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**