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To: [UTC DL Records Center](#)
Subject: "Comments" (first) re-sending w name attached
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Comments on PSE's Integrated Resource Plan (IRP)

Docket number (UE-160918 and UG-160919)

I am specifically commenting on Chapter 8 of the IRP.

Batteries 01/15/17

Puget Sound Energy did a study on the feasibility of using batteries as an alternative to the proposed transmission line. However, their conclusions are inconsistent with the amount of energy necessary to meet demand. Attached is the study.

http://www.energizeeastsideis.org/uploads/4/7/3/1/47314045/eastside_system_energy_storage_alternatives_screening_study_march_2015.pdf

Specifically, in Table 1, there are three figures, which add up to 231 MWh. Yet, in Table 2, the number of MWh jumps to 328. The math does not add up. Furthermore, this study was done three years ago, when batteries were not as efficient and cost-effective as they are now. The price of batteries continues to fall at a rapid rate. If the Eastside is in need of batteries to meet energy demand, it is estimated, based on the battery size that Tesla installed in Australia, that we could obtain one for about \$50 million. The proposed transmission line will cost \$300 million, and comes with large drawbacks that I will mention in further comments.

The transmission line will take years to install, while the battery installation done by Tesla took 90 days. By the time the transmission line is done being built, I wonder what the cost of batteries will have fallen to by then?

I urge the UTC to require PSE do a new study that incorporates current prices of batteries in order to determine the prudence of installing batteries vs. a \$300 million project of old technology. Specifically, flow batteries that are non-flammable and long-lasting would be a much better use of ratepayer's money. UniEnergy Technologies in Mukilteo makes these batteries, so they would be available locally. The transmission line is not a prudent use of ratepayers' money.

Fiona Cofield