EXH. PAH-10C DOCKETS UE-240004/UG-240005 2024 PSE GENERAL RATE CASE WITNESS: PHILIP A. HAINES

# BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

**PUGET SOUND ENERGY,** 

Respondent.

**Docket UE-240004 Docket UG-240005** 

# NINTH EXHIBIT (CONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF

PHILIP A. HAINES

ON BEHALF OF PUGET SOUND ENERGY

REDACTED VERSION

**FEBRUARY 15, 2024** 



To: Ron Roberts

From: Zac Yanez

**CC:** Tricia Fischer, Phil Haines

**Date:** 05/31/2023

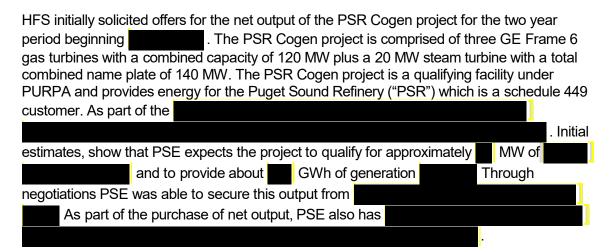
**Re:** HF Sinclair Puget Sound Refinery Cogeneration Project

#### **Background**

In February 2023 the Energy Management Committee approved a bid in response to HF Sinclair's ("HFS") request for proposal for the sale of the net output of their Puget Sound Refinery Cogeneration project ("PSR Cogen"). PSE submitted consistent with EMC guidance. In March HFS contacted PSE to request an Supply presented an approved transaction was submitted to HFS and subsequently selected for final contract negotiation and execution.

The purpose of this memo is to provide an overview of the PSR Cogen contract, document the benefits to PSE portfolio, and show an analysis of how the bid price was developed.

#### **Product Description**



#### **Benefit of the Products**

The PSR Cogen project provides three key benefits to PSE. As previously noted it is expected to provide about MW of capacity and GWh of energy . As a qualifying facility under PURPA the net output of the plant also reduces PSE retail load calculation for the purposes of calculating Clean Energy Transition Act ("CETA") energy targets.

PSE faces significant capacity needs during the term of this contract. As presented to the EMC in February and March, PSE has a resource adequacy need of for the 2023-2024 and 2024-2025 winter periods. This contract is expected to reduce that need by up to MW.

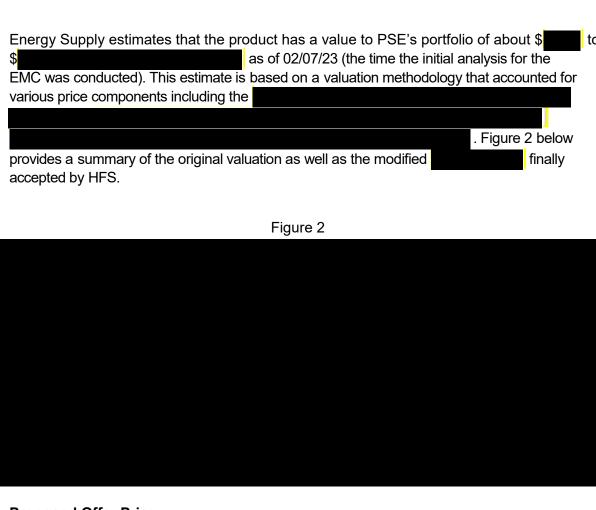
In addition to PSE's Capacity need, PSE also has a need for resources to help fill the interim CETA target of 63% of retail load by 2025. As shown in Figure 1 below, as a PURPA resource, the net output of the project reduces PSE need for CETA resources by GWh in 2025. This will help PSE get closer to meeting the 2025 interim target. Based on broker quotes at the time of evaluation, an equivalent amount of would cost about \$ \$\text{VOLUME TARGET STATES AND TA

Figure 1 Draft 2021 CETA Need

Figure 1

Current Position	Current Position + PSR Cogen
63%	63%
-	
_	
_	
	63%

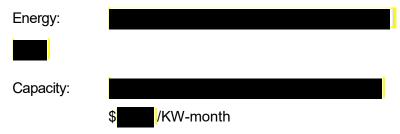
#### **Valuation Analysis**



#### **Proposed Offer Price**

Energy Supply was able to negotiate the following pricing terms:

Net Output Sale from HSF to PSE:



