To: Irena Netik – Puget Sound Energy (PSE) Director of Energy Supply Planning and Analytics

Cc: Jay Balasbas – UTC Commissioner
Rachel Brombaugh – King County Executive Energy Policy & Partnerships Specialist
Brad Cebulko – UTC Staff
Carla Colamonici – Regulatory Analyst, Public Counsel Division
David Danner – Utilities and Transportation (UTC) Commission Chair
Lisa Gafken – Assistant Attorney General, Public Counsel Unit Chief
Steve Johnson – UTC Staff
Ann Rendahl – UTC Commissioner
Deborah Reynolds – UTC Staff
Kathi Scanlan - UTC Staff

Subject: 2019 IRP Technical Input – Use High Impact Social Cost of Carbon value

Note: The TAG acknowledges the WUTC Staff petition for an IRP schedule exemption. This technical input is submitted in response to PSE's commitment to "continue to … maintain and respond to public input". This technical input should be considered an integral part of the collection of 2019 PSE IRP documents. We appreciate PSE's commitment to also include these technical inputs in the 2021 PSE IRP.

The Interagency Working Group document, cited in 2019 Washington State SB 5116, says "...there is extensive evidence in the scientific and economic literature on the potential for lower-probability, but higher-impact outcomes from climate change, which would be particularly harmful to society and thus <u>relevant to the public and policymakers</u>. The fourth value is thus included to represent the marginal damages associated with these lower-probability, higher-impact outcomes." (emphasis added)

The "fourth value" is the "High Impact" social cost of carbon (SCC) value included in Table ES-1 on page 4 of the Interagency Working Group document.

The PSE Technical Advisory Group (TAG) members have made multiple requests that PSE use the High Impact SCC value from the IAWG report in at least some of the IRP analyses to assure the Utilities and Transportation Commission (UTC) and Public Counsel Unit (PCU) can perform their legally mandated public protection and planning policy charters as the authors of the IAWG intended. The dialogue history is shown below.

Unfortunately, the dialogue history <u>does not</u> include:

 PSE clarification that the High Impact SCC value has been included in any of the 2019 Integrated Resource Plan (IRP) analyses - PSE clarification of where the UTC and PCU regulators may find these impacts that "would be particularly harmful to society" to allow them to perform their legally mandated public protection and planning policy charters.

Unfortunately, the dialogue history <u>does</u> include:

"PSE is including no fossil fuels beyond 2030 as a sensitivity instead, which goes further than the high impact of the social cost of carbon".

This last statement is not correct. A sensitivity that includes no fossil fuels is <u>in no way</u> a substitute to using the high impact SCC value which was very specifically included in the SB 5116 cited Interagency Working Group document to allow regulators to understand "higher-impact outcomes from climate change" caused by fossil fuels. A "no fossil fuel" sensitivity evaluates a case which is <u>exactly the opposite</u> of the analyses intended by the Interagency Working Group document. By ignoring the high impact SCC value, there is no way to understand the potentially most dangerous impacts of the fossil fuel systems that PSE develops or retains.

It will be insightful to compare the "no fossil fuels beyond 2030" sensitivity to IRP analyses that include the high impact SCC value. However, it is completely inappropriate to suggest that sensitivity is somehow a substitute to analyses that include the high impact SCC value.

As TAG members, we formally request that PSE post this letter on their 2019 IRP website and provide a written response to these questions:

- Did PSE use the High Impact SCC value in any of their 2019 IRP analyses or sensitivity analyses?
- If yes:
 - What SCC value did PSE use?
 - What IRP analyses or sensitivity cases included the High Impact SCC value?
 - Where will UTC and PCU regulators find the results of the High Impact SCC value analyses?
- If PSE did not accept the TAG technical input to include the High Impact SCC value, why was this input not incorporated?
- If PSE has failed to include at least one sensitivity using the High Impact SCC values in their 2019 IRP analyses, will PSE commit to performing this analysis in the 2021 IRP?

