

**EXH. PAH-8C
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**

**SEVENTH EXHIBIT (CONFIDENTIAL) TO THE
PREFILED DIRECT TESTIMONY OF**

PHILIP A. HAINES

ON BEHALF OF PUGET SOUND ENERGY

REDACTED VERSION

FEBRUARY 15, 2024

Grant PUD Meaningful Priority and Auction Results Update

December 01, 2022

EMC Informational

Eric Kang
Sr Commercial Development Manager

Zac Yanez
Commercial Acquisition Manager



Winning Auction bid has [REDACTED] premium to Mid-C forward price.
Meaningful Priority for 2023 will be priced at \$ [REDACTED].

- At the July EMC, Resource Acquisitions received authorization to exercise the Meaningful Priority (MP) feature in the long-term Mid-C Grant Contract for [REDACTED]

- [REDACTED]

- For 2023, PSE Meaningful Priority share was adjusted down from 4.33% to 4.13% due to the total requests received by Grant PUD
- In addition to PSE's 0.64% slice, PSE's total share from the Priest Rapids Project will be 4.77% [REDACTED] MW and [REDACTED] GWh)

- For 2023, PSE's costs for our [REDACTED] is \$ [REDACTED] or \$ [REDACTED]
 - 2022 was priced at ~ \$ [REDACTED] or a \$ [REDACTED]
 - [REDACTED] were \$ [REDACTED]
 - Implies a \$ [REDACTED] price and a ~\$ [REDACTED]

- [REDACTED]

Resource Acquisitions to consider updating premium methodology for upcoming hydro opportunities.

- Based on history and 2021 hydro \$ [REDACTED] appeared to be a competitive bid
 - 2021 Chelan and Colville products where bid ~ [REDACTED] - \$ [REDACTED]
 - Past Grant auctions indicate a historical average premium of about \$ [REDACTED] - \$ [REDACTED]
 - In previous bids PSE also included [REDACTED] that could add between [REDACTED] to \$ [REDACTED]
- Initial valuation was based on the [REDACTED] of \$ [REDACTED] and a capacity value of [REDACTED] (\$ [REDACTED])
- 2022 Grant Auction results indicate a possible shift in carbon and capacity values
- Updated valuations will reflect full value to PSE:
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]

A full value bid [REDACTED]
premium of \$ [REDACTED]

[REDACTED]

Full bid premium

\$ [REDACTED] – \$ [REDACTED]

[REDACTED]

All values are \$/MWh	[REDACTED]	[REDACTED]	Total Premium	Notes
[REDACTED]				

* [REDACTED]



Appendix

2021 and Historic Auction Results (Assuming 80-Year average Output)

Auction Year	Slice %	Auction Price \$/MWh	MidC Price	Premium	Winning Bidder
2014 Power Auction					
2015 Power Auction					
2016 Power Auction					
2017 Power Auction					
2018 Power Auction					
2019 Power Auction					
2020 Power Auction					
2021 Power Auction					
2022 Power Auction					
			2018 - 2019 Average	\$	
			2014 - 2021 Average	\$	
			Average Excluding 2016 - 2018	\$	

* Auction Year is the year auction was held.

For example, the 2022 auction was held in November 2022 and deliveries would start 2023.

**All years reflect current 80-year average hydro assumptions



HF Sinclair Puget Sound Refinery & Cogeneration RFP Bid Proposal

February 24, 2023



EMC Decisional

Zac Yanez
Consulting Energy Trader
Energy Supply Merchant

Recommendation: Submit bid to participate in HF Sinclair Puget Sound Refinery (“PSR”) and Cogeneration RFP to acquire a net of [REDACTED] MW and [REDACTED] GWh from project

Recommendation:

Submit a bid to acquire the output of the PSR Cogeneration project (“Cogen Project”). The Cogen Project consists of three GE Frame 6 gas turbines and an additional 20 MW steam turbine for a total capacity of 140 MW. The RFP includes an obligation to provide load service for the PSR from the Cogen Project. The net generation results in an average of [REDACTED] MW of capacity during winter and summer peak months and about [REDACTED] GWh of energy per year.

- Term: [REDACTED]
- Product: Net generation [REDACTED] and ~ [REDACTED] GWh of [REDACTED]
- Indicative Total Bid Price [REDACTED] \$ [REDACTED] * [REDACTED] over [REDACTED])

[REDACTED]



PSR Cogen Project background and key terms

- PSR Cogen Project, owned by HF Sinclair, generates as a baseload resource between 105-110 MW and produces steam, heat, and electricity for the PSR which consumes ~40 MW around the clock
- PSR is a 449 transmission customer, PSE has previous experience being an off-taker of PSR Cogen Project
- On Feb 6th HF Sinclair issued an RFP for a new off-taker of the net generation
 - Summary of Key Terms and assumptions
 - Term: Requested [REDACTED]
 - Product: estimate about [REDACTED] MW and [REDACTED] GWh
 - PURPA facility, should reduce PSE's net load effectively [REDACTED]
 - [REDACTED]

Net generation valued at \$ [REDACTED] (\$ [REDACTED]), reflects [REDACTED] pricing.

- Based on current estimate of [REDACTED], PSE is [REDACTED] and [REDACTED] MW [REDACTED]. This assumes PSE can execute all known market opportunities.

