Resource Planning Advisory Group Kickoff Meeting

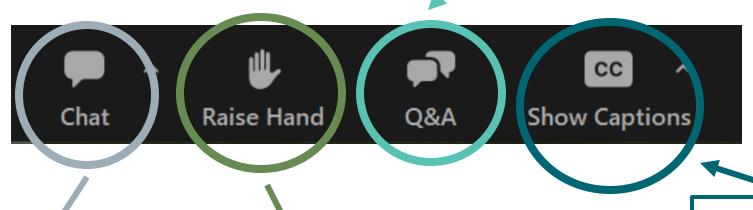
2025 Gas and Electric Integrated Resource Plan

October 30, 2023



Welcome to the webinar!

The Q&A tool will be turned off during the meeting



RPAG members and PSE staff are welcome to use the chat feature

During the public comment period, raise your hand if you would like to make a verbal comment

Click to see real-time closed captioning



Facilitator requests

- Engage constructively and courteously towards all participants
- Respect the role of the facilitator to guide the group process
- Avoid use of acronyms and explain technical questions
- Use the Feedback Form for additional input to PSE
- Aim to focus on the webinar topic
- Public comments will occur after PSE's presentations



Safety moment

October is pedestrian safety month

- Cross the road at crosswalks if possible
- Put away your cell phone and remove headphones when using a crosswalk
- Watch for cars entering or exiting driveways, backing up in parking lots, or making turns
- Walk on sidewalks whenever possible



Agenda

Time	Agenda Item	Presenter / Facilitator	
2:30 p.m. – 2:35 p.m.	Introduction and agenda review	Sophie Glass, Triangle Associates	
2:35 p.m. – 2:55 p.m.	Introductions	Kara Durbin, PSE	
2:55 p.m. – 3:25 p.m.	RPAG and IRP overview	Phillip Popoff, PSE Kara Durbin, PSE	
3:25 p.m. – 3:40 p.m.	Charter review	Sophie Glass, Triangle Associates	
3:40 p.m. – 4:45 p.m.	Discussion: Work Plan, Timeline, Topics	Phillip Popoff, PSE	
4:45 p.m. – 4:50 p.m.	Next steps	Sophie Glass, Triangle Associates	
4:50 p.m 5:00 p.m.	Public comment opportunity	Sophie Glass, Triangle Associates	
5:00 p.m.	Adjourn All		



Today's speakers

Sophie Glass

Facilitator, Triangle Associates

Phillip Popoff

Director, Resource Planning Analytics, PSE

Kara Durbin

Director, Clean Energy Strategy, PSE



Introductions

Kara Durbin, PSE



2025 IRP engagement approach

- Needs to ensure all interested parties will have meaningful ways to participate
- Needs to deliver a process that is inviting to a broader and more diverse audience
- Builds on the success of Equity Advisory Group format
- Expands to include a two-track approach including:
 - Public webinars designed to engage broader audiences
 - Formal RPAG consisting of regional experts in a range of resource planning related topics
- Includes multiple and diverse opportunities for interested parties to participate



RPAG structure

- Approximately 10-12 members with organizational affiliation
- Expertise or professional experience in resource planning
- Maintaining a balance of organizations and interests
 - No more than 1 representative from any single organization
 - No more than 3 representatives in any category
- Additional details available in:
 - Triangle Associates RPAG selection methodology memo
 - Draft RPAG charter (slides 23-25)



RPAG organizational distribution

Organization	Organization Type
Washington Utilities and Transportation Commission	Government
Public Counsel Unit	Government/consumer advocacy
Northwest Power and Conservation Council (NWPCC)	Resource organization
Northwest Gas Association (NWGA)	Industry
Western Washington University Institute of Energy Studies	Academia
Pacific Northwest Utilities Conference Committee (PNUCC)	Resource organization
Climate Solutions	Environmental advocacy
Sierra Club	Environmental advocacy
Northwest Energy Coalition (NWEC)	Environmental advocacy
Western Energy Storage Taskforce (WEST)	Energy resource developer
Alliance of Western Energy Consumers (AWEC)	Consumer advocacy
Renewable Northwest	Energy resource developer



RPAG members (alphabetical by first name)

Aliza Seelig

 Analytics and Policy Director, Pacific Northwest Utilities Conference Committee (PNUCC)

Alondra Regalado

Analyst, Western Energy Storage Taskforce (WEST)

Dan Kirschner

Executive director, Northwest Gas Association (NWGA)

Froylan Sifuentes

 Assistant professor, Western Washington University Institute of Energy Studies



RPAG members cont.

