From:Vee LohrTo:UTC DL Records CenterSubject:Comments on Docket Numbers UE-160918 and UG-160919Date:Thursday, February 22, 2018 3:25:22 PMAttachments:Lohr PSE IRP testimony 2018Feb22.pdf

Attached, please find comments regarding Social and Health Costs of Carbon in Docket numbers UE-160918 and UG-160919.

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RE: Dockets UE-160918 & UG-160919; Comments on Social and Health Costs of Carbon

Dear Washington Utilities and Transportation Commissioners:

I volunteer with Citizens' Climate Lobby, an international organization focused on carbon pricing. I am expanding on comments I submitted previously on this topic (published on Jan. 31, 2018).¹

Economists, including William Nordhaus, Sterling Professor of Economics at Yale University, know that to solve the climate crisis, we must put a high price on carbon.^{2,3} The World Bank, multinational corporations, scientists, and many others agree that to solve the climate crisis, it is urgent that we put a price on fossil fuels that reflects their full costs.^{4,5,6,7} According to Lise Kingo, CEO and Executive Director of the United Nations Global Compact: "The Paris Agreement sends a clear signal that business and investors need to put climate at the heart of strategy and decision-making. We believe that a price on carbon is a key step in reaching a low-carbon and resilient future."⁸ Zhang Tao, the Deputy Managing Director of the International Monetary Fund, put it this way: "price it right; tax it smart; and do it now."⁹

Carbon pricing is happening. More than 40 countries, including France, Slovenia, Mexico, and South Africa have decided to price carbon.¹⁰ They are experimenting with different methods and rates. China began experimenting with carbon markets in 2013, and China took another step forward on Dec. 19, 2017 with the initial launch of a nation-wide carbon market.¹¹ The first phase of the program covers power generation. And Singapore rolled out its program on February 19, 2018.¹²

^{1,} https://www.utc.wa.gov/_layouts/15/CasesPublicWebsite/GetDocument.ashx? docID=494&year=2016&docketNumber=160918

². William Nordhaus is also a member of National Academy of Sciences, a Fellow of the American Academy of Arts and Sciences, a senior advisor of the Brookings Panel on Economic Activity, and the author of the book "The Climate Casino: Risk, Uncertainty and Economics for a Warming World." https://economics.yale.edu/people/william-d-nordhaus

^{3,} http://www.climatechangenews.com/2017/01/04/global-2c-warming-limit-not-feasible-warns-top-economist

⁴ High-Level Commission on Carbon Prices. 2017. Report of the High-Level Commission on Carbon Prices. Washington, DC: World Bank. License: Creative Commons Attribution CC BY 3.0 IGO; this group of economists was convened by the Carbon Pricing Leadership Coalition and supported by staff of the International Bank for Reconstruction and Development/International Development Association (The World Bank).

https://static1.squarespace.com/static/54ff9c5ce4b0a53decccfb4c/t/59244eed17bffc0ac256cf16/149555174063 3/CarbonPricing_Final_May29.pdf

^{5,} https://www.carbonpricingleadership.org/news/2018/1/11/companies-are-moving-faster-than-many-governments-on-carbon-pricing

^{6,} https://www.scientificamerican.com/article/legendary-climate-scientist-likes-a-gop-proposal-on-globalwarming/

^{7,} http://www.iflscience.com/policy/nine-states-declare-major-push-to-put-a-price-on-carbon-emissions/all/

^{8,} https://www.unglobalcompact.org/news/3361-04-22-2016

⁹, http://www.imf.org/en/News/Articles/2018/01/31/sp013118-adapting-to-climate-change-pricing-right-taxing-smart-and-acting-now

^{10,} http://carbonpricingdashboard.worldbank.org

^{11,} https://www.bloomberg.com/news/articles/2017-12-19/china-heads-toward-carbon-price-in-climate-fight-quicktake-q-a

^{12,} https://www.icis.com/resources/news/2018/02/20/10195074/shell-exxonmobil-welcome-singapore-carbon-taxwith-reservations/

Pressure is growing to price carbon in the U.S. and in the State of Washington In the U.S. Congress, four carbon tax bills have been introduced this session.^{13,14,15,16} Three have a starting price of \$49 per ton CO2, and three of four use CO2 equivalent as their basis, which includes methane leakage. A report by the World Bank concluded that the price must be at least \$40-80 per ton by 2020 to achieve the objective of the Paris Agreement.¹⁷

