

Puget Sound Energy Resource Planning Advisory Group (RPAG) meeting summary

Tuesday, June 24, 2025 | 10:00 a.m. – 1:00 p.m.

Meeting objectives

Below were the meeting objectives of this Resource Planning Advisory Group (RPAG) meeting:

- Adopt the updated RPAG charter in principle
- Revisit the electric modeling and assumptions conversation from the May 15, 2025 RPAG meeting
- Discuss the natural gas energy supply, delivery system, and Integrated System Plan (ISP) strategy
- Receive feedback from RPAG members on gas modeling and assumptions in the 2027 ISP
- Provide an opportunity for public comment

Time	Agenda Item	Presenter
10:00 – 10:05 a.m. <i>5 min</i>	Introduction and agenda review <ul style="list-style-type: none">• Safety moment• Introductions• Agenda	Annie Kilburg Smith , Facilitator, Triangle Associates
10:05 – 10:15 a.m. <i>10 min</i>	Charter adoption	Annie Kilburg Smith , Facilitator, Triangle Associates
10:15 – 10:18 a.m. <i>3 min</i>	Introduction and updates	Jennifer Coulson , Manager, Operations and Gas Analysis
10:18 – 10:55 a.m. <i>40 min</i>	Revisiting electric modeling assumptions <ul style="list-style-type: none">• Resource alternatives• Capital costs of emerging, storage, thermal, and renewable resources Proposed reference case assumptions	Elizabeth Hossner , Manager, Resource Planning and Analysis, PSE
10:55 – 11:40 a.m. <i>40 min</i>	Gas energy supply <ul style="list-style-type: none">• Gas supply portfolio overview• Gas modeling approach• Gas supply resource alternatives Scenario assumptions	Gurvinder Singh , Consulting Energy & Resource Planning Analyst, PSE
11:40 – 11:50 a.m. <i>10 min</i>	Break	

Time	Agenda Item	Presenter
11:50 p.m. – 12:50 p.m. 5 min	Natural gas delivery system investments and ISP strategy <ul style="list-style-type: none"> Gas system in the ISP vs Integrated Resource Plan (IRP) Inputs and assumptions for delivery system analysis Investments and drivers for PSE's delivery system portfolio investments Non-pipeline alternatives (NPA) 	Niecie Weatherby , Manager, Gas System Integrity, PSE Don Frieze , Supervisor, Maintenance Planning Gas System Integrity, PSE
12:50 p.m. - 1:00 p.m. 10 min	Next steps and public comment opportunity	Annie Kilburg Smith , Facilitator, Triangle Associates
1:00 p.m.	Adjourn	All

The full meeting materials, including the agenda, and presentation are available online under the June 24, 2025 meeting heading on the [ISP website](#).

Introduction and agenda review

Annie Kilburg Smith, facilitator, provided an overview of the meeting agenda and welcomed RPAG members. See [RPAG members in attendance](#) at the end of this document for a list of RPAG members who joined the meeting.

Charter adoption

Annie introduced the updated RPAG Charter and asked members whether they could adopt in principle the revised charter that has been discussed over the last few months.

An RPAG member shared the following feedback:

- RPAG member: The Charter for this group is well formulated. However, I think there is overdue effort for PSE to have an equally intensive and comprehensive approach to public participation and public feedback. The RPAG is an excellent space for the experts, but the public plays an important part in the process. The Commission shares this view with several RPAG members and thinks that the public should be more involved.
 - Facilitator response: Annie highlighted the public webinars that have been occurring on a quarterly basis and that there are two coming up in July. Annie acknowledged the suggestion and stated that following up on ideas to improve the public participation process could be considered.

Following this discussion, Annie asked the group to adopt the updated RPAG Charter in principle, and no one present expressed disagreement; consensus was reached. For members

who were unable to attend the meeting, PSE sent a follow-up email confirming their adoption before finalizing and posting the Charter on the website. As of July 2, 2025, the updated Charter can be found on the [ISP website](#).

