

2019 Integrated Resource Plan Kickoff Meeting
Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, Olympia, WA 98502, Room 206
May 30, 2018
1 – 4 p.m.

Attendees

- Jim Adcock, PSE ratepayer
- Daren Anderson, The NESCO Group
- Larry Becker, Northwest Power Consulting*
- David Perk, 350 Seattle*
- Charlie Black, Invenergy
- Rob Briggs, Vashon Climate Action
- Rachel Brombaugh, King County
- Joel Carlson, Sierra Club South Sound
- Dakota Case, Puyallup Tribe
- Chris Casey, Washington Utilities and Transportation Commission (UTC)
- Brad Cebulko, UTC
- Carla Colamonici, Public Counsel
- Maureen Canny, PSE ratepayer
- Tom Crawford, Thurston Climate Action
- Kim Danke, Sierra Club and PSE ratepayer
- Nancy Esteb, Renewable Energy Coalition*
- Phyllis Farrell, South Sound Sierra Club and League of Women Voters
- Kyle Frankiewich, UTC
- Barak Gale, Jewish Community of Olympia
- Brian Grunkemeyer, Sierra Club
- Kelly Hall, Climate Solutions
- Warren Halverson, CENSE and PSE ratepayer
- Norm Hansen, CENSE and Bridle Trails
- Howard Harrison, Sierra Club and PCA-Redmond
- Stew Henderson, PSE ratepayer
- Pat Holm, Thurston Climate Action
- Mike Hopkins, FortisBC
- Doug Howell, Sierra Club
- Amanda Jahshan, Renewable Northwest
- Kyle Jolibois, Redefine
- Carol Kindt, 350 Tacoma
- Dan Kirschner, Northwest Gas Association
- Tom Knutson
- Bob Kutter, 350 Seattle*
- Sarah Laycock, Public Counsel
- Victoria Leistman, Sierra Club
- Virginia Lohr, Citizens' Climate Lobby
- Don Marsh, CENSE
- Devin McGreal, Cascade Natural Gas
- Nancy Moen, UTC
- David Morton*
- David Nightingale, UTC
- Greg Nothstein, Washington State Department of Commerce Energy Office*
- Michael O'Brien, Renewable Northwest*
- Mary Paynter, Saltwater Climate Action Now
- Joseph Puchot, PSE ratepayer
- Andrew Rector, UTC
- Deborah Reynolds, UTC
- Scott Richards, Invenergy
- Andrew Roberts, UTC
- LaDonna Robertson, 350 Tacoma
- Margo Rolf, Saltwater Climate Action Now
- Barb Scavezze, Thurston Climate Action
- David Schwartz
- Nancy Shimeall, PSE ratepayer
- Jennifer Snyder, UTC
- Sue Stronk, PSE ratepayer
- John Tafejian, Olympia Unitarian Universalist Congregation
- Brian Thomas, Washington Utilities and Transportation Commission UTC
- David Tomlinson, UniEnergy Technologies
- Nikie Walters, Redefine, 350 Tacoma, and Puyallup Water Warriors
- Steve Way, 350 Tacoma
- Bill Westre, Sierra Club
- Amy Wheelless, NW Energy Coalition

Project Team:

- Nate Davern, Puget Sound Energy
- Samantha DeMars-Hanson, PRR
- Brett Houghton, PRR
- Nate Hill, Puget Sound Energy
- Elizabeth Hossner, Puget Sound Energy
- Michele Kvam, Puget Sound Energy
- Cathy Koch, Puget Sound Energy
- Garret LaBove, Puget Sound Energy
- Jennifer Magat, Puget Sound Energy
- Irena Netik, Puget Sound Energy
- Aaron Poor, PRR
- Phillip Popoff, Puget Sound Energy
- Cindy Song, Puget Sound Energy
- Gurvinder Singh, Puget Sound Energy*
- Bob Williams, Puget Sound Energy

* Indicates remote attendance

Meeting Objectives:

- Introduce 2019 Integrated Resource Plan (IRP) team
- Review and get buy-in on the stakeholder process for the 2019 IRP
- Discuss the scenarios and attendees know how and when they can share additional input
- Review and provide input on carbon price methodology and rationale

Welcome

Irena Netik, Puget Sound Energy (PSE) Director of Energy Supply Planning, welcomed the group to the first 2019 Integrated Resource Plan (IRP) meeting and apologized for the late change in meeting venues.