Jim Dennison

Staff attorney, Sierra Club

Joel Nightingale

 Regulatory analyst, Washington Utilities and Transportation Commission

John Ollis

 Manager of Planning and Analysis, Northwest Power and Conservation Council (NWPCC)

Katie Chamberlain

Technical and Policy Analyst, Renewable Northwest



RPAG members cont.

Lauren McCloy (alternate Fred Heutte)

Policy Director, Northwest Energy Coalition (NWEC)

Megan Larkin (alternate Kelly Hall)

Washington Clean Buildings Policy Lead, Climate Solutions

Sommer Moser

 Attorney, Davison Van Cleve, PC, on behalf of Alliance of Western Energy Consumers (AWEC)

Stephanie K. Chase

 Regulatory analyst, Washington State Attorney General's Office Public Counsel Unit; represented by Dr. Ezra Hausman

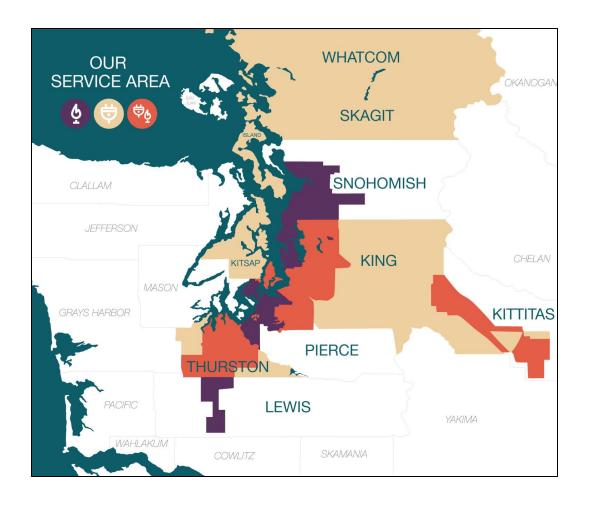


RPAG and IRP overview

Phillip Popoff, PSE Kara Durbin, PSE



About PSE



- Washington's largest and oldest utility, serving 1.2 million electric customers in 10 counties and 900,000 gas customers in 6 counties covering over 6,000 square miles
- 12,955 miles of natural gas pipeline and 13,351 miles of gas service lines
- 23,700 miles electric distribution system and 2,900 miles of electric transmission system
- Our 3,100+ employees live and work in the communities we serve
- We share our customers' concern for the environment, balanced with their expectations for uncompromised reliability, affordability, and safety.
- 24 million MWh annual sales
- **5,000 MW** winter peak



PSE's existing electric supply portfolio

1905 MW

Combined Cycle Encogen **Ferndale** Frederickson Goldendale Mint Farm Sumas Peaker Fredonia Frederickson Whitehorn

1749 MW

Owned Hopkins Ridge Lower Snake River 1 Wild Horse Contracted Klondike III Golden Hills Clearwater

