

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.

**The future**

Since 2013, Puget Sound Energy has claimed that building an 18-mile long, 230,000 volt outdated transmission line is the only way to keep up with the demand in electricity on the Eastside, which, according to their own data, remains flat. (See the graph below). They have also cited the need for lesser known project, the Lake Hills transmission line, which is described as an "upgrade". <sup>PSE</sup> Energize Eastside did a study on battery storage back in 2015 by Strategen, which concluded that energy storage was not feasible as an alternative to Energize Eastside. However, the study's data is questionable, and was based on the cost of batteries that is now outdated. No study was done on energy storage as a possible alternative to the Lake Hills Transmission Line, nor would PSE release data to CENSE so that they may conduct their own study on batteries through a third party, despite repeated requests to do so.

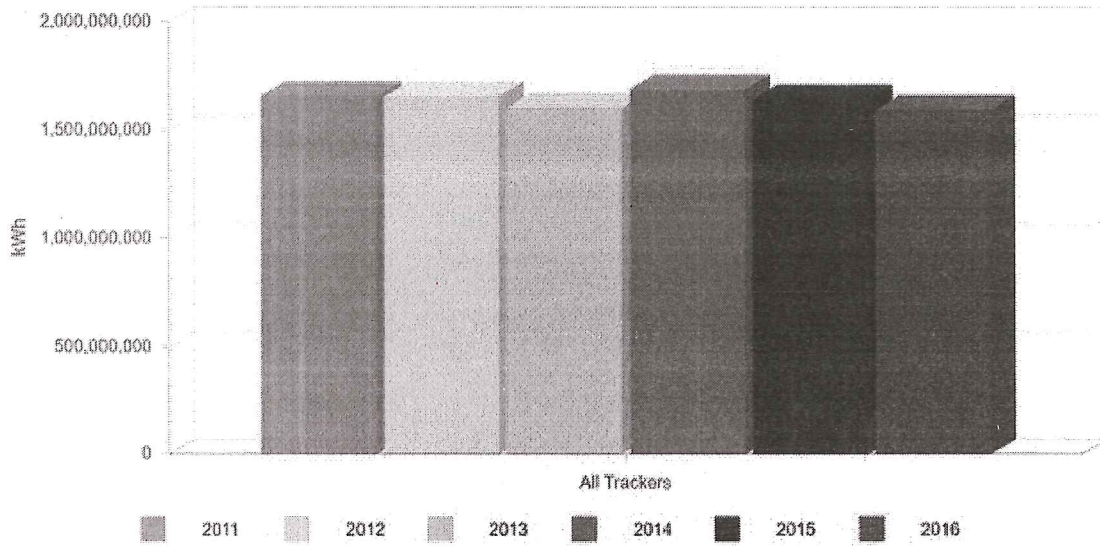
We ask that UTC require Puget Sound Energy to abide by the Commission's Policy Statement which states that energy storage must be considered in any transmission project or upgrade before the Commission will consider whether a project justifies a rate increase. Energize Eastside, which is estimated to cost \$300 million dollars, is not a prudent use of ratepayers money.

The advancement in batteries since 2015, the rapidly declining cost of their use and installation, and their wide-spread use around the country and internationally makes them a 21<sup>st</sup> century alternative to more wires. Not only would batteries result in cost savings for ratepayers, but they avoid prolonged reliance on coal-powered plants, and avoid causing irreversible damage to the communities, trees, parks, streams and wetlands that lay within Energize Eastside's path.

CENSE asks the Commissioners to help preserve the future of the Eastside for future generations. Require PSE to study energy storage i.e. batteries for both Energize Eastside and the Lake Hills transmission line before deciding whether to grant rate increases for these harmful project that are neither wanted nor needed. Energy storage is the way of the future, and the future is now.

*Reiterate to PSE that they must complete ~~do~~ new transparent studies incorporating*

### Total Electricity Use in Bellevue (kWh)



Source: PSE. Data provided as a courtesy to Bellevue solely for the purposes of GHG accounting. Data is pulled based on tax code. The data should not be used for predicting future trends. Past data will occasionally be updated to correct for errors

<https://k4c.scope5.com/pages/61> from Bellevue's Environmental Stewardship webpage.