Next, Irena turned it over to Deborah Reynolds, Washington Utilities and Transportation Commission (UTC) Assistant Director, Conservation and Energy Planning. Deborah expressed that she believes moving the meeting at such a late date discourages public participation.

Public comments

The facilitator, Brett Houghton of PRR, initiated ten minutes of public comment. The purpose of having public comments at the beginning of the meeting is to provide attendees an opportunity to share comments about items not specifically included on the meeting agenda. In this way, stakeholders have an opportunity to share these comments and still allow time to complete the meeting agenda.

Comments were limited to two minutes per person. Five individuals signed up to speak.

Attendees had the following comments:

- Don Marsh, Coalition for Eastside Neighborhoods for Sensible Energy (CENSE)

CENSE members look forward to participating in the IRP Advisory Group. CENSE will continue to focus on electrical infrastructure. They want PSE customers to receive reliable electricity with a low impact on communities. CENSE desires PSE to invest in energy storage to increase year-round reliability and keep costs reasonable. They want to kick-start the 2019 IRP planning process by reviewing outcomes from the 2017 IRP that fell short of their expectations. Although CENSE commends PSE for involving transmission in the 2017 IRP, they would like to have seen PSE go further. For example, PSE did not allow time for transmission projects in the process. The UTC listed five comments that remained relevant given that this project is still in the planning stage and

received permits. This input is missing from the Energize Eastside process. The IRP process allows us to identify these discrepancies and make sure the IRP is in our best interest.

- Barak Gale, Jewish Community of Olympia

I want to share comments from a class with the Jewish community in Tumwater. “Are we so constrained in our choices that are our choices are preordained as such that we have free choice and, not surprisingly, the text that we used at the beginning was the only biblical text that talks about choice? Behold, I stand before you today with a blessing and a curse. Life and death. We have a tremendous choice today to sustain life or kill life. The curse is do we want to continue to use coal, liquefied gas, building infrastructure, and promote the continuation of hurricanes and floods? That will affect millions of people. Do we want to encourage the continuation of heat waves, like the one in 2003 that killed 70,000? Do we want to kill the oysters in our region? These are the curses and the blessings. We can turn this around. We can promote renewable jobs and wind and we can turn this around. Choose life.”

- Kim Danke, PSE ratepayer and Sierra Club member

I was in the same room at UTC nine months ago when people were asked to leave because it was full. I was there in March 2017 when they watched the rally outside. No matter what last minute change of venue takes place, it does not look as anything other than an attempt to make it difficult for the public to participate in the process. We are here. We are watching and will hold PSE accountable. There are thousands of people watching who are committed to PSE getting it right. Creating a plan that is a blueprint for getting off of fossil fuels is the only moral and viable option. Kim ceded her remaining time to Doug Howell.

- Doug Howell, Sierra Club.
- Thank you, Kim. The first mistake PSE made was the venue change. The second mistake was the project team should have anticipated the amount of interest the public would have in this meeting. The third was they gave less than 24 hours’ notice about the venue change. The process has to change. The project team has to understand the magnitude of their role. Massive efficiency is 100 percent clean electricity. There is no organization in Washington that has a more important role than PSE. The voices are only going to grow.

Doug Howell encouraged stakeholders to pick up a copy of a letter to Kimberly Harris, President and Chief Executive Officer of PSE, dated May 30. The letter calls for PSE to form the 2019 IRP as a “blueprint for 100 percent clean and renewable energy for both electricity and gas by 2050.” He provided copies for stakeholders during and following the meeting.

Doug Howell also encouraged PSE to provide third parties access to the data and tools they use for modeling. This is supported by other stakeholders and he has seen this done in other states.