#### **Conclusion**

PSE has clear and well documented capacity and CETA resource needs. The purchase of the net output of the PSR Cogen project will contribute up to MW of capacity, the equivalent of GWh of CETA resources, and reduce the amount of short term market purchases by up to GWh PSE was able to The pricing structure aligns HFS dispatch decision with PSE's capacity needs by providing a known

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To: Ron Roberts

From: Zac Yanez

**CC:** Phil Haines and Tricia Fischer

**Re:** Chelan Slice 38 Auction Business Case

### **Background**

In the first quarter of 2023, Chelan County PUD ("Chelan PUD") announced that they would hold an auction to sell a five percent share of the Rocky Reach Project and the Rock Island Hydro Project ("Chelan Slice 38") for a term of five (5) years. In March, the Energy Supply team received authority from the Energy Management Committee ("EMC") to submit a bid for Chelan Slice 38. Consistent with the EMC guidance, Energy Supply submitted a bid of \$ \text{ \text{ | MWh. PSE was selected as the winning bid and subsequently executed a contract with Chelan PUD for the Chelan Slice 38 Product.

This memo will provide an overview of the Chelan Slice 38 product, document the need for the product, and provide a summary of the analysis used to develop the pricing strategy.

# **Chelan Slice 38 Product Description**

Chelan PUD offered a five percent (5%) slice of the existing Rocky Reach and Rock Island Hydro projects. These two projects combined account for nearly 1,924 MW of nameplate capacity and about aMW of generation. PSE bid on a five-year term beginning on The 5% share of the Chelan Slice 38 product provides approximately MW of winter capacity credit and about GWh of energy. The resource will

#### Chelan Slice 38 Benefits and Resource needs

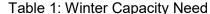
Chelan Slice 38 provides three key benefits to PSE:



<sup>&</sup>lt;sup>1</sup> Originally presented to the EMC as GWh and subsequently correct to GWh in the "Addendum" presentation.

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Table 1 below shows PSE's winter capacity need before consideration of this resource. As shown in the table, PSE's winter need grows from MW in the 2023-2024 season to MW in the 2028-2029 season. The Chelan Slice 38 product will help close this position by MW over the contract life.



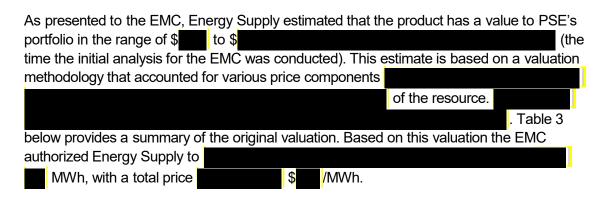


In addition to a capacity need, PSE's filed Clean Energy Implementation Plan ("CEIP") set a 2025 interim target of 63% of retail load to be served by CETA resources. Table 2, shows the significant need for CETA resources that PSE faces between 2025 and 2028. As previously stated, the Chelan Slice 38 product is expected to contribute GWh to close these deficits.

Table 2: Annual CETA Need as presented in filed CEIP<sup>2</sup>

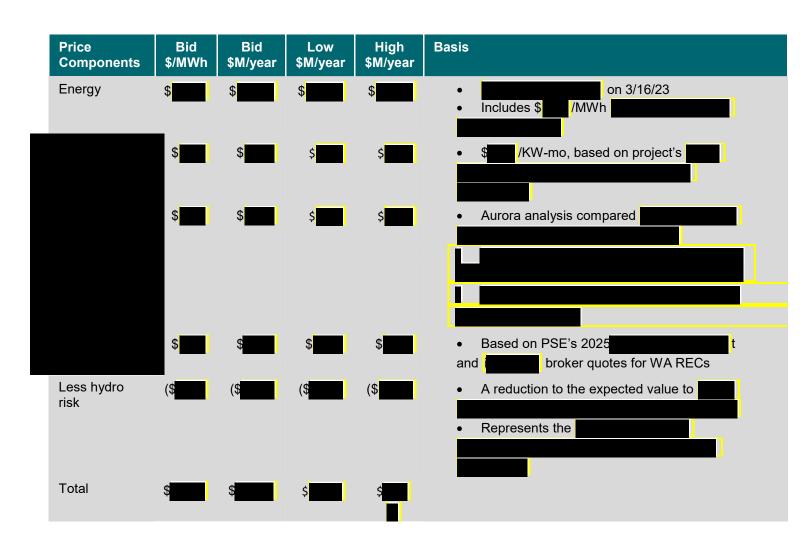
Annual CETA need (MWh)	2024	2025	2026	2027	2028
CETA interim target	59%	63%	67%	65%	70%
Adjusted load (23 RPR)	20,580,528	20,764,848	20,967,652	21,093,685	21,327,640
CETA load adjustments*	1,050,632	1,142,983	1,257,985	1,399,278	1,549,630
CETA retail load	19,529,896	19,621,865	19,709,666	19,694,407	19,778,011
CETA interim target	11,448,555	12,408,848	13,197,381	12,757,945	13,911,571
Existing CETA resources	11,949,951	10,527,424	9,856,796	9,342,712	9,197,598
CETA surplus/(deficit)	501,395	(1,881,424)	(3,340,586)	(3,415,233)	(4,713,973)

