

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

In the Matter of the Application of

PUGET SOUND ENERGY

For an Order Authorizing the Sale of All of Puget Sound Energy's Interests in Colstrip
Unit 4 and Certain of Puget Sound Energy's Interests in Colstrip Transmission System

DOCKET UE-200115

**PAUL L. CHERNICK
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

EXHIBIT PLC-13C

Puget Sound Energy Response to Commission Staff Data Request No. 19

October 2, 2020

Shaded Information is Designated Confidential per Protective Order
in Docket UE-200115

PUBLIC VERSION

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket UE-200115
Puget Sound Energy
Application Authorizing Sale of PSE Interest in Colstrip Unit 4**

WUTC STAFF DATA REQUEST NO. 019

“CONFIDENTIAL” Table of Contents

DR NO.	“CONFIDENTIAL” Material
019	Shaded information in Puget Sound Energy’s Response to WUTC Staff Data Request No. 019 is designated as CONFIDENTIAL per Protective Order in Docket UE-200115.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket UE-200115
 Puget Sound Energy
 Application Authorizing Sale of PSE Interest in Colstrip Unit 4**

WUTC STAFF DATA REQUEST NO. 019:

Re: AURORA Model Input

Please describe the key input assumptions in the Aurora model that informed the analysis in CLS-7, including but not limited to natural gas price, hydro conditions, wind conditions, and other key factors assumed for Colstrip operations.

Response:

Please see Table 1 for the key input assumptions in the Aurora model that informed the analysis in the Sixth Exhibit to the Prefiled Direct Testimony of Cindy L. Song, Exh. CLS-7:

Table 1. Key Input Assumptions in the Sixth Exhibit to the Prefiled Direct Testimony of Cindy L. Song, Exh. CLS-7

	2020	2021	2022	2023	2024	2025
Average Mid-C Price (\$/MWh)	████	████	████	████	████	████
Gas Price (\$/MMBtu)	████	████	████	████	████	████
Variable (O&M \$/MWh)	████	████	████	████	████	████
Coal Cost (\$/Ton)	██	██	██	██	██	██
Coal Cost (\$/MMBtu)	████	████	████	████	████	████

Colstrip Heat Rate (Btu/kWh)	10,678
Colstrip Minimum Heat Rate (Btu/kWh)	████
Forced Outage Rate	██
Minimum Capacity %	██
Ramp Rate	██
Minimum Up Hours	████
Minimum Down Hours	████

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Natural Gas Assumptions:

From 2020-2023, Puget Sound Energy (“PSE”) based gas prices on the three-month average of forward marks for the period ending December 31, 2018. Forward marks reflect the price of gas being purchased at a given point in time for future delivery. Beyond 2023, PSE based gas prices on the Wood Mackenzie long-run, fundamentals-based gas price forecasts published in November 2018.

Hydro Assumptions:

PSE based hydro assumptions of the average of the 80 years (1929-2008) of hydroelectric data (i.e., average hydro conditions) from PSE’s most recent general rate case in Dockets UE-190529/UG-190530.

Wind Output Assumptions:

PSE based wind output assumptions on the draw that best matches the P50 of the 250 draws.

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