Vantage Wind

Green Direct Skookumchuck Lund Hill

966 MW

Owned **Upper Baker** Lower Baker Snoqualmie Falls

Mid-C contracts Wells Rocky Reach Rock Island Wanapum **Priest Rapids**

806 MW Energy Keepers

SPI Biomass PG&E exchange Schedule 91 **PURPA** Qualifying facilities

750 MW

Colstrip 3&4 **Coal Transition PPA**

Hydro

Contracts

Coal

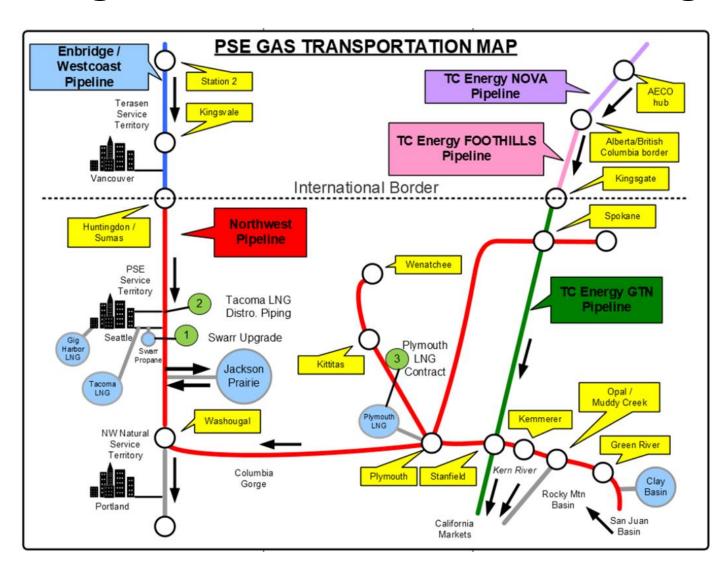


Wind & Solar

Long-term



Regional overview: 2023 Gas IRP gas basins and pipelines



Supply basins and hubs:

- BC-Station 2
- BC-Sumas
- Alberta- NIT (AECO)
- Alberta at Stanfield
- Rockies- including Clay Basin Storage

Pipelines

- Northwest
- Westcoast
- GTN/Foothills/NGTL
- Cascade

There are 91,503 miles of gas pipeline in the region (Washington, Oregon and Idaho).

Alternative Fuels:

- Renewable Natural Gas
- Hydrogen



What is an Integrated Resource Plan (IRP)?

- A 20+ year view of what resources appear to be cost-effective while maximizing benefits and minimizing burdens
- Based on the best information we have today about the future
- Does not make resource or program implementation decisions
- Electric IRP is repeated every 4 years with a two-year progress report
- Gas IRP is repeated every 2 years
- Must meet requirements outlined in WAC <u>480-100-620</u> and <u>480-90-238</u>



Integrating 2023 feedback and new requirements in the 2025 cycle

- Improved public engagement methods, including accessibility and plain language
- Inflation Reduction Act demand-side impacts
- Emerging technologies/technology assessment
- Refining assumptions for alternative fuels
- Updating electric vehicle forecast
- Updating effective load carrying capability (ELCC) of energylimited resources, such as batteries
- Increasing amount of time for public to review draft documents and provide feedback



Integrating 2023 feedback and requirements into the 2025 cycle (cont.)

- Continuing to improve electrification assumptions and analysis
- Refining assumptions for alternative fuels such as green hydrogen
- Continuing to update and refine Customer Benefit Indicator (CBI) methodology
- Improving how we embed equity into resource planning
- Incorporate developments in federal and state rules and policies, as applicable (e.g. Climate Commitment Act)
- Analyze customer bill impacts



Incorporating new public feedback into RPAG work

- Relevant interested party feedback shared with RPAG and posted on pse.com/irp
- Public may provide comment during RPAG meetings or submit written feedback
- Facilitator, PSE, and/or RPAG may recommend topics for further consideration; RPAG may choose if/how to address interested party feedback
- PSE will demonstrate how feedback from the RPAG and interested parties was, if applicable, incorporated into the 2025 IRP



Charter review

Kara Durbin, PSE Sophie Glass, Triangle Associates



RPAG purpose

- Provides specialized technical advice to support long-term resource planning processes
- Provides feedback on candidate portfolio evaluations
- Offers recommendations on final portfolio results
- May provide expert advice on other related topics



RPAG charter

- Draft charter is located on PSE's IRP website
- PSE will circulate a revised draft based following your feedback
- Feedback requested by November 13, 2023
- This is a living document
- RPAG members and PSE staff may discuss amending the charter as warranted



Administrative commitments

PSE will provide:

- Third party facilitation from Triangle Associates
- SharePoint site for RPAG documents
- Meeting materials at least 3 business days prior to meeting:
 - Slide deck
 - Agenda
 - Corresponding materials, as needed
- Additional materials post-meeting:
 - Meeting summary outlining key discussion topics
 - Feedback report outlining RPAG input and answers to any questions that require follow-up
 - Summary of public feedback



Meeting preferences – discussion

- Day of week?
- Time of day?
- Minimum and maximum length?
- Frequency?