### **Valuation Analysis**

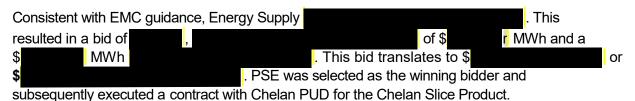


<sup>&</sup>lt;sup>2</sup> CETA load adjustments include existing PURPA projects, Green Direct resources, the energy efficiency identified in the 2023 Energy Progress Report, and the Distributed Resources planed in the CEIP.

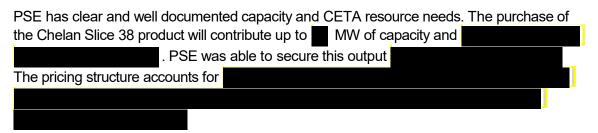
Table 3: PSE Chelan Slice 38 Valuation



#### **Final Bid Price**



### **Conclusion**





From:	Zac Yanez
CC:	Phil Haines and Tricia Fischer
Re:	Short-Term RFP Contracts

#### **Background**

To:

**Ron Roberts** 

In August 2023, Energy Supply identified capacity and renewable energy needs and received authorization to issue a voluntary short-term Request for Proposals <sup>1</sup> ("RFP"). PSE received
offers from
. In September, the Energy Supply team received authority from the Energy
Management Committee ("EMC") to execute contracts with
This memo will provide an overview of the Short-term RFP process, the Short-term RFP contracts, document the need for the contracts, and provide a summary of the analysis used to develop the pricing strategy.

#### **Resource Needs**

PSE has identified a need for capacity resources as well as a need for resources to make progress towards PSE's interim Clean Energy Transition Act ("CETA") targets.

Table 1 below shows PSE's monthly capacity needs between October 2024 and December 2025. As shown in the table, PSE's faces a capacity need in 13 of the 15 months in the table.



In addition to a capacity need, PSE's filed Clean Energy Implementation Plan ("CEIP") set a 2025 interim target of 63% of retail load to be served by CETA resources. Table 2, shows the significant need for CETA resources that PSE faces in 2025.

<sup>&</sup>lt;sup>1</sup>WAC 480-107-009 (3)

Table 2: 2025 CETA Need



#### **Voluntary Short-Term RFP**

The RFP seeks bids for firm energy and/or capacity to meet the needs in 2024 and 2025. Due to the need for capacity on a short-term basis, PSE anticipates that respondents to the solicitation will be large, sophisticated organizations with significant resource portfolios and existing transmission arrangements in the region to meet PSE's needs. PSE has requested that respondents either be an existing party to the WSPP Agreement<sup>2</sup>or ready to become a party to the WSPP Agreement. The RFP identifies PSE's potential interest in the following fixed-price, firm energy and capacity products under the WSPP Agreement:

- On-Peak
- Around the Clock ("ATC")
- Non-CAISO resource

The RFP seeks firm energy or capacity in a quantity of between 25 to 250 MW (in 25 MW blocks) from one or more respondents for the term beginning December 1, 2024, through and including December 31, 2025. All deliveries of such products must be on Firm (Priority 7 or equivalent) transmission to one or more of the following Points of Delivery:

- a Point of Delivery at the Mid-Columbia Hub (Mid-C);
- a Point of Delivery at which the transmission systems of PSE and the Bonneville Power Administration interconnect (PSE.System / BPAT.PSEI; and
- a Point of Delivery at the northern border of western Washington and southern border of western British Columbia (BC US Border).

