

PUGET SOUND ENERGY

2023 Natural Gas Utility

Integrated Resource Plan

Work Plan

October 21, 2022

PURPOSE OF THE INTEGRATED RESOURCE PLAN

Puget Sound Energy (PSE) continues to invest in a long-term resource planning process to inform and guide the company’s resource acquisition processes consistent with the Washington Administrative Code (WAC) 480-90-238. PSE’s Natural Gas Utility Integrated Resource Plan (Gas Utility IRP) is a plan for meeting forecasted annual peak and energy demand through a combination of energy supply and demand-side resources. PSE’s Gas Utility IRP analysis integrates demand-side and supply-side resources to meet the energy needs of its customers at the lowest reasonable cost.

Consistent with the requirements of WAC 480-90-238(4) and (5), PSE has developed this work plan to outline the Gas Utility IRP content and methods PSE will use to assess potential resources. The work plan also outlines PSE’s approach to public involvement, including timing and extent.

METHODS FOR ASSESSING RESOURCES

PSE’s demand-side and supply-side resource analyses are well integrated, as are PSE’s electric and natural gas resource planning efforts. The 2023 Gas Utility IRP analytical approach follows a similar process as the 2021 Gas Utility IRP, but with key updates to ensure that the resource plan meets the goals of the Climate Commitment Act and other state and federal policies.

The natural gas analysis in the 2023 Gas Utility IRP will follow a five-step process outlined below.

1. Establish Resource Need

PSE will rely on the demand forecast and existing resources to establish peak capacity needs over the study period, along with daily and monthly demand for gas sales customers. This includes PSE’s commitment to update the demand forecast with our climate change assumption approach.

2. Determine Planning Assumptions and Identify Resource Alternatives

PSE will analyze potential futures through scenarios and sensitivities that will have different natural gas prices, demand, environmental policies, and supply-side and demand-side resource alternatives. Scenarios and sensitivities are analyzed using deterministic and stochastic risk analysis. Sensitivities determine how different potential futures and factors affect resource strategies, costs, emissions, and risks.

The 2023 Gas Utility IRP will make assumptions regarding the rules from Washington Department of Ecology relating to the Climate Commitment Act¹ and implement new rules associated with laws enacted in 2019: Washington Clean Buildings Act (HB1257), and Appliance Efficiency Standards (HB1444). PSE also contracted with The Cadmus Group to conduct energy efficiency potential studies including the electrification potential.

3. Analyze Alternatives and Portfolios using Deterministic and Stochastic Risk Analysis

Deterministic analysis identifies the least-cost mix of demand-side and supply-side resources that will meet need, given the set of static assumptions defined in the scenario or sensitivity. Scenarios and sensitivities are analyzed using deterministic optimization analysis.

Stochastic risk analysis deliberately varies the static inputs to the deterministic analysis to test how the different portfolios developed in the deterministic analysis perform with regard to cost and risk across a wide range of potential future natural gas prices and loads.

The SENDOUT model is also used for portfolio optimization to select PSE's Resource Portfolio and alternative scenario portfolios. The SENDOUT portfolio model is a linear programming optimization model that will optimize the portfolio given the objective function to minimize the portfolio cost and the constraints to serve customers while also meeting peak capacity need.

4. Analyze Results

Results of the quantitative analysis – both deterministic and stochastic – are studied to understand the key findings that lead to decisions about the resource plan forecast.

5. Develop Resource Plan

Taking all the analysis into consideration, a final Resource Plan is created with a lowest reasonable cost portfolio for the 20-year time horizon.

¹ Climate assumptions are an early input into PSE's modeling and must be addressed by May 2022 in order to meet the January 1, 2023 filing requirement for the IRP. However, the final rules implementing the Climate Commitment Act are not expected to be published by the Washington [Department of Ecology](#) until September 2022. As such, PSE must make assumptions in the IRP on the Climate Commitment Act outcomes.

Figure 1: 2023 Gas Utility IRP Process



2023 GAS UTILITY IRP CONTENT OUTLINE

The following is a draft outline of the 2023 Gas Utility IRP. PSE may revise the organizational structure based on results of analysis and stakeholder feedback through the planning process. The draft 2023 Gas Utility IRP will be available for public review and comments by January 3, 2023. The final 2023 Gas Utility IRP will be filed with the WUTC by April 1, 2023.