- Update of EMC approved a valuation strategy:

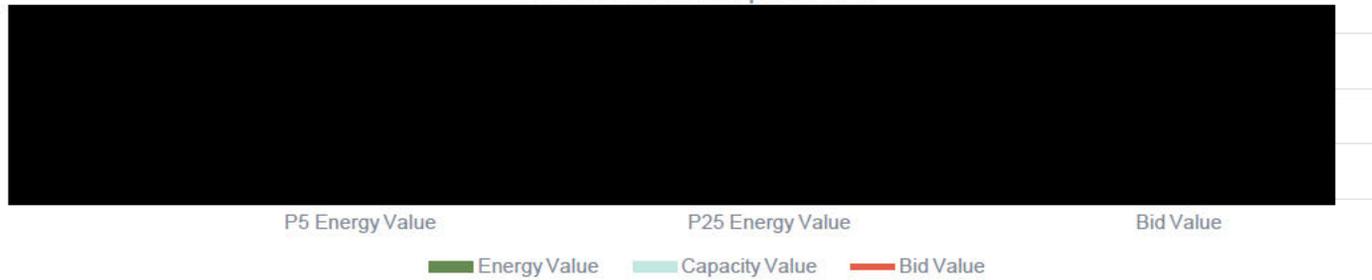
[REDACTED]

Capacity value of recent market comps	\$/kW-Year	\$/MWh
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED] maintains upside value and remains competitive based on historic premiums

- PSE will offer a [REDACTED]
- Should market prices fall relative to [REDACTED], PSE will be [REDACTED]
- Lacima used to simulate [REDACTED] prices based on forward price curve
 - At [REDACTED] prices value would be \$ [REDACTED]
 - At [REDACTED] prices value would be \$ [REDACTED]
 - Does not reflect upside value should [REDACTED]
- Capacity value of \$ [REDACTED] across market price scenarios, [REDACTED]

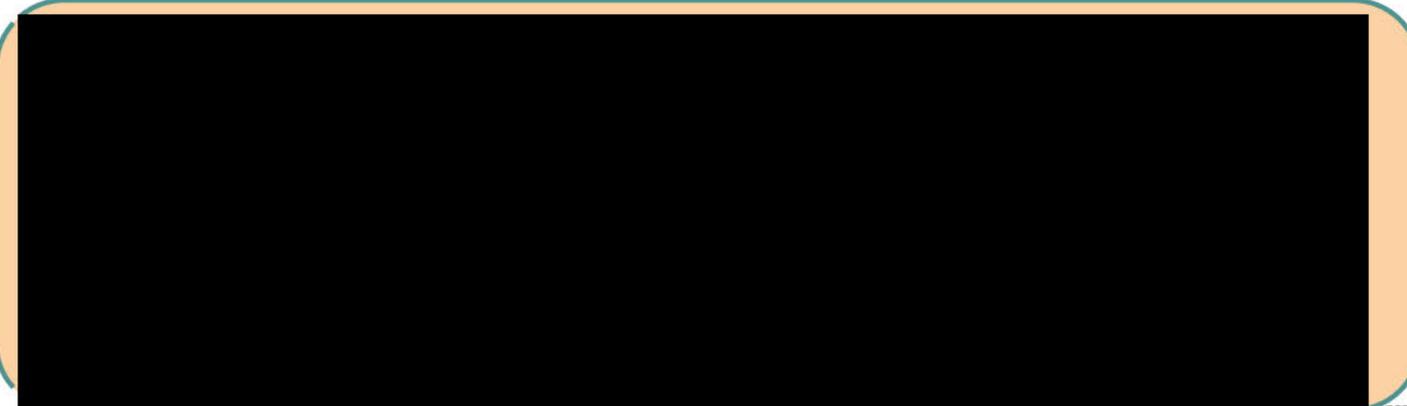
Dollars at risk if prices fall



Other Considerations: PSR Cogen provides base-load capacity and reduces CETA need, PSR owner carries CCA obligation

Benefits

- Incremental [REDACTED] months
- PURPA resources reduce CETA need [REDACTED] GWhs in 2023, 2024, and 2025 respectively)
 - [REDACTED]
- On system resource, does not use MIDC or other transmission paths to PSE



Next Steps: ESM will prepare to submit a bid pending EMC approval

Feb 16 – Feb 23 – Edit and review deal confirmation and master agreement

- Finalize work with front office teams, ERC, EDA, and legal to ensure contract meets PSE commercial requirements before final bid submittal
 - Review WSPP credit terms
 - [REDACTED]

Feb 24 – Finalize bid package and submit

Mar 3 – Finalist selected

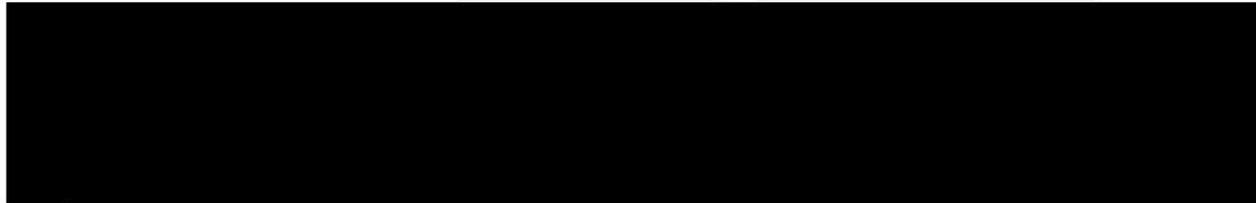
Mar 4-Apr 7 - Execute final contract, if selected as the winning bid

Recommendation: Submit bid to participate in HF Sinclair Puget Sound Refinery (“PSR”) and Cogeneration RFP to acquire a net of [REDACTED] MW and [REDACTED] GWh from project

Recommendation:

Submit a bid to acquire the output of the PSR Cogeneration project (“Cogen Project”). The Cogen Project consists of three GE Frame 6 gas turbines and an additional 20 MW steam turbine for a total capacity of 140 MW. The RFP includes an obligation to provide load service for the PSR from the Cogen Project. The net generation results in an average of [REDACTED] MW of capacity during winter and summer peak months and about [REDACTED] GWh of energy per year.