PSE will also consider products with a Point of Delivery to neighboring transmission systems if firm transmission capacity is available for PSE to import the power to PSE's Balancing Authority Area. The RFP further expresses PSE's strong preference for offers that are eligible as renewable or non-emitting resources under the CETA.

PSE planned to rank offers submitted to the solicitation based on cost and ability to meet PSE's capacity and CETA energy needs. PSE will give preference to offers that demonstrate clear equity benefits relative to otherwise similarly priced offers. The RFP expressly requests that

<sup>&</sup>lt;sup>2</sup>WSPP Inc., WSPP Agreement, First Revised Rate Schedule FERC No. 6, available at <a href="https://www.wspp.org/pages/documents/08/26/22">https://www.wspp.org/pages/documents/08/26/22</a> current effective agreement.pdf

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respondents identify all equity benefits on the offer spreadsheet submitted in response to the solicitation.

The 2024-2025 Short-Term Firm Energy and Capacity RFP has identified the following schedule for the solicitation:

August 15, 2023	Petition for Exemption of WAC 480-107-021(1)
	PSE issues the 2024-2025 Short-Term Firm Energy and Capacity RFP
August 25, 2023	Interested parties submit a notice of intent to participate <sup>3</sup> by 5:00 pm (PDT)
August 26, 2023 through September 6, 2023	PSE conducts preliminary credit review for parties that have submitted a notice of intent to participate
September 6, 2023	Firm offers due by 12:00 pm (PDT)
September 11, 2023	PSE notifies selected respondents of an intent to accept the firm offer
September 13, 2023	PSE and selected respondents execute confirmations pursuant to the WSPP Agreement

#### **Valuation Analysis**

Failure of an interested entity to provide a notice of intent to participate will not disqualify that entity from consideration but will create delays in the execution of a confirmation because PSE will require additional time to conduct the credit review that normally would have occurred in the period after notices of intent to participate are due and before final firm offers are due.

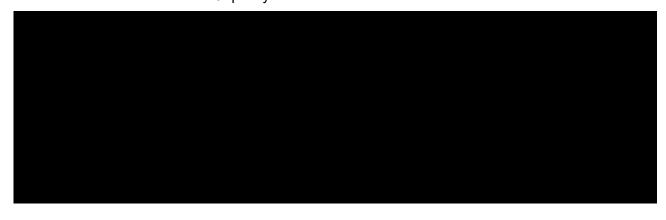


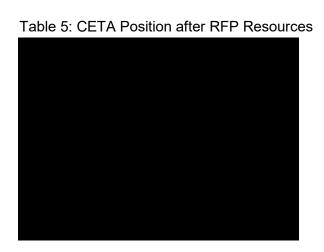
Table 3: Summary of RFP Responses

## Benefits of selected resources

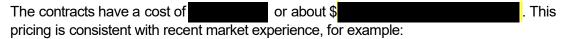
The selected resources help PSE make significant progress in securing capacity and CETA resources. Table 4 and 5 below show the capacity and CETA position

Table 4: Capacity Position after RFP Resources

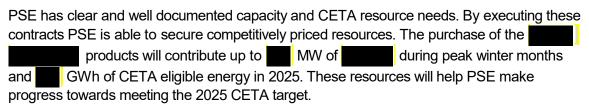




## **Conclusion**



- November 2022, Grant County PUD's 4.22% auction settled at \$ /MWh or \$ /MWh
- March 2023, PSE successfully bid on Chelan County PUD's Slice 38 product at a price of \$ MWh or \$
- April 2023, PSE selected as one of two finalists for Grant County PUD's 20% Slice product, the bid was priced at \$ MWh or \$ . PSE was not awarded the contract



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To: Ron Roberts

From: Zac Yanez

**CC:** Phil Haines and Tricia Fischer

Re: Colville Slice Renewal

#### **Background**

This memo will provide an overview of the Colville Slice agreement, document the need for the product, and provide a summary of the analysis used to develop the pricing strategy.

#### **Colville Slice Product Description**

The Colville Slice product is a five and one half percent (5.5%) slice of the existing Wells Projects. This project has 774 MW of nameplate capacity, about 840 MW of peaking capacity, and about a MW¹ of generation. PSE was able to negotiate a . The 5.5% share of the Colville Slice product provides approximately MW of winter capacity credit and about GWh of energy.