Introduction and updates

Annie introduced Jennifer Coulson, Manager, Operations and Gas Analysis. Jen provided an overview of upcoming engagement topics throughout the remainder of 2025. Since February 2025, PSE has updated its 2027 ISP scenarios based on Initiative 2066 (I-2066) rulings. House Bill 1589 (HB 1589) is now the reference case for the 2027 ISP scenarios.

RPAG members asked questions and provided the following feedback:

- RPAG member: When the 2027 ISP scenarios were originally presented, Public Counsel provided feedback about the importance of not automatically pairing an increase in datacenters with an increase in electrification. After reviewing the previous feedback reports a response to that input was not found. Would this type of factor be addressed through sensitivities? Pairing these two trends could make it difficult to analyze their individual impacts. From our perspective, datacenters seem like a separate issue from EV adoption and home electrification.
 - PSE response: PSE has examined datacenters in the decarbonization scenarios and will follow up with an official response to Public Counsel's feedback. In Scenario 2 (Enhanced Electrification) and Scenario 3 (Unconstrained Electrification), PSE assumes that high investment in home electrification would likely coincide with high investment in other sectors, such as datacenters and electric vehicles.
- RPAG member: How is PSE addressing the uncertainty created by the overturning of I-2066?
 - PSE response: PSE plans to model the potential load impacts of I-2066 in parallel, developing multiple scenarios to mitigate the risk of the initiative being reinstated.

Jen provided an overview of the updates to the 2027 ISP. The 2027 ISP scenarios focus on gas and electric load shifting and include building electrification, large load requests, and EV adoption. PSE will reference the updated 2027 ISP scenarios when discussing the gas modeling assumptions.

- RPAG member: There is a preference to see "mid probability" of interconnection used across all scenarios and "high probability" run as a sensitivity.
 - PSE response: Thank you for your input.

Revisiting electric modeling and assumptions

Elizabeth Hossner, Manager, Resource Planning and Analysis, PSE revisited PSE's electric modelling assumptions from the May 15, 2025 RPAG meeting. She provided an overview of updates on electric modeling assumptions. PSE hopes to gain more feedback on next steps to determine how to address policy changes, economic uncertainties, and uncertainties in emerging resource technologies. PSE welcomed feedback from RPAG members and will use feedback to inform ISP modeling assumptions.

RPAG members asked questions and provided feedback throughout this section as outlined below.

- RPAG member: Was the exclusion of demand response from the distributed energy resources section intentional?
 - PSE response: No, demand response will be addressed in a future meeting, and PSE plans to incorporate demand response modeling in upcoming analyses.

Elizabeth reviewed PSE's resource alternatives by transmission zones. PSE updated the resource alternatives in transmission zones based on feedback from the May 15, 2025 RPAG meeting.

- RPAG member: The 2024 National Renewable Energy Laboratory Annual Technology Baseline (NREL ATB) was released about a year ago, and a new version is expected soon. We recommend that PSE avoid using the conservative cost curve for its baseline analysis. While no forecast is perfect, starting with the moderate cost trajectory across all categories would provide a more balanced approach.
 - PSE response: PSE does not rely solely on NREL ATB but has used it as a reference point for some forecasted costs. For emerging technologies, PSE will incorporate NREL ATB data. In addition, PSE is using the Black & Veatch report and broader market trends to inform capital cost assumptions for generic resources.

Elizabeth presented on cost adder considerations that included: construction contingencies, tariffs, commercial feasibility, and emerging resources. PSE is looking into resources based on technology readiness level (TRL) and understanding when these resources will be commercially available. Uncertainty/risk percentage adders are based off NREL ATB's conservative scenarios.

The following prompt was shared for RPAG feedback:

Do you have concerns about the proposed start dates for any of these resources? If so, what would you propose instead—and why?

