

PSE Gas Utility IRP Webinar with IRP Stakeholders

January 17, 2023

Overview

On January 17, 2023, Puget Sound Energy (PSE) hosted an online webinar with Integrated Resource Plan (IRP) stakeholders on the Gas Utility IRP to:

- Provide updates on the 2023 Gas Utility IRP process
- Share resource plan modeling results
- Share electrification analysis
- Create an opportunity for participants to ask questions regarding the draft gas portfolio and resource planning process

Additionally, participants were able to ask questions and make comments using a chat box provided by the Zoom platform.

Below is a report of the questions submitted to the chat box. Answers to the questions were provided verbally by PSE staff during the meeting. Please note that questions were answered in order of relevance to the topic currently being discussed. Questions regarding other topics were answered at the end of the meeting.

To view a recording of the webinar and to hear responses from staff, please visit the project website at pse.com/irp.

Attendees

A total of 59 stakeholders, PSE staff and facilitators attended the meeting.

Attendees included:

Alexandra Karpoff, Allison Jacobs, Allison Mountjoy, Amreen Papar, Amy Wheelless, Bala Dodoye-Alali, Bill Donahue, Bob Williams, Bradley Cebulko, Charlee Thompson, Chris Searcy, Christine Bunch, Cindy Vu, Claire Moerder, Claire Wendle, Corey Corbett, Daihong Chen, Don Marsh, Doug Hart, Elizabeth Hossner, Garret LaBove, Gurvinder Singh, Hannah Wahl, James Adcock, Jennifer Magat, Jennifer Snyder, Jesse Durst, Jisong Wu, Joel Nightingale, Kara Durbin, Kelly Xu, Kendall Cammermeyer, Kevin Foley, Kim Zamora Delgado, Lorin Molander, Marc Alberts, Mark Lenssen, Meredith Mathis, Michelle W., Nathan Critchfield, Nick Gemperle, Phillip Popoff, Ray Outlaw, Rick Kunz, Seth Baker, Sophie Glass, Stephanie Chase, Troy Hutson, Tyler Tobin, Valerie Jacobson, Wendy Gerlitz, William Henderson, and 7 call-ins.

Questions Received

Questions from attendees are posted in the order in which they were received. The meeting began at 1:00 PM PDT and ended at 3:40 PM PDT.

Name	Time Sent	Comment
Claire Wendle, Triangle Associates	1:03 pm	https://www.pse.com/IRP/Get-involved Presentation Link: https://www.pse.com/-/media/PDFs/IRP/2023/01172023/2023-0117-StakeholderPresentation-Final.pdf?sc_lang=en&modified=20230113205043&hash=F40AE145DC530619405389339513BE90
Don Marsh, WA Clean Energy Coalition	1:11 pm	I have a question about equity
James Adcock, Stakeholder	1:14 pm	Equity question: How do you design your program to maximize equity benefits per \$ spent?
Bradley Cebulko, Strategen	1:14 pm	I think addressing health impacts associated with the utility's product in its planning would be a good lesson learned from the CEIP (quantifying health impacts)
Don Marsh, WA Clean Energy Coalition	1:14 pm	Bradley +++
Sophie Glass, Triangle Associates	1:16 pm	Thank you, Bradley. PSE has noted this suggestion.
James Adcock, Stakeholder	1:18 pm	Slide 14: 13 degree day planning standard and how much more planning margin? Are you saying zero margin -- i.e. 12 degrees would result in some people or companies losing gas supply?
Sophie Glass, Triangle Associates	1:18 pm	Hi Jim - sorry I missed your question. We will return to the equity conversation before the next presentation.
Bradley Cebulko, Strategen	1:20 pm	Slide 15: I have a question on how PSE is addressing the current gas market and if it is modifying its IRP assumptions.
Bradley Cebulko, Strategen	1:25 pm	It may be worth considering a sensitivity that models occasional extreme price spikes (prices greater than \$20 for a short period of time) and if your resource portfolio looks differently.
Jennifer Snyder, UTC	1:36 pm	When you get to slide 34, could you please also be prepared to show the total portfolio costs in addition to the \$/Dth? Thanks
Sophie Glass, Triangle Associates	1:37 pm	Yes, Jennifer. PSE will address this on slide 34
Don Marsh, WA Clean Energy Coalition	1:38 pm	Adding to Jennifer's question, I'm hoping we will understand PSE's forecast of gas consumption in MDth, similar to the forecast that was shown in the 2021 IRP.
Sophie Glass, Triangle Associates	1:40 pm	Thanks, Don. We have time for Gurvinder to respond to this later.
Bradley Cebulko, Strategen	1:42 pm	What does PSE mean that the Social cost of greenhouse gases does not apply to RNG? Nevermind. Gurvinder just answered the question
Sophie Glass, Triangle Associates	1:42 pm	Great :)
Bradley Cebulko, Strategen	1:46 pm	Earlier Philip said that the gas portfolio is shrinking and the question is "how do we optimize the shrinking gas system?" Was Philip referring to the load forecast during the planning horizon? If yes, can you discuss that comment relative to the "zero growth sensitivity" discussed on slide 24?
Bradley Cebulko, Strategen	1:57 pm	PSE: Will you please share your assumptions (cost, technical availability, etc) for all supply-side gas resources like you do for electric resources? For example, what are your cost assumptions for H2 blending per Dth.

