



**THE INDEPENDENT EVALUATOR'S
FINAL REPORT ON PUGET
SOUND ENERGY'S
2021 ALL SOURCE REQUEST FOR PROPOSALS**

**Prepared by
Frank Mossburg**

November 27, 2024

2001 K Street NW, Suite 500
Washington, DC 20006
202-652-2194

**PUBLIC
VERSION**

Table of Contents

I.	PURPOSE AND SUMMARY.....	1
A.	PURPOSE.....	1
B.	SUMMARY.....	1
II.	BACKGROUND.....	4
A.	RESOURCE NEED.....	4
B.	RFP DESIGN AND APPROVAL.....	5
III.	RFP ISSUANCE AND BID EVALUATION PHASE I.....	7
A.	RFP ISSUANCE.....	7
B.	BID EVALUATION.....	8
IV.	BID EVALUATION PHASE II.....	16
V.	POST PHASE II EVALUATION AND NEGOTIATIONS.....	25
VI.	CONTRACTS.....	29
VII.	CONCLUSIONS.....	37

I. PURPOSE AND SUMMARY

A. PURPOSE

Bates White, LLC (Bates White) is pleased to present this final report on Puget Sound Energy's (PSE's) 2021 All Source Request for Proposals (RFP). Bates White serves the Washington Utilities and Transportation Commission (UTC or Commission) as the Independent Evaluator (IE) for the RFP. Bates White has extensive experience as an IE for renewable and conventional resource transactions in the Pacific Northwest, Oklahoma, California, Hawaii, and elsewhere as well as for full requirements transactions throughout the Northeast.

This final report is required under WAC 480-107-023. The Independent Evaluator must “[p]repare a final report to the commission after reconciling rankings with the utility in accordance with WAC 480-107-035(3) that must: (i) Include an evaluation of the competitive bidding process in selecting the lowest reasonable cost acquisition or action to satisfy the identified resource need, including the adequacy of communication with stakeholders and bidders; and (ii) Explain ranking differences and why the independent evaluator and the utility were or were not able to reconcile the differences.”¹

Per agreement with UTC staff this report is being provided after the conclusion of the negotiating and contracting process with selected bidders so as to provide a complete report on the entire process.

B. SUMMARY

As a result of this 2021 RFP PSE has finalized five contracts. They are;

- Mt Vernon Battery Storage (Mt. Vernon) – A tolling agreement with NextEra Energy (NextEra) for supply from a 200 MW, 4-hour battery energy storage system to be located in Skagit County, WA. The contract covers a duration of 25 years and has a target COD of June 30, 2027.
- Greenwater Battery Storage (Greenwater) – A tolling agreement with Brightnight and Cordelio Power for supply from a 200 MW, 4-hour battery energy storage system to be located in Pierce County, WA. The contract covers a duration of 25 years and has a target COD of December 2026.
- Haymaker Wind Project (Haymaker) – A power purchase agreement (PPA) with Clearway Energy (Clearway) for supply from a new 315 MW wind project

¹ WAC 480-107-023(g).

located in Wheatland County, Montana. The contract covers a duration of 25 years and has a target COD of February 2028.

- Vantage Wind Project (Vantage) – A power purchase agreement with Invenergy for supply from an existing 90 MW wind farm located in Kittitas County, Washington. The contract covers a duration of 15 years and begins delivery in October of 2025.
- Appaloosa Solar Project (Appaloosa) – An EPC agreement with Hanwha Q Cells for the construction of a new 142 MW solar facility in Garfield County, Washington. The contract has a target COD of December 2026.

This represents a total of 547 MW of renewable capacity and 400 MW of dispatchable capacity. Per PSE this is a total of about 540 MW of summer capacity and 506 MW of winter capacity on an Effective Load Carrying Capability (ELCC) basis. These bids will produce an estimated 1,740 GWh of clean energy per year.

As the Independent Evaluator we participated in all phases of the RFP, from the review of the RFP design through the solicitation and intake of bids and evaluation of offers and the negotiation and signing of final contracts. We make the following conclusions.

- The selected offers represent a lowest reasonable cost package of offers when considering factors such as cost, need and development risk.
- The qualification and ranking of bids was done in conformance with the RFP rules. We were able to independently evaluate the bids on a qualitative basis using the RFP's scoring rubric. We also independently modeled the bids to confirm PSE's ranking. We reviewed PSE's modeling and scoring of the bids to ensure that the bids were modeled correctly. We were able to agree on the final selection of offers and we reviewed and agreed with all disqualifications.
- The communication with bidders was adequate. Bidders were allowed to ask questions prior to the bid due date. We were able to review Q&A to ensure that questions were answered fully and in line with the RFP rules. We also reviewed communications with bidders to ensure that evaluators had the proper data and that non-compliant bids understood their defects and had a chance to cure their proposals.
- All bidders were treated fairly. Bidders had equal information with which to prepare their bids and were given chances to ask questions and cure deficiencies. While the process did take an inordinately long time as compared to other

procurements PSE did make reasonable attempts to give all qualified bidders a chance to refresh their prices at various intervals.

- The process was aligned with the 2021 Integrated Resource Plan (IRP). The acquisition is above the original CETA need for the RFP but below the capacity targets. The 2021 RFP result makes a significant contribution towards clean energy and reliability targets, though more supply is needed on both counts. Through its 2024 All Source RFP PSE currently is seeking 2.3 million MWh of annual clean energy by 2030 to meet CETA needs and about 1,600 to 1,700 MW of winter and summer capacity.
- The final contracts feature reasonable risk protections for ratepayers, including penalties for failing to meet targets and performance requirements. While the prices were adjusted from the initial offer during the negotiation process PSE did confirm, per WAC requirements, that the updated prices still were reasonable choices for ratepayers.

While the RFP was ultimately successful, a key problem was that it took far too long to conclude. From RFP issuance to signing of the final contract took over three years. A similar RFP from Portland Gas and Electric took about half that time. Delays were not driven by neglect or incompetence - the PSE team worked very hard to be thorough and fair - but rather a confluence of an open RFP design, changing market conditions, detailed evaluation techniques and conflict between a traditional utility procurement setup and the more process-based RFP method.

While PSE evaluation team was very diligent in pursuing the best deals for customers we believe that all parties would be better served if the process could move faster. To that end we have made several suggestions to PSE which are being implemented in the current 2024 All Source RFP. More detail is provided later in this report.

II. BACKGROUND

A. RESOURCE NEED

The resource need in this RFP was primarily based off of the findings in PSE’s 2021 Integrated Resource Plan (IRP) and Clean Energy Implementation Plan (CEIP). The IRP was filed in final form in April of 2021 in UTC Docket UE-200304.² Per WAC 480-107-009.(2) because the IRP demonstrated a resource need within the next four years the PSE was required to issue an All Source RFP.

The 2021 IRP sought to meet both reliability needs and the requirements of Washington’s Clean Energy Transformation Act (CETA). On the reliability side PSE was forecasting needs starting in 2026. PSE also planned to reduce its reliance on market purchases, further increasing resource need. At issuance, the RFP forecast the following capacity needs.³

Table 1 2021 All Source RFP – Reliability Needs (Winter)

Need/(Surplus) and Additions in MW	2022	2023	2024	2025	2026	2027
2021 Draft IRP Need/(Surplus)	(230)	(350)	(306)	(257)	369	527
Reduced Market Reliance Need		185	372	574	776	979
Total Resource Need/(Surplus)	(230)	(165)	66	317	1,145	1,506
Net Hydro Capacity Additions	(101)	(106)	(71)	(71)	(71)	
Adjusted Total Resource Need/(Surplus)	(331)	(271)	(5)	246	1,074	1,506
Estimated Glide Path of Incremental Resource additions		300	300	300	300	306

On the clean energy side, PSE forecast extensive needs for CETA-compliant resources to achieve the clean energy mandates in the legislation. The chart below shows the CETA needs as forecast in the RFP.⁴

Table 2 2021 All Source RFP – CETA Needs

CETA Need in GWhs	2022	2023	2024	2025	2026
CETA qualifying resources	7,398	9,045	9,087	8,963	9,016
2021 IRP Draft CETA Energy Target – Mid with Conservation	7,398	8,345	9,297	10,059	10,958
CETA Need/(Surplus)	0	(699)	210	1,096	1,942
Net Hydro CETA energy additions	(499)	(499)	(442)	(275)	(273)
Adjusted CETA Need/(Surplus)	(499)	(1,198)	(232)	821	1,669
Need Assuming 36% Capacity Factor (WA Wind) (MW)				260	529
Need Assuming 24% Capacity Factor (East WA Solar) (MW)				391	794

² UTC Case Docket Document Sets | UTC (wa.gov).

https://www.utc.wa.gov/casedocket/2020/200304/docsets?doc_type=Plan. April 1, 2021. Accessed November 10, 2023.

³ RFP, p 6. Needs expressed as Winter Peak needs.

⁴ Ibid p 4.

Since that time PSE has revised and updated its needs. Due to load forecast growth PSE’s more recent planning documents have shown aggressive amounts of resource procurement. The table below shows planned additions of nameplate capacity in the preferred portfolio of the 2023 Electric Progress Report.⁵ Per this update PSE forecasts a need for over 5,000 MW of supply-side resources by 2030.

Table 3 2023 Electric Progress Report – Preferred Portfolio Resource Additions (Nameplate Capacity)

Resource Additions (Nameplate MW)	Total by 2030	Total by 2045
Demand-side Resources	618	1,265
Conservation	281	818
Demand Response	337	446
Distributed Energy Resources	739	2,392
DER Solar	552	2,124
<i>Net Metered Solar</i>	284	1,393
<i>CEIP Solar</i>	79	79
<i>New DER Solar</i>	189	652
DER Storage	187	267
Supply-side Resources	5,360	11,174
CETA-compliant Peaking Capacity	711	1,588
Wind	1,400	3,650
Solar	700	2,290
Green Direct	100	100
Hybrid (Total Nameplate)	1,450	1,748
<i>Hybrid Wind</i>	600	800
<i>Hybrid Solar</i>	400	398
<i>Hybrid Storage</i>	450	550
Biomass	-	-
Advanced Nuclear (SMRs)	-	-
Standalone Storage	1,000	1,800
Total	6,717	14,830

B. RFP DESIGN AND APPROVAL

Bates White was approved as the Independent Evaluator for the Company’s 2021 All Source RFP by Commission Order in January of 2021.⁶ Per WAC 480-107-023.(5).(b) we were engaged in the design of the RFP. PSE provided us with draft copies of the RFP as well as the related exhibits in March of 2021. We provided multiple rounds of comments on the drafts. Our primary areas of focus included minimum bid requirements, the bid evaluation process, and bid submission materials. We reviewed a second copy of the draft in late March.

We also checked to see that all requirements from the Washington Administrative Code (WAC) were present. Per the WAC, All-source RFPs must allow bids from different types of resources that

⁵ 2023 EPR p 1.6.

⁶ Order 01. Docket UE-210037. January 28, 2021.

may fill all or part of the resource need.⁷ RFPs must define the utility's resource need, request information related to a bid's impacts on customer benefits, explain the specific ranking procedures and assumptions used to evaluate bids, and set forth minimum bidder requirements.⁸ The utility must also conduct outreach and provide proper notice of its all-source RFP.⁹

The draft RFP was filed in UTC Docket UE-210220 on April 1, 2021. PSE filed an updated draft RFP on May 10, 2021 to reflect updated needs following the signing of two power purchase agreements. In mid-May comments were received from several parties on the RFP draft. Suggestions included a) more information regarding the basis for PSE's capacity need, (b) more detail on assumptions and modeling around ELCC metrics, and other updates. June 1, 2021 PSE submitted a revised RFP in response to comments with an additional revision filed on June 8, 2021.

The RFP was approved with conditions on June 10, 2021. Conditions included; a) requirements to post workshop materials and circulate notices, b) requirements to respond to comments regarding the Commission's notice, c) a requirement to solicit public comment on PSE's ELCC methodology, d) providing a detailed timeline of informational activities, and e) removing a cost adder for rate of return for PPAs.¹⁰

⁷ WAC 480-107-009.

⁸ WAC 480-107-025.

⁹ WAC 480-107-015.