- David Morton submitted his comment over the phone and on paper

Fossil fuel is the primary driver of climate change. PSE knows about the impacts of fossil fuels on climate change and global warming. Despite this knowledge, PSE seems committed to its fossil

fuel-based business models. Visitors to PSE's website can click on the "Savings and Energy Center" tab, and they can compare the differences between the 2016 PSE fuel mix, the PSE Green Power mix, and the PSE Solar Choice mix. The pie chart for the 2016 PSE fuel mix shows that 60% of the electricity provided to PSE customers was generated by the combustion of coal and natural gas. Ratepayers who signed up for the Solar Choice program are led to believe that 100% of their electricity was generated by solar. Those who signed up for the Green Power program are led to believe that 50% of their electricity comes from wind and 34% comes from solar. In reality, ratepayers who sign up for either of these programs get the same electricity as those who don't sign up for either program. The pie charts come with the notes in fine print that say "Figures reflect the renewables PSE has contracted to provide. Actual figures may vary according to resource availability." The pie charts appear to intentionally mislead the public into believing that these high percentages of renewable power are already available on the electrical grid to the ratepayer who signs up for the Green Power or Solar Choice programs. PSE also appears to intentionally mislead the public by suggesting that signing up for the renewable energy programs will reduce a house's carbon footprint, even as PSE knows that their current and future combustion of fossil fuels have been contributing and will continue to contribute to dangerous global warming. PSE promotes renewable energy while at the same time planning to build and use new natural gas-fired power plants to generate electricity. Through its combustion of fossil fuels, PSE has helped to create a severe public nuisance in which the public suffers injury, loss, or damage caused by rising seas, coastal flooding, wildfires, hurricanes, heat waves, and other impacts of global warming. For the sake of our planet, please build and use solar and wind farms to generate electricity, not fossil fuel-fired power plants.

A copy of David Morton's written submittal to Michele Kvam was also available at the meeting for interested parties to reference.

- Jim Adcock, PSE ratepayer

I have been involved with the IRP process for the last ten years. I realize this type of behavior [the change in venue] is not unusual for PSE. This is retained behavior that PSE displays when it comes to the IRP. PSE is a billion dollar a year company. They're talking about spending money on new plants and they can't spend 10 cents on a phone system that already works. They can't find money or security guards to make the venue secure. They moved the space down to Olympia where people can't hear, can't see, and the phones don't work. The change of venue was facilitated by UTC on a 24 hour basis, which is an appearance of a lack of an arms-length relationship where UTC is participating with PSE to prevent meaningful public participation. I hope that UTC would have pushed back. PSE should be able to hold meetings with the same level of professionalism UTC presents. I attend environmental meetings that are smaller than PSE but they run meetings better than PSE does.

An additional meeting participant said he did not know he was supposed to sign up for public comment and asked how he could sign up. Brett reviewed the sign up process, letting him know the comment sign ups were full, and assured them there would be other opportunities to participate in the discussion throughout the meeting. The participant, Dakota Case of the Puyallup Tribe, asked if PSE honors the treaties with Native American tribes. He believes the facilities are a threat to wildlife and salmon and need to be assessed in light of the treaties.

Brett thanked everyone for their comments and their commitment to the process and PSE.

IRP Stakeholder Group charter

Brett reviewed the IRP Stakeholder Advisory Group charter. The charter's purpose of the charter is to

- Ensure PSE has a meaningful opportunity to complete the IRP
- Ensure stakeholders have a meaningful opportunity to participate in the process and support IRP completion
- Provide a clear understanding of what to expect.
- Increase trust between parties since everyone has participated in the development and made commitments to one another.

Brett reviewed the description of an IRP: a “utility plan for meeting forecasted annual peak and energy demand, plus some established reserve margin, through a combination of energy supply, conservation, and other demand-side resources.”