Resource planning process

Phillip Popoff, PSE



Current IRP workplan

- Filed September 29, 2023 (as required)
- Focused on 2023 meetings and topics, with some details for 2024
- Includes dates and assumptions based on current required IRP filing date of Jan. 1, 2025
- Committed to filing updated work plan by Dec. 15, 2023



Process Proposal

Current IRP process and timing support a different time/policy condition

- Past IRPs were used to identify whether there was a resource need and to provide starting point to negotiate conservation targets.
- Plans used generic resource assumptions because specific resource decisions were made outside the IRP

Situation today is very different

- We <u>know</u> there is a significant resource need
- We have a new CEIP process that is to include specific actions
- Currently that means we do a theoretical IRP once, then more IRP analysis for the CEIP

Proposal

- Align IRP and CEIP in one complete filing due Oct 1, 2025, with engagement throughout the process
- Better use of resources for Staff, PSE, and other parties



IRP Filing: January 2025



Public & interested parties

Typical IRP meeting topics + DER Heat Map conversation



- ✓ IRP WAC requirements
- √ 23 IRP comments
- ✓ System Planning GRC requirements –
 DER heat map stakeholder meeting
- ✓ CEIP Order (e.g. IRA demand impacts)
- ✓ Stipulation O minimal inclusion
- ✓ Regional Transmission analysis



- IRP fully generic assumptions and conclusions
- CEIP analysis almost entirely repeated with some updated assumptions



- X System Planning load scenarios
- **X** 2024 RFP resources
- X Stipulation O
 - **X** more complete integration
- **X** 2025 CEIP filing
- Regional Transmission will not include BPA cluster study results

Integrated IRP-CEIP Filing October 2025





Typical IRP meeting topics + DER Heat Map conversation + High level DSP scenario inclusion + CEIP (candidate portfolio reviews)

- ✓ IRP WAC requirements
- √ 23 IRP comments
- ✓ System Planning GRC requirements DER heat map stakeholder meeting.
- ✓ High Level DSP scenario runs
- ✓ CEIP Order (eg IRA demand impacts)
- ✓ 2025 CEIP Filing (with candidate portfolio reviews)
 - ✓ Including utility scale acquisitions as applicable
 - ✓ Including DER specific resources as applicable
 - ✓ Generic utility scale resources informed by RFP
- ✓ Stipulation O
 - ✓ Full incorporation of Targeted electrification strategy
- ✓ Regional Transmission analysis
 - ✓ Includes BPA Cluster Study results