¹⁰ Order 01, Docket UE-210220, June 14, 2021.

III. RFP ISSUANCE AND BID EVALUATION PHASE I

A. RFP ISSUANCE

The Commission approved the RFP with Order 01 in Docket UE-210220 on June 10, 2021. The RFP was issued to the market on June 30, 2021. PSE held a bidders' conference on July 29, 2021. In this conference PSE communicated the goals of the RFP, reviewed resource need, reviewed the evaluation process, explained the bid submittal process and addressed questions from potential bidders.

We monitored the bidders conference to ensure that the RFP was properly explained and that bidders questions were answered consistent with the RFP rules. We also continued to review bidder Q&A and draft responses from PSE. We also held meetings with PSE personnel to discuss the progress of the RFP and issues raised in the process.

One topic of discussion during the RFP approval process was PSE's calculation of capacity contribution from each resource. PSE utilized the Effective Load Carrying Capability (ELCC) method to calculate a given resource's contribution to meeting peak demands. Under this method a utility first calculates the amount of "perfect" (i.e. always available around the clock) capacity needed to meet a certain reliability standard (say, 1 outage every ten years). A resource is then added to the resource mix and the analysis is re-run, typically simulating a wide variety of conditions with respect to load, weather, and more. The reduction in the subsequent amount of perfect capacity needed to meet the reliability standard represents the ELCC of the resource. So if a 100 MW (nameplate) wind project reduces the need for perfect capacity by 25 MW the ELCC of the resource is 25 MW.

Parties were concerned that PSE's calculated ELCC values were too low. In response a third party consultant was commissioned to review PSE's methodology and a workshop was held on August 31, 2021 to present these findings. Per Commission Order these were also posted to the docket and comments were allowed to be filed. The consultant provided a final report in October of 2021 which was posted to the RFP website.¹¹

PSE also held a market reliance workshop on September 23, 2021. This workshop was related to addressing PSE's assumptions around reliance on short-term market purchases. Specifically, PSE had previously relied on purchases from the Mid-C hub to fulfill a portion of their resource adequacy needs. PSE was looking to reduce their market reliance from 1,500 MW down to 500 MW. PSE presented their findings to support the reduction in market reliance. PSE stated that they would update their market reliance assumptions in the RFP phase 2 analysis and update resource adequacy modelling needs based on climate change impacts on load and hydro conditions and other recommendations.

Bids were due on September 1, 2021. Bids were submitted electronically and shared with us.

¹¹ Review of Puget Sound Energy Effective Load Carrying Capability Methodology, E3, October 2021.

B. BID EVALUATION

A total of fifty-one companies submitted at least some form of offer. The following table shows a summary of the bids received. This summary comes from the required filing to comply with WAC 480-107-035(5). Note that many bidders offered different options in terms of contract term and other items.

Table 4 Bids Received ¹²

Resource	Type	# of Proposals	Total Capacity (MW)	Offer Structures(s)			Status	
				Ownership	PPA ²	Both	Development	Operating
Solar	Solar Only	20	4,094		14	6	20	
	Hybrid: Solar + Capacity/Storage	10	1,381		9	1	10	
Wind	Wind Only	20	6,986		17	3	18	2
	Hybrid: Wind + Capacity/Storage	2	800		2		2	
	Hybrid: Wind + Solar + Capacity/Storage	2	451		2		2	
Storage	Storage: Battery	29	4,360		28	1	29	
	Storage: Pumped Hydro	3	800		2	1	3	
Flexible Capacity	Natural Gas-fired Generation ³	3	1,247	1	1	1		3
	Biofuel-fired Generation ³	4	857		3	1	4	
Other Resource	Hydro – Run of River	1	20		1			1
	Hydrogen Fuel Cell	1	10		1		1	
Total		95	21,008	1	80	14	89	6

[1] Generation may include CCCTs, SCCTs, and reciprocating engines.

[2] Includes power purchase agreements, tolling agreements and capacity agreements.

[3] Bidders allowed to submit up to three (3) offers per proposal. Total nameplate capacity shown in table is based on first offer. Offer count = 221.

A total of 95 projects were provided. As can be seen from the table offers were split fairly evenly between solar, wind and storage. Most projects were in development. **Attachment One** shows more detail regarding the projects and the bidders. A total of 242 different options were submitted.

Bid Qualification

After bid intake the first task was to confirm that each bid met the minimum requirements of the RFP. Among other things, bidders had to provide evidence of site control, a viable transmission plan, and information on interconnection and development. The general goal was to provide evidence of a viable project that would be developed on time.

PSE sent out requests to bidders to fill in any missing information. Most bidders were able to cure the various deficiencies identified. However, some bidders were not able to meet the RFP requirements. The table below shows the number of projects and options rejected for various reasons at this stage.

¹² PSE, 2021 All-Source RFP: Proposal Summary Prepared Pursuant to WAC 480-107-035(5), October 1, 2021. Available at <https://www.pse.com/en/pages/energy-supply/acquiring-energy/2021-All-Source-RFP>

Table 5 Bids Rejections

	Projects	options
Total Intake	95	242
Disqualifications		
Site Control	1	1
Fuel Supply	3	6
Transmission	6	12
Interconnection	2	6
Withdrawn	4	8
Total	16	33
Remaining Projects	79	209

We were consulted on each of these decisions and agreed with PSE that the bids did not meet the RFP requirements and could be removed from the evaluation. In general PSE was fairly conservative in its rejections, trying to work with bidders if possible to keep projects in the evaluation.

Bid scoring

Once the elimination decisions were made the bids were scored. Bids were scored per the scoring system as laid out in Attachment A of the RFP. The scoring was based on a split that awarded 30 points for non-price characteristics and 70 points for price characteristics. On the non-price side, bids were given points in several categories based on the published RFP rubric. Categories included: a) counterparty viability, b) project viability, c) site control, d) permitting and studies, e) energy delivery, and f) CETA equity plan.

On the price side bids were ranked by portfolio benefit. Per the RFP, this is the “Difference between the net present value portfolio revenue requirement with the proposed project in the portfolio replacing an equivalent amount of generic resources, and the net present value portfolio revenue requirement of the all-generic portfolio.”¹³ PSE used the PSM and Aurora models to calculate the resource selection and portfolio costs with and without each bid in an attempt to calculate the portfolio benefit of the resource.

PSE kept in contact with us throughout the evaluation process. We were provided with bid updates as consulted on bid review and evaluation decisions on a regular basis. PSE also consulted with us on bidder correspondence and discussed the evaluation process and bid handling in advance of providing scores.

¹³ RFP Exhibit A, p A-3.

PSE began to share preliminary scores with us at the beginning of February of 2022. We reviewed several iterations of the scores, asking questions about various bid ranking and scoring decisions as well as bid valuation inputs. Scores were further revised based on our feedback and more data received from bidders.

We were able to finalize a list of offers selected for Phase 2 at the end of March 2022 which are shown on the following pages. In order to ensure a diversity of technologies in the next phase of evaluation the offers were separated by technology type and, in some cases, location. The first group shown below is Washington and Oregon Wind and run of river hydro projects. Bids that are shaded were selected to go on to the next phase.

Table 6 Phase I Scores – WA/OR Wind and Hydro

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
5088_2			15	31.77	100.00	50.47	85.14		
5088_1			10	28.09	96.59	50.47	82.75		
1573_1			10	11.41	81.13	72.00	78.39		
1573_2	VANTAGE WIND	90	15	10.78	80.55	72.00	77.98	263,378	-
5438_1			20	18.09	87.32	53.25	77.10		
5438_2			20	16.83	86.15	53.25	76.28		
8150_1			30	6.20	76.30	44.25	66.68		
1524_1			20	3.53	73.83	44.25	64.95		
8150_3			Own	(2.60)	68.15	44.25	60.98		
3325_1			30	(15.70)	56.00	44.25	52.47		
4091_1			20	(26.45)	46.03	67.28	52.41		
3325_3			Own	(16.94)	54.86	44.25	51.67		
1524_2			20	(17.44)	54.39	44.25	51.35		
3180_1			20	(25.89)	46.55	34.69	43.00		
3971_3			25	(35.94)	37.24	48.14	40.51		
3971_2			20	(41.58)	32.01	48.14	36.85		
7103_1			20	(44.55)	29.26	47.92	34.86		
2659_3			25	(53.05)	21.38	59.92	32.94		
6430_1			20	(45.61)	28.27	41.36	32.20		
3971_1			15	(52.86)	21.56	48.14	29.53		
2659_2			25	(58.63)	16.21	59.92	29.32		
2141_3_Own			Own	(67.11)	8.35	59.17	23.59		
2141_1_Own			Own	(68.77)	6.82	59.17	22.52		
2659_1			25	(69.36)	6.26	59.92	22.36		
2141_2_Own			Own	(69.39)	6.24	59.17	22.12		
2141_2_PPA			20	(70.72)	5.00	59.17	21.25		
2141_1_PPA			20	(70.95)	4.79	59.17	21.10		
2141_3_PPA			30	(76.12)	-	59.17	17.75		

PSE took a significant amount of supply in this category, roughly 1.5 times it’s CETA need (after accounting for mutually exclusive projects) though some of that is due to the large size of some of the offers – the [REDACTED] project alone could produce of 1 GWhr of clean energy per year. The next table shows solar projects offered.

Table 7 Phase I Scores - Solar Projects

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
2892_1			25	12.80	100.00	43.17	82.95		
2899_3			25	2.67	87.18	50.14	76.07		
2899_2			20	2.01	86.34	50.14	75.48		
8652_1			25	1.74	86.01	47.92	74.58		
7621_2_PPA	APPALOOSA SOLAR PROJECT LLC (100/150 MW)	150	20	(0.90)	82.67	55.28	74.45	305,596	-
8652_2			25	1.38	85.56	47.92	74.27		
7621_1_PPA			20	(1.40)	82.04	55.28	74.01		
9696_1			20	1.94	86.26	40.25	72.46		
7991_3			25	(1.67)	81.69	50.14	72.22		
1261_1			20	(2.75)	80.33	48.28	70.71		
7991_2			20	(4.56)	78.04	50.14	69.67		
9015_1			20	(7.14)	74.77	55.69	69.05		
2725_1			20	(6.47)	75.62	48.36	67.44		
2807_1			20	(12.82)	67.58	51.61	62.79		
3947_1			20	(11.88)	68.78	47.58	62.42		
7374_3			25	(12.39)	68.13	47.03	61.80		
2587_1_PPA			20	(19.08)	59.65	55.28	58.34		
2587_2_PPA			20	(20.41)	57.98	55.28	57.17		
7621_1_Own			Own	(25.22)	51.88	55.28	52.90		
7621_2_Own			Own	(25.45)	51.59	55.28	52.70		
3345_2			15	(24.51)	52.78	42.25	49.62		
2892_2			Own	(27.03)	49.60	43.17	47.67		
3345_1			20	(28.30)	47.98	42.25	46.26		
7374_2			20	(30.47)	45.25	47.03	45.78		
6549_1			20	(31.80)	43.55	41.36	42.90		
6185_1			20	(31.89)	43.45	33.03	40.32		
5864_1			25	(36.11)	38.11	40.58	38.85		
2587_1_Own			Own	(41.15)	31.73	55.28	38.79		
2587_2_Own			Own	(42.57)	29.92	55.28	37.53		
5056_1			20	(41.59)	31.17	38.92	33.49		
2351_1			29	(44.20)	27.87	43.14	32.45		
3155_1			20	(45.76)	25.89	39.69	30.03		
5703_1			20	(55.05)	14.13	36.92	20.97		
3060_1			20	(66.22)	-	46.25	13.88		

Again, PSE proposed to take roughly 1.5 times the CETA need to the shortlist. Note that here we see a limited net positive benefit from most of these projects. The next table shows hybrid solar projects (i.e. solar paired with storage projects).