Attendees offered the following suggested edits to the introductory section of the charter:

- Include the portion of the Washington Administrative Code (WAC) that speaks to public policy and environmental aspects like CO₂ and liquefied natural gas (LNG).
- Add a section to the introduction about PSE's corporate goals and values. Include PSE's commitment to consultation with tribes consistent with existing treaties.
- Add WAC requirements to address transmission infrastructure.
- Add the portion of the WAC that speaks to planning for natural gas (480-90-238) in addition to the portion that speaks to planning for electric (480-100-238).

Attendees offered the following suggested edits to the advisory group charge section of the charter:

- Provide more clarity on the stakeholder advisory group purpose and definition, who is included, and how individuals and/or organizations get invited to participate.
- Add a project team commitment to include a scenario in the resource need methodology that uses zero as the needed amount of natural gas in a year.
- Add different scenarios that go beyond lowest reasonable cost.
- Add a section of the charter outlining PSE's responsibility to local jurisdictions as it relates to the plan.

Attendees offered the following suggested edits to the roles and responsibilities section of the charter:

- Define the project team.
- Remove “unanimous” in reference to extending the meeting time.
- Have a more participatory process for developing meeting agendas.
- Publish meeting materials on a web page a week before the meeting instead of emailing them out.
- Add “listen to and integrate stakeholders' input” to the project teams' roles and responsibilities.
- Include information about how the project team makes decisions, including how they use the stakeholder group's input.
- Add “plan presentations to leave meaningful time for discussion and stakeholder group member feedback at meetings” to the project teams' roles and responsibilities.
- Include advisory group members in the IRP approval process.
- Create an opportunity for advisory group members to make a short statement in response to any IRP section or topic.

PSE will provide an updated charter for the group to review and affirm.

Attendees offered the following comments on process not specific to charter sections:

- Provide the modeling inputs PSE uses for the analysis.
- Include every sovereign tribe in their service region in meeting notices.

IRP overview and scenario development

Michele Kvam, PSE, gave the group a brief overview of the IRP. The UTC requires PSE to do a twenty year plan every two years.

Phillip Popoff, PSE, presented information about scenario development, including resource needs, planning and acquisition, and outputs from the IRP. He clarified that IRP rules and requirements vary across states.

Some attendees expressed concern that PSE programs that encourage fossil fuel dependence are contradictory to any goals to reduce the company's carbon footprint.

Scenarios and sensitivities development

Phillip reviewed the definition of scenarios, why they are used, kinds of scenarios, variables to consider, and the definition of base or reference case.

Attendees had the following questions and comments about scenarios and sensitivities development:

Q: Is PSE required to provide a base case scenario during a general rate case?

A: No, they are not comparable. Rate case is mostly backward-looking while scenarios are mostly forward-looking.

A: Rulemaking may clarify some of this language going forward.

Q: How will a significant number of customers providing their own energy factor into the models?

A: This is something to discuss more at future meetings.

Comment: Create scenarios that assume 100 percent carbon reduction by 2040

Q: What is the IRP role in PSE's goal to reduce carbon by 50 percent by 2040?

A: The IRP analysis is part of identifying the path to achieve the goal.

Q: Who at PSE can stakeholders and the public contact to urge them to change that goal from 50 to 100 percent?

A: PSE staff will get back to the group with that information.

Comment: Create scenarios with climate predictions that adjust winter coldest temperature to reflect global warming.

Q: Is there enough power in the spot market with the low growth in central Washington?

A: PSE is unlikely to perform scenario analysis on this. There is potential for big demand growth and the project team can do some research on that.

Q: How will PSE use the recommendation from the Commission's acknowledgement letter to assume \$30 a ton by 2020?

A: PSE is still having discussions with the Commission about how to use their recommendations.

Q: How will PSE address CO₂ in the 2019 IRP?

A: PSE referred to the Carbon Price Scenarios table in the meeting handout.

Comment: The carbon price weighting exercise is a valuable input that focusing on the "societal cost of carbon." It can include a few scenarios with higher and lower carbon values, and then the group can assess risk and prices. This makes more sense and is more in line with how other variables in the IRP are treated.

Comment: Use "societal cost of carbon" or some other way to include monetary cost of carbon in the scenarios.

