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

The UTC has stated that infrastructure projects must consider Energy Storage as part of any project or upgrade. Although PSE did a study through Strategen back in 2015, their data was flawed and the cost of batteries was much higher.

As I understand it, the job of the UTC is to approve rate hikes that come from infrastructure projects and/or upgrades. PSE has stated that flow batteries, which are non-flammable, are more cost efficient than lithium ion batteries. In fact, in this article, <a href="https://globenewswire.com/news-release/2017/11/13/1185524/0/en/Puget-Sound-Energy-Adopts-Primus-Power-Battery-Storage-System.html">https://globenewswire.com/news-release/2017/11/13/1185524/0/en/Puget-Sound-Energy-Adopts-Primus-Power-Battery-Storage-System.html</a> PSE states that "Energy storage systems, like the one installed by Primus, increases our understanding of clean energy. They will also allow us to evaluate cost savings that battery systems offer to our customers."

PSE was able to utilize energy storage for Bonneville Power, so I am confused as to why they are not able to implement this method in their own backyard (they are based in Bellevue, Washington.)

Since PSE has stated that they believe that using energy storage will save customers money, I would like the UTC deny any rate hikes that occur from other, more-expensive methods of manufacturing energy—specifically, a past-era method such as a giant transmission line when there are more cost-effective options available, which there clearly are.

Dominic Vautier

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Safety 01/16/17

One of the biggest concerns surrounding Energize Eastside are the many safety issues. Replacing 115,000-volt lines with 230,000-volt lines in residential areas increases risks if the pipeline were to fall. This is not an unheard-of scenario; it happened in May 2006 in Bellevue. The damage to the closest pipeline was great enough that it required part of the line to be shut down (400 ft. of pipeline) in order to repair the damaged portion. The lines' proximity to gas pipelines, PSE says, is nothing new. Transmission lines and pipelines have been co-existing for decades. Did PSE foresee the issue in Bellevue in 2006? Perhaps. But saying that because a problem has not yet occurred does not mean it is a good idea!

This is especially true when you consider that Washington's regulations regarding the minimum proximity between schools and pipelines are closer than other states. California's code requires a school be at least 1,500 feet away from a school. In Bellevue, there are 13,000 school children within 600 feet of these pipelines, which are often under high pressure.

It seems that the responsible thing to do would be to decrease risks regarding children and pipelines, not increase them. In Bellevue, many of these pipelines also co-exist with 115,000-volt transmission lines. As a ratepayer, the last thing I want to spend money on are projects that increase voltage of above-ground lines that reside near pipelines—especially near schools! I would be happy to pay higher rates if PSE was able to install underground conduit instead, as they do in other parts of Bellevue.

Please don't let PSE endanger Bellevue's schoolchildren. Tell them to put the lines underground. Children should not have to pay the ultimate price so that Australian shareholders can make money.

Dominic Vautier