

PSE Response to Public Counsel Data
Request No. 391

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-220066 & UG-220067
Puget Sound Energy
2022 General Rate Case**

PUBLIC COUNSEL DATA Request No. 391:

Requested by: Robert Earle

Tacoma LNG

Re: Tacoma LNG Project. Ronald J. Roberts, Exh. RJR-5C at 185–189 (July 2, 2014 Board Report).

- a. Ronald J. Roberts, Exhibit RJR-5C at 186 describes the project as having on-site storage of 8 million gallons and vaporized injection capability of 66,000 Dth/day.
 - i. Please provide documents that show why the design was chosen to have 8 million gallons of storage and why this was superior to the alternatives.
 - ii. Please provide documents that show why the design was chosen to have vaporized injection capability of 66,000 Dth/day and why this was superior to the alternatives.
- b. Ronald J. Roberts, Exhibit RJR-5C at 189 provides a graph showing “PSE Natural Gas Resource Need.”
 - i. Please provide the data for this graph in Excel format.
 - ii. Please provide the source document for this graph.
 - iii. In what year does the F2013 Peak Load Forecast exceed the existing resources (appears to be 2023–24 or 2024–25)?
 - iv. What were PSE’s plans at the time of this presentation to meet peak forecast load after 2024–25? Please include documentation of such plans.

Response:

- a. PSE retained the services of several engineering firms familiar with various aspects of liquefied natural gas (“LNG”) plant design to determine reasonable sizing to take advantage of economies of scale and “standard sized” components. In the course of discussions with the preferred contractor, PSE determined the sizing to meet the general objectives of the project, namely: (a) vaporization of 50 MDth/day or more, because that was perceived to be the maximum that could be absorbed by the Tacoma system at peak and remain in

standard sizing; (b) storage to cover 6-10 days of vaporization, plus capacity to offset diversion of 19 MDth/day supply for the same period, plus approximately 1 week of typical usage for TOTE and similar customers.

Ultimately, 8 million gallons of storage was chosen because it would provide, after heel gas of 350,000 gallons, 6 days of vaporization and diversion make-up volumes of 6,025,000 gallons for PSE and 7 ½ days equivalent liquefaction volume for the non-utility customers or 1,625,000 gallons.

66 MDth/day of vaporization was chosen since it was possible to expand the reach of the vaporized LNG with a future upgrade of distribution and that was an “off the shelf” vaporizer size.

In early 2015, PSE considered alternative structures for the Tacoma LNG Facility, including building a plant with capacity to meet only the needs of the peak shaving resource and TOTE. As explained in Docket UG-151663, PSE’s analysis determined that the cost savings associated with reducing the capacity of the plant were rather small (i.e., less than two percent of the budgeted costs of the Tacoma LNG Facility). In addition, PSE’s core gas customers would benefit from lower capital costs for the peak shaving portion of the Tacoma LNG Facility because portions of the facility are being allocated to non-regulated fuel sales.

This analysis was first provided to the PSE Board of Directors on February 27, 2015. See the discussion in the Second Exhibit to the Prefiled Direct Testimony of Ronald J. Roberts, Exh. RJR-3, pp. 20-24; see also the Fourth Exhibit to the Prefiled Direct Testimony of Ronald J. Roberts, Exh. RJR-5C, pp. 840-863. Among the alternatives considered were: 1. Stay the Course – PSE would continue with the plan to build an LNG liquefaction and storage facility with a capacity of 250,000 gallons per day. 2. Downsize the Facility – PSE would build an LNG liquefaction and storage facility with a capacity of 140,000 gallons per day (enough to meet the TOTE and PSE demand only). 3. Delay the Decision – PSE would delay the execution of an Engineering, Procurement and Construction Contract up to January 1, 2017. 4. Stop the Project – PSE would immediately cease all development activities and no longer pursue construction activities for the Tacoma LNG Project. The PSE Board of Directors directed PSE management to continue with its risk analysis and propose a mitigation plan at a subsequent meeting.

PSE management proposed its mitigation plan at an April 28, 2015 meeting of the PSE Board of Directors, PSE management presented four alternatives, none of which included the downsized facility because, as described above, the cost

savings associated with reducing the capacity of the plant were less than two percent of the budgeted costs of the Tacoma LNG Facility. See Exh. RJR-3, pp 24-25; see also Exh. RJR-5C, pp. 864-872. The PSE Board of Directors authorized PSE to proceed with the hybrid model under which PSE would continue development of an LNG liquefaction and storage facility with a capacity of 250,000 gallons per day, but (i) PSE would own only the portion of the assets necessary to meet peak system loads, and (ii) Puget Energy, Inc. would create an unregulated subsidiary that would own the remainder of the assets and make sales of LNG as a transportation fuel on an unregulated basis.

- b. PSE has not been able to locate the exact final version of the file as displayed in Exh. RJR-5C at page 189. Attached as Attachment A to PSE's Response to Public Counsel Data Request No. 391, please find the requested graph and file, albeit only absent the notes on the face of the graph.
 - i. See Attachment A.
 - ii. See Attachment A.
 - iii. Forecast demand exceeded the displayed resources in 2023-2024. Forecast demand exceeded existing resources much earlier, because the "Avista/JP" resource, Tacoma LNG resource and estimated incremental Demand Side Resources were not "existing" resources at the time.

As shown on the graph in Attachment A, PSE was planning to acquire additional Jackson Prairie Storage capacity and some additional discounted winter redelivery capacity at the time, however, that transaction fell through. PSE was planning to restudy resources that were part of the 2013 IRP and any new potential resources in the 2015 IRP process, which was just commencing at the time.