Comment: "Societal cost of carbon" must be utilized in the base case, and an appropriately low discount rate is also important.

There was a general disagreement in the room concerning the approach to address carbon cost in this IRP. PSE did not make a decision concerning carbon cost treatment but did commit to consider the underlying concern about the impact of carbon and include this in future conversations about scenarios and sensitivities. Revisiting this topic is captured in the action items.

System planning

Cathy Koch, PSE Director of Planning, reviewed the process for system planning. The project team is developing a new planning process to comply with recent rule making.

Attendees had the following questions and comments about system planning:

Q: How does the sale of 400 million shares affect PSE's planning?

A: PSE staff indicated the upcoming sale of shares was unrelated to planning and was part of a regular PSE management business practice concerning the tenure of those shares.

Q: Which four areas will PSE focus on in their planning and in which order will resources and tools be distributed?

A: PSE has not yet made this decision. Once those are figured out, PSE will share it with the group.

Q: Will IRP stakeholders be invited to participate in this planning process?

A: Maybe. The project team needs to identify the expertise participants will need to provide meaningful input.

Next steps

Brett thanked everyone for their enthusiastic participation. Michele reviewed next steps, which included sharing the draft meeting schedule and letting the group know a defined work plan will be available on July 13. The project team will be reaching out with information about future meetings.

The meeting adjourned at 4:30 p.m.

Action items

The project team identified the following action items and will give a status update on each at the next meeting:

- PSE will provide an updated charter for the group to review and affirm.
- PSE will identify who at PSE stakeholders and the public can contact to urge them to change their goal to reduce carbon by 100 percent instead of 50 percent by 2040 and address how that goal may relate to the 2019 IRP.
- PSE will include carbon impact in conversations about scenarios or sensitivities at a future meeting.
- PSE will invite every sovereign tribe in their service region to future meetings.
- PSE will reach out to an individual stakeholder concerning her experience with PSE gas service.
- PSE will share the work plan they submit to the Commission on July 13.

Appendix A: Materials provided by David Morton

Fossil fuel combustion is the primary driver of climate change. Puget Sound Energy **knows** about the impacts of fossil fuels on climate change and global warming. Despite this knowledge, PSE seems committed to its fossil fuel-based business models.

Visitors to PSE's website, pse.com, can click on the "Savings and Energy Center" tab, and they can compare the differences between the 2016 PSE fuel mix, the PSE Green Power mix, and the PSE Solar Choice mix. The pie chart for the 2016 PSE fuel mix shows that 60% of the electricity provided to PSE customers was generated by the combustion of **coal and natural gas**. Ratepayers who signed up for the **Solar Choice** program are led to believe that **100%** of **their** electricity was generated by **solar**. Those who signed up for the **Green Power** program are led to believe that **50%** of **their** electricity comes from **wind** and **34%** comes from **solar**. In reality, ratepayers who sign up for either of these programs get the **same electricity** as those who **don't** sign up for **either program**. The pie charts come with the notes in fine print that say (quote) "Figures reflect the renewables PSE has **contracted** to provide. Actual figures may vary according to resource availability." (end quote) The pie charts appear to intentionally mislead the public into believing that these high percentages of renewable power are **already available** on the electrical grid to the ratepayer who signs up for the Green Power or Solar Choice programs.