Table 8 Phase I Scores – Hybrid Projects

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
1627_2				20	(8.78)	100.00	33.03	79.91		
9696_3				20	(12.22)	96.02	40.25	79.29		
9374_1				20	(18.97)	88.20	57.03	78.85		
2725_2				20	(18.52)	88.72	48.36	76.61		
2725_3				20	(18.71)	88.50	48.36	76.46		
2899_1				20	(27.04)	78.85	50.14	70.24		
7991_1				20	(27.76)	78.02	50.14	69.65		
9696_2				Own	(24.89)	81.34	40.25	69.01		
6236_1_PPA				20	(31.94)	73.17	55.28	67.81		
1627_3				20	(25.20)	80.98	33.03	66.59		
9015_2				20	(34.75)	69.92	55.69	65.65		
1261_2				20	(33.10)	71.83	46.61	64.26		
9015_3				20	(36.93)	67.40	55.69	63.89		
3325_2				30	(32.23)	72.84	40.92	63.26		
8150_2				30	(32.93)	72.03	40.92	62.69		
1524_3				20	(33.36)	71.53	40.92	62.35		
3669_2				20	(32.73)	72.26	33.03	60.49		
1627_1				20	(33.92)	70.88	33.03	59.52		
6549_2				20	(39.91)	63.94	41.36	57.17		
6185_2				20	(38.34)	65.76	33.03	55.94		
1796_1				20	(44.19)	58.98	40.58	53.46		
3947_2				20	(47.56)	55.08	47.58	52.83		
7374_1				20	(47.83)	54.76	47.03	52.44		
6236_1_Own				Own	(51.31)	50.73	55.28	52.10		
3947_3				20	(50.13)	52.10	47.58	50.74		
3155_2				20	(51.18)	50.88	39.69	47.52		
6236_2_PPA				20	(58.34)	42.59	55.28	46.40		
3669_3				20	(50.51)	51.66	33.03	46.07		
1796_2				20	(54.50)	47.03	40.58	45.10		
6236_3_PPA				20	(60.96)	39.55	55.28	44.27		
7405_1				20	(70.84)	28.11	79.78	43.61		
3669_1				20	(56.20)	45.07	33.03	41.45		
5234_1_PPA				20	(67.30)	32.20	55.28	39.13		
1796_3				20	(62.23)	38.09	40.58	38.84		
5234_2_PPA				20	(68.88)	30.38	55.28	37.85		
2807_2				20	(66.63)	32.98	43.69	36.20		
6236_2_Own				Own	(71.11)	27.80	55.28	36.04		
6236_3_Own				Own	(73.08)	25.51	55.28	34.44		
6518_1				20	(73.97)	24.48	57.03	34.24		
5234_1_Own				Own	(80.11)	17.36	55.28	28.74		
3060_2				20	(78.15)	19.64	46.25	27.62		
5234_2_Own				Own	(82.43)	14.68	55.28	26.86		
5703_2				20	(86.13)	10.40	36.92	18.35		
5684_3				20	(95.10)	-	54.69	16.41		

These bids scores were a little more closely bunched so PSE extended the offers cutoff to include a bit more quantity. Note here that the projects look less competitive than other categories on a price basis - portfolio benefits are negative for all resources indicating that costs outweigh benefits. The next table shows the pumped storage hydro projects offered. Due to the limited offers in this category PSE selected both projects offered.

Table 9 Phase I Scores -Pumped Storage Hydro

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
8728_2			30	(48.05)	80.83	40.69	68.79		
8728_3			30	(52.92)	78.10	40.69	66.88		
4763_2			20	(62.29)	72.86	40.69	63.21		
4763_3			20	(66.68)	70.40	40.69	61.49		
8728_1			30	(84.12)	60.64	40.69	54.65		
4763_1			20	(98.31)	52.70	40.69	49.10		
1810_3_Own			Own	(169.38)	12.91	42.92	21.91		
1810_2_Own			Own	(176.92)	8.69	42.92	18.96		
1810_3_PPA			30	(177.55)	8.34	42.92	18.71		
1810_2_PPA			30	(182.12)	5.78	42.92	16.92		
1810_1_Own			Own	(191.26)	0.66	42.92	13.34		
1810_1_PPA			30	(192.45)	-	42.92	12.88		

The next table shows the selected offered in the standalone BESS category. PSE proposed taking most of the offers here as these are the primary source of new capacity on the system.

Table 10 Phase I Scores – BESS Projects

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
1054_3				20	(13.80)	100.00	43.25	82.98		
1058_3				20	(19.65)	96.72	43.25	80.68		
1054_2				20	(20.63)	96.18	43.25	80.30		
1054_1				20	(30.08)	90.89	43.25	76.60		
1058_2				20	(30.09)	90.88	43.25	76.59		
9831_3				20	(30.36)	90.73	43.25	76.48		
4101_2	GREENWATER ENERGY STORAGE	200	200	20	(37.07)	86.97	51.03	76.19	0	50
7871_1				20	(30.03)	90.91	41.69	76.15		
8179_1				20	(38.58)	86.13	47.03	74.40		
4644_3				20	(44.28)	82.94	50.14	73.10		
9788_1				20	(42.29)	84.05	47.03	72.95		
4101_1				20	(45.97)	81.99	51.03	72.70		
9136_1				20	(38.76)	86.03	40.36	72.33		
9831_2				20	(41.90)	84.27	43.25	71.97		
1058_1				20	(42.21)	84.10	43.25	71.84		
4644_2				20	(47.49)	81.14	50.14	71.84		
4644_1				20	(48.58)	80.53	50.14	71.41		
2889_1				20	(52.62)	78.27	54.25	71.06		
5008_3				20	(53.37)	77.85	51.25	69.87		
2841_1	SPIRE STORAGE	100	100	20	(55.88)	76.45	54.25	69.79	0	25
5008_1				20	(58.44)	75.01	51.25	67.88		
5008_2				20	(60.17)	74.04	51.25	67.20		
9831_1				20	(55.80)	76.49	43.25	66.52		
9439_1				20	(63.90)	71.96	48.69	64.98		
2608_1				20	(64.82)	71.44	48.69	64.62		
3387_3				20	(62.41)	72.79	36.92	62.03		
3387_2				20	(66.61)	70.44	36.92	60.38		
5684_1				20	(81.49)	62.11	54.69	59.89		
9439_2				20	(83.00)	61.27	48.69	57.49		
5999_1				22	(78.63)	63.71	38.58	56.17		
9851_3				20	(83.82)	60.81	43.92	55.74		
6465_3				20	(83.98)	60.71	43.92	55.67		
7418_3				20	(83.98)	60.71	43.92	55.67		

PUBLIC
VERSION

Table 10 Phase I Scores – BESS Projects

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
3387_1				20	(79.20)	63.39	36.92	55.45		
5999_2				22	(82.09)	61.77	38.58	54.81		
5435_3				20	(87.29)	58.86	43.92	53.38		
9851_1				20	(88.02)	58.45	43.92	54.09		
6465_1				20	(88.37)	58.26	43.92	53.96		
7418_1				20	(88.37)	58.26	43.92	53.96		
7508_3				20	(84.60)	60.37	36.92	53.33		
1412_1				20	(91.03)	56.77	42.58	52.51		
5435_1				20	(92.27)	56.08	43.92	52.43		
7508_1				20	(88.92)	57.95	36.92	51.64		
9136_2				20	(92.79)	55.79	40.36	51.16		
3771_1				20	(113.81)	44.02	61.60	49.29		
7418_2				20	(100.43)	51.51	43.92	49.23		
6465_2				20	(100.53)	51.45	43.92	49.19		
9851_2				20	(100.93)	51.23	43.92	49.03		
7508_2				20	(99.26)	52.16	36.92	47.59		
5435_2				20	(110.60)	45.82	43.92	45.25		
1412_2				20	(112.38)	44.82	42.58	44.15		
7736_3				20	(123.93)	38.35	40.14	38.89		
7736_2				20	(128.36)	35.87	40.14	37.15		
7736_1				20	(133.00)	33.27	40.14	35.33		
5684_2				20	(179.43)	7.29	54.69	21.51		

While there were many options accepted once we account for mutually exclusive offers this list only represents a maximum of 843 MW of capacity or about 110% of the 2027 need. Of course, other projects also provide capacity. The next category was termed “flexible capacity” and consisted of proposed peakers that would utilize renewable fuel or natural gas.

Table 11 Phase I Scores – Flexible Capacity

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
4929_3			30.0	(117.19)	98.93	45.36	82.86		
4240_3			30.0	(118.85)	98.19	45.36	82.34		
5964_3			30.0	(114.78)	100.00	36.69	81.01		
5943_2			20.0	(146.50)	85.92	65.75	79.87		
4929_1			30.0	(132.06)	92.33	45.36	78.24		
4240_1			30.0	(134.20)	91.38	45.36	77.57		
4929_2			25.0	(135.95)	90.60	45.36	77.03		
5943_1			10.0	(137.69)	89.83	65.75	76.49		
4240_2			25.0	(129.53)	93.45	45.36	76.42		
5964_1			30.0	(157.35)	81.10	36.69	76.49		
5964_2			25.0	(132.58)	92.09	36.69	75.47		
2343_1 Own			Own	(191.62)	65.88	37.81	57.46		
2343_2 Own			Own	(206.02)	59.49	36.14	52.48		
2343_3 Own			Own	(237.67)	45.44	36.14	42.65		
2343_1 PPA			40.0	(340.01)	-	37.81	11.34		
2343_2 PPA			40.0	(339.60)	0.18	36.14	10.97		
2343_3 PPA			40.0	(339.63)	0.17	36.14	10.96		

The final two categories were small enough that PSE proposed taking all the bids offered. They were hybrid wind, solar and storage and Montana and Wyoming wind.

Table 12 Phase I Scores – Hybrid Wind/Solar/Storage

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
8051_1				20	(26.72)	65.80	37.58	57.34		
8051_3				20	(27.63)	65.23	37.58	56.93		
8051_2				20	(54.00)	48.59	37.58	45.29		
2807_3				20	(70.70)	38.06	43.69	39.75		
2180_1				20	(102.27)	18.14	42.92	25.58		
2180_2				15	(119.89)	7.04	42.92	17.80		
2180_3				12	(131.04)	-	42.92	12.88		

Table 13 Phase I Scores – Montana and Wyoming Wind

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
3923_1				25	27.49	100.00	56.58	86.98		
3923_2				20	13.32	91.06	56.58	80.72		
1413_2	Haymaker Wind + BESS NWMT 230 kV	220		25	(4.06)	80.10	63.03	74.98	876,495	-
2958_1				25	(36.91)	59.38	69.28	62.35		
2958_2				25	(46.22)	53.50	69.28	58.24		
1413_3				20	(109.54)	13.56	61.36	27.90		

IE Analysis

We used several steps to confirm these selections. First, we reviewed the bids to confirm they met the minimum requirements to bid. Second, we scored the bids independently on a non-price basis. Third we input the bid details into a separate cost model to roughly check the levelized cost of the bids. Fourth, we compared our results to PSE and held discussions wherever significant differences were present. Fifth, we reviewed inputs and processes used in the Aurora modelling to ensure we understood the evaluation process and that the inputs used were up to date with PSE’s planning process.

To check the bid rankings we also conducted two further analyses. First, we substituted our non-price scores for the ones used by PSE and re-ranked the offers in order to see if there would have been any change in the bid selection. We chose this method due to the large number of offers – matching each score would have taken an unnecessary amount of time and effort. We concluded that even with our non-price scores the same bids would have been chosen.

To check the price scores we also input the bid data into a simple cost model of our own devising. Because the model was much simpler than that used by PSE we did not expect it to exactly match PSE’s results and would defer to PSE’s valuations. The goal of the process was to check the general rank order of offers on a price basis. While there were some smaller differences where bids were tightly bunched we were able to conclude that PSE’s price rankings appeared reasonable.

Our non-price scores and costs are included in **Attachment Two**.

IV. BID EVALUATION PHASE II

Once the initial Phase I evaluation had been completed PSE moved on to the second phase of this evaluation. In this Phase the shortlisted bids were subject to additional due diligence. Bidders were also invited to submit a price update. This was particularly important given the passage of the Inflation Reduction Act (IRA) in August 2022 so that bidders could price in the effects of any new tax credits for their offer.

Digging deeper into the bids PSE identified several items that threatened the viability of some of the offers. Due to the risks identified PSE proposed to eliminate several more offers. PSE shared information with us and consulted with us regarding eliminations. One notable risk factor was a limitation on charging energy for three battery projects located on the Kitsap peninsula that was identified through power flow analysis and line and load studies from PSE.¹⁴ Ultimately the decision was made to eliminate several more offers from consideration.