- RPAG member: If PSE is positioning itself as a mid or late adopter rather than an early adopter, it is likely that much of the industry will be in a similar position. This could create a spike in demand later, leading to increased uncertainty around construction timelines, material availability, labor, and equipment. If many utilities are also mid or late adopters, managing industry-wide demand will become a significant challenge.
 - PSE response: Thank you for the feedback.
- RPAG member: Small modular reactors (SMRs) have been anticipated for years, but the timeline for their deployment continues to be delayed. Nuclear technologies have long lead times, and the technological barriers for offshore wind and enhanced geothermal appear to be lower. Given these constraints, PSE should have a solid plan that reflects the current limitations of SMRs.
 - PSE response: One of the upcoming feedback prompts will ask whether PSE should include these emerging resources. PSE plans to run sensitivities based on the assumed “first year available” for each emerging technology. Portfolio modeling will distinguish between scenarios that include only currently commercially available resources and those that incorporate emerging resources like SMRs.
- RPAG member: The projected first year available dates for all three emerging resources seem too far out. Nuclear SMRs are currently anticipated around 2035, but floating offshore wind is already a proven technology. We expect offshore wind to be operational in Northern California within the next decade. As for enhanced geothermal, companies like Fervo in Colorado and Utah are already contracted to deliver 70 MW to Southern California Edison in 2026 and 500 MW by 2028. The technology is commercially available, and capital costs are expected to be significantly lower – around \$5,000 per kilowatt.
 - PSE response: Thank you for the feedback, PSE will look into these.
- RPAG member: Risk should be treated across multiple dimensions – for example, technical availability and political/regulatory availability – so that if one of those factors changes, it can be adjusted independently in the modeling. This would provide more flexibility and transparency in how risk is assessed and incorporated.
 - PSE response: Thank you for the feedback.
- RPAG member: The Northwest Power and Conservation Council (NWPCC) has also been grappling with capital cost assumptions for emerging resources. We have been testing and modeling scenarios for five to ten years out. While our initial first year available dates were aligned with PSE’s, the scenario modeling has since pushed those dates out by five to ten years. We are still having difficulty settling on a definitive timeline.
 - PSE response: That is helpful. Thank you for the feedback.
- RPAG member: It may make more sense to treat first year availability as a sensitivity. There are potential path dependency risks tied to strategies that assume certain resources will

come online by a specific date. PSE should consider developing a model where anticipated timelines can shift due to delays or unavailability, allowing for more flexible planning.

- PSE response: Thank you for the feedback and suggestions.
- RPAG member: The percentage adder for SMRs appears overly optimistic given current technology and historical trends. Based on the consistent cost overruns in nuclear projects, we would recommend applying a 200% to 300% cost uncertainty range for SMRs.
 - PSE response: Thank you for the feedback.
- RPAG member: There's now a substantial amount of information available on enhanced geothermal, including peer-reviewed research. The cost profile is becoming much clearer, especially with recent advancements at the FORGE testbed and Fervo's development site in Utah. We are happy to share references if helpful.
 - PSE response: Thank you for the feedback.

The following prompt was shared for RPAG feedback:

Would you recommend a higher, lower, or no uncertainty risk adder for any of these resources? What's driving your thinking?

- RPAG member: Project costs have increased significantly, particularly due to tariffs and supply chain pressures. It may be more prudent to err on the conservative side—using a higher cost factor—to better reflect current market conditions and set more realistic expectations.
 - PSE response: Thank you for the feedback.
- RPAG member: Can the uncertainty risk percentage adder be applied to both cost and availability timing? How does that impact the objective function? For example, do the percentages imply that a resource is only available 50% of the time during the anticipated window? The NWPCC has also considered that there may be scenarios where certain resources are simply unavailable – regardless of cost.
 - PSE response: Yes, the uncertainty risk percentage adder can be applied to costs. The objective function influences how the model optimizes the available resources, and increased uncertainty can lead to a more costly future portfolio. The percentages apply to cost during the resource's anticipated availability window – not to availability itself. Resource availability is fixed, but cost assumptions may be adjusted using the risk percentage adder.

Elizabeth continued presenting on storage resource draft capital costs and options.