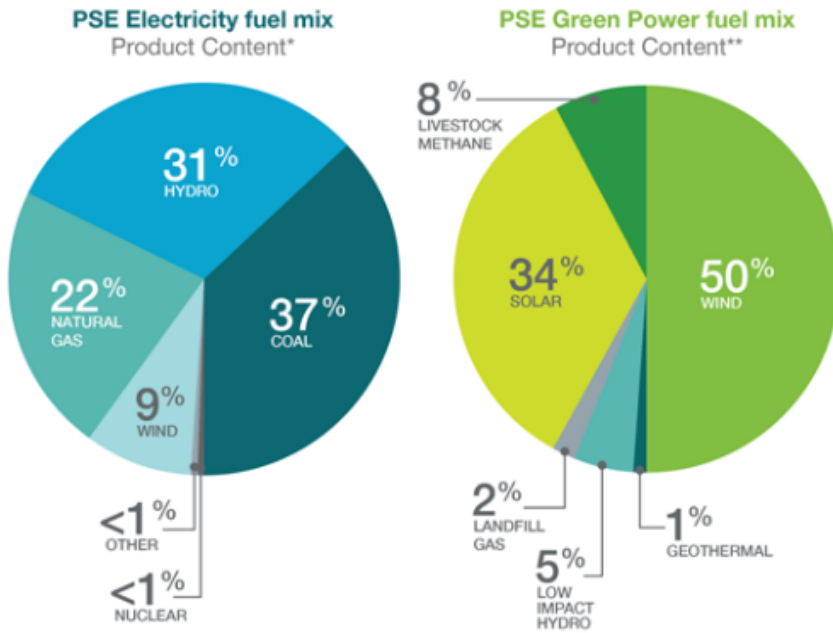
PSE also appears to intentionally mislead the public by suggesting that signing up for the renewable energy programs will **reduce** a house's **carbon footprint**, even as PSE knows that their current and future combustion of fossil fuels have been contributing and will continue to contribute to dangerous global warming. PSE promotes renewable energy while at the same time planning to build and use **new natural gas**-fired power plants to generate electricity. Through its combustion of fossil fuels, PSE has helped to create a severe public nuisance in which the public suffers injury, loss, or damage caused by rising seas, coastal flooding, wildfires, hurricanes, heat waves, and other impacts of global warming.

For the sake of our planet, please build and use **solar and wind farms** to generate electricity, **not fossil fuel**-fired power plants.

<https://pse.com/savingsandenergycenter/SolarChoice/Pages/default.aspx>

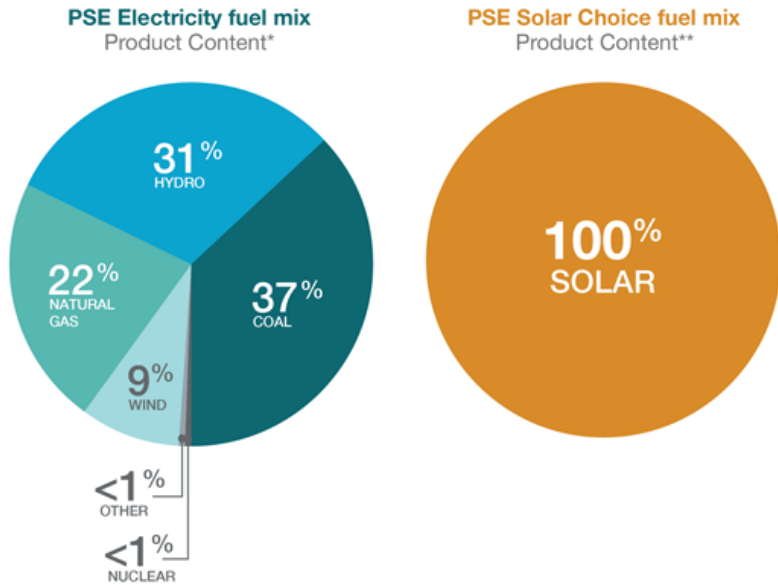
<https://pse.com/savingsandenergycenter/GreenPower/Pages/default.aspx>

See the difference



*Estimated 2016 electricity fuel mix, pending final 2016 report from the Washington Department of Commerce.
 **Figures reflect the renewables PSE has contracted to provide.
 Actual figures may vary according to resource availability.

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Appendix B: Sierra Club letter to Puget Sound Energy CEO Kimberly Harris

May 30, 2018

Kimberly Harris
President and Chief Executive Office
Puget Sound Energy
10885 N.E. 4th Street
Bellevue, WA 98004-5591

Dear CEO Harris:

This letter represents the views of 17 groups and the tens of thousands of Puget Sound Energy (PSE) ratepayers who have called on you to transition off fossil fuels to clean energy. Together, we assert that PSE's 2019 Integrated Resource Plan (IRP) must be a blueprint to 100% clean and renewable energy for both electricity and gas by 2050.