To prepare for the inevitability of carbon pricing, many corporations voluntarily use an internal price on carbon as they make decisions. The United Nations Global Compact says companies should use an internal price on carbon at a minimum of \$100 per metric ton.¹⁸ As the CEO of Royal DSM, Feike Sijbesma, said, "if you want to future-proof your business....put a price on carbon internally already right now."¹⁹

PSE is required to use carbon pricing in their models. They are mandated to include both social and health costs. Even in the absence of legislative mandates, PSE's analyses should include social and health costs of carbon that are high enough to reflect the real costs of greenhouse gas emissions to the environment and human health for ethical reasons, yet they have not. I agree with the UTC staff, who in their Feb. 6 review of this area of PSE's IRP characterized it as "misleading" and "incomplete."²⁰ Staff reportedly brought the legislative health requirement to PSE's attention in March 2016, and still PSE did not respond. PSE's continued unresponsiveness to the Commission and the public is unacceptable.

In PSE's February 20 response to staff comments, Ken Johnson states that social costs and health costs of carbon are in fact included in their carbon prices.²¹ The figures they have used appear to be far too low for this to be a credible claim (see, for example, Robert Briggs' comments to the Commission on *PSE cost of carbon and other analysis assumptions*²²).

PSE's recent response to staff also unjustifiably criticized UTC staff for including environmental information in the UTC process. As summarized in Kevin Jones' submission to the UTC on February 6, "WAC 480-100-238(2)(b) is clear, unambiguous and requires the IRP process to include the cost of risks associated with environmental effects".²³ PSE shows inadequate concern for what their customers want, what the State of Washington requires, and what the world needs.

^{13,} H.R. 2014 - Tax Pollution, Not Profits Act. Introduced April 6, 2017 by Rep. Delaney.

^{14,} S.1639 - American Opportunity Carbon Fee Act of 2017. Introduced July 26, 2017 by Senators Whitehouse and Schatz.

^{15,} H.R. 3420 - American Opportunity Carbon Fee Act of 2017. Introduced July 26, 2017 by Reps. Blumenauer and Cicilline.

^{16,} H.R.4209 - America Wins Act of 2017. Introduced November 1, 2017 by Rep. Larson.

^{17,} https://static1.squarespace.com/static/54ff9c5ce4b0a53decccfb4c/t/59b7f2409f8dce5316811916/15052273327 48/CarbonPricing_FullReport.pdf

^{18,} https://www.unglobalcompact.org/news/3361-04-22-2016

 ^{19,} https://www.cnbc.com/video/2017/07/18/royal-dsm-ceo-urges-companies-to-wise-up-to-carbon-pricing.html
^{20,} https://www.utc.wa.gov/_layouts/15/CasesPublicWebsite/CaseItem.aspx?

item=document&id=00178&year=2016&docketNumber=160918&resultSource=&page=&query=&refiners= &isModal=&omItem=false&doItem=false

^{21,} https://www.utc.wa.gov/_layouts/15/CasesPublicWebsite/GetDocument.ashx? docID=668&year=2016&docketNumber=160918

^{22,} https://www.utc.wa.gov/_layouts/15/CasesPublicWebsite/GetDocument.ashx? docID=483&year=2016&docketNumber=160918

^{23,} https://www.utc.wa.gov/_layouts/15/CasesPublicWebsite/GetDocument.ashx? docID=518&year=2016&docketNumber=160918

PSE must not be allowed to continue to ignore the full social and health costs from the burning of fossil fuels, while at the same time undervaluing renewables. I am concerned that PSE will use there errors to support unwarranted decisions, such as concluding that gas peaker plants are a cost-effective choice.

Given the absence of valid analyses in this and other areas of the IRP, please give PSE clear guidance that their customers will not be required to pay for any new fossil fuel infrastructure. Recently, Kimberly Harris, CEO of PSE and Chair of the Board of Directors of the American Gas Association, said "…we strive to not only meet—but to exceed—our customers' expectations, now and for years to come."²⁴ In Renton, you heard what PSE's customers' expectations are; PSE knows what they are too. Please help Kimberly Harris exceed our expectations and turn PSE into a company we can be proud of – a company that is as green as they pretend to be.

Thank you.

Sincerely,

Dr. Virginia I. Lohr

Retired Professor and Scientist, Citizens' Climate Lobby Volunteer, Vashon Climate Action Group Volunteer, and PSE Customer

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^{24,} https://pse.com/aboutpse/PseNewsroom/NewsReleases/Pages/Barbara-Gordon-joins-PSE-Board.aspx