- The following prompt was shared for RPAG feedback:

What is your take on how we are considering handling policy changes? Should we model Investment Tax Credit (ITC) and Production Tax Credit (PTCs) throughout the ISP period?

- RPAG member: Is PSE anticipating the maturation of mid-duration advanced compressed air storage? What is the expectation for when that resource might become available? Also, 2035 seems quite far out for long duration iron-air – what is driving that assumption?
 - PSE response: Some of these technologies are anticipated to become available in the late 2020s. PSE continues to refine its forecasts for anticipated availability. The 2035 estimate for long duration iron-air is based on projections from the Black & Veatch report.
- RPAG member: Will the actual process that happens down the road include that the company will procure the resource that is available at the time, so that we can make these forecasts, but essentially, at this point, why wouldn't we be resource agnostic, and be forecasting the price at different dates (which is modeled from the predictions of the individual resources)
 - PSE response: This question was submitted in the chat during the meeting. PSE provides a response in the accompanying feedback report.
- RPAG member: If the resource assumptions remain consistent overall, that's manageable. The NWPCC is currently developing assumptions for long duration iron-air, and we anticipate availability as early as 2028.
 - PSE response: Thank you for your feedback.
- RPAG member: How does PSE's iron-air program factor into determining the first year availability for that resource?
 - PSE response: The first year availability reflects when the first commercially available, large-scale utility project is expected to come online. This includes consideration of construction timelines, siting, and permitting requirements.
- RPAG member: As a follow-up question – does the Long Duration Energy Storage project need to be large-scale to be effective? Could a smaller project, such as 50 MW or even 10 MW, still provide meaningful impact?
 - PSE response: PSE will follow up on this question in the upcoming feedback report.
- RPAG member: Why were there no risk/uncertainty percentage adders applied to the thermal resources?
 - RPAG member: PSE will update the slide to include risk/uncertainty percentage adders for thermal resources, particularly those that are new or emerging.
- RPAG member: Why is the baseline cost of solar in the 2027 ISP significantly higher than what's shown in the 2024 NREL ATB?
 - PSE response: PSE will provide a follow-up response in the upcoming feedback report.

The following prompt was shared for RPAG feedback:

What's your take on how PSE is considering handling policy changes? Should we model ITC and PTCs throughout the ISP period?

- RPAG Member: Portland General Electric's (PGE) new 2023 IRP/CEP update, filed last week, continues current IRA tax credit policies as the reference case, but also includes two alternate scenarios:
 1. Federal tax credit policy reverts to a roughly pre-IRA state, where the PTC is no longer available for new non-emitting generating resources, and the ITC is reduced to 10% for solar and energy storage resources.
 2. Federal policy eliminates tax credits entirely for new non-emitting generating and energy storage resources placed in service after December 31, 2028.
 - PSE response: Thank you for the comment.
- RPAG member: When is PSE expecting to finalize the inputs for the ITC and PTC? Is it worth waiting for more policy certainty before locking down the reference portfolio?
 - PSE response: PSE anticipates finalizing the reference portfolio soon. Feedback from today's meeting will help inform our decisions around including ITCs and PTCs in the modeling.
- RPAG member: Is there a specific reason to assume that the ITCs and PTCs will not be renewed?
 - PSE response: The assumption reflects historical precedent and policy uncertainty. Additionally, there are some scenarios PSE is unable to model due to limitations within certain contracting language.
- RPAG member: How does PSE plan to model feedback between portfolio choices, customer bill impacts, and customer counts and demand forecasts?
 - PSE response: PSE is still working through how to evaluate all of the components mentioned. The draft rules include related requirements that will help shape the preferred portfolio. There is more to come, and we plan to share additional information with the RPAG next year as our analysis progresses.

At the end of Elizabeth's presentation, the facilitation team shared a link to a feedback survey for both RPAG members and the public. PSE invited all participants to share their input to help inform future planning. PSE received 7 responses to the survey. Results of this survey are described below. Seven individuals, which included six RPAG members and one member of the public, responded to the survey.