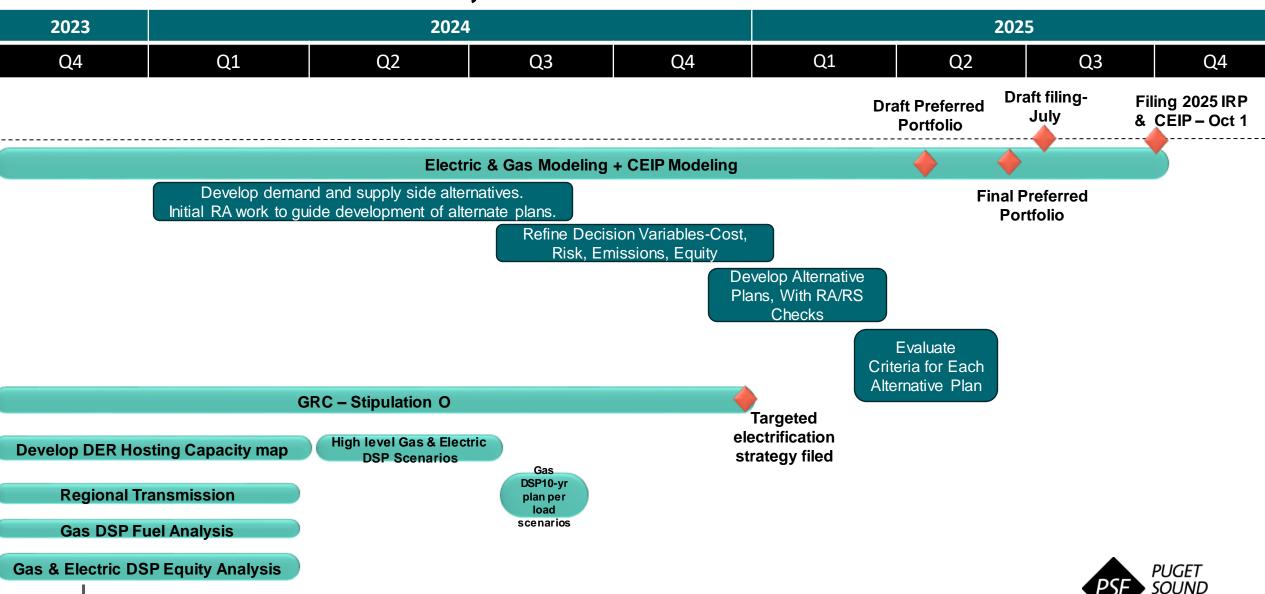
High-Level Options Overview

	January 2025	October 2025
IRP		
Electric: Candidate Portfolios	igotimes	⊘ +
GRC		
Targeted Electrification Strategy	⊘ -	Ø +
Electrification Scenarios	Ø	Ø +
Load scenarios customer bill impact	\bigcirc	Ø +
DSP		
High level load scenarios		\checkmark
Hosting Capacity Map	\bigcirc	\checkmark
Regional Transmission options	\checkmark	⊘ +
CEIP filing		
RFP Results (as applicable)		Ø



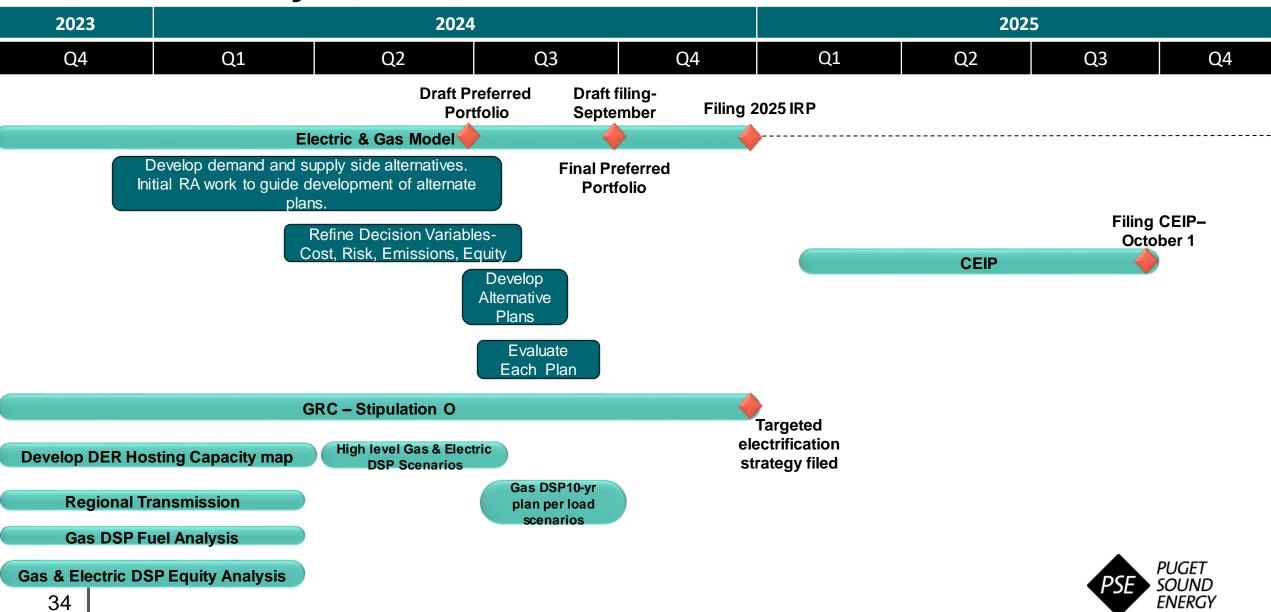
+ Incorporated with more details

IRP+CEIP October 1, 2025



ENERGY

IRP January 1, 2025



RPAG Potential Topics for Discussion

- Resource adequacy
- Conservation potential assessment
- Resource alternatives (gas & electric)
- Electrification
- Load forecast
- Alternative portfolios/plans
- Distributed energy resources + Electric system planning heat map



Next steps

Sophie Glass, Triangle Associates



Upcoming meetings

Date	Туре	Details
Nov. 6, 2023	Public webinar	Equity in Delivery System Planning public webinar
Nov. 15, 2023	Public webinar	Energy Efficiency and Demand-side Resources public webinar
Dec. 7, 2023	Public webinar	Focus on Emerging Resource Alternatives: Hydrogen public webinar
Dec. 12, 2023	RPAG meeting (tentative)	Topics and date to be determined pending RPAG feedback



Public comment opportunity

Please raise your "hand" if you would like to provide comment. Comments are limited to 2 minutes.



Thank you for joining us!