Name	Time Sent	Comment
Sophie Glass, Triangle Associates	1:58 pm	Thanks, Brad. I'll ask Gurvinder to respond to this before he moves to the next slide.
James Adcock, Stakeholder	2:00 pm	Slide 26 -- Raise Hand
Bradley Cebulko, Strategen	2:01 pm	PSE provided its electric supply side assumptions at its September 13, 2022 meeting. I really appreciate that PSE proactively shared those assumptions for stakeholder review. I encourage PSE to share its gas supply-side resources in advance of the draft as well.
Christine Bunch	2:04 pm	What is the difference between RNG PNW Regional and RNG On-system?
Sophie Glass, Triangle Associates	2:05 pm	Brad - thanks for the suggestion re: materials in advance. Noted for the '25 Gap IRP process
Sophie Glass, Triangle Associates	2:05 pm	And Christine - we will turn to you next
Amy Wheelless	2:06 pm	I think I share Jim's question - more explanation on how a + b resulted in your preferred portfolio would be helpful
Don Marsh, WA Clean Energy Coalition	2:08 pm	When Phillip says electrifying a home is really expensive, it would be helpful for us to know what number PSE is plugging into the model for average home cost of electrification. I believe it IS expensive, but emissions are also very costly for society and the environment.
James Adcock, Stakeholder	2:10 pm	+Don -- and if Gas continues to be really really expensive, then when existing gas appliances wear out, homeowners will be looking really hard at electrification.
James Adcock - Stakeholder	2:13 pm	Slide 27 - Raised Hand.
Sophie Glass, Triangle Associates	2:14 pm	Thanks Jim. We will turn to your question before Gurvinder goes to Slide 28
Amy Wheelless	2:15 pm	My understanding is that some transport customers are smaller than CCA compliance requirements - does that DSR from small transport customers reflect those customers?
Don Marsh, WA Clean Energy Coalition	2:16 pm	I think PSE is crying for help from the legislature?
Bradley Cebulko, Strategen	2:19 pm	I understand that PSE did not find electrification cost-effective in this IRP. That may change in future IRPs. For future IRPs, I think it would be helpful to separately identify fuel switching from "energy efficiency"
Joel Nightingale, UTC	2:20 pm	Will PSE include the Preferred Portfolio in these charts in the IRP document? It's hard to understand the implications of what PSE is proposing without seeing where it stacks up against the other scenarios/sensitivities? (slides 28, 29, 31, 32, 33, 34)
Sophie Glass, Triangle Associates	2:22 pm	Joel - PSE will respond to this shortly
Don Marsh, WA Clean Energy Coalition	2:31 pm	Slide 32: which curve is the preferred portfolio? Is it the reference scenario? I can't see that curve.
James Adcock, Stakeholder	2:36 pm	Slide 33 -- Where and how do you think you will get green hydrogen?
Sophie Glass, Triangle Associates	2:37 pm	Thanks Jim - we will circle back to this
Christine Bunch	2:37 pm	You mentioned that Green Hydrogen was more cost-effective with help from the Inflation Reduction Act federal funds. Related to electrification measures: were the IRA funds also included in the electrification cost-effectiveness analysis (e.g. residential heat pumps, heat pump water heaters, and electrical upgrades)?
Don Marsh, WA	2:37 pm	Can you tell us the total Social Cost of Greenhouse Gases (SCGHG) for the