Chapters

1. Executive Summary
2. Resource Plan Decisions
3. Key Analytical Assumptions
4. Demand Forecast
5. Natural Gas Analysis
6. Scenarios Analysis

Appendices

- A. Public Participation
- B. Legal Requirements
- C. Environmental Regulations
- D. Conservation Potential Assessment
- E. Demand Forecasting Models
- F. Natural Gas Analysis Resources
- G. Delivery System Planning

PUBLIC PARTICIPATION

Background

PSE believes stakeholder input can and should improve the 2023 Gas Utility IRP and is committed to increasing public participation from previous IRPs. PSE has worked with stakeholders to receive feedback on plan components as part of the development process for previous IRPs. During previous processes, PSE received feedback requesting they provide stakeholders with a clearer understanding of where stakeholders can influence PSE decisions and IRP outcomes. Those stakeholders wanted to know when PSE was providing information to keep the public informed, when PSE would like feedback from stakeholders on their work, and when PSE needed suggestions and insight from stakeholders to make decisions, and what the outcomes of those decisions would be. Some stakeholders recommended that PSE follow the International Association for Public Participation (IAP2) methodology for designing and implementing effective public involvement processes. The IAP2 methodology emphasizes the importance of determining the role of stakeholders in planning and decision-making, and how much influence the community has over planning or decision-making processes.

As a result of stakeholder feedback, PSE developed a public participation plan which clarifies the role the public will play in the development of the 2023 Gas Utility IRP and follows the IAP2 methodology. PSE will engage the public by informing stakeholders of plan components as they are developed, requesting feedback from stakeholders on project components at key decision points, and consulting with stakeholders to gain input from industry experts and interest groups.

Plan Development

To begin planning for IRP public participation, the project team participated in a planning session led by Triangle Associates, a public participation planning firm. At the workshop, the project team identified key topics for consideration and project milestones associated with the 2023 Gas Utility IRP.

After identifying key feedback opportunities for the 2023 Gas Utility IRP, the project team engaged IRP Stakeholders at the January 20, 2022 meeting to seek their input into the topics they wanted to engage on as part of this effort.

In order to identify the key project milestones and decision points where stakeholders should be informed, or where PSE should work with stakeholders to receive input on project components, Triangle worked with the IRP technical team in a second workshop to align technical work with specific participation objectives and place them on the IRP development timeline. Clear objectives then lead to selection of participation techniques that will allow PSE to meet those objectives.

Triangle uses the IAP2 framework to help determine the level of influence stakeholders can have in a public process called the Spectrum of Public Participation ([Spectrum](#)). To determine the location of stakeholders on this spectrum, the project team considered how stakeholder input will be used, what stakeholder input can change, and how stakeholder input will affect the subsequent planning processes in the long term.

The levels of engagement used on the IAP2 Spectrum are defined as follows:

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.

Consult - To obtain public feedback on analysis, alternatives and/or decision.

Involve - To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.

Collaborate - To partner with the public in each aspect of the decision including the development of alternatives and the preferred solution.

Empower - To place final decision-making in the hands of the public.

The IAP2 framework for effective public participation identifies the need for strong linkages and integration of public participation and technical work. The Public Participation Plan included in Appendix A describes how the coordination of project milestones, participation objectives and techniques align and when stakeholders will have opportunities to provide input and feedback to specific IRP topics.

Meaningful stakeholder engagement relies on a collaborative process to build trust. Trust is a product of clear information, reliable access to decision makers, and predictable connection points. The goal is to develop a clear understanding of roles and when there are opportunities to provide input and/or feedback. PSE will consult with key IRP stakeholders to co-create an engagement process that works for both PSE and stakeholders to build trust and allow opportunities for meaningful, productive engagement.

Equitable Engagement

To support diversity, equity and inclusion in the development of the 2023 Gas Utility IRP, PSE will:

- Reduce barriers to participation by summarizing technical information in easy-to-digest formats where possible.
- Consider alternative ways of communicating information, including explanatory videos.
- Record meetings for stakeholders and interested parties to view outside of working hours or scheduled meetings.
- Share IRP materials on a website (pse.com/irp). Include contact information on the IRP website for requests for large-print or translated versions of materials.

Engagement Approach

PSE will engage stakeholders to develop the Gas Utility IRP and identify the appropriate engagement tools for PSE to interact with the relevant stakeholders depending on the topic, timing, and level of participation needed. PSE and its consultants (Triangle Associates and Maul Foster & Alongi) will proactively identify strategies to achieve the goals outlined below.

Stakeholder Groups

IRP stakeholders include, but are not limited to, the following groups:

- City, county and state government representatives
- Highly impacted communities and vulnerable populations and their advocates
- Energy sector developers and producers
- Energy councils and coalitions directly impacted by IRP results
- Environmental, climate change and other community advocacy groups
- PSE customers
- Labor organizations in energy industries
- Internal PSE groups whose work is directly impacted by IRP results
- Land use groups
- Consultants

PSE's Goals for Engaging with Stakeholders

Below are some of PSE's goals for engaging stakeholders:

- Establish transparency through clear information sharing and decision-making processes.
- Improve credibility with stakeholders and customers through dialogue and relationship-building.
- Be proactive by learning about and anticipating stakeholder interests, values, and concerns to address in meetings or through other engagement strategies.
- Prevent conflict by working with stakeholders to build a process that benefits both PSE and stakeholders.

- Build trust through implementing strategies that achieve transparency, credibility, proactivity, and conflict reduction.