<sup>&</sup>lt;sup>1</sup> Based on final 30-year assumptions used in 2024 GRC

<sup>&</sup>lt;sup>2</sup> Valuation is based on preliminary 30-year hydro assumptions that have slightly lower output assumptions than the final 30-year study used in the 2024 GRC

#### Colville Slice Benefits and Resource needs

Chelan Slice 38 provides three key benefits to PSE:

- 1. the product contributes MW to PSE's winter capacity position,
- 2. provides GWh of energy and towards PSE's interim Clean Energy Transition Act ("CETA") target,
- 3. Provides flexible capacity that can be used to optimize dispatch of PSE generation portfolio.

Table 1 below shows PSE's winter capacity need before consideration of this resource. As shown in the table<sup>3</sup>, PSE's winter need grows from MW in the 2024-2025 season to MW in the 2028-2029 season. The Colville Slice product will help close this position by MW over the contract life.

Table 1: Winter Capacity Need



In addition to a capacity need, PSE's 2021 Clean Energy Implementation Plan ("CEIP") set a 2025 interim target of 63%<sup>4</sup> of retail load to be served by CETA resources. Table 2, shows the significant need for CETA resources that PSE faces between 2025 and 2028. As previously stated, the Colville Slice product is expected to contribute GWh to close these deficits.

Table 2: Annual CETA Need as presented in filed CEIP<sup>5</sup>

Annual CETA Position	2025	2026	2027	2028	2029
CETA Annual Goal	63%	67%	65%	70%	75%

<sup>&</sup>lt;sup>3</sup> As presented to the EMC on 08/28/2023

<sup>&</sup>lt;sup>4</sup> In June 2023 the 2021 CEIP was approved with conditions by the WUTC. On November 11, 2023 PSE filed an updated CEIP that proposes a modified interim target of a 4-year average, 2022 – 2025, of 54.5% of retail load being served by CETA eligible resources. This results in an interim annual goal of 60% in 2025.

<sup>&</sup>lt;sup>5</sup> CETA load adjustments include existing PURPA projects, Green Direct resources, the energy efficiency identified in the 2023 Energy Progress Report, and the Distributed Resources planed in the CEIP.

Forecasted CETA Retail Load (GWh)	19,904	20,552	20,737	21,072	21,303
CCTA Interim Target (C\M/h)	10 540	12 761	12 422	14 000	15 000
CETA Interim Target (GWh) Forecasted CETA Resources	12,540	13,761	13,433	14,822	15,889
(GWh)	11,024	10,554	10,040	9,895	9,402
CETA Position Surplus/(Deficit)	(1,515)	(3,207)	(3,393)	(4,927)	(6,486)

#### **Valuation Analysis**

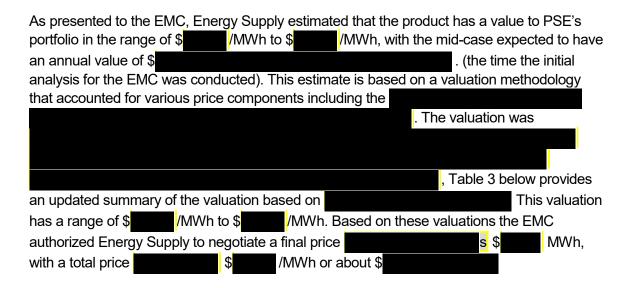


Table 3: PSE Colville Slice 38 Valuation

Price Components	Mid \$/MWH	Low \$/MWh	High \$/MWh	High No- Risk \$/MWh	Basis
Financial Fixed Price Energy					
Physical Index					
Capacity/RA					
Capacity/Flex & Optimization					
CETA/REC					
Less hydro risk					
Total					

### **Final Bid Price**

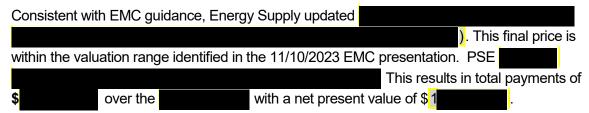
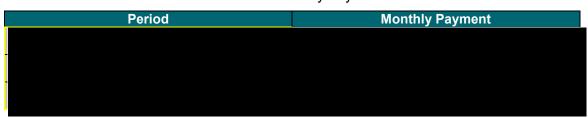


Table 4: Colville Slice Monthly Payment Schedule



#### **Conclusion**

