

Docket numbers UE-160918 and UG-160919

Washington Utilities and Transportation Commission
PO BOX 47250,
Olympia WA 98504-7250.

Dear Commissioners Danner, Rendahl and Balasbas,

I am a very concerned citizen who is trying to understand and interpret the 2017 Integrated Resource Plan directly. I am not an expert in the field but I am a scientist in the field of biology as well as a physician.

It is imperative that Puget Sound Energy and the UTC make a bold and essential commitment to a 100% fossil free grid. Specifically, I call on you to use your existing authority to reject any plan that does not address closing Colstrip and eliminating coal from the grid by 2025 and replacing it with renewable energy in compliance with the Paris Climate Accord. Human kind and biological diversity is at risk every day we do not take action and this must be factored into least cost.

PSE is working hard to project an identity as a green company in its advertising to the public and in the Integrated Resource Plan. If we do not question the language of PSE's marketing euphemisms (to the public and you, the commissioners), we will remain complacent. PSE simply stating that they care and stating they are trying to reduce carbon emissions is not enough. We need a solid renewable, storage and conservation plan. PSE has not created the necessary plan for renewable replacement of coal.

PSE's analysis on the cost of wind is weak at best with no supporting documents. For example their time frame from cost of previous projects ranges over 7 years (7 years prior to when draft IRP was written). Wind has come down 60% in the past 7 years so if the confidential project they refer to was 1 year ago or 7 years ago, makes a big difference on price. There was no sample size (n=?) or date that sample was taken from. Potentially they could have had one data point from 7 years ago and that tells us nothing about cost. PSE needs to do an RFP for wind and nothing less when analyzing cost. The IRP also states they don't know how much they would be charged for transmission of wind. If they are serious about renewable energy, they should find out!

The true cost of a new gas facility is too great.

"Ecofriendly natural gas" is not the green solution PSE touts. Gas from fossil fuels are predominantly composed of methane which is a potent greenhouse gas, especially when leaked. Compared to coal, burned methane emits only about 1/2 the amount of carbon. This argument favors methane. However 3.8% (conventional gas) to 5.8% (fracked) of gas is leaked into the atmosphere before it is burned. The point at which leaky methane gas surpasses coal on greenhouse gas emissions affecting our climate is 3.2%. This means that as a greenhouse gas emitter, gas from fracking is likely worse!

PSE's statements about gas as the most viable replacement for coal should be cause for concern. Here's why:

- By the time a gas facility would be built, it would be with the backdrop of an era of new renewable energy laws and technologies that could easily take its place. We, the ratepayers would bear the cost for permits and early decommissioned facilities while the majority of the profits will end up with PSE's private shareholders. Just as we have seen in the past with nuclear energy and coal.
- PSE promotes environmentally sustainable values to their ratepayers and commissioners in apparent contrast to the motivations of its private shareholders of Macquarie Consortium, an Australian investment company that holds the fourth largest gas production and distribution company in the US.
- PSE's CEO is personally invested in liquid natural gas via her association as the First Vice Chair of the American Gas Association.

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- PSE states they care deeply about the environment while they are suing Washington State over the Clean Air Rule. PSE also pushed for a delay in the Clean Power Plan that was proposed by the EPA to combat climate change.
- The cost of wind and solar are rapidly declining. In the past few years, the cost of solar has dropped 40% and wind has dropped 66%. PSE's plan does not take this cost curve into account. Over 100 pages of the draft IRP analyzed gas, where only a six page addendum addressed solar and wind cost. The (draft) IRP looked only at established (past) wind and solar facilities and did not seek competitive bids.
- If PSE does not make the move that the rate payers desire, there will be an exodus to the safety of PUDs where we can have more control over our utilities. This puts a great burden on existing PSE customers who would be left footing the bill for outdated infrastructure and waste cleanup.
- The Regional Greenhouse Gas Initiative Outcomes Study investigating carbon caps on large power plants with carbon output restrictions showed electricity prices *decreased* 3.4% while in states with no carbon output restrictions electricity prices *increased* an average of 7.2%. PSE's prices increased 14.8% in the same time period in an economy where oil and coal have dropped substantially.
- External cost to society including financial and human costs of climate change, must be considered.

PSE states they are putting off gas for a few years in the IRP because of a noble cause when in fact PSE still asks us to pay for permits to build gas infrastructure to replace the 2022 closure of Colstrip 1 and 2. Also, PSE is hedging for the possibility of a forced (by WA lawmakers) switch to renewables by offering large incentives via rebates and a request to lower gas prices for their customers to switch to gas from electric appliances.

I ask you, our Commissioners to send PSE back to the drawing board. Challenge them to come up with a solid renewable/storage/conservation plan. We need to steer the boat directly to a renewable future NOW so we do not waste more time backpedaling on gas to do the job. Our planet is in a state of emergency that is costing billions of dollars in damage from the worst fires and storms in history and it is only getting worse. The threat to the impoverished peoples is disproportionate and unacceptable. With desire, the cost of renewables, storage and conservation ARE attainable as a replacement for coal and the cost of gas is too great.

Thank you for your time and reading our comments in this process.

Sincerely,



Dr. Angela London
Ferndale, WA ratepayer x 3 bills
Vashon, WA ratepayer x 1 bill