A carbon-free economy is necessary for Washington to fulfill its commitment under the Paris Accord to reduce greenhouse gas emissions 80-95% below 1990 levels by 2050. These goals are well within our reach, but there is no time for delay. As our state's largest utility--one that prides itself on its commitment to renewable energy and has broad-based community support for climate action--PSE has an obligation to lead the way.

With this in mind, we ask that PSE's 2019 IRP provide the pathway to a decarbonized grid. The Deep Decarbonization Pathways Analysis for Washington State, prepared by researchers at Evolved Energy Research and the Deep Decarbonization Pathways Project, clearly indicates that a decarbonized grid is a vital first step in meeting our state's climate goals and achieving the dramatic greenhouse gas reductions necessary to mitigate global warming's most disastrous impacts.

It is critical that we decarbonize the electrical grid within this 20-year IRP to lay the foundation for electrifying heat, transportation, and industrial processes. A decarbonization scenario is inadequate; it needs to be the final recommendation for the 20-year plan. If PSE's 2019 IRP proposes anything short of full decarbonization, the utility is contributing to mass extinctions, unfathomable human misery, and accelerated destabilization of the planet's climate and ecosystems.

The first order of business is massive investment in deep energy efficiency. PSE must also stop digging the climate hole deeper by not building new fossil fuel infrastructure for the sake of profit, be it the liquefied natural gas (LNG) facility in Tacoma or new gas plants for electricity. Specifically, the gas "quick build" outlined in PSE's 2017 IRP is unacceptable. Finally, instead of wasting \$1 billion customers' hard-earned dollars in the coming decades on "Energize Eastside," PSE should invest in energy storage and



modernizing our grid for distributed generation.

We also request that PSE calculate and take into account the amount of upstream methane emissions from all of its existing and proposed gas facilities. Methane is an extremely potent greenhouse gas. As a result, gas may be worse for the climate than coal. It is certainly more damaging than the renewable energy that investments in new gas infrastructure displace. The Shoreline Hearings Board is requiring an upstream emissions analysis for the proposed methanol refinery in Kalama, as is the Puget Sound Clean Air Agency for PSE's LNG facility in Tacoma. Clearly, a precedent has been set. PSE is obliged to quantify its upstream emissions with complete transparency.

Finally, it is important that PSE provide full access to the data and modeling assumptions that are being used to determine our energy future. PSE has refused to share critical data. The Utilities and Transportation Commission noted this concern with respect to "Energize Eastside" in its acknowledgement letter on PSE's 2017 IRP. Lack of transparency is also a serious concern in the case of the Tacoma LNG facility. Customers have a right to know how PSE is reconciling delaying the transition to a fossil-fuel free future with the well-established risk to a livable future. Relatedly, PSE should make every effort to provide opportunities for meaningful public input into its IRP Advisory Group meetings. The unprecedented public participation in the 2017 IRP underscores the need for a robust public engagement process in the 2019 IRP process.

In short, we expect PSE to come to the planning table as a partner in good faith to end climate change pollution in Washington and help ensure a climate stable future.

Sincerely,

Doug Howell, Sierra Club
Nancy Shimeall, Eastside Beyond Coal Task
Force David Perk, 350 Seattle
Lin Hagedorn, 350 Eastside
LeeAnne Beres, Earth Ministry/Washington Interfaith Power &
Light
Kevin Jones, Vashon Climate Action Group
Carol Kindt, 350 Tacoma
Don Marsh, CENSE
Lynn Fitz-Hugh, Faith Action Climate Team
Judith Akins, Chairperson Mt Baker Group Sierra Club
Bill Moyer, Backbone Campaign
Chiara Rose, Students For The Salish
Sea
Steven Storms, Redefine Tacoma
Paul Wagner, Protectors Of The Salish
Sea Jamie Margolin, Zero Hour



Tracy Weigeman, Direct Action Tacoma

Susan Woodward, The Climate Reality Project - Thurston County, WA