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

¹⁴ Specifically, PSE identified through power flow modelling (and PSE transmission confirmed) that none of these BESS resources could charge during the peak load scenarios without causing system overloads in multiple near and long-term scenarios. All three identified projects would have to be limited in their charging in some way. While the Kitsap upgrade project (projected in service in 2031 and costing about \$250-\$350 MM) would mitigate these effects the Kitsap project is intended to support load growth in the area and so adding these resources would likely accelerate the need for additional upgrades. Therefore, all units would be limited in function until sometime around 2031 and might accelerate/cause more upgrades to be needed subsequently.

The remaining bids were modeled in the Aurora model. The model looked over a 20-year time frame to estimate the combination of offers that would meet PSE’s reliability and clean energy needs at the lowest cost. We reviewed the inputs of the model - including the bid data - to ensure they were up to date.

PSE delivered us initial results in late September of 2022. We then asked questions regarding the inputs and results. We looked for a selection of offers that made sense given the identified costs of the bids and the scenario modeled. We looked at the sensitivities and requested new ones to draw out the impact of the various decisions. In addition, the selected projects from PSE’s 2022 Targeted Distributed Energy Resources RFP were added to the portfolio as part of an evaluation of those offers and the overall effectiveness of distributed resources.

The table below shows the final base case run as of late October 2022.

Table 14 Base Case Phase II

Offer ID	Project Name	Technology	Term (Years)	Begin Year	COD	Offer Capacity (MW)	Peak Contribution 2027_08 (MW)	Peak Contribution 2027_12 (MW)	CETA Contribution 2026
1573_2	VANTAGE WIND	WND	15	2025	10/5/2025	90	8	1	264,280
2958_2	[REDACTED]	WND	25	2025	12/1/2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1261_1		SOLAR	20	2025	12/31/2025				
2892_1		SOLAR	25	2024	07/01/2024				
7621_2		APPALOOSA SOLAR PROJECT LLC (100/150 MW)	SOLAR	20	2024				
8652_2	[REDACTED]	SOLAR	25	2024	12/31/2024	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
9015_1		SOLAR	20	2024	12/31/2024				
1810_3		PSH	30	2026	12/31/2026				
5438_2		HYDRO	20	2025	3/9/2025				
8918_DER		DER	30	2023	1/1/2023				
5247_DER		DER	30	2023	1/1/2023				
1714_DER		DER	30	2023	1/1/2023				
5684_1		BESS	20	2025	12/1/2025				
7508_2		BESS	20	2025	10/31/2025				
9851_3		BESS	20	2026	10/31/2026				

This represents 1,291 MW of summer capacity and 746 MW of winter capacity as well as 2.8 GWhr of CETA contribution annually.

Overall, the model selected wind and solar projects without batteries and selected standalone storage resources and hydro resources for capacity. This is somewhat expected as the solar and wind offers tended to have more positive benefits in the Phase I modelling. The three distributed energy resources were also selected as part of the lowest-cost portfolio.

Within each category the bids that were selected were generally those with the lowest costs. For example, the Vantage and [REDACTED] projects were two of the lowest cost offers in their category in

the Phase I evaluation.¹⁵ On the solar side [REDACTED], Appaloosa, and [REDACTED] were among the least-expensive choices in Phase I and were picked here.

In some cases, bid size also made a difference. For example, the [REDACTED] solar project had a very low levelized cost but was a small resource. We found that it would get passed over in the optimization in favor of a larger project. This was due to the fact that the combination of [REDACTED] and another, more expensive project was less optimal than simply taking a slightly more expensive but larger project that would also fill the need.

On the BESS side the bid selection also made sense as the least-expensive offers were selected. For reference, the table below shows PSE’s calculated cost for all the 4-hour BESS options. The [REDACTED], [REDACTED] and [REDACTED] storage offers were the three least expensive options.

Table 15 4-Hour BESS Costs

Project ID	Name	Effective Total Capacity Price + Tx + Network Costs (\$ / kW - year)
9851_3	[REDACTED]	[REDACTED]
9851_2	[REDACTED]	[REDACTED]
7508_3	[REDACTED]	[REDACTED]
7508_2	[REDACTED]	[REDACTED]
5684_1	[REDACTED]	[REDACTED]
9851_1	[REDACTED]	[REDACTED]
7871_1	[REDACTED]	[REDACTED]
7508_1	[REDACTED]	[REDACTED]
7418_3	[REDACTED]	[REDACTED]
9788_1	[REDACTED]	[REDACTED]
4101_2	GREENWATER ENERGY STORAGE	[REDACTED]
7418_2	[REDACTED]	[REDACTED]
8179_1	[REDACTED]	[REDACTED]
9136_1	[REDACTED]	[REDACTED]
7418_1	[REDACTED]	[REDACTED]
6465_3	[REDACTED]	[REDACTED]
4101_1	[REDACTED]	[REDACTED]
6465_2	[REDACTED]	[REDACTED]
5435_3	[REDACTED]	[REDACTED]
5435_2	[REDACTED]	[REDACTED]
3387_3	[REDACTED]	[REDACTED]
6465_1	[REDACTED]	[REDACTED]
9439_2	[REDACTED]	[REDACTED]
2841_1	SPIRE STORAGE	[REDACTED]
5435_1	[REDACTED]	[REDACTED]
3771_1	[REDACTED]	[REDACTED]
2889_1	[REDACTED]	[REDACTED]
5999_1	[REDACTED]	[REDACTED]
5999_2	[REDACTED]	[REDACTED]
1058_3	[REDACTED]	[REDACTED]
9831_3	[REDACTED]	[REDACTED]
1058_2	[REDACTED]	[REDACTED]
9831_2	[REDACTED]	[REDACTED]
1412_1	[REDACTED]	[REDACTED]

¹⁵ The [REDACTED] wind facility was the lowest-cost offer in this category but was dropped due to [REDACTED].

Table 15 4-Hour BESS Costs

Project ID	Name	Effective Total Capacity Price + Tx + Network Costs (\$ / kW - year)
3387_2		
5008_3		
5008_2		
4644_3		
5008_1		
4644_2		
4644_1		
9136_2		
1412_2		
3387_1		

We were somewhat surprised to see the [REDACTED] project get selected. However, it did contribute a large amount of capacity at a fairly reasonable cost. Its leveled cost of \$ [REDACTED]/kw-year was in line with many BESS units and it provided a longer duration of storage.

PSE conducted multiple scenario runs of the model to examine optimal portfolio choice under different projected futures. The next table shows the selections at low and high load cases.

Table 16 Phase II Selections under Base, High and Low Load

Offer ID	Project Name	Technology	Term (Years)	Begin Year	COD	Offer Capacity (MW)	Peak Contribution 2027_08 (MW)	Peak Contribution 2027_12 (MW)	CETA Contribution 2026	Base Case	Low Case	High Case
1573_2	VANTAGE WIND	WND	15	2025	10/5/2025	90	8	1	264,280	Yes		Yes
2958_2		WND	25	2025	12/1/2025					Yes	Yes	Yes
1261_1		SOLAR	20	2025	12/31/2025					Yes	Yes	Yes
2892_1		SOLAR	25	2024	07/01/2024					Yes	Yes	Yes
7621_2	APPALOOSA SOLAR PROJECT LLC (100/150 MW)	SOLAR	20	2024	12/1/2024	150	64	7	292,305	Yes		Yes
8652_2		SOLAR	25	2024	12/31/2024					Yes	Yes	Yes
9015_1		SOLAR	20	2024	12/31/2024					Yes		Yes
5438_2		HYDRO	20	2025	3/9/2025					Yes	Yes	Yes
8918_DER		DER	30	2023	1/1/2023					Yes	Yes	Yes
5247_DER		DER	30	2023	1/1/2023					Yes	Yes	Yes
1714_DER		DER	30	2023	1/1/2023					Yes	Yes	Yes
5684_1		BESS	20	2025	12/1/2025					Yes		Yes
7508_2		BESS	20	2025	10/31/2025					Yes		Yes
1810_3		PSH	30	2026	12/31/2026					Yes		
9851_3		BESS	20	2026	10/31/2026					Yes		
1413_2	Haymaker Wind + BESS NWMT 230 kV	WND	25	2025	12/31/2025	220	59	9	812,285			
3971_3		WND	25	2024	12/01/2024							Yes
8150_1		WND	30	2024	12/31/2024						Yes	Yes
9696_1		SOLAR	20	2025	12/31/2025							Yes
1627_2Solar		Hybrid/Solar	20	2025	12/1/2025							Yes
1627_2BESS		Hybrid/BESS	20	2025	12/1/2025							Yes
7418_2		BESS	20	2025	10/31/2025							Yes
9439_2		BESS	20	2024	07/01/2024							Yes
9851_1		BESS	20	2024	10/31/2024							Yes
1810_2		PSH	30	2026	12/31/2026							Yes

PUBLIC VERSION

As might be expected, the high load case increases the number of options taken. All the base case bids are selected, with different options from [REDACTED] and [REDACTED] picked and more wind, batteries and hybrid bids are added. In the low case the optimization function results in [REDACTED] being added but several projects ([REDACTED], Appaloosa, and several storage projects) being dropped. This is because of the model's optimization. With lower loads less capacity is needed so fewer capacity resources are selected. The [REDACTED] project is more expensive but more easily fills the remaining capacity need while providing the CETA energy needed.

After consulting with us over several iterations of the results PSE also looked at several additional scenarios. This included scenarios that a) removed bids with low customer benefit scores, and b) gave no capacity credit to offers with conditional firm transmission (for the duration of the conditional firm supply). PSE also looked at scenarios in which individual projects were removed. These were generally to address projects which performed very well in the modelling but had fairly large risk factors for their development. At the time, notable projects that fell under this category included;

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

The following table shows selections under several different scenarios.

¹⁶ Appaloosa was a similar project but had a different interconnection plan which avoided these issues.

Table 17 Phase II Selections under Multiple Scenarios

Offer ID	Project Name	Technology	Term (Years)	Begin Year	COD	Offer Capacity (MW)	Peak Contribution 2027_08 (MW)	Peak Contribution 2027_12 (MW)	CETA Contribution n 2026	Base Case	Low Case	High Case	Conditional Firm	No Bufflehead	No Low CBI	No "High Risk"	No AE Solar	No LSR Solar	NO LSR or AE
1573_2	VANTAGE WIND	WND	15	2025	10/5/2025	90	8	1	264,280	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes
2958_2		WND	25	2025	12/1/2025					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1261_1		SOLAR	20	2025	12/31/2025					Yes	Yes	Yes	Yes	Yes			Yes		
2892_1		SOLAR	25	2024	07/01/2024					Yes	Yes	Yes	Yes	Yes				Yes	
7621_2	APPALOOSA SOLAR PROJECT LLC (100/150 MW)	SOLAR	20	2024	12/1/2024	150	64	7	292,305	Yes		Yes	Yes		Yes		Yes	Yes	Yes
8652_2		SOLAR	25	2024	12/31/2024					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9015_1		SOLAR	20	2024	12/31/2024					Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5438_2		HYDRO	20	2025	3/9/2025					Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes
8918_DER		DER	30	2023	1/1/2023					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5247_DER		DER	30	2023	1/1/2023					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1714_DER		DER	30	2023	1/1/2023					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5684_1		BESS	20	2025	12/1/2025					Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes
7508_2		BESS	20	2025	10/31/2025					Yes		Yes	Yes				Yes	Yes	Yes
1810_3		PSH	30	2026	12/31/2026					Yes			Yes			Yes	Yes	Yes	Yes
9851_3		BESS	20	2026	10/31/2026					Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
1413_2	Haymaker Wind + BESS NWM 230 kV	WND	25	2025	12/31/2025	220	59	9	812,285			Yes							
3971_3		WND	25	2024	12/01/2024							Yes							
8150_1		WND	30	2024	12/31/2024						Yes	Yes							
9696_1		SOLAR	20	2025	12/31/2025							Yes							
1627_2Solar		Hybrid/Solar	20	2025	12/1/2025							Yes		Yes			Yes	Yes	
1627_2BESS		Hybrid/BESS	20	2025	12/1/2025							Yes		Yes			Yes	Yes	
7418_2		BESS	20	2025	10/31/2025							Yes		Yes	Yes	Yes			
9439_2		BESS	20	2024	07/01/2024							Yes							
9851_1		BESS	20	2024	10/31/2024							Yes							
1810_2		PSH	30	2026	12/31/2026							Yes							
2899_3		SOLAR	25	2024	12/31/2024									Yes		Yes		Yes	
4101_2	GREENWATER ENERGY STORAGE	BESS	20	2025	12/31/2025	200	188	186						Yes					
1261_2BESS		Hybrid/BESS	20	2025	12/31/2025										Yes				
1261_2Solar		Hybrid/Solar	20	2025	12/31/2025										Yes				
2725_1		SOLAR	20	2025	10/1/2025										Yes				
7621_1		SOLAR	20	2024	12/1/2024											Yes			
1627_3Solar		Hybrid/Solar	20	2025	12/1/2025											Yes			Yes
1627_3BESS		Hybrid/BESS	20	2025	12/1/2025											Yes			Yes

PUBLIC
VERSION

The selections here showed that several projects were selected across many scenarios. This included [REDACTED], [REDACTED], [REDACTED] and Appaloosa Solar. Some projects had different options (i.e. size or in service dates) selected depending on the scenario. The [REDACTED] project tended to be selected next when the higher-risk projects were withheld – this was, at the time, the lowest-cost hybrid project so this result made some sense. The smaller [REDACTED] project was also selected in some of these scenarios, as noted above this was a low-cost project that was sometimes passed over due to its small size.