- [REDACTED]
- Product: Net generation [REDACTED]
- Indicative Total Bid Price not to [REDACTED] (~\$ [REDACTED])



Appendix

Potential new resources reduce winter RA position gap

Season	W 22-23	W 23-24	W 24-25	W 25-26	W 26-27	W 27-28	W 28-29	W 29-30	W 30-31	W 31-32
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Potential resources	[REDACTED]									
Potential position	[REDACTED]									

Notes: 1. Potential resources are subject to revisions

2. [REDACTED]



Potential new resources reduce summer RA position gap

Season	S 23	S 24	S 25	S 26	S 27	S 28	S 29	S 30	S 31	S 32
Potential hydro deals										
Potential resources										
Potential position										

Notes: 1. Potential resources are subject to revisions

2. [Redacted]

5-Year Chelan Slice 38

EMC Decisional
March 28, 2023



Zacarias Yanez
Originator, Energy Supply

Recommendation: Submit bid for Chelan Slice 38, a [REDACTED] 5% slice of Chelan County PUD's (CHPD) Mid-C hydro projects

The value proposition for this slice includes

- Contract valuation of \$ [REDACTED] to [REDACTED] compared to recommended bid of \$ [REDACTED]
- [REDACTED] GWh of [REDACTED]
- [REDACTED] MW of [REDACTED]

Requesting authorization to bid

- [REDACTED]



CHPD operates 2 major hydro projects in the Mid Columbia

- CHPD total capacity is 1,978 MW
 - Rocky Reach and Rock Island
- PSE has 30% share
 - 25% under [REDACTED]
 - 5% under Chelan Slice 35 [REDACTED]
 - [REDACTED] aMW energy
 - [REDACTED] MW [REDACTED]



The CHPD slice provides

[REDACTED]

[REDACTED]

Term	Valuation*
•	[REDACTED]

* Valuation is based on indicative

[REDACTED]

CHPD Slice 38 helps PSE make progress towards meeting mid-term capacity and CETA needs

- Chelan Slice 38 provides [REDACTED] MW of [REDACTED] and [REDACTED] GWh/year of CETAenergy
- Helps meet immediate needs and functions as a bridging strategy while new resources are developed
- Tables below show the surplus/(deficit) [REDACTED] positions before any new resource additions

Winter RA Position (MW)	W 23-24	W 24-25	W 25-26	W 26-27	W 27-28	W 28-29
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Current position	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Annual CETA need (MWh)	2024	2025	2026	2027	2028
CETA interim target	59%	63%	67%	65%	70%
Adjusted load (23 RPR)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA load adjustments*	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA retail load	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA interim target	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Existing CETA resources	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA surplus/(deficit)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

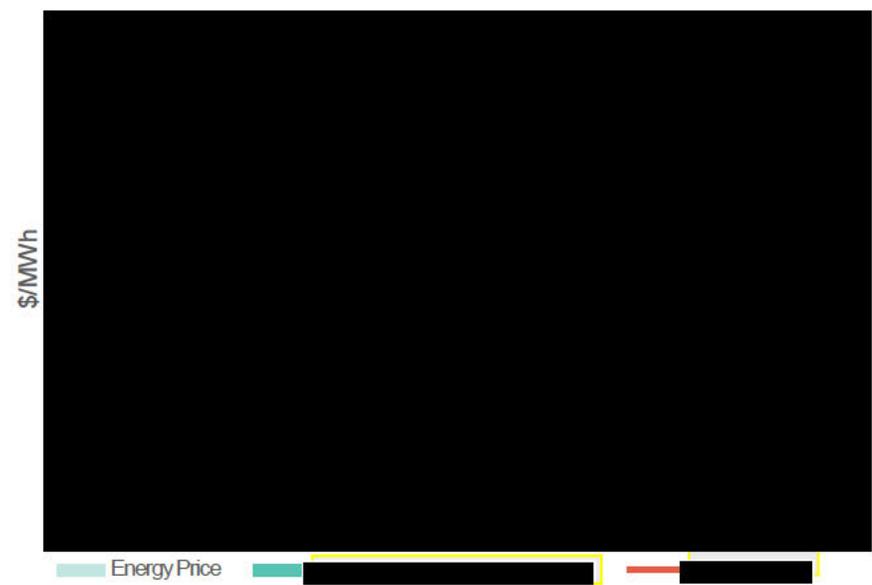


CHPD requested

[REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]



Recommendation: Submit bid for Chelan Slice 38, a [REDACTED] 5% slice of Chelan County PUD's (CHPD) Mid-C hydro projects

The value proposition for this slice includes

- Contract valuation of \$ [REDACTED] per year compared to recommended bid of \$ [REDACTED] per year
- [REDACTED] GWh of [REDACTED]
- [REDACTED] MW of [REDACTED]

Requesting authorization to bid

- [REDACTED]

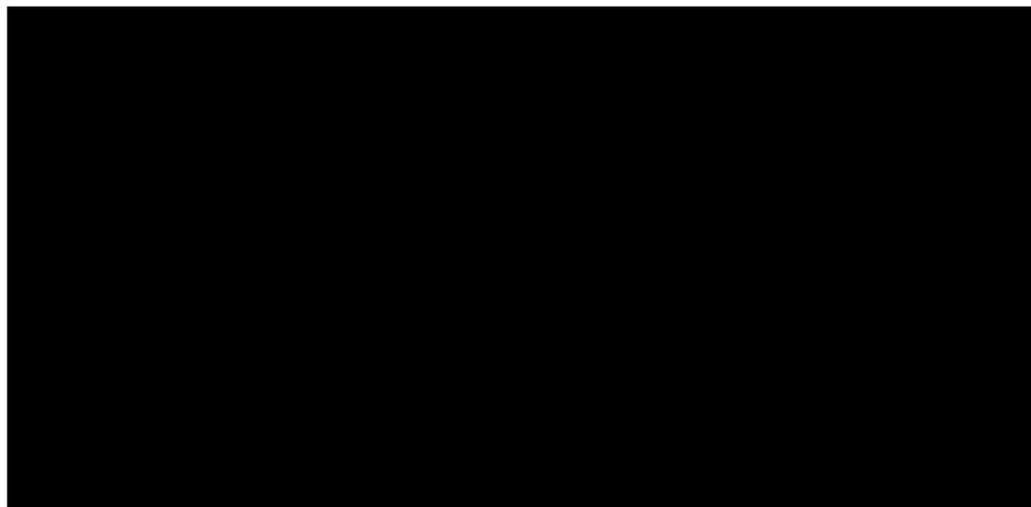
Next steps and schedule

Date	Event	Notes
Mar 28, 2023	EMC authorization of bid via email	
Mar 29, 2023	Bid finalized and submitted to CHPD	
Mar 29, 2023	CHPD notifies winning participant	
Mar 31, 2023	Contract finalized and executed	[REDACTED]
[REDACTED]	Delivery commences	

