

**Exh. BAE-5  
Docket UG-230393  
Witness: Betty A. Erdahl**

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**DOCKET UG-230393**

**EXHIBIT TO TESTIMONY OF**

**BETTY A. ERDAHL**

**STAFF OF  
WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION**

*PSE Response to WUTC Staff DR No. 020*

**September 8, 2023**

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**Docket UG-230393  
Puget Sound Energy  
Tacoma LNG Tracker**

**WUTC STAFF DATA REQUEST NO. 020:**  
**DATA REQUESTS DIRECTED TO: Susan Free**

**REQUESTED BY: Crystal Oliver**

**Re: Gas Quality Impact on Project**

Regarding Roberts's Testimony, Exh. RJR-1T, page 17 lines 15-18, "Contributing to the increased costs for the EPC contract were changes in pipeline gas quality over the previous 12 to 18 months such that the then-current pipeline gas quality was significantly different from the design basis for the Tacoma LNG Facility."

And Roberts's Confidential Exhibit 8C, Exh. RJR-8C, page 15, includes an overview of this issue, mitigation, and status noting that "Absent a change to the facility design, the LNG fuel may not satisfy the TOTE Fuel Supply Agreement." And outlines the scope of changes needed including: "redesign of amine flash drum, enclosed ground flare and fuel gas separator, modifications to piping, control valves, instrumentation, and electrical, new NGL stored liquids heater and effluent BTU analyzer, and additional engineering and project management" and notes that the estimate for the change is \$8 million.

- a. Please provide a copy of the executed change order to the CBI contract related to this.
- b. How much did costs increase due to these modifications?
- c. If the facility were being used only for liquefaction & LNG storage to later be vaporized to meet peak-shaving needs would these changes and resulting additional costs have been necessary?
- d. If the changes would still have been necessary under the above scenario, how does PSE address/improve the gas quality used for PSE rate payers that is not liquefied and stored?
- e. What alternatives did PSE consider to these changes? Please provide contemporaneous documentation of the consideration of alternatives.

**Response:**

- a. Attached as Attachment A to Puget Sound Energy's ("PSE") Response to Public Counsel Data Request No. 020, please find Change Order 110 with Chicago Bridge and Iron ("CB&I").
- b. Costs increased \$5,432,280 due to these modifications.
- c. No.
- d. Not Applicable.
- e. PSE considered 7 possible design modifications in addition to a "do nothing" case. Attached as Attachment B to PSE Response to Public Counsel Data Request No. 020, please find the CB&I "Alternate Feed Gas Composition Review" (Document 210140-000-PR-TN-00002).