After review and consideration of these results and discussion with the IE PSE proposed to select the “No High Risk” scenario. This scenario eliminated the riskier projects noted above ([REDACTED], [REDACTED], [REDACTED], and [REDACTED]). The table below lists these bids selected. These bids would provide between 650 and 1,200 MW of capacity depending on the season and about 2.8 GWhr of clean energy per year.

Table 18 Phase II Shortlist

All-Source RFP Short List

COD	Resource Type	Offer ID	Project Name	Term (Years)	Begin Year	Offer Capacity (MW)	Peak Contribution 2027_08 (MW)	Peak Contribution 2027_12 (MW)	CETA Contribution 2025 (MWh)	CETA Contribution 2026 (MWh)
12/1/2024	SOLAR	7621	APPALOOSA SOLAR PROJECT LLC (100/150 MW)	20	2024	100	44	5	219,878	218,773
12/31/2024	SOLAR	8652	[REDACTED]	25	2024	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12/31/2024	SOLAR	9015	[REDACTED]	20	2024	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12/31/2024	SOLAR	2899	[REDACTED]	25	2024	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
3/9/2025	HYDRO	5438	[REDACTED]	20	2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10/5/2025	WIND	1573	VANTAGE WIND	15	2025	90	8	1	44,745	264,280
10/31/2025	BESS	7418	[REDACTED]	20	2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12/1/2025	WIND	2958	[REDACTED]	25	2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12/1/2025	Hybrid/Solar	1627	[REDACTED]	20	2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12/1/2025	Hybrid/BESS	1627	[REDACTED]	20	2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12/1/2025	BESS	5684	[REDACTED]	20	2025	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10/31/2025	BESS	9851	[REDACTED]	20	2026	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10/31/2026	PSH	1810	[REDACTED]	30	2026	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
All-Source RFP TOTAL						1,859	1,204	657	1,537,681	2,802,813
DER RFP Short List										
1/1/2023	DER	8918	[REDACTED]	5	2023	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1/1/2023	DER	5247	[REDACTED]	5	2023	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1/1/2023	DER	1714	[REDACTED]	5	2023	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
DER RFP Total						157	137	93		
Combined Total						2,016	1,341	750	1,537,681	2,802,813

PSE decided to keep several offers as backup offers. These were split between offers with lower risk profiles that were selected at least once above and the previously mentioned offers with higher risk profiles but potentially lower costs. The bids selected and the rationale are listed in the table below.

Table 19 Phase II Backups

ProposalsOffers to backup shortlist			
ID	Proposal Name	Highlights	Purpose
4101	Greenwater BESS	200 MW BESS with NRIS interconnection at White River substation with \$0 network upgrade costs. Current zoning allows for this type of facility.	Backup battery project
9696			Backup solar project
1413	Haymaker Wind	220 MW MT wind project with executed LGIA. Attractive NCF of 42%/ Transmission path avoids Colstrip Transmission System. Ability of NorthWestern to balance resource is key question.	Backup solar project
3971/ 4091			Backup solar project
7508			Backup battery project

We agreed that this suite of offers was a reasonable selection. These bids were generally the lower-cost options when compared to other resources. We agreed that risk elements cited as reasons for not selecting offers or relegating them to the backup list were appropriate and reasonable.

V. POST PHASE II EVALUATION AND NEGOTIATIONS

In November of 2022 PSE notified bidders of their status and began contract negotiations. We were periodically updated on the progress of negotiations and sat in on some calls between PSE and bidders and reviewed some draft documents. The Vantage PPA was the first agreement exercised in June of 2023 though the bidder did have a small price adjustment. During the next several months, as negotiations continued, many of the selected bids either dropped out or ran into other difficulties. The changes are summarized below.

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

- [REDACTED]
- [REDACTED]

From the selection group only the Appaloosa Solar Project, [REDACTED], and [REDACTED] storage remained from the main list. Greenwater, [REDACTED], [REDACTED] and Haymaker remained from the backup list however [REDACTED]. Haymaker was now pursuing another option for transmission and wanted to upsize their project to fill a 300 MW interconnection requirement. The developer proposed that the asset would share PSE’s 713 MW of transmission reservations through the Colstrip transmission system and BPA to deliver the power to load. This reservation would be shared with PSE’s existing Clearwater wind supply contract as well as a newly-signed supply contract from the Beaver Creek wind facility that was pursued outside the RFP process. PSE examined the output of the three assets in tandem and concluded that they would only see curtailment levels of around 1.6%. We reviewed this analysis and did not have any objection. Based on this PSE decided to continue analyzing the Haymaker offer.

In August of 2023 due to the fact that many previously selected projects had dropped out PSE proposed action to attempt to identify successful bids and close out the RFP. PSE was also looking at updated needs as a result of their 2023 Electric Progress Report. Per the EPR PSE’s needs were rapidly increasing, making most offers at least worthy of consideration.

Under this analysis PSE would refresh pricing for bidders that were previously viable but eliminated and were interested in offering updated prices – with a focus on bids that had feasible transmission plans and were more advanced in their permitting and development process. They would then run the Aurora model with and without the bid to see the portfolio cost change. This would provide final bid selection targets. We agreed that this was a reasonable path forward.

PSE provided the results to us in November of 2023. The analysis included other projects PSE was reviewing outside the RFP process. This notably included the Beaver Creek Wind project that PSE would ultimately contract with in early 2024 as well as the [REDACTED] project (which, to our knowledge was not a contracted resource). We reviewed the outputs asked questions, and confirmed the bid price inputs from the latest submitted data. The results of the analysis are in the table below.

Table 20 Post-Phase II Analysis Results

Resource Type	ID	Name	COD	Total Portfolio Costs WITH RFP Offer (\$Billions)	Total Portfolio Costs WITHOUT RFP Offer (\$Billions)	Cost / (Benefit) (\$Billions)	% Change	# Times selected (out of 27)	Location
BESS	8781_2		8/15/2025	23.34	23.93	(0.59)	-2.53%	25	
BESS	2889_1		12/1/2027	23.34	23.66	(0.32)	-1.38%	26	
BESS	4644_3		12/31/2026	23.34	23.42	(0.08)	-0.33%	25	
BESS	5684_3		12/1/2026	23.34	23.44	(0.10)	-0.44%	26	
BESS	5999_1		6/1/2026	23.34	23.27	0.07	0.30%	26	
BESS	3387_3		7/1/2026	23.34	23.61	(0.27)	-1.15%	26	
BESS	9851_3		10/31/2026	23.34	24.07	(0.74)	-3.16%	26	
BESS	4101_2	Greenwater BESS Toll	12/31/2025	23.34	24.25	(0.91)	-3.91%	26	PIERCE, WA
BESS	2841_3	Spire Energy Storage 200MW26	12/1/2026	23.34	23.96	(0.63)	-2.68%	24	KING, WA
BESS	1054_1		12/31/2026	23.34	24.16	(0.82)	-3.52%	26	
Solar	7621_2	Appaloosa Solar (150MW)	12/31/2025	23.34	23.64	(0.30)	-1.30%	26	GARFIELD, WA
Solar	2807_1		6/30/2026	23.34	23.62	(0.29)	-1.23%	16	
Solar	2807_3		6/30/2026	23.34	23.71	(0.37)	-1.59%	19	
Solar	3345_1		12/31/2026	23.26	23.34	(0.08)	-0.34%	5	
Solar	8784_1		6/30/2026	23.59	23.34	0.25	1.05%	6	
Wind	8781_1	Beaver Creek Wind	3/31/2025	23.34	24.35	(1.01)	-4.34%	26	Stillwater, MT
Wind	1413_1	Haymaker Wind 1	12/31/2027	23.34	23.73	(0.39)	-1.66%	23	WHEATLAND/ MEAGHER, MT
Wind	8783_4		6/30/2028	23.34	23.44	(0.10)	-0.45%	19	
Wind	8785_1		6/30/2026	23.34	23.55	(0.21)	-0.92%	26	
Hybrid/BESS	1627_3		12/31/2027	23.34	23.32	0.02	0.09%	24	
Hybrid/BESS	6518_1		6/1/2027	23.34	23.45	(0.12)	-0.50%	1	
Hybrid/BESS	6518_2		12/1/2027	23.34	23.29	0.05	0.21%	23	
Hydro	5438_2		3/9/2025	23.34	23.36	(0.03)	-0.11%	26	
Biodiesel	4929_1		10/31/2025	23.34	23.94	(0.60)	-2.58%	24	

This analysis showed that the top offers were, on the BESS side, the [REDACTED], Greenwater, [REDACTED] and Spire energy projects. Other top offers included the Appaloosa and [REDACTED] solar projects the Haymaker wind project and the [REDACTED]. These results generally followed the pricing offered by the bidders. One note here was that this analysis did not include some larger interconnection costs for the [REDACTED] project, which made the project look more competitive in this analysis.

Looking at this analysis PSE proposed to continue discussions with [REDACTED], Greenwater and Spire BESS systems, the Appaloosa and [REDACTED] projects, the Haymaker project and the [REDACTED]. Per this analysis PSE decided to prioritize selecting the BESS projects, Haymaker and the Appaloosa project. PSE would continue to review other projects, but eventually these inquiries were dropped as the projects needed to make major price updates and a new RFP was about to be issued. We suggested at this point that PSE drop discussions and simply invite those bidders to offer in the next RFP.

While PSE did conduct additional inquiries in the following weeks the [REDACTED] was ultimately rejected due to the fact that [REDACTED]. In addition, the [REDACTED] project was dropped due to [REDACTED].

PSE was able to eventually finish negotiating the Haymaker agreement in January of 2024. There was some delay in signing on the Clearway side and the agreement was finally signed in June of 2024. PSE concluded negotiations for the two BESS units (Greenwater and Spire (now named Mt. Vernon)) in April and May of 2024. The Appaloosa agreements were finalized at the end of 2024. In the next section we review these contracts.

VI. CONTRACTS

In this section we discuss the final signed agreements that resulted from this RFP. We highlight key provisions and protections of each agreement.

Vantage

The contract is a PPA between PSE and Vantage Wind Energy (an Invenergy company) and has an effective Date of June 21, 2023. Actual delivery obligations start on October 4, 2025, end October 31, 2040.¹⁷ The project is a 90 MW wind project located in Kittitas County WA.¹⁸ The contract covers the purchase of energy and RECs from the facility.

