

**EXH. PJP-\_\_X  
DOCKET UE-210795  
2022 PSE CEIP  
WITNESS: PHILLIP J. POPOFF**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of  
PUGET SOUND ENERGY, INC.  
2021 Clean Energy Implementation Plan

**Docket UE-210795**

**EXHIBIT TO THE CROSS-EXAMINATION OF  
PHILLIP J. POPOFF  
ON BEHALF OF NW ENERGY COALITION AND FRONT AND CENTERED**

**JANUARY 24, 2023**

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**Docket UE-210795  
Puget Sound Energy  
PSE 2021 Clean Energy Implementation Plan**

**FRONT AND CENTERED AND NW ENERGY COALITION DATA REQUEST NO. 178:**

**Topic: Popoff Testimony**

Please provide the annual incremental costs associated with the “CETA” portfolio described in the Rebuttal Testimony of Phillip J. Popoff (PSE-Exh-PJP-1T-12-12-22), relative to the “No-CETA” portfolio described in the Rebuttal Testimony of Phillip J. Popoff. If these annual incremental costs have not been calculated, please provide the annual costs of each portfolio in the years 2022-2025, where annual costs include the same cost components that are included in the “Generation Portfolio” annual costs listed in the “3. Resource Incremental Cost” tab of Appendix E-2 (Incremental Cost Calculation Spreadsheet) of PSE’s CEIP.

**Response:**

Puget Sound Energy (“PSE”) interprets Front and Centered and NW Energy Coalition Data Request No. 178 as pertaining to the incremental cost calculation using Dr. Hart’s methodology, where the social cost of greenhouse gas (“SCGHG”) is applied as a dispatch cost.

The annual incremental costs used in Front and Centered and NW Energy Coalition’s methodology as outlined by Elaine Hart in Exh-EKH-1T, associated with the “CETA” portfolio relative to the “No-CETA” portfolio for the model runs are provided in Table 1 below.

Table 1: Annual Incremental Cost

(Costs in \$000)	2022	2023	2024	2025
SCGHG Dispatch Annual Cost - CETA portfolio	\$664,407	\$703,064	\$764,791	\$805,232
SCGHG Dispatch Annual Cost - No-CETA portfolio	\$632,098	\$659,377	\$657,031	\$730,831
Incremental Cost - Difference	\$32,309	\$43,688	\$107,760	\$74,401

Please note the difference between the incremental cost in Phillip J. Popoff’s testimony, Exh. PJP-1T, and the annual incremental cost provided above. The annual incremental

cost in Table 1 is based on PSE's Clean Energy Implementation Plan ("CEIP") calculation for incremental cost (see Chapter 5 of PSE's 2021 CEIP) and is in line with the "Totals" in the "3. Resource Incremental Cost" tab of Appendix E-2 (Incremental Cost Calculation Spreadsheet) of PSE's CEIP. For Mr. Popoff's testimony, the illustrative incremental direct cost in Tables 1 and 2 is based on the AURORA output. The AURORA output calculates incremental cost as the difference between (1) the CETA portfolio cost directly from the AURORA output and (2) the No-CETA portfolio cost directly from the AURORA output. This differs from the CEIP calculation which incorporates the energy efficiency and demand response separately from the AURORA output.

Please note that in preparing its response to Front and Centered and NWECC Data Request Nos. 177-178, PSE discovered certain inadvertent errors in the assumptions used to calculate the data provided in Tables 1, 2, and 3 of the rebuttal testimony of Phillip J. Popoff, Exh. PJP-1T. Mr. Popoff's testimony will be corrected to reflect the data PSE is providing in response to Front and Centered and NWECC Data Request Nos. 177-178. PSE is in the process of correcting the calculations and it will submit revised testimony reflecting the corrected Tables 1, 2, and 3 as soon as possible. Please see PSE's Response to Front and Centered and NW Energy Coalition Data Request No. 177 for further discussion on these corrections.