Puget Sound Energy Resource Planning Advisory Group (RPAG) information session summary

Wednesday, June 18, 2025 | 11:00 a.m. – 12:00 p.m.

Information session purpose and topics

This Resource Planning Advisory Group (RPAG) information session provided an opportunity for Guidehouse – a global consulting firm supporting Puget Sound Energy's (PSE) resource planning process – to introduce the Fiscal Year 2025 (FY25) Electric Vehicle (EV) Forecast, presenting the executive summary and offering time for questions and public comment.

Time	Agenda Item	Presenter
11:00 a.m. – 11:03 a.m. *3 min*	**Introduction and agenda review** • Safety moment • Introductions • Agenda	**Annie Kilburg Smith,** Facilitator, Triangle Associates
11:03 a.m. – 11:52 a.m. *49 min*	**PSE Electric Vehicle forecast** • Executive Summary	**Will Sierzchula,** Guidehouse
11:52 a.m. - 12:00 p.m. *8 min*	**Next steps and public comment opportunity**	**Annie Kilburg Smith,** Facilitator, Triangle Associates
12:00 p.m.	**Adjourn**	**All**

The full meeting materials, including the recording and presentation, are available online under the June 18, 2025, information session heading on the ISP website.

Introduction and agenda review

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

PSE Electric Vehicle (EV) forecast

Lorin Molander, PSE, introduced Will Sierzchula, Guidehouse, to present the executive summary of PSE's FY25 Electric Vehicle (EV) Forecast (the forecast). The executive summary

included background information and context on the impacts of customer programs and demand-side resources on the forecast. The forecast included an aggressive scenario, a base scenario, and a conservative scenario. All three scenarios considered the following factors: EV adoption, charging needs, load impacts, and managed charging.

Throughout the session, RPAG members posed questions, and Guidehouse and PSE provided responses. See bullet points in the summary below for a record of these exchanges.

- RPAG member: Has a retrospective analysis been conducted? What were the outcomes of earlier forecasts for 2019 and 2020? Are the older forecasts used to inform current forecasts and policy?
    - Guidehouse response: Yes, the approach takes a retrospective look at previous forecasts. We conduct back casting, but it's tough because factors change quickly. When conducting a retrospective analysis, the assumptions must change including the policy landscape. [Additional details are provided inthe meeting feedback report.]

Will presented the base case light-duty (LD) vehicle adoption results. PSE's forecast continues to assume the LD vehicle segment will meet policy sales targets.

RPAG members asked questions and provided the following feedback:

- RPAG member: Do the policies have any geographic or demographic impacts – for example, do upfront rebate requirements make EVs more accessible to certain income groups or communities, leading to EVs being concentrated in specific areas of the system? And if so, are there broader consequences beyond where the vehicles are located?
    - Guidehouse response: Policies are Original Equipment Manufacturer (OEM) specific, requiring a certain proportion of their vehicle sales to be zero-emissions. However, the specific sales strategies used by OEMs to meet these targets – especially across different demographics – are not fully known. While automakers likely tailor their approaches to different markets, the strategies are not fully known.

Will provided a comparison of PSE's FY25 LD vehicle forecast with other projections such as the National Renewable Energy Laboratory (NREL) and Washington Department of Ecology (ECY) forecasts. All forecasts are influenced by policy, including the Advanced Clean Cars II (ACC II) regulations as a driving factor for forecast results.

RPAG members asked questions and provided the following feedback:

- RPAG member: Have the last five years of load growth been compared in other markets like California or the east coast? Are the forecasted levels consistent with observations in other markets?

- Guidehouse response: California is further ahead and is one of the most mature markets for EVs. Washington is aligned with some of the other zero-emission vehicle (ZEV) states. For example: New York, Massachusetts, and Oregon.

A base case forecast for medium and heavy-duty (MHD) vehicle adoption was presented. PSE's forecast no longer assumes that the MHD segment will meet policy sales targets. While the ACC II regulation focuses on light-duty (LD) vehicles, the Advanced Clean Trucks (ACT) rule targets the MHD segment and includes more stringent penalties than ACC II.

- RPAG member: The target numbers in the 2025 MHD Adoption case seem unrealistic, but the sales in the past year don't seem to support that.
  - Guidehouse response: It's important to consider multi-year trends rather than focusing on a single year. For example, EV sales growth from 2020 to 2024 is significantly greater than just the change from 2023 to 2024. The forecast is based on broader historical growth patterns, not just year-over-year changes.
- RPAG member: Are there predictive factors to figure out whether there would be a jump in EV adoption?
  - Guidehouse response: It is challenging to predict looking forward. For instance, in the past, the introduction of Tesla Model 3 created a big uptake in EV adoption, revealing market demand that had not been previously evident. Key drivers of future adoption will likely include financial incentives and the availability of vehicles that meet specific needs, such as heavy-duty transportation. If EVs become faster to operate and cheaper to maintain, adoption will likely increase. That said, some demographics – particularly in smaller or emerging EV markets – remain hesitant to adopt new technologies. Expanding education and outreach will be critical to help appeal to other markets that might be more resistant to EV adoption.
- RPAG member: Are there any federal policy/incentives that are considered here? Either new ones or removing existing ones?
  - Guidehouse response: Currently, the forecasts include all state and federal policies – for instance the Inflation Reduction Act (IRA) and the Infrastructure Bill.