[REDACTED]¹⁹
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]²⁰

[REDACTED]
[REDACTED]²¹
[REDACTED]
[REDACTED]²²

[REDACTED]
[REDACTED]
[REDACTED]²³
[REDACTED]²⁴
[REDACTED]²⁵

[REDACTED]
[REDACTED]

¹⁷ Vantage Contract Section 3.1
¹⁸ Vantage Contract Exhibit A.
¹⁹ Vantage Contract Exhibit B.
²⁰ Vantage Contract Section 2.9.
²¹ Vantage Contract Section 5.1.
²² Vantage Contract Section 11.2.
²³ Vantage Contract Exhibit F.
²⁴ Vantage Contract Section 9.1.(f).
²⁵ Vantage Contract Section 10.1. [REDACTED]

[REDACTED]

.²⁶

Mt Vernon/Spire

The contract is a tolling agreement between PSE and Mt. Vernon Energy Storage (a NextEra company). The project covers the construction of a 200 MW, 4 hour battery energy storage system in Skagit County, Washington. The term of the contract is 25 years following the COD.²⁷

[REDACTED]

.²⁸

.²⁹

.³⁰

.³¹

.³²

[REDACTED]

.³³

[REDACTED]

.³⁴

[REDACTED]

²⁶ Vantage Contract Section 7.1.

²⁷ Mt. Vernon Contract, Section 3.1.

²⁸ Mt. Vernon Contract, Exhibit F.

²⁹ Mt. Vernon Contract, Section 4.4.(b) and 4.4.(c)

³⁰ Mt. Vernon Contract, Section 4.4.(e)

³¹ Mt. Vernon Contract, Section 4.5.

³² Mt. Vernon Contract, Section 4.5.(f)

³³ Mt. Vernon Contract, Section 4.4.(f)

³⁴ Mt. Vernon Contract, Annex I.

**PUBLIC
VERSION**

[REDACTED]

³⁵

[REDACTED]

³⁶,

³⁷

[REDACTED], and [REDACTED]

³⁸

³⁹

[REDACTED]

⁴⁰

[REDACTED]

⁴¹

⁴²

Greenwater

The contract is a tolling agreement between PSE and GREE bn, LLC (a joint venture between Brightnight and Cordelio Power) has an effective Date of April 21, 2024. The project covers the construction of a 200 MW, 4 hour battery energy storage system in Pierce County, Washington. The term of the contract is 20 years following the COD.⁴³

[REDACTED]

⁴⁴

⁴⁵

⁴⁶

³⁵ Mt. Vernon Contract, Section 5.1.

³⁶ Mt. Vernon Contract, Exhibit G.

³⁷ Mt. Vernon Contract, Exhibit I.

³⁸ Mt. Vernon Contract, Section 2.1.(d).

³⁹ Ibid. [REDACTED]. See Exhibit B.

⁴⁰ Mt. Vernon Contract, Section 9.1.(vi). [REDACTED]

⁴¹ Mt. Vernon Contract, Section 7.5.

⁴² Mt. Vernon Contract, Exhibit L.

⁴³ Greenwater Contract, Section 3.2.

⁴⁴ Greenwater Contract, Exhibit F.

⁴⁵ Greenwater Contract, Section 4.4.(b).

⁴⁶ Greenwater Contract, Section 4.4.(c).

[REDACTED]

47

[REDACTED]

48

[REDACTED]

49

50

[REDACTED]

51

[REDACTED]

52

53

54, and

55

56

[REDACTED]

57

47 Greenwater Contract, Section 4.5.(c) and (d).
 48 Greenwater Contract, Section 4.4.(j)
 49 Greenwater Contract, Annex I.
 50 Greenwater Contract, Section 3.4.
 51 Greenwater Contract, Section 5.1.(a) and (b).
 52 Greenwater Contract, Exhibit G.
 53 Greenwater Contract, Exhibit G. [REDACTED]
 54 Greenwater Contract, Section 2.1.(d).
 55 Ibid. [REDACTED]
 [REDACTED]. See Exhibit B.
 56 Greenwater Contract, Section 9.1.a.(vi). [REDACTED]
 [REDACTED].
 57 Greenwater Contract, Section 7.6.

[REDACTED]

Haymaker

The contract is a PPA between PSE and Haymaker Clean Energy (a Clearway company) for the output of a 315 MW wind facility in Wheatland Montana. The term is for 25 years following the COD.⁵⁸

A major source of risk that arose with this project had to do with interconnection and the transmission service arrangements. As stated above, the project proposed to use PSE's existing 713 MW of rights on the Colstrip Transmission System (CTS), Eastern Intertie, and BPA main grid to deliver to load. These rights will be shared with the output of the existing Clearwater Wind project and the new Beaver Creek Wind project. While this is not new service the request will still need to be studied. In addition, PSE will establish a pseudo-tie to its system for integration and balancing. PSE is responsible for the transmission arrangements. Clearway is responsible for the interconnection of the facility. Interconnection requires construction by Northwestern of a new 500kV substation on the Colstrip Transmission System (CTS). Under the LGIA between Clearway and Northwestern and the other CTS Owners, the target completion date (initial synchronization) is January 15, 2028.

[REDACTED]

[REDACTED]⁵⁹ [REDACTED]

[REDACTED]⁶⁰ [REDACTED]

[REDACTED]

[REDACTED]⁶¹ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁶² [REDACTED]

[REDACTED]

[REDACTED]⁶³ [REDACTED]

[REDACTED]⁶⁴ [REDACTED]

[REDACTED]

⁵⁸ Haymaker Contract, Section 3.1.

⁵⁹ Haymaker Contract, Exhibit F.

⁶⁰ Haymaker Contract, Section 4.6.(a)

⁶¹ Haymaker Contract, Section 4.6.(b)

⁶² Haymaker Contract, Exhibit F.

⁶³ Haymaker Contract, Section 4.4.(d) and (e). [REDACTED]

⁶⁴ Haymaker Contract, Section 4.4.(b)

[REDACTED] 65 [REDACTED]
[REDACTED]

[REDACTED]
[REDACTED] 66 [REDACTED]
[REDACTED]

[REDACTED] 67 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] 68 [REDACTED] 69 [REDACTED]
[REDACTED] 70 [REDACTED]

[REDACTED]
[REDACTED] 71 [REDACTED]

[REDACTED]
[REDACTED] 72 [REDACTED]
[REDACTED] 73 [REDACTED]

[REDACTED]
[REDACTED] 74 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Appaloosa

Unlike the projects above the Appaloosa project was acquired by PSE. This was done through two agreements. The first was a Membership Interest Purchase Agreement (MIPA) executed in December of 2023 between PSE and HQC Solar Holdings 1. This contract provides for transfer of the

⁶⁵ Haymaker Contract, Section 4.5.(a)

⁶⁶ Haymaker Contract, Section 4.4.(f)

⁶⁷ Haymaker Contract, Exhibit I.

⁶⁸ In the same board presentation PSE noted that [REDACTED]
[REDACTED]

⁶⁹ Haymaker Contract, Annex I.

⁷⁰ Haymaker Contract, Section 2.4.

⁷¹ Haymaker Contract, Section 5.1.

⁷² Haymaker Contract, Exhibit G.

⁷³ Haymaker Contract, Section 9.1.(a).(vi).

⁷⁴ Haymaker Contract, Section 7.5.

ownership interests of the project for a total price of roughly \$17 million. While PSE is not currently proposing it, the MIPA includes permit rights for an optional BESS system.

The main agreement for the Appaloosa Project is an Engineering, Procurement and Construction Agreement between PSE and Hanwha Q Cells dated August 30, 2024 for the construction of a 142 MW solar project located in Garfield County, Washington. The project will interconnect at BPA’s Central Ferry 230 kV substation and utilize surplus transmission from the Lower Snake River Wind Farm.

[REDACTED]

[REDACTED] ⁷⁵ [REDACTED]

[REDACTED] ⁷⁶ [REDACTED]

[REDACTED] ⁷⁷ [REDACTED]

[REDACTED] ⁷⁸ [REDACTED]

[REDACTED] ⁷⁹ [REDACTED]

[REDACTED]

[REDACTED] ⁸⁰ [REDACTED]

[REDACTED] ⁸¹ [REDACTED]

[REDACTED] ⁸² [REDACTED]

[REDACTED] ⁸³ [REDACTED]

[REDACTED] ⁸⁴ [REDACTED]

[REDACTED] ⁸⁵ [REDACTED]

[REDACTED]

[REDACTED] ⁸⁶ [REDACTED]

[REDACTED] ⁸⁷ [REDACTED]

[REDACTED] ⁸⁸ [REDACTED]

⁷⁵ Appaloosa Contract, Exhibit C-1.
⁷⁶ Appaloosa Contract, Section 3.2.3.
⁷⁷ Appaloosa Contract, Section 3.4.3.
⁷⁸ Appaloosa Contract, Section 3.7.3.
⁷⁹ Appaloosa Contract, Section 13.1.(g).
⁸⁰ Appaloosa Contract, Section 13.1.(d).
⁸¹ Appaloosa Contract, Section 10.5. [REDACTED].
⁸² Appaloosa Contract, Section 5.1.
⁸³ PSE estimated a net benefit of the project in November 2023 of about \$302 million.
⁸⁴ Appaloosa Contract, Section 5.4.2.
⁸⁵ Appaloosa Contract, Section 5.4.1.
⁸⁶ Appaloosa Contract, Section 2.25
⁸⁷ Appaloosa Contract, Section 2.25.4.
⁸⁸ Appaloosa Contract, Section 2.26.

[REDACTED]

[REDACTED] ⁸⁹ .

[REDACTED] ⁹⁰ . [REDACTED]

[REDACTED] ⁹¹ . [REDACTED]

[REDACTED]

These contracts all appear to reflect the offers as they were analyzed in November of 2023 (or earlier in the case of Vantage). Based on that analysis it appears that these projects are projected to be net beneficial to ratepayers. In addition, the contracts appear to contain standard terms and protections that we would expect to find in commercial arms-length contracts of this sort.

⁸⁹ Appaloosa Contract, Section 2.26.4.

⁹⁰ Appaloosa Contract, Section 7.1.

⁹¹ Ibid.

VII. CONCLUSIONS

The 2021 All Source RFP resulted in a significant acquisition of projects that PSE may use to meet its reliability needs and environmental goals. The RFP was conducted in a fair manner by PSE. Based on the most recent evaluations in November of 2023 the selected projects should provide positive benefits to ratepayers over their operating life. The signed contracts generally reflect the final bid offers and feature standard risk protections for ratepayers.

While the end result was fairly successful there is no doubt that the RFP process itself took far too long to complete. The RFP was issued on June 30, 2021 and the final contract (the Appaloosa EPC contract) was signed on August 30, 2024. For a comparison, Portland General Electric's 2021 All Source RFP was issued to the market on December 6, 2021. That RFP secured four resources (three BESS facilities and one wind facility) and the final of the four contracts was signed in May of 2023, taking less than half the time that PSE needed. While the PSE RFP attracted more offers this alone does not account for the extensive time frame needed to wrap this procurement.

From our point of view there were several causes for the delays. First, the RFP was fairly open in terms of minimum requirements. This is a positive thing in terms of attracting bids, but it also meant that there were a large number of bids to analyze. Second, there was extensive production cost modelling needed to evaluate each offer. This process takes quite a bit of time to set up and to run. Other RFPs will often use more simplistic models, for example an excel-based levelized cost model, to find the best-performing offers in a given category before moving on to more advanced modelling. Third, as far as we could tell there was no "next RFP" planned for a good portion of the process. As a result PSE was very loathe to reject offers. While this is an admirable trait, it meant that bids tended to linger in the evaluation. At this point other similar utilities will have another RFP planned for 18 months to 2 years later. With this backup it's easier to simply reject bids that are "not ready" and feel more secure that they will be back in the next RFP. Fourth, there were some major market movements during the process as developers tried to work through the disruptions coming out of the COVID-19 pandemic and the Inflation Reduction Act was passed and others moved on to take deals with private companies that were faster to resolve. These developments had an effect on bid pricing and preferences and did require evaluators to seek price updates on several occasions. Fifth, most bids had to deal with the BPA transmission and interconnection process, which has been plagued by extensive delays for several years now.

