

**Washington Utilities and Transportation Commission**  
**Recessed Open Meeting**  
**on Puget Sound Energy's 2017 Integrated Resource Plan**  
**Comments on Behalf of Invenergy LLC**  
**February 21, 2018**

Invenergy has identified a number of questionable assumptions, forecasts and claims that PSE has used as inputs to its 2017 IRP. These include:

- Overconfidence that purchasing capacity in the short-term wholesale market represents a firm resource to serve an inordinately large share (over 1,700 megawatts) of PSE's winter peak retail loads
- Overconfidence that relying heavily on purchasing energy in the short-term wholesale power market does not entail physical supply availability risks
- Wholesale power price forecasts that under-represent the potential magnitude of volatility of prices, and thus PSE's costs, for short-term market purchases
- Over-representation of the actual usability of PSE's existing natural gas-fired generation, including aging single-cycle combustion turbines, to serve its energy loads in the event of supply shortages or high prices in the short-term wholesale power market
- An assumption that natural gas-fired combined-cycle combustion turbine generation will be subject to carbon dioxide emissions pricing, but that single-cycle combustion turbine generation will not
- Over-statement of the difference between capital costs for new combined-cycle combustion turbine power plants and single-cycle combustion turbine power plants
- The claim that PSE customers, rather than the utility, would bear the consequences if its assumptions about relying on buying power in the short-term market to serve a significant share of its retail load turn out to be incorrect

Invenergy believes these assumptions, forecasts and claims have excessively narrowed the scope of its 2017 IRP analysis. This has included inadequate consideration of the reliability and cost risks associated with PSE's inordinately large dependence on the short-term wholesale power market to supply its firm capacity and energy requirements. It has also created an unfounded bias in favor of adding new single-cycle combustion turbine generation.

Invenergy believes that the shortcomings in inputs and analysis for PSE's 2017 IRP call into question the validity of the plan's long-term resource strategy.