Name	Time Sent	Comment
Clean Energy Coalition		preferred portfolio in the energy graph on slide 32? I've calculated the accumulated SCGHG cost to be somewhere around \$10-\$12 billion. But I'm not sure my calculation is correct. I'd much rather use a verified number from PSE. This might help the legislature understand the true cost of these emissions.
Claire Wendle, Triangle Associates	2:42 pm	https://www.pse.com/press-release/details/Puget-Sound-Energy-and-Fortescue-Future-Industries-Forge-Partnership
Don Marsh, WA Clean Energy Coalition	2:45 pm	Great, thanks!
Don Marsh, WA Clean Energy Coalition	2:47 pm	Will PSE tell us what their assumptions are about the Hybrid Heat Pump? I'm interested in the details. Why is it a hybrid? Aren't there heat pumps that can handle our temperatures here?
Bradley Cebulko, Strategen	2:48 pm	Sophie, will you please go over the Gas IRP commenting timeline again?
Amy Wheelless	2:50 pm	Agree with more up to date assumptions on heat pumps are warranted, especially their use in new (well insulated) homes
Amy Wheelless	2:54 pm	Am I reading correctly that there will be a two week window for reviewing the gas irp ("the book") and providing comment?
Sophie Glass, Triangle Associates	2:59 pm	Yes thanks, Amy. We will go over the timeline for providing comments at the end of the meeting
Don Marsh, WA Clean Energy Coalition	3:04 pm	Just FYI, my heat pump is a Mitsubishi model. It wasn't cheap, but is very effective in my 3,000 sf home with very large windows. As the temperature drops, it stays on longer, but it doesn't seem to draw more electricity. I have to wonder if a hybrid pump is more complicated and therefore probably more expensive than we need.
Bradley Cebulko, Strategen	3:04 pm	Slide 39: Did PSE examine water heating electrification as well?
Sophie Glass, Triangle Associates	3:05 pm	Thanks for the comment Don
Sophie Glass, Triangle Associates	3:05 pm	And Brad we will go to your question in a moment
Christine Bunch	3:10 pm	Comment: The heat pump technology assumptions are an important variable in the analysis. While you are looking at hybrid heat pump as a policy in the sensitivity analysis, it is important to understand that many heat pumps provide 100% heating capacity down to 0 degrees F and below. Also, the IRA rebates and tax credits specify Energy Star/CEE level models (which do not include gas backup). The IRA rebates will ultimately likely push consumers to standard heat pumps since hybrid models won't be eligible.
Amy Wheelless	3:11 pm	Reacted to "Comment: The heat pu..." with 👍
Sophie Glass, Triangle Associates	3:11 pm	Thanks Christine - I'll read this out loud so people on the phone can hear your comment as well
Don Marsh, WA Clean Energy Coalition	3:15 pm	Does the Electric Peak Load graph include DSR?
Sophie Glass, Triangle Associates	3:17 pm	Replying to "Does the Electric Pe..." Elizabeth responded to your question - did you get the answer you needed?
James Adcock, Stakeholder	3:17 pm	Slide 44 Raise Hand.
Don Marsh, WA Clean Energy	3:17 pm	Replying to "Does the Electric Pe..."

Name	Time Sent	Comment
Coalition		Yes, thank you.
Sophie Glass, Triangle Associates	3:18 pm	Noted Jim. We will return to 44 after we finish 45
Amy Wheelless	3:24 pm	I think Jim has raised a good example of when combined electric and gas planning would be helpful!
Sophie Glass, Triangle Associates	3:24 pm	https://www.pse.com/press-release/details/Puget-Sound-Energy-and-Fortescue-Future-Industries-Forge-Partnership
Bradley Cebulko, Strategen	3:25 pm	I have a comment on slide 46.
Sophie Glass, Triangle Associates	3:25 pm	Reacted to "I have a comment on ..." with 👍
Don Marsh, WA Clean Energy Coalition	3:25 pm	Question on 46
Amy Wheelless	3:25 pm	Reacted to "I have a comment on ..." with 👍
Amy Wheelless	3:25 pm	Removed a 👍 reaction from "I have a comment on ..."
Sophie Glass, Triangle Associates	3:25 pm	Reacted to "Question on 46" with 👍
Jennifer Snyder, UTC	3:31 pm	so, Slide 46, includes gas system costs? or did I just get lost?
Christine Bunch	3:33 pm	It would be interesting to see the gas system costs, and broken out by costs for gas only service area and gas/electric service area.
Don Marsh, WA Clean Energy Coalition	3:35 pm	I am hoping to see in the IRP the total SCGHG on both the electric and gas sides. I'm sure you're working on that, but wanted to reiterate.
Bradley Cebulko, Strategen	3:36 pm	I don't believe that two weeks is sufficient time to review both the gas IRP and the electric IRP update and provide feedback.
Amy Wheelless	3:36 pm	I agree with Brad