- Six individuals supported modeling the renewal/availability of ITC and PTC for the ISP time horizon. One individual supported modeling non-renewal/non-availability of ITC and PTC.

- Four individuals support having emerging technologies available in the portfolio model at the assumed first year available. Three individuals supported having emerging technologies not available as a new resource in the portfolio model.
- Three individuals supported using a lower uncertainty risk adder between 10 and 20%. Three individuals supported using a higher uncertainty risk adder between 20 and 100%. One individual supported using no uncertainty risk adder.

Written feedback from the survey is shown below:

- I think that there should be a sensitivity assuming the tax credits might not be renewed
- It would be worth running post-2028 tax credit alternatives for both no credit continuation and moderate continuation (though there may be a gap, as has occurred in the past)
- Some technologies should have higher uncertainty/be available only at sensitivity analyses (SMR specifically)
- I think if you were to accurately model the risk of a failed new technology project, such as SMR, it would be MUCH higher than even 100% -- as in the case of WPPSS 1.0

Gas energy supply

Gurvinder Singh, Consulting Energy & Resource Planning Analyst, PSE provided an overview of PSE's gas energy supply. The overview included PSE's gas supply portfolio and modeling approach. PSE requested feedback that will help shape the gas supply portfolio inputs and assumptions.

RPAG members asked questions and provided the following feedback:

- RPAG member: Does PLEXOS provide outputs related to pipeline construction and sizing, or are those determined by potential contracts?
 - PSE response: Pipeline considerations are based on existing and potential contracts. The PLEXOS model helps determine the capacity needed to meet the load. While the gas pipeline is already part of the portfolio, we evaluate its capacity and cost, and use PLEXOS to assess whether there are alternative resources that may be more cost-effective.
- RPAG member: Green hydrogen has been described as cost-prohibitive in various reports. Is that consistent with PSE's current assumptions?
 - PSE response: Yes, that is consistent with PSE's assumptions. We are in regular communication with other utilities and continue to monitor developments in green hydrogen cost and feasibility.

- RPAG member: What are your thoughts on the [recent developments in Canadian gas utilities](#), particularly with liquefied natural gas (LNG)? Full production is expected to take several months, with output projected to reach a few billion cubic feet per day.
 - PSE response: PSE uses a fundamental forecast purchased from Wood Mackenzie. Natural gas prices, shaped in part by developments like LNG expansion, also influence Climate Commitment Act (CCA) prices, which are factored into our modeling. The projected impact of datacenters is also incorporated into these forecasts.
- RPAG member: PSE should consider using a lower commodity price to reflect a broader global market view rather than a PSE-specific analysis. Additionally, in the Mid Incentivized Electrification scenario, could PSE's declining loads influence the overall market?
 - PSE response: In Scenario 1 (Mid: Incentivized Electrification), PSE assumes this policy approach would influence demand across other utilities in the region, not just within PSE's service territory. While PSE's individual impact may be marginal, the scenario is designed to reflect a broader, regional effect.
- RPAG member: There is a well-established pattern that when supply decreases, demand tends to follow. For example, we saw significant increases in heating oil prices when supply dropped. At a certain point, declining supply may lead to more fundamental shifts in behavior or market dynamics.
 - PSE response: It is important to consider the shape of the natural gas supply curve. The curve is relatively flat, meaning that even significant changes in supply may not result in large price shifts. This dynamic plays a key role in how we evaluate supply-side impacts.

Natural gas delivery system investments and ISP strategy

Niecie Weatherby, Manager, Gas System Integrity, PSE and Don Frieze, Supervisor, Maintenance Planning Gas System Integrity, PSE, provided an overview of PSE's natural gas delivery system investments and ISP strategy. The presentation included the differences between how PSE looks at the natural gas delivery system in the ISP versus previous integrated resource plans (IRP), the inputs and assumptions for the delivery system analysis with an opportunity for members to provide feedback on PSE's assumptions and sensitivities.