Appendix

[REDACTED] value includes [REDACTED]

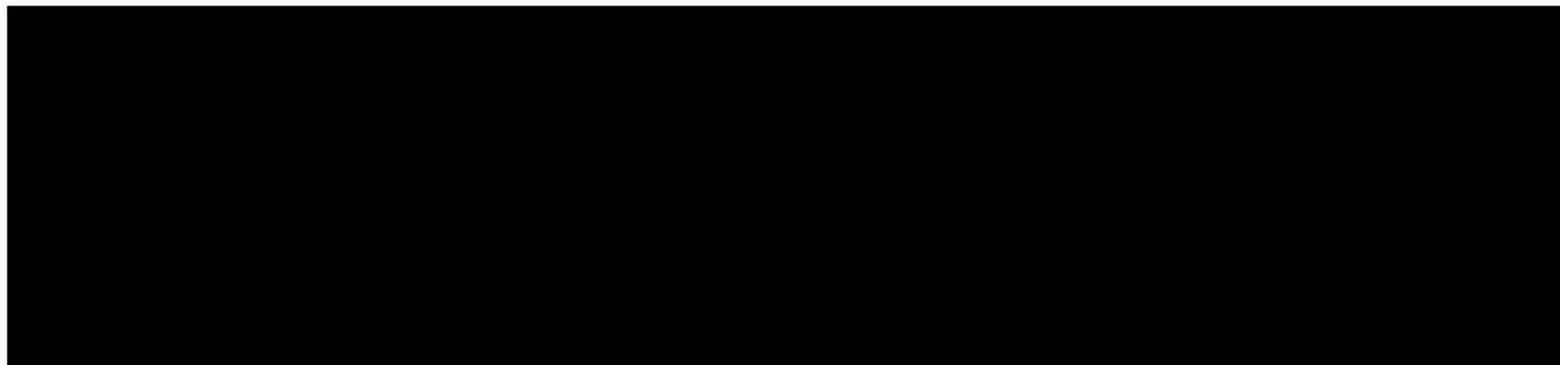
- [REDACTED] was determined by looking at recent market price signals
- Origination used the [REDACTED]



Market comparison

- [REDACTED]
- [REDACTED]

[REDACTED] value includes [REDACTED] and [REDACTED]



[REDACTED]	\$/Kw-month	\$/Kw-yr	Annual \$M
High Estimate	[REDACTED]		
Low Estimate	[REDACTED]		
Average	[REDACTED]		



[REDACTED] and adjust for net generation

- [REDACTED]
 - [REDACTED] is estimated based on dealer quotes over the contract period

REC Quote (\$/MWh)	2024	2025	2026	2027	2028
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

3-Year Grant Slice RFP

EMC Decisional
March 30, 2023



Zacarias Yanez
Originator, Energy Supply

Recommendation: Submit a bid to Grant County PUD's (GCPD) RFP for a three year 20% slice of their Mid-C hydro projects

The value proposition for this slice includes

- Contract valuation of \$ [REDACTED] compared to recommended bid of \$ [REDACTED] (or about \$ [REDACTED])
- [REDACTED] GWh or annual energy
- [REDACTED]
- [REDACTED] MW of [REDACTED]

Requesting authorization to bid

- [REDACTED]
- [REDACTED]

GCPD operates 2 major hydro projects in the Mid Columbia

- GCPD total capacity is 1,924 MW
 - Wanapum and Priest Rapids
- PSE has [REDACTED]
 - [REDACTED]
 - [REDACTED]
- GCPD held its annual auction for 4.22% one year slice product in Nov 2022
 - Auction results implied a \$ [REDACTED]
 - [REDACTED]



The GCPD slice provides [REDACTED]
maybe [REDACTED]

[REDACTED]	Term	Total Bid ³
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

- Annual volume and strike prices are based on [REDACTED] settlement prices:
 - [REDACTED] up to [REDACTED] aMW at \$ [REDACTED]
 - [REDACTED] up to [REDACTED] aMW at \$ [REDACTED]
 - [REDACTED] up to [REDACTED] aMW at \$ [REDACTED]

³Energy price is indicative and will be updated on [REDACTED]

[REDACTED]



GCPD Slice helps PSE make progress towards meeting mid-term capacity and CETA needs

- GCPD Slice provides [REDACTED] and at least [REDACTED] GWh/year of CETA energy
- Helps meet immediate needs and functions as a bridging strategy while new resources are developed
- Tables below show the surplus/(deficit) [REDACTED] positions before any new resource additions

[REDACTED] Position (MW)	W 23-24	W 24-25	W 25-26	W 26-27	W 27-28	W 28-29
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Annual CETA need (MWh)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA interim target	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Adjusted load (23 RPR)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA load adjustments*	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA retail load	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA interim target	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Existing CETA resources	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
CETA surplus/(deficit)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



PSE's bid of \$ [REDACTED] (\$ [REDACTED]) is based on the sum of the value streams