Fiona Cofield

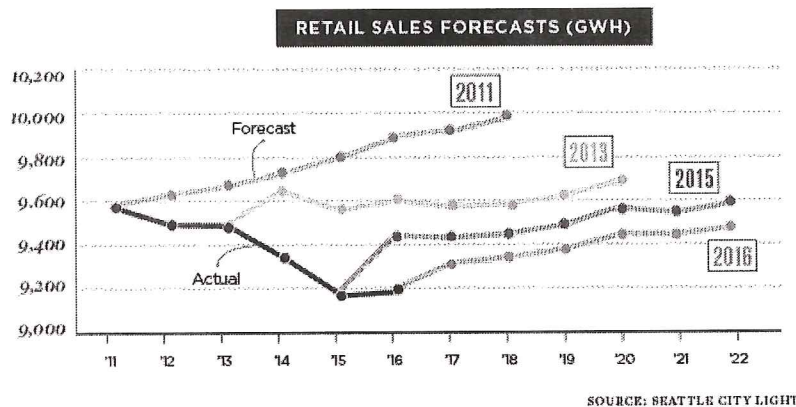
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## Demand Trends 01/16/17

Below is the graph that Seattle City light published in their article in Seattle Business Magazine in November 2017. In this article, they released their actual demand vs. their forecasted demand. They have made this information available to the public. This is called "transparency".



<http://www.seattlebusinessmag.com/policy/how-climate-change-conservation-and-renewable-energy-are-changing-seattle-city-light>

Puget Sound Energy's demand forecasts can be found online as well, as pdf's that you can download. I provided a link here that will take you to one. Their demand forecasts are exaggerated compared to Seattle City Light's.

But my point is that PSE's ACTUAL demand remains a mystery. Although those figures have been requested, they are not released, and give some vague reason about "security" when asked why they will not release them.

The key difference in these two companies? Seattle City Light is strictly a public utilities company, and does not need to make a profit. However, PSE is owned by foreign investors who want to profit per the guaranteed 9.8% return rate on their investments. My guess is that Puget Sound Energy does not want to reveal that their demand has actually fallen, in contrast to their forecasted demand. Their entire justification behind Energize Eastside lies in their ability to claim that this project is "necessary" due to the growth in population—however, they won't give consumers the data that would back up this claim. I believe that is because they have none. This is not transparency, this is secretive. If Seattle City Light is able to release their data without any worries about "security", then it stands to reason that Puget Sound Energy is capable of doing the same. I urge the UTC to ask Puget Sound Energy to release their actual demand data, and not

grant any projects that cost Washington's ratepayers millions of dollars without a simple graph to prove the project's necessity. Thank you.

Fiona Cofield

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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.energizeeastsideeis.org/uploads/4/7/3/1/47314045/eastside\\_system\\_energy\\_storage\\_alternatives\\_screening\\_study\\_march\\_2015.pdf](http://www.energizeeastsideeis.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.

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**Safety**                      01/16/17

The Bellevue Fire Department has stated that arcing between a downed powerline and an underground gas pipeline could result in "catastrophic" results. We are talking about igniting flammable jet fuel from gas pipelines.

According to experts, pipeline fires are particularly devastating because of the jet fuel that runs through them at high pressure. This flammable fuel is not able to be extinguished by local firefighters, but instead would require special foam, called "AFFF", to be delivered from Sea Tac airport to put it out. While the special foam is en route, these fuel fires would continue to run, forming rivers of fire that ignite everything in their path.

To have such a possible ignition source as close to schools and churches and neighborhoods as PSE proposes (in some cases less than 80 feet) should automatically result in a rejection of the project. Unfortunately, the City stands to gain a lot of money from this project, so they are willing to look the other way.

If such devastation occurred, there would be many fatalities. And who would pay for it? Would the city cough up that money? No. PSE's shareholders? Ha! No, it would be the ratepayers, who will already be paying for this unnecessary and dangerous project for decades. My future children will be paying for this project, while it puts them and my grandchildren at risk. I am pleading the UTC not to allow PSE to profit from risking the lives of the Bellevue's children.

Fiona Cofield