RPAG members asked the following questions:

- RPAG member: Is the electrification assumption grounded in actual data?
 - PSE response: Yes.
- RPAG member: What assumptions are being made about stock attrition?

- PSE response: This will be addressed in more detail at the July RPAG meeting as part of the baseline forecast discussion.
- RPAG member: If a customer electrifies their home gradually, rather than all at once, what timeline is assumed for full electrification of all end uses?
 - PSE response: PSE is still working through this with Cadmus Group. Currently, the assumption is that electrification of each end use occurs as appliances reach the end of their useful life.

Don provided an overview of baseline investments and the expected asset life of PSE's gas infrastructure. PSE then shared information about its pipeline replacement programs, which are guided by its integrity management programs. These programs prioritize the replacement of materials identified as high-risk for leaks, with the overarching goal of removing leak-prone assets from the system, repairing existing leaks, and minimizing CO₂e emissions. [See Slide 43 for additional detail.]

RPAG members asked questions and provided the following feedback as outlined throughout this section below.

- RPAG member: How do these baseline investments align with a future scenario where customer counts are expected to decline?
 - PSE response: Baseline investments and customer forecasts will be adjusted over the long term based on the chosen reference case. PSE anticipates that different parts of the system and how the system operates will evolve over time. Current forecasts reflect the best available data and assumptions at this stage.

Don continued with an overview of the pipeline replacement program (PRP).

- RPAG member: Is PSE exploring replacement strategies for older vintage polyethylene (PE) pipes, such as slip lining?
 - PSE response: While PSE is not currently pursuing slip lining specifically, our approach prioritizes repairing infrastructure when feasible before moving to full replacement.

Niecie introduced PSE's delivery system and non-pipeline alternatives.

- RPAG member: Thanks for the information on pipeline replacement; this provides helpful context. So, 48 miles of PE pipe replacement is estimated at \$145 million, which comes out to about \$3 million per mile. For comparison, new electric transmission in non-urban areas is roughly \$5 million per mile.
 - PSE response: The pipeline replacement work is primarily occurring in Seattle's core and other densely urban areas. A significant portion of the cost is due to restoration requirements, which is why the per-mile cost is relatively high.

Niecie introduced the maturing customer sided non-pipeline alternatives (NPA) capabilities. PSE has two pilots that will launch in Summer 2025: the Constrained Area Pilot and Integrity/Safety Retirement Pilot.

- RPAG member: Has PSE identified how many potential opportunities might result from these pilot projects? Were these opportunities driven by customer interest in converting?
 - PSE response: PSE planners are currently reviewing capital investments involving fewer than five customers with project costs around or above \$500,000. The team is also flagging opportunities slightly below that threshold. In 2024, eight potential opportunities were identified, though feasibility analysis narrowed that number to about four. As PSE begins evaluating every capital investment more systematically, we expect to have more accurate data moving forward.
- In terms of customer interest, these opportunities were primarily identified based on need and cost-effectiveness, not explicit customer requests. While California has a pilot that moves forward if two-thirds of customers express interest in converting, PSE's pilots are designed around full participation, 100% of customers must opt in.

Niecie posed the following discussion question:

How is the NPA portfolio analysis different from an individual project evaluation?

- There were no comments or questions regarding the discussion question above; however, RPAG members were invited to provide feedback in the feedback form and continued to ask questions as outlined below.
- RPAG member: Are there other utilities that have successfully used non-pipeline alternatives to improve their systems? Is transitioning customers off pipeline infrastructure a common practice?
 - PSE response: It varies by utility. For example, PG&E has had success transitioning customers off pipeline infrastructure at the end of transmission lines, completing some transitions over a five-year period. PSE has approached three customers in similar situations and successfully transitioned one of them to alternatives. However, this type of transition is not yet a common industry practice. PSE is in ongoing communication with other utilities to stay informed on emerging strategies and best practices.

Niecie introduced PSE's next steps in the natural gas delivery system planning and PSE's priorities moving forward.

- RPAG member: Has PSE conducted a cost analysis comparing lower-cost alternatives that may have shorter lifespans but could still reduce system costs overall?