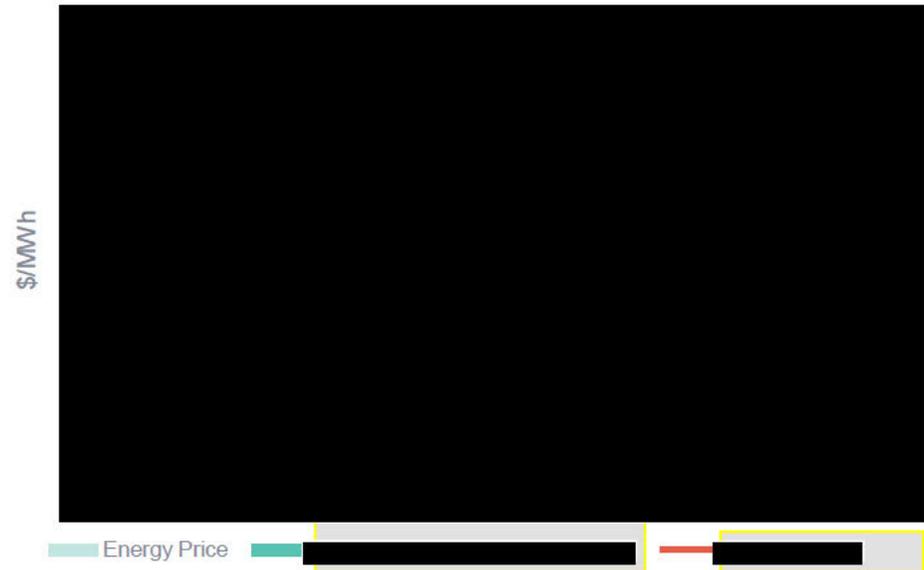
Value stream	\$/MWh	Annual \$M	Low \$M	High \$M	Basis
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Less hydro risk	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



GCPD requested [REDACTED] and [REDACTED] to PSE

- [REDACTED]
- [REDACTED]
- [REDACTED]

Percentile	Mark to market \$/MWh	Mark to market \$M over term
[REDACTED]	[REDACTED]	[REDACTED]



Next steps and schedule

Date	Event
Mar 30, 2023	EMC authorization of bid
Apr 6, 2023	Bid finalized and submitted to GCPD –refresh forward curve
Apr 13, 2023	GCPD notifies bidders if selected for bilateral negotiations
Q2 2023	Bilateral negotiations with counterparties
Q3 2023	Final contract execution – refresh forward curve
[REDACTED]	Delivery commences

Recommendation: Submit a bid to Grant County PUD's (GCPD) RFP for a three year 20% slice of their Mid-C hydro projects

The value proposition for this slice includes

- Contract valuation of \$ [REDACTED] to \$ [REDACTED] compared to recommended bid of \$ [REDACTED] (or about [REDACTED])
- [REDACTED] GWh of annual energy
- [REDACTED] GWh to [REDACTED] GWh [REDACTED]
- [REDACTED] MW of [REDACTED]

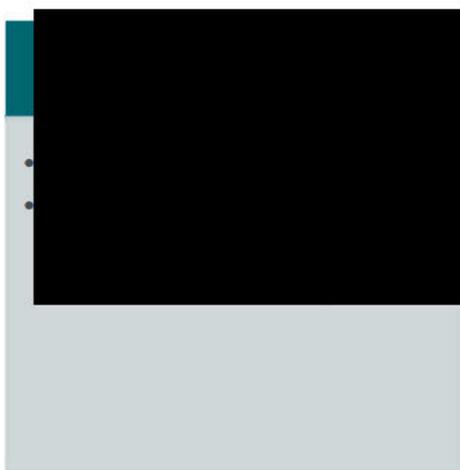
Requesting authorization to bid

- [REDACTED] for [REDACTED] \$ [REDACTED] without further EMC Approval
- GCPD and selected counterparty will finalize forward price on a mutually agreed date prior to commencement of contract

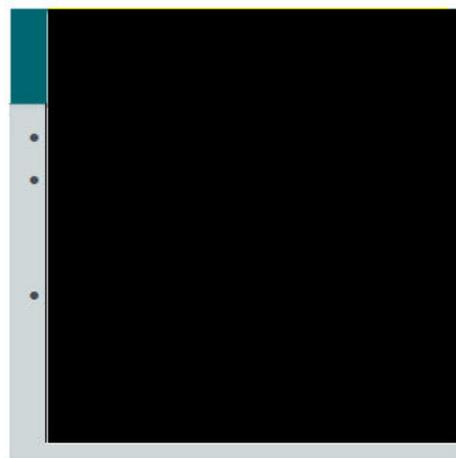
Appendix

[REDACTED] includes [REDACTED] and [REDACTED]

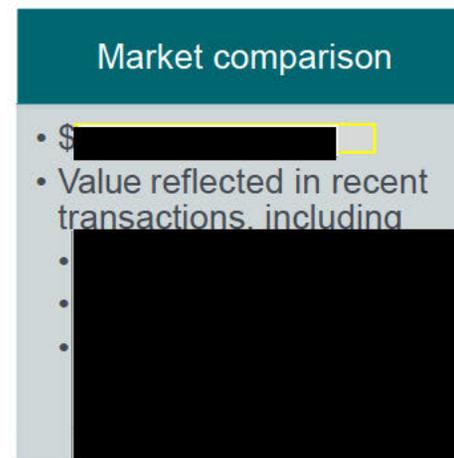
- [REDACTED] Value was determined by looking at recent market price signals
- [REDACTED]



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A slide with a teal header and a light gray footer. The main content area is completely redacted with a black box. There are three bullet points visible on the left side of the redacted area.