Will provided an overview of EV adoption and load impacts forecasts. The forecasts tracked EV population, energy need, and EV peak before losses.

- RPAG member: Why does the base scenario assume unmanaged charging?
  - Guidehouse response: We include managed charging as a separate scenario, but we begin with the unmanaged charging scenario to establish a baseline. This allows us to perform a benefit-cost analysis by comparing the unmanaged load with the impacts and costs of implementing a managed charging program – demonstrating its overall cost-effectiveness within the portfolio model.

- RPAG member: What are the implied vehicle miles traveled (VMT) for these near-term energy impacts? Recent research points to lower mileage for commuters in early adopters https://haas.berkeley.edu/wp-content/uploads/WP313.pdf. It may be worth verifying whether actual VMT data from current EV users in PSE's service territory supports the forecast assumptions, as energy consumption could be overestimated.
    - Guidehouse response: The current assumption is approximately 11,000 miles per year. We will continue to monitor and evaluate this as more data becomes available.
- RPAG member: Please define SUD.
    - Guidehouse Response: Single Unit Dwelling (SUD) refers to a residential building designed for one household. A Multi-Unit Dwelling (MUD) includes buildings with multiple separate housing units, such as an apartment complex.

Next steps

PSE and the facilitator provided closing remarks and previewed upcoming activities.

- June 25, 2025: Feedback form for this meeting closes
- July 29, 2025: RPAG meeting
- August 2025: No RPAG meeting

Annie welcomed comments and questions from public attendees. Please visit PSE's recording of the June 18 information session for full public comments.

Public comment opportunity

Public comments provided at the end of the information session 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.

David Nightingale provided public comment about using electric vehicles in PSE's territory as a battery resource for supplementing generation during peak times. David addressed PSE's solar panel policies and their time-of-use constraints on EV charging.

Don Marsh, representing Washington Clean Energy Coalition, provided public comment about PSE's strategies for managed charging in the ISP. Don expressed interest in how EV batteries can contribute to both peak demand and emergency scenarios.

Bradley Nelson, representing Burns McDonald Engineering Firm, expressed concern with PSE's assumptions that were included in its EV forecasts. Bradley noted that no states are currently on

track to meeting 2026 EV sales requirements and that PSE's baseline case might create potential issues for assumed EV sales growth.

Tom Kraemer provided public comment about the lack of vehicle-to-grid programs in Guidehouse's presentation. Tom noted that vehicle batteries have a potentially large storage capacity which could provide significant load-shifting and reduce the need for new peaking plants.

Brian Grunkemeyer, CTO at Flex Energy, provided public comment on virtual power plants. Brian expressed interest in whether PSE is piloting virtual power plant programs. Brian offered his insight into current virtual power plant trends and offered to connect with PSE if interested in continuing the discussion.

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.

Attendees

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

RPAG members

1. Aliza Seelig
2. Callie Moriyasu
3. Dan Kirschner
4. Donald Williams
5. Ezra Hausman
6. Froylan Sifuentes
7. Jaimie McGovern
8. Juan Pablo Carvallo
9. Katie Chamberlain
10. Lauren McCloy
11. Megan Larkin
12. Quinn Weber

Presenters

1. Lorin Molander, PSE
2. Will Sierzchula, Guidehouse

Other PSE staff

1. Graham Marmion
2. Heather Mulligan
3. Jennifer Coulson
4. Kara Durbin
5. Kelly Xu
6. Malcolm McCulloch
7. Meredith Mathis
8. Phillip Popoff
9. Ray Outlaw
10. Stephen Collins

Facilitation staff

1. Annie Kilburg Smith
2. Ben Relampagos
3. Jack Donahue

Members of the public

1. Amy Wheeless
2. Bradley Nelson
3. Brian Grunkemeyer
4. Colin Munson
5. David Francis
6. David Nightingale
7. Don Marsh
8. Emma Wyma
9. Graham Marmion
10. James Adcock
11. Jeremy Smithson
12. Lori Hermanson
13. Matt Larson
14. Meghan Anderson
15. OP Ravi
16. Robert Healy
17. Stefan de Villiers
18. Teun Deuling
19. Tobyn Smith
20. Tom Kraemer