from the wholesale market as well as resources that could be built and operated by PSE if there are problems with obtaining resources in the market.

Thank you for your feedback. PSE is working to address the uncertainties described above.

5. Don Marsh on behalf of Washington Clean Energy Coalition, Thomas Kraemer on behalf of Third Act Washington, Sara Patton on behalf of Sierra Club Washington State Energy Committee, Phil Ritter on behalf of 350 Eastside, and Meghan Anderson on behalf of Kittitas Climate Action, May 22, 2025 via isp@pse.com

We must also inform you that it is very challenging to coordinate a response from multiple organizations with only five working days between an RPAG meeting and the deadline for comments. This is not comfortable for us or conducive to meaningful public participation. We suggest a fair compromise: 10 working days for public comment, and 10 working days for PSE to respond. Please address this proposal at the next RPAG meeting.

We appreciate your feedback on the window for providing comments to PSE. As you have previously noted, it is important that we be timely and responsive. At this time, we do not anticipate adjusting our current feedback timelines because it would limit our ability to finalize feedback reports before the next meeting. However, we do incorporate feedback received after the deadline into the next cycle.

The Washington Clean Energy Coalition, Third Act Washington, Sierra Club, 350 Eastside, and Kittitas Climate Action have significant concerns regarding how PSE is conducting its public process for developing an Integrated System Plan (ISP).

Our organizations expected that the RPAG would be fully engaged in the development of a purposeful and detailed plan to pursue electrification of buildings and appliances in order to reduce consequential emissions from extracting, processing, delivering, and burning natural gas. Electrification appears to be the only realistic strategy to reduce these emissions, considering the relatively meager reductions foreseen through alternative fuels in PSE's 2023 Gas IRP.

Reductions have been mandated by our state's legislature and governor, validated by voters who refused to repeal Washington's Carbon Commitment Act, and upheld by King County Superior Court. Why isn't a realistic gas reduction plan a primary focus of PSE's ISP planning process?

Consistent with HB 1589, PSE stated that it will examine a scenario that would follow a pro rata reduction on PSE's emissions to match that required by the State in RCW 70A.45.020, please refer to slide 24 of the Dec. 19, 2024 RPAG meeting. This scenario will examine the level of building electrification needed to achieve that level of emission reduction over time. This will be informative to assessing the technical feasibility in appliance markets and to assess technical feasibility of building the additional infrastructure required for PSE's electric system over time to meet that load. Results of this scenario will also estimate the cost impacts to PSE's gas and PSE's electric customers.

Additionally, as part of PSE's 2022 General Rate Case (GRC) we completed a decarbonization study in 2023 to evaluate and identify the potential impacts of four electrification scenarios on the gas and electric system and PSE customers. This study is on our website in the ISP Library.

RCW 80.86.020 requires the Washington Utilities and Transportation Commission to "complete a rulemaking proceeding to implement consolidated planning requirements for gas and electric services for large combination utilities." According to section 4(d), the plan must "include scenarios with emissions reduction targets for both gas and electric operations for each emissions reduction period that account for the interactions between gas and electric systems." However, so far 2025 RPAG meetings have not addressed the interactions of these energy systems nor how PSE will "achieve emissions reductions for both gas and electric operations equal to at least their proportional share of emissions reductions required under RCW 70A.45.020."

We address combined gas and electric scenarios in several of our RPAG meetings:

- *Oct. 29, 2024*
- *Dec. 19, 2024*
- *Feb. 27, 2025*
- *March 25, 2025*

We cannot overstate the importance of a clear plan. It needs to be understandable by the public and include appropriate graphs, cost estimates, and notes regarding challenges and opportunities. While there is important progress being made on electrification in other states, the Puget Sound region is one of the frontrunners in this transition. We enjoy the benefits of educated and environmentally aware customers, homegrown high-tech companies fostering innovation and imagination, and abundant hydro resources. It is a privilege to be a leader in this endeavor.

The Tetris puzzle pieces shown in multiple RPAG meetings (slide 10 of the May 15 presentation) indicate that the gas energy supply and delivery system will be described in June meetings of the RPAG. If May's meeting on the electric energy supply is any indication, gas will be discussed in its own silo, with no consideration of how it interacts with the electric system. This is not what the legislature nor the public had in mind when we envisioned an Integrated System Plan.

PSE is presenting each of the modeling processes that we will be using, as shown in the Tetris puzzle. As previously stated, there is no modelling software currently available that can model all aspects of a dual fuel utility as this is the first ISP of its kind in the nation. PSE will discuss the "iterative analysis" approach being considered in rulemaking after the individual planning teams presentations have been completed.