Market comparison

- \$ [REDACTED]
- Value reflected in recent transactions, including [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[Redacted] value includes [Redacted]

[Redacted]

[Redacted]	\$/Kw-month	\$/Kw-yr	Annual
High Estimate	[Redacted]		
Low Estimate	[Redacted]		
Average	[Redacted]		



[REDACTED] reflects costs of [REDACTED] generation

- [REDACTED] value is estimated based on dealer quotes over the contract period
- Origination assumed PSE would maximize energy delivery from GCPD, and return unspecified energy to GCPD
- For example, in 2024 PSE would receive [REDACTED] GWh of net generation but take delivery of [REDACTED] GWh of [REDACTED]

[REDACTED]	2024	2025	2026
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

2024 CETA Comparison	Units	GCPD 20% Slice
[REDACTED]	[REDACTED]	[REDACTED]



Douglas County PUD 10% Slice Bilateral Offer

EMC Decisional
May 12, 2023



Tricia Fischer
Manager, Power Origination

Zacarias Yanez
Originator, Energy Supply

Recommendation: Negotiate bilaterally for a [REDACTED] 10% slice of Douglas County PUD's¹ Wells project

1) DCPD 10% slice provides [REDACTED] energy

- Delivery term: [REDACTED]
- [REDACTED] MW of winter and [REDACTED] MW of [REDACTED]
- [REDACTED] GWh of annual energy, [REDACTED]

2) Energy Supply requests authority to [REDACTED]

[REDACTED]

[REDACTED]



PSE's bid will target the [REDACTED] estimate of [REDACTED]
+ \$ [REDACTED]

Price Components ¹	Annual \$M	Mid \$/MWh	Low \$/MWh	High \$/MWh	Basis
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Less hydro risk	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



Next steps and schedule

Date	Event	Notes
May 12, 2023	Request EMC authorization via email to negotiate bilaterally with DCPD	
May 17, 2023	10% slice bid finalized and submitted to DCPD	
Late Q2, 2023	Work with DCPD to finalize contract terms for 10% slice	Target 10% slice execution late in Q2 or early Q3
[REDACTED]	Delivery of 10% slice commences	

Recommendation: Negotiate bilaterally for a [REDACTED] 10% slice of Douglas County PUD's¹ Wells project

1) DCPD 10% slice provides additional RA and CETA energy

- Delivery term [REDACTED]
- [REDACTED] MW of winter and [REDACTED]
- [REDACTED] GWh of annual energy, [REDACTED]

2) Energy Supply requests authority to [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]

¹ [REDACTED]
² [REDACTED]

5 | May 12, 2023 EMC Decisional: DCPD 10% bilateral offer



Appendix

Please note that appendix slides 8-12 were originally presented at the April EMC meeting and reflect 80-year generation study. Energy Supply has since has updated to a 30-year data set that better reflect recent generation patterns.

Recent known market activity supports PSE valuation methodology

- On May 1st BPA posted a notice of out of region non-preference surplus power sale
- PSE allowed regional customers to purchase power at the same terms as the out of region sale
- Terms:
 - Product and Quantity:
 - Contract Term:
 - Price:
- BPA also offered a [redacted] MW product @ \$ [redacted]
- The BPA products offer a reasonable comparison of third party pricing for a one year hydro product

PSE has two opportunities to expand its share of the Wells project and build on its long history with DCPD



*Note term and volumes are estimates based on preliminary discussions with DCPD



DCPD 10% slice contributes to 2025 CETA needs and CETA position already assumes renewal of Wells Contract

- PSE faces a CETA deficit of 1,448 and 6,735 GWh in 2025 and 2030 respectively
 - Position assumes a renewal of Wells Contract in 2028
 - Without renewal, deficit would increase by [REDACTED] with a smaller increase in 2028
- DCPD 10% slice, PSR Cogen, and Grant 20% slice combine to reduce 2025 CETA need by [REDACTED] GWh
 - DCPD 10% slice provides about [REDACTED] GWh
 - PSR Cogen may reduce retail load and effectively lower CETA need by about [REDACTED] GWh
 - Grant 20% slice contract may provide between [REDACTED] GWh depending on Grant's [REDACTED]
 - CETA position at risk until contracts are executed; CETA surplus hedges under-generation from the existing portfolio
- Table below show the surplus/(deficit) CETA positions before any new resource additions

Annual CETA need (MWh)	2024	2025	2026	2027	2028	2029	2030
CETA interim target	59%	63%	67%	65%	70%	75%	80%
Adjusted load (23 RPR)	[REDACTED]						
CETA load adjustments*	[REDACTED]						
CETA retail load	[REDACTED]						
CETA interim target	[REDACTED]						
Existing CETA resources	[REDACTED]						
CETA surplus/(deficit)	[REDACTED]						



*Existing PURPA, Green Direct, 23 EPR EE, CEIP Distributed Solar

Potential new resources reduce summer RA position gap

Season	S 23	S 24	S 25	S 26	S 27	S 28	S 29	S 30	S 31	S 32
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Potential resources	[REDACTED]									
Potential position	[REDACTED]									
Notes	[REDACTED]									
1.	[REDACTED]									
2.	[REDACTED]									
3.	[REDACTED]									



2024-2025 Short-Term Capacity/Firm Energy RFP Update EMC Decisional

Tricia Fischer and Zacarias Yanez

Manager, Power Origination and Originator, Energy Supply

August 2023



RFP offers will contribute to PSE's identified capacity and CETA needs

RA/Capacity Position	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25

- Offers contribute between [REDACTED] MWs during months with high capacity needs (Q4 2024 and Q1 & Q4 2025)
- Secures additional [REDACTED] GWh of [REDACTED] energy in 2024
 - [REDACTED]
- Secures additional [REDACTED] GWh of [REDACTED] energy in 2025
 - Reduces forecasted 2025 [REDACTED] need.