Finally, in a more abstract sense, this RFP appeared to reveal a conflict between the process laid out in the RFP documents and what we took to be PSE's more traditional process for acquiring resources. Per our read of the situation, under the latter process PSE would be consistently scanning the market to create a "deal pipeline". This included soliciting input about various project features from subject matter experts. Over time, projects that were well-reviewed were sought out for deals. Of those projects the ones where agreements could be reached were brought to the PSE Board for action. This is a slow, iterative process and reflects a fairly traditional utility procurement mindset. It is also less

transparent. In contrast, the RFP process aims to create a process where bids can be efficiently and transparently reviewed. In some ways this RFP reflected a friction between the two processes. PSE was, as noted, slow to reject offers and would focus on non-price aspects of offers that they thought made good development candidates. Again, there is nothing inherently wrong with this, and PSE evaluators did a very thorough and diligent job, but it lacks some clarity that an RFP process provides. Ideally, the RFP design itself should both award lower-cost offers while containing enough scoring weight to ensure that more developed projects are appropriately valued in the rankings.

We believe that with this RFP completed PSE will be able to move faster in subsequent procurements. To that end we have made some changes in the 2024 All Source RFP. First, the initial phase of modeling will not utilize production cost modelling. Second, the non-price scoring has been adjusted to allow bidders to self-score their bids, with evaluators serving as a check on those scores. Third, we have been encouraging PSE to think ahead to having another RFP within the next 18 to 24 months. PSE has been very responsive to these changes and the current process is moving quite quickly. However, once bids are selected PSE will need to commit appropriate resources dedicated to finalizing contract negotiations.

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
1054			PPA	BESS						12/31/2024
1054			PPA	BESS						12/31/2025
1054			PPA	BESS						12/31/2026
1058			PPA	BESS						12/31/2024
1058			PPA	BESS						12/31/2025
1058			PPA	BESS						12/31/2026
1261			PPA	Solar						12/31/2025
1261			PPA	Solar + Storage						12/31/2025
1264			PPA	Wind						12/31/2025
1412			PPA	BESS						12/1/2024
1412			PPA	BESS						12/1/2024
1413			PPA	Wind						12/31/2025
1413	Clearway Renew LLC	Haymaker Wind + BESS NWMT 230 kV	PPA	Wind	NA	220	NA	Two Dot	MT	12/31/2025
1413			PPA	Wind + Storage						12/31/2025
1524			PPA	Wind						12/1/2023
1524			PPA	Wind						12/1/2024
1524			PPA	Solar + Storage						12/1/2024
1573			PPA	Wind						10/4/2010
1573	Vantage Wind Energy LLC	Vantage Wind	PPA	Wind	NA	90	NA	Ellensburg	WA	10/4/2010
1627			PPA	Solar + Storage						12/1/2025
1627			PPA	Solar + Storage						12/1/2025
1627			PPA	Solar + Storage						12/1/2025
1698			PPA	Wind + Storage						12/31/2025
1698			PPA	Wind + Storage						12/31/2025
1698			PPA	Wind + Storage						12/31/2025
1796			PPA	Solar + Storage						12/31/2025
1796			PPA	Solar + Storage						12/31/2025
1796			PPA	Solar + Storage						12/31/2025
1810			Capacity Agreement	Storage: Pumped Hydro						12/15/2026
1810			Capacity Agreement	Storage: Pumped Hydro						12/15/2026
1810			Capacity Agreement	Storage: Pumped Hydro						12/15/2026
1810			APA	Storage: Pumped Hydro						12/15/2026

**PUBLIC
VERSION**

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
1810			APA	Storage: Pumped Hydro						12/15/2026
1810			APA	Storage: Pumped Hydro						12/15/2026
2141			PPA	Wind						5/12/2025
2141			PPA	Wind						5/12/2025
2141			PPA	Wind						5/12/2025
2180			PPA	Solar + Wind + Storage						10/31/2024
2180			PPA	Solar + Wind + Storage						10/31/2024
2180			PPA	Solar + Wind + Storage						10/31/2024
2343			Capacity Agreement	Thermal - biodiesel and NG						12/31/2026
2343			Capacity Agreement	Thermal - biodiesel, hydrogen and NG						12/31/2026
2343			Capacity Agreement	Thermal - biodiesel, hydrogen and NG						12/31/2026
2343			APA	Thermal - biodiesel and NG						12/31/2026
2343			APA	Thermal - biodiesel, hydrogen and NG						12/31/2026
2343			APA	Thermal - biodiesel, hydrogen and NG						12/31/2026
2343			Capacity Agreement	Thermal - biodiesel and NG						12/31/2026
2343			Capacity Agreement	Thermal - biodiesel, hydrogen and NG						12/31/2026
2343			Capacity Agreement	Thermal - biodiesel, hydrogen and NG						12/31/2026
2351			PPA	Solar						12/31/2024
2587			PPA	Solar						12/1/2024
2587			PPA	Solar						12/1/2024
2587			APA	Solar						12/1/2024
2587			APA	Solar						12/1/2024
2608			PPA	BESS						7/1/2024
2659			PPA	Wind						12/31/2024
2659			PPA	Wind						12/31/2025
2659			PPA	Wind						12/31/2025
2725			PPA	Solar						10/1/2025
2725			PPA	Solar + Storage						10/1/2025
2725			PPA	Solar + Storage						10/1/2025
2807			PPA	Solar						12/31/2025
2807			PPA	Solar + Storage						12/31/2025

PUBLIC
VERSION

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
2807			PPA	Solar + Wind + Storage						12/31/2025
2841	NextEra Energy Resources Development, LLC	Spire Storage	PPA	BESS	4	NA	100	Burlington	WA	12/1/2025
2889			PPA	BESS						12/1/2025
2892			PPA	Solar						3/2/2024
2892			APA	Solar						3/2/2024
2899			PPA	Solar + Storage						12/31/2024
2899			PPA	Solar						12/31/2024
2899			PPA	Solar						12/31/2024
2958			PPA	Wind						12/1/2023
2958			PPA	Wind						12/1/2025
3028			PPA	Wind						12/1/2025
3060			PPA	Solar						12/31/2025
3060			PPA	Storage						12/31/2025
3155			PPA	Solar						12/31/2025
3155			PPA	Solar						12/31/2025
3180			PPA	Wind						12/31/2025
3325			PPA	Wind						12/1/2024
3325			PPA	Solar + Storage						12/1/2024
3325			APA	Wind						12/1/2024
3345			PPA	Solar						12/31/2025
3345			PPA	Solar						12/31/2025
3387			PPA	BESS						7/1/2026
3387			PPA	BESS						7/1/2026
3669			PPA	Solar + Storage						12/1/2025
3669			PPA	Solar + Storage						12/1/2025
3669			PPA	Solar + Storage						12/1/2025
3771			PPA	BESS						12/1/2025
3923			PPA	Wind						12/31/2025
3923			PPA	Wind						12/31/2025
3947			PPA	Solar						12/31/2024
3947			PPA	Solar + Storage						12/31/2024
3947			PPA	Solar + Storage						12/31/2024
3971			PPA	Wind						12/1/2024

PUBLIC
VERSION

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
3971			PPA	Wind						12/1/2024
3971			PPA	Wind						12/1/2024
4069			PPA	BESS						7/1/2024
4069			PPA	BESS						7/1/2024
4069			PPA	BESS						7/1/2024
4091			PPA	Wind						12/1/2025
4101			Capacity Agreement	BESS						12/31/2025
4101	BrightNight, LLC and Cordelio Power	Greenwater Energy Storage	Capacity Agreement	BESS	4	NA	200	Sumner	WA	12/31/2025
4240			Capacity Agreement	SCCT fueled with biodiesel						10/31/2025
4240			Capacity Agreement	SCCT fueled with biodiesel						10/31/2025
4240			Capacity Agreement	SCCT fueled with biodiesel						10/31/2025
4578			PPA	Wind + Storage						12/31/2025
4578			PPA	Wind + Storage						12/31/2025
4578			PPA	Wind + Storage						12/31/2025
4644			PPA	BESS						12/31/2025
4644			PPA	BESS						12/31/2025
4644			PPA	BESS						12/31/2025
4763			Capacity Agreement	Storage: Pumped Hydro						9/30/2026
4763			Capacity Agreement	Storage: Pumped Hydro						9/30/2026
4763			Capacity Agreement	Storage: Pumped Hydro						9/30/2026
4929			Capacity Agreement	SCCT fueled with biodiesel						10/31/2025
4929			Capacity Agreement	SCCT fueled with biodiesel						10/31/2025
4929			Capacity Agreement	SCCT fueled with biodiesel						10/31/2025
5008			PPA	BESS						12/31/2025
5008			PPA	BESS						12/31/2025
5008			PPA	BESS						12/31/2026

PUBLIC VERSION

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
5056			PPA	Solar						12/31/2025
5088			PPA	Wind						1/1/2009
5088			PPA	Wind						1/1/2009
5234			PPA	Solar + Storage						12/1/2024
5234			PPA	Solar + Storage						12/1/2024
5234			APA	Solar						2034
5234			APA	Solar						2034
5435			PPA	BESS						10/31/2024
5435			PPA	BESS						12/31/2023
5435			PPA	BESS						10/31/2024
5438			PPA	Hydro						12/31/1989
5438			PPA	Hydro						12/31/1989
5684			PPA	BESS						12/1/2025
5684			PPA	BESS						12/2/2025
5684			PPA	Solar + Storage						12/3/2025
5703			PPA	Solar						10/1/2025
5703			PPA	Solar + Storage						10/1/2025
5864			PPA	Solar						6/3/2024
5943			Capacity Agreement	Flex Capacity: Gas/CCCT						7/1/2008
5943			Capacity Agreement	Flex Capacity: Gas/CCCT						7/1/2008
5943			APA	Flex Capacity: Gas/CCCT						7/1/2008
5964			Capacity Agreement	Flex Capacity: SCCT fueled with biodiesel						10/31/2025
5964			Capacity Agreement	Flex Capacity: SCCT fueled with biodiesel						10/31/2025
5964			Capacity Agreement	Flex Capacity: SCCT fueled with biodiesel						10/31/2025
5999			PPA	BESS						9/30/2025
5999			PPA	BESS						9/30/2025
6185			PPA	Solar						12/31/2025
6185			PPA	Solar + Storage						12/31/2025
6236			PPA	Solar + Storage						12/1/2024
6236			PPA	Solar + Storage						12/1/2024
6236			PPA	Solar + Storage						12/1/2024
6236			APA	Solar + Storage						2034
6236			APA	Solar + Storage						2034
6236			APA	Solar + Storage						2034
6430			PPA	Wind						12/31/2025

**PUBLIC
VERSION**

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
6465			Capacity Agreement	BESS						10/31/2024
6465			Capacity Agreement	BESS						12/31/2023
6465			Capacity Agreement	BESS						10/31/2024
6518			PPA	Solar + Storage						12/1/2025
6549			PPA	Solar						12/31/2025
6549			PPA	Solar + Storage						12/31/2025
6606			PPA	Wind						12/31/2025
6606			PPA	Wind						12/31/2025
6606			PPA	Wind						12/31/2025
6891			PPA	Wind						12/31/2025
7103			PPA	Wind						12/1/2025
7374			Winter capacity call	Solar						12/31/2024
7374			PPA	Solar						12/31/2024
7374			PPA	Solar						12/31/2024
7405			PPA	Solar + Storage						6/1/2025
7418			Capacity Agreement	BESS						10/31/2024
7418			Capacity Agreement	BESS						12/31/2023
7418			Capacity Agreement	BESS						10/31/2024
7508			Capacity Agreement	BESS						10/31/2024
7508			Capacity Agreement	BESS						12/31/2023
7508			Capacity Agreement	BESS						10/31/2024
7621			PPA	Solar						12/1/2024
7621	Appaloosa Solar Project LLC	Appaloosa Solar Project LLC	PPA	Solar	NA	150	NA	Pomeroy	WA	12/1/2024
7621			APA	Solar						2034
7621			APA	Solar						2034
7728			PPA	Wind						10/1/2024
7728			PPA	Wind						10/1/2025
7736			Capacity Agreement	BESS						12/31/2024
7736			Capacity Agreement	BESS						12/31/2025
7736			Capacity Agreement	BESS						12/31/2026
7736			APA	BESS						2025
7736			APA	BESS						2025
7736			APA	BESS						2026
7871			PPA	BESS						12/31/2024
7991			PPA	Solar + Storage						12/31/2024
7991			PPA	Solar						12/31/2024
7991			PPA	Solar						12/31/2024