- PSE response: PSE has considered smaller-scale replacement options. In many cases, excavation represents the largest portion of total project cost, which can outweigh the potential savings of using lower-longevity materials or approaches.

David Landers, PSE followed up on the replacement pipe topic and explained that PSE benchmarks and looks to other utility providers to inform how to extend the life of its pipeline systems. Linings have successfully been applied to cast-iron and bare-steel pipeline infrastructures that are predominantly found on the East Coast and in the Midwest. PSE has not found opportunities to use this strategy on its own infrastructure. Dupont piping has different structural integrity challenges and requires different repair and replacement strategies.

Next steps

Annie previewed upcoming activities.

- July 1, 2025: Feedback form from June 24, 2025 meeting closes
- July 29, 2025: RPAG meeting
- July 17 and 22, 2025: Public webinars
- August 2025: No RPAG meeting

Annie welcomed comments and questions from public attendees. Please visit PSE's [recording of the June 24 meeting](#) for full public comments. At the conclusion of the meeting, participants were invited to complete a post-meeting feedback poll to share their insights and help improve future sessions.

Public comment opportunity

Public comments provided at the end of the RPAG meeting are summarized below. All public comments and PSE's responses are located in the feedback report for this meeting on PSE's [clean energy planning website](#).

Tom Kraemer, Third Act Washington thanked PSE for the informative presentation and commented on Scenarios 2 and 3 of the 2027 ISP. He appreciated the inclusion of emissions reductions below the Climate Commitment Act cost allowance but urged PSE to use the specific language from HB 1589 (RCW 70A) for clarity and accuracy. He noted that these targets are updated annually and should apply separately to gas and electric utilities, not as a combined total.

James Adcock, Electrical Engineer, MIT shared concerns about limited public participation in RPAG meetings, citing technical issues and lack of transparency. He questioned PSE's assumptions around green hydrogen and urged recognition of hydroelectric as a storage

resource. He also expressed concern that the costs and risks of speculative projects, including environmental and social impacts, may be underestimated. Lastly, he voiced discomfort with perceived private messaging among RPAG members during meetings, which he felt excluded the public from full observation.

Attendees

Attendees are listed alphabetically by first name. These numbers do not include viewers on [PSE's YouTube channel](#).

RPAG members

- | | |
|--------------------|------------------------|
| 1. Byron Harmon | 7. Jaimie McGovern |
| 2. Callie Moriyasu | 8. John Ollis |
| 3. Dan Kirschner | 9. Juan Pablo Carvallo |
| 4. Dennis Suarez | 10. Katie Chamberlain |
| 5. Donald Williams | 11. Megan Larkin |
| 6. Ezra Hausman | 12. Sommer Moser |

Presenters

- | | |
|---------------------------|---------------------------|
| 1. Don Frieze, PSE | 4. Jennifer Coulson, PSE |
| 2. Elizabeth Hossner, PSE | 5. Niece Weatherby, PSE |
| 3. Gurvinder Singh, PSE | 6. Steven Schueneman, PSE |

Support staff

- | | |
|-------------------------------|-------------------------|
| 1. Christopher Drobnicki, PSE | 4. Phillip Popoff, PSE |
| 2. Kara Durbin, PSE | 5. Ray Outlaw, PSE |
| 3. Meredith Mathis, PSE | 6. Stephen Collins, PSE |

Facilitation staff

1. Annie Kilburg Smith, Triangle Associates
2. Ben Relampagos, Triangle Associates
3. Jack Donahue, MFA

Members of the public

- | | | |
|--------------------|----------------------|--------------------|
| 1. Christine Bunch | 5. Joshua Dennis | 9. Tobyn Smith |
| 2. Don Marsh | 6. Maxwell Albertson | 10. Tom Kraemer |
| 3. James Adcock | 7. Meghan Anderson | 11. Wesley Franks |
| 4. Jon Lange | 8. Teun Deuling | 12. Willard Westre |