CEIP 2025 Target	GWh
Forecast CETA Retail ElectricLoad (GWh)	19,704
CETA Interim Target	63%
CETA Interim Target (GWh)	[REDACTED]
Total 2025 CETA Resources	[REDACTED]
CETA Position (GWh)	[REDACTED]
Short-Term RFP	[REDACTED]
Position net of RFP	[REDACTED]

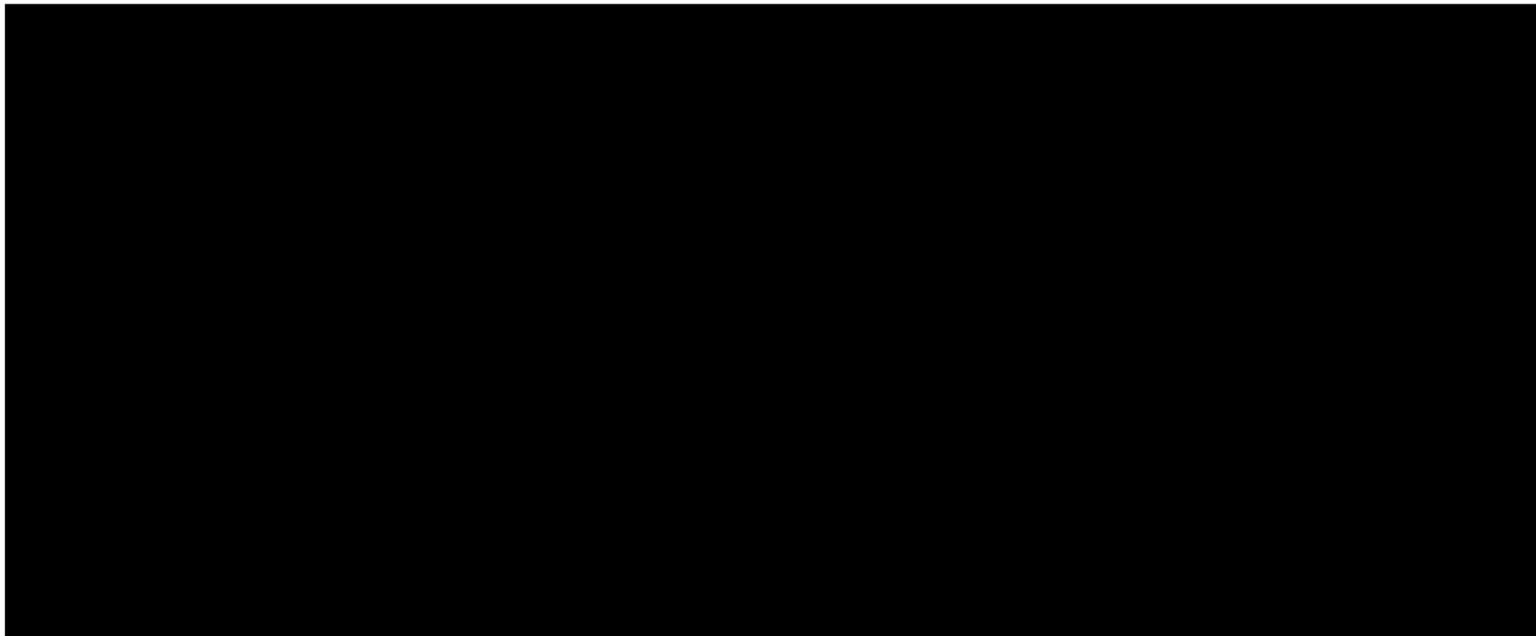


RFP offers reduce PSE open energy position

Month	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
HLH															
Current Energy Position															
Short-Term RFP															
Energy Position after RFP															
LLH															
Current Energy Position															
Short-Term RFP															
Energy Position after RFP															



RFP offers secure [REDACTED] energy and provide cost stability in
volatile market conditions



Appendix

As presented at the August EMC meeting, under a [REDACTED] scenario, PSE could face a CETA need as early as 2024

- An initial analysis was conducted to show the [REDACTED] scenarios. The analysis includes all recently executed deals.
- In 2025, to meet the CETA 63% target, there is a range of deficit from [REDACTED]

	Scenarios	2,024	2,025	2,026
Surplus / Deficit	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



Renewal of Colville's 5.5% slice of Wells Project

EMC Decisional

Tricia Fischer and Zacarias Yanez

Manager, Power Origination and Originator, Energy Supply

November 11, 2023



Recommendation: Present a modified price structure for the Colville tribe's* 5.5% share of the Wells hydroelectric project

- At the August 28, 2023 EMC meeting, the EMC authorized Energy Supply to negotiate a renewal to purchase the Colville tribe's 5.5% share of the Wells project at a price of [REDACTED] or \$ [REDACTED]
- PSE presented the Colville tribe a five-year term priced at \$ [REDACTED] or \$ [REDACTED] (\$ [REDACTED])
- Colville tribe has indicated interest in a five-year term, and has requested the option to accelerate [REDACTED]
- **Energy Supply requests authority to** [REDACTED]

Giving the Colville tribe the choice between pricing options maintains the same overall economics for PSE

- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

Original Bid		Updated Bid	
Monthly Payment	Contract Year Payments	Monthly Payment	Contract Year Payments
[Redacted]			

The [REDACTED], of ~\$ [REDACTED], remains competitive given PSE's estimated value between \$ [REDACTED] and \$ [REDACTED]

Price Components	Mid \$/MWh	Low \$/MWh	High \$/MWh	High No-Risk \$/MWh	Basis
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Less hydro risk	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



Next Steps

Date	Event	Notes
Nov 15, 2023	[REDACTED]	
Nov 16, 2023	Present both bids to Colville tribe	• [REDACTED]
Week of Nov 20	[REDACTED]	
Dec 08, 2023	Target execution date	
[REDACTED]	Start new contract and continue receiving Colville's share of Wells project	

Appendix

As presented and approved on 08/29/2023

Recommendation: Make a bid to renew the contract with the Colville tribe

- Request authorization to negotiate a [REDACTED] \$ [REDACTED] (\$ [REDACTED] or \$ [REDACTED]) for an [REDACTED] offer to continue purchasing a 5.5% share of the Wells project from the Colville tribe*

Category	Description
Product	• 5.5% slice of Wells project output, including storage [REDACTED]
Quantity	• [REDACTED] MW of [REDACTED] and [REDACTED] GWh [REDACTED]
Term	• [REDACTED]
Value	• [REDACTED] • [REDACTED]

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* Confederate Tribes of the Colville Reservation