Respectfully submitted:

Kevin Jones – Vashon Climate Action Group Virginia Lohr – Citizen's Climate Lobby Noah Roselander – Vashon Climate Action Group

High Impact Social Cost of Carbon dialogue history:

Social Cost of Carbon dialogue prior to passage of SB 5116, the Clean Energy Transformation Act:

PSE TAG meeting #2

- There are many instances asking PSE to include the social cost of carbon in IRP modeling in the IRP_TAG_Meeting_2_Notes_FINAL_110518.pdf document.
- In one instance PSE completely rejected the notion that social cost of carbon should have any bearing on future procurement, instead using social cost of carbon only as a predictor of "potential future regulations" (page 7):
 - For 2019, we are modeling carbon prices consistent with I-1631, along with the two social cost of carbon cases, as scenarios of future potential carbon regulation. It is important to keep in mind PSE is not doing societal level planning in an IRP – we are modeling potential future regulations.
- In another instance the TAG requested PSE use the high impact SCC value, but this technical input was dismissed as a "comment¹" (page 7). (Note: in this excerpt, PSE refers to <u>all</u> TAG technical inputs as "comments"):

PSE prepared a flowchart visualizing the 2019 IRP Scenarios on slide 34 of the slide deck.

Comment² (Virginia Lohr): We want to include the social cost of carbon because it is important for the planet. Thank you for including the social cost of carbon on this slide compared to the similar slide from the kick-off meeting. However, this still does not represent how we want the social cost of carbon to be used.

This comment³ was supported by the Sierra Club and the League of Women Voters.

PSE presented a line graph modeling prices with different costs of carbon dioxide. These numbers came from the Technical Support Document from the United States Government Interagency Working Group on Social Cost of Greenhouse Gases.

Comment⁴ (Bill Westre): The document that provided the three numbers you are using for carbon dioxide includes a fourth value. The fourth value is a lower probability, high-impact outcome. This modeling was done by William Nordhaus,

¹ Note: PSE consistently refers to technical inputs from Technical Advisory Group members as "*comments*". PSE should appropriately identify these as "*technical inputs*".

² ibid

³ ibid

⁴ ibid

whom recently received a Nobel Prize for this work. Your high social cost of carbon is not the highest number offered in the source document.

PSE Response: Thank you for your comment⁵.

Social Cost of Carbon dialogue following passage of SB 5116, the Clean Energy Transformation Act:

PSE TAG meeting #6

- Action item 2 on slide 5 of <u>29 May TAG 6/02 IRP 052919 TAG Meeting 6 Slide Deck FINAL</u> is shown as "in progress"
 - This action item asks PSE to "Include carbon impact in scenarios or sensitivities"
- Dialogue during TAG meeting 6, as shown in <u>29 May TAG 6/IRP-TAG-Meeting-</u> 6 Meeting-Notes-FINAL, indicated:
 - Virginia Lohr asked "if the high impact value of the social cost of carbon will be used for the carbon scenarios and sensitivities" (page 14 of 18)
 - Irena Netik responded, essentially, "no", indicating that "PSE is including no fossil fuels beyond 2030 as a sensitivity instead, which goes further than the high impact of the social cost of carbon".
 - Note: Virginia Lohr and Kevin Jones a sensitivity that includes no fossil fuels is in no way a substitute to use of the high impact SCC value which was very specifically included in the SB 5116 cited Interagency Working Group document to allow regulators to understand the "higher-impact outcomes from climate change".
- Virgina Lohr submitted a formal email request to PSE on June 2, 2019, contained in IRP TAG Meeting 6 Questions Answers, which:
 - Re-iterated the request for PSE to "consider running at least 1 sensitivity using the High Impact value" of SCC (page 3 of 4)
 - In this same document, Irena Netik again expressed PSE's plan to not incorporate a High Impact SCC value (page 3 of 4)