Stakeholders' Goals for Engaging with PSE

In one-on-one conversations and a Stakeholder Assessment conducted in early 2022, IRP stakeholders shared their goals and objectives for engaging with PSE. These goals include the following:

- Ability to shape IRP processes and outcomes through proactive and frequent engagement.
- Receive easy to understand materials and a manageable amount of information in advance of meetings.
- Engage in productive dialogue with PSE during meetings by allowing sufficient time for discussion.
- Maintain a respectful relationship between IRP stakeholders and PSE.
- Allow stakeholders to bring in non-PSE technical experts to share about topics.

Tribal Engagement and Consultation

Tribes have been invited to participate in PSE's energy planning work. PSE will continue to use original and newly identified channels with tribal governments and inter-tribal organizations. PSE's tribal liaison will follow up with each tribe in PSE's service area to encourage participation in the development of the Gas Utility IRP. PSE will use the information gathered to inform broader company-wide tribal engagement activities.

Process Practices

In addition to the goals outlined in PSE's Goals for Engaging with Stakeholders section of this work plan, PSE must abide by the rules and regulations outlined in WAC 480-90-238. This includes:

- Filing a work plan no later than 12 months prior to the due date of the IRP.
- Including in the work plan the timing and extent of public participation.

PSE will uphold public participation practices that allow for transparency and accountability. These practices include:

- Outlining the schedule of IRP stakeholder group meetings and significant topics to be covered on the PSE website (pse.com/irp)
- Make presentation materials available at least three business days in advance of each meeting.
- Make data inputs and files used to develop the IRP available in native file format.
- Making meeting summaries and materials from IRP stakeholder meetings publicly available on the PSE website.
- Making stakeholder comments about the IRP and its development, including responses addressing how the input was considered or used, available on the PSE website.

- Documenting how PSE considers input from stakeholders in the IRP and communicating how PSE considered stakeholder input.

Stakeholder Meetings

A draft schedule for expected Gas Utility IRP meetings and topics is outlined below. All meetings will have a virtual option. Meetings 2, 5, and 6, and 7 will be exclusive to the Gas Utility IRP topic, meetings 1, 3, and 4 will be held jointly with PSE’s 2023 Electric Progress Report topics.

Quarter	2022				2023
	Q1	Q2	Q3	Q4	Q1
Meeting	Meetings 1, 2 & 3 Jan. 20, 2022 March 31, 2022 June 6, 2022			Meetings 4, 5 & 6 July 12, 2022 Sept. 22, 2022 Dec. 12, 2022	Meeting 7 March 1, 2023
Topics	Meeting 1: 2023 Kick off, Electric Progress report and rules, Natural Gas Utility IRP and rules, and Climate Change. Meeting 2: Generic resource costs and assumptions for Natural Gas, carbon price for Climate Commitment Act, and natural gas scenario discussion. Meeting 3: Review of natural gas & electric delivery system planning			Meeting 4: Natural Gas & electric final demand load forecast Meeting 5: Final resource need, Final CPA results and feedback on natural gas resource alternatives. Meeting 6 (two parts): Updates and feedback on draft results of electric and natural gas portfolio.	Meeting 7 (two parts): Updates and feedback on draft results of electric and natural gas portfolio.

Meeting Materials

The table below shows the materials that PSE will share in advance of each IRP meeting.

What	Purpose	Distribution
Agenda	Describes the meeting topics and whether PSE intends to share information or receive feedback from IRP stakeholders. Standing meeting agenda topics include: (1) safety moment; (2) summary of past feedback and how it was used (“Consultation Report”); (3) presentations for information sharing; (4) discussion and feedback on select topics	Via the PSE IRP website 3 business days in advance of meetings.
Slides	Provides the detailed presentation content to stakeholders in advance of meetings. Slides include appendices with additional information.	Via the PSE IRP website 3 business days in advance of meetings.

The table below shows the materials that PSE will share after each IRP meeting.

What	Purpose	Distribution
Recorded video	Allows stakeholders who missed the meeting to get up to speed	2 days after the meeting
Meeting chat log	Allows stakeholders to see the questions asked in the meeting and list of meeting attendees.	2 days after the meeting
Feedback Form	Opportunity for stakeholders to ask additional questions or provide feedback after a meeting.	Form is on the PSE IRP website for the week following the meeting
Summary	Summaries include: <ul style="list-style-type: none"> • Action items and key themes from IRP meetings. • Responses to unanswered questions from the IRP meeting and feedback form. • Documentation of comments from the feedback form. • Documentation of how PSE incorporated feedback, and if not, providing an explanation. 	Via the PSE IRP website approximately 4 weeks after a meeting

Other Engagement Tools

In addition to IRP meetings, PSE also utilizes the following tools to engage with stakeholders:

- A website dedicated to sharing IRP resources and information (pse.com/irp)
- Pre-meeting facilitator calls with key stakeholders.
- Email invites and reminders for upcoming IRP meetings.