As presented and approved on 08/29/2023

PSE first purchased Colville's slice in 2018, and in 2021 extended through September 2024



8

Early Renewal Opportunity

5.5% slice is [REDACTED] MW and [REDACTED] GWhs of generation

Contract includes [REDACTED]

Third party contacted Colville regarding slice



As presented and approved on 08/29/2023

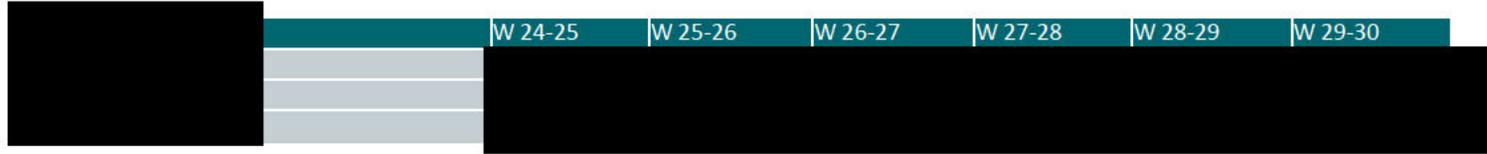
Recent market experience* as well as limited known [REDACTED] and [REDACTED] supports a bid of [REDACTED] MWh.

Price Components	Annual \$M	Mid \$/MWh	Low \$/MWh	High \$/MWh	Basis
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Less hydro risk	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



As presented and approved on 08/29/2023

PSE has identified a significant need for “bridge” capacity and CETA resources



- Colville's Slice is expected to provide [Redacted] MW of capacity and [Redacted] GWh of CETA energy
- [Redacted] MWs of capacity is [Redacted] % of PSE's 2024-2025 Winter need, [Redacted] MW
- [Redacted] GWhs of CETA energy is [Redacted] of PSE's 2025 need, [Redacted] GWh
- CEIP/PSE 2030 has identified Colville renewal as part of the path to meeting 2025 CETA need.

	GWh
CEIP 2025 Target	[Redacted]
Forecast CETA Retail Electric Load (GWh)	[Redacted]
CETA Interim Target	[Redacted]
CETA Interim Target (GWh)	[Redacted]
Total 2025 CETA Resources	[Redacted]
CETA Position (GWh)	[Redacted]



As presented and approved on 08/29/2023

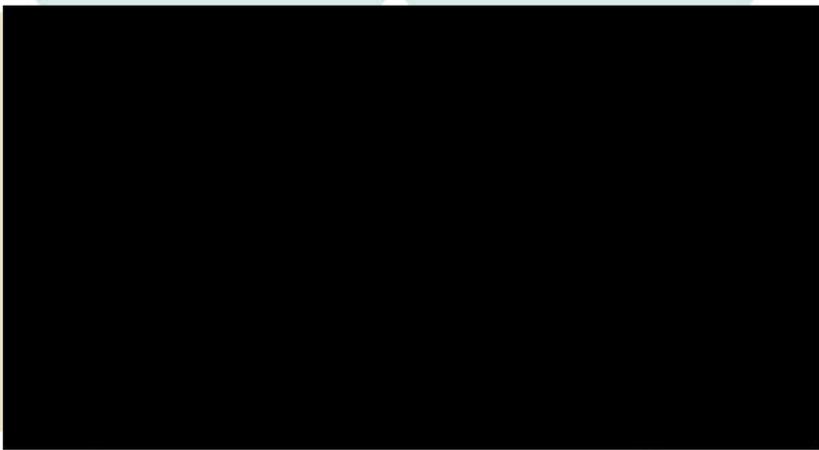
Recent market experience* as well as limited known [REDACTED] and [REDACTED] energy option supports a bid of [REDACTED]

Price Components	Annual \$M	Mid \$/MWh	Low \$/MWh	High \$/MWh	Basis
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Less hydro risk	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



As presented and approved on 08/29/2023

Rate stability, [REDACTED] (including Equity)
benefits counter balance generation and price risks



12 [REDACTED]



As presented and approved on 08/29/2023

Tentative timing will align with Power Cost Adjustment filing

Date	Event	Notes
Aug 29, 2023	Request EMC authorization for indicative bid	
Aug 30, 2023	Present bid to Colville targeting Late September Execution	<ul style="list-style-type: none">• [REDACTED]• [REDACTED]
Sep 6, 2023	Bid presented to Colville Tribal council	
Sep 15, 2023	Target execution date	
Jan 01, 2024	[REDACTED]	



As presented and approved on 08/29/2023

Recommendation: Make a bid to renew the contract with the Colville tribe

- Request authorization to negotiate a [REDACTED] (\$ [REDACTED] or \$ [REDACTED] for an up to [REDACTED] offer to continue purchasing a 5.5% share of the Wells project from the Colville tribe*

Category	Description
Product	• 5.5% slice of Wells project output, [REDACTED]
Quantity	• [REDACTED] MW of Capacity and [REDACTED] GWh [REDACTED]
Term	• [REDACTED]
Value	• [REDACTED] • [REDACTED]

* Confederate Tribes of the Colville Reservation



As presented and approved on 08/29/2023

Energy Supply has seen a dramatic increase in market prices for hydro-electric resources

- November 2022 Grant PUD Annual
 - A one year 4.22% slice of Priest Rapids project output
 - Auction settled at \$ [REDACTED] (\$ [REDACTED])
- April 2023 Grant County PUD 20% share of the Priest Rapids project
 - [REDACTED] MW, between [REDACTED] GWh of [REDACTED] and [REDACTED] GWh energy net of return schedule
 - In July, Energy Supply's bid of ~\$ [REDACTED] [REDACTED] was rejected
- In May PSE submitted an offer to Douglas County PUD for a 10% share of the Wells project
 - [REDACTED] MW and [REDACTED] GWh
 - In June, Energy Supply's bid of [REDACTED] (\$ [REDACTED]) was rejected