PUBLIC
VERSION

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
8150			PPA	Wind						12/1/2023
8150			PPA	Solar + Storage						12/1/2024
8150			APA	Wind						Q4 2023
8179			Capacity Agreement	BESS						12/31/2025
8652			PPA	Solar						12/31/2024
8652			PPA	Solar						12/31/2024
8728			Capacity Agreement	Storage: Pumped Hydro						9/30/2026
8728			Capacity Agreement	Storage: Pumped Hydro						9/30/2026
8728			Capacity Agreement	Storage: Pumped Hydro						9/30/2026
8910			Capacity Agreement	Flex Capacity: Gas/CCCT						8/1/2002
8910			Capacity Agreement	Flex Capacity: Gas/CCCT						8/1/2002
8910			Capacity Agreement	Flex Capacity: Gas/CCCT						8/1/2002
9015			PPA	Solar						12/31/2024
9015			PPA	Solar + Storage						12/31/2024
9015			PPA	Solar + Storage						12/31/2024
9136			Capacity Agreement	BESS						12/31/2025
9136			Capacity Agreement	BESS						12/31/2025
9374			PPA	Solar + Storage						12/1/2025
9439			PPA	BESS						7/1/2024
9439			PPA	BESS						7/1/2024
9602			PPA	Solar + Storage						12/31/2024
9602			PPA	Solar						12/31/2024
9602			PPA	Solar						12/31/2024
9696			PPA	Solar						12/31/2025
9696			BTA	Solar + Storage						2025
9696			PPA	Solar + Storage						12/31/2025
9788			Capacity Agreement	BESS						12/31/2025
9831			Capacity Agreement	BESS						12/31/2024
9831			Capacity Agreement	BESS						12/31/2025
9831			Capacity Agreement	BESS						12/31/2026
9851			Capacity Agreement	BESS						10/31/2024
9851			Other	BESS						12/31/2023
9851			Other	BESS						10/31/2024
3458				Green Hydrogen PEM Fuel Cell						12/31/2024

**PUBLIC
VERSION**

Bid Number	Bidder	Project Name	Transaction (PPA/EPC/etc)	Technology (Fuel and/or BESS duration)	BESS Duration (hours)	Capacity (MW)	Storage Capacity (MW)	City	State	COD
5503			Capacity Agreement	Demand Response						12/1/2025
5503			Capacity Agreement	Demand Response						12/2/2025
5503			Capacity Agreement	Demand Response						12/3/2025
5864			Capacity Agreement	Solar + Wind + Storage						6/3/2024
5864			APA	Solar + Wind + Storage						6/3/2024
7894			Capacity Agreement	Demand Response						12/1/2025
7894			Capacity Agreement	Demand Response						12/1/2025
7894			Capacity Agreement	Demand Response						12/1/2025
8051			PPA	Solar + Wind + Storage						12/1/2024
8051			PPA	Solar + Wind + Storage						12/1/2024
8051			PPA	Solar + Wind						12/1/2024
9088			APA	Flex Capacity: Gas/CCCT						2024
9088			APA	Flex Capacity: Gas/CCCT						2026

PUBLIC
VERSION

Attachment 2

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MW/yr)	Peak Capacity Contribution (MW)	BW NP Score	BW LCOE (\$/MWh)	Score with BW NP Score
5088 2			15	31.77	100.00	50.47	85.14			17.85		87.85
5088 1			10	28.09	96.59	50.47	82.75			17.85		85.46
1573 1			10	11.41	81.13	72.00	78.39			23.48		80.27
1573 2	VANTAGE WIND	90	15	10.78	80.55	72.00	77.98	263.378	-	23.48		79.86
5438 1			20	18.09	87.32	53.25	77.10			20.00		81.12
5438 2			20	16.83	86.15	53.25	76.28			20.00		80.31
8150 1			30	6.20	76.30	44.25	66.68			14.44		67.85
1524 1			20	3.53	73.83	44.25	64.95			14.44		66.12
8150 3			Own	(2.60)	68.15	44.25	60.98			14.44		62.14
3325 1			30	(15.70)	56.00	44.25	52.47			14.44		53.64
4091 1			20	(26.45)	46.03	67.28	52.41			19.63		51.85
3325 3			Own	(16.94)	54.86	44.25	51.67			14.44		52.84
1524 2			20	(17.44)	54.39	44.25	51.35			14.44		52.51
3180 1			20	(25.89)	46.55	34.69	43.00			11.24		43.83
3971 3			25	(35.94)	37.24	48.14	40.51			11.91		37.98
3971 2			20	(41.58)	32.01	48.14	36.85			11.91		34.32
7103 1			20	(44.55)	29.26	47.92	34.86			15.31		35.80
2659 3			25	(53.05)	21.38	59.92	32.94			18.97		33.94
6430 1			20	(45.61)	28.27	41.36	32.20			14.12		33.91
3971 1			15	(52.86)	21.56	48.14	29.53			11.91		27.00
2659 2			25	(58.63)	16.21	59.92	29.32			18.97		30.31
2141 3 Own			Own	(67.11)	8.35	59.17	23.59			16.87		22.71
2141 1 Own			Own	(68.77)	6.82	59.17	22.52			16.87		21.64
2659 1			25	(69.36)	6.26	59.92	22.36			18.97		23.35
2141 2 Own			Own	(69.39)	6.24	59.17	22.12			18.97		23.34
2141 2 PPA			20	(70.72)	5.00	59.17	21.25			18.97		22.47
2141 1 PPA			20	(70.95)	4.79	59.17	21.10			18.97		22.32
2141 3 PPA			30	(76.12)	-	59.17	17.75			18.97		18.97

PUBLIC VERSION

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit/ Nameplate	Quantitative Score (P/E/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MW/h)	Peak Capacity Contribution (MW)	BW NP Score	BW LCOE (\$/MWh)	Score with BW NP Score
2892_1			25	12.80	100.00	43.17	82.95			14.18		84.18
2899_3			25	2.67	87.18	50.14	76.07			16.92		77.94
2899_2			20	2.01	86.34	50.14	75.48			16.92		77.36
8652_1			25	1.74	86.01	47.92	74.58			15.28		75.48
7621_2_PPA	APPALOOSA SOLAR PROJECT LLC (100/150 MW)	150	20	(0.90)	82.67	55.28	74.45	305,596	-	12.58		70.44
8652_2			25	1.38	85.56	47.92	74.27			15.28		75.17
7621_1_PPA			20	(1.40)	82.04	55.28	74.01			12.58		70.00
9696_1			20	1.94	86.26	40.25	72.46			12.58		72.96
7991_3			25	(1.67)	81.69	50.14	72.22			15.04		72.22
1261_1			20	(2.75)	80.33	48.28	70.71			14.78		71.00
7991_2			20	(4.56)	78.04	50.14	69.67			15.04		69.67
9015_1			20	(7.14)	74.77	55.69	69.05			13.24		65.58
2725_1			20	(6.47)	75.62	48.36	67.44			13.84		66.77
2807_1			20	(12.82)	67.58	51.61	62.79			15.78		63.08
3947_1			20	(11.88)	68.78	47.58	62.42			13.84		61.98
7374_3			25	(12.39)	68.13	47.03	61.80			13.84		61.53
2587_1_PPA			20	(19.08)	59.65	55.28	58.34			12.58		54.33
2587_2_PPA			20	(20.41)	57.98	55.28	57.17			12.58		53.16
7621_1_Own			Own	(25.22)	51.88	55.28	52.90			12.58		48.89
7621_2_Own			Own	(25.45)	51.59	55.28	52.70			12.58		48.69
3345_2			15	(24.51)	52.78	42.25	49.62			11.58		48.52
2892_2			Own	(27.03)	49.60	43.17	47.67			14.18		48.89
3345_1			20	(28.30)	47.98	42.25	46.26			11.58		45.16
7374_2			20	(30.47)	45.25	47.03	45.78			13.84		45.51
6549_1			20	(31.80)	43.55	41.36	42.90			12.58		43.06
6185_1			20	(31.89)	43.45	33.03	40.32			10.58		40.99
5864_1			25	(36.11)	38.11	40.58	38.85			10.37		37.04
2587_1_Own			Own	(41.15)	31.73	55.28	38.79			12.58		34.78
2587_2_Own			Own	(42.57)	29.92	55.28	37.53			12.58		33.52
5086_1			20	(41.59)	31.17	38.92	33.49			12.91		34.73
2351_1			29	(44.20)	27.87	43.14	32.45			13.62		33.13
3155_1			20	(45.76)	25.89	39.69	30.03			12.58		30.70
5703_1			20	(55.05)	14.13	36.92	20.97			13.78		23.68
3060_1			20	(66.22)	-	46.25	13.88			15.05		15.05

PUBLIC VERSION

Hybrid Projects

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MW)	Peak Capacity Contribution (MW)	BW NP Score	BW LCOE (\$/MWh)	Score with BW NP Score
1627 2				20	(8.78)	100.00	33.03	79.91			12.45		82.45
9696 3				20	(12.22)	96.02	40.25	79.29			12.58		79.79
9374 1				20	(18.97)	88.20	57.03	78.85			15.34		77.08
2725 2				20	(18.52)	88.72	48.36	76.61			13.84		75.95
2725 3				20	(18.71)	88.50	48.36	76.46			13.84		75.79
2899 1				20	(27.04)	78.85	50.14	70.24			16.92		72.11
7991 1				20	(27.76)	78.02	50.14	69.65			15.04		69.65
9696 2				Own	(24.89)	81.34	40.25	69.01			12.58		69.51
6236 1 PPA				20	(31.94)	73.17	55.28	67.81			12.58		63.80
1627 3				20	(25.20)	80.98	33.03	66.59			12.45		69.14
9015 2				20	(34.75)	69.92	55.69	65.65			13.24		62.19
1261 2				20	(33.10)	71.83	46.61	64.26			14.78		65.05
9015 3				20	(36.93)	67.40	55.69	63.89			13.24		60.42
3325 2				30	(32.23)	72.84	40.92	63.26			14.44		65.43
8150 2				30	(32.93)	72.03	40.92	62.69			14.28		64.69
1524 3				20	(33.36)	71.53	40.92	62.35			14.28		64.35
3669 2				20	(32.73)	72.26	33.03	60.49			12.45		63.03
1627 1				20	(33.92)	70.88	33.03	59.52			12.45		62.06
6549 2				20	(39.91)	63.94	41.36	57.17			12.58		57.33
6185 2				20	(38.34)	65.76	33.03	55.94			10.58		56.61
1796 1				20	(44.19)	58.98	40.58	53.46			11.58		52.86
3947 2				20	(47.56)	55.08	47.58	52.83			13.84		52.40
7374 1				20	(47.83)	54.76	47.03	52.44			13.84		52.18
6236 1 Own				Own	(51.31)	50.73	55.28	52.10			12.58		48.09
3947 3				20	(50.13)	52.10	47.58	50.74			13.84		50.31
3155 2				20	(51.18)	50.88	39.69	47.52			12.58		48.19
6236 2 PPA				20	(58.34)	42.59	55.28	46.40			12.45		42.39
3669 3				20	(50.51)	51.66	33.03	46.07			12.45		48.62
1796 2				20	(54.50)	47.03	40.58	45.10			11.58		44.50
6236 3 PPA				20	(60.96)	39.55	55.28	44.27			12.58		40.26
7405 1				20	(70.84)	28.11	79.78	43.61			21.57		41.24
3669 1				20	(56.20)	45.07	33.03	41.45			12.45		44.00
5234 1 PPA				20	(67.30)	32.20	55.28	39.13			12.58		35.12
1796 3				20	(62.23)	38.09	40.58	38.84			11.58		38.24
5234 2 PPA				20	(68.88)	30.38	55.28	37.85			12.58		33.84
2807 2				20	(66.63)	32.98	43.69	36.20			15.78		38.86
6236 2 Own				Own	(71.11)	27.80	55.28	36.04			12.58		32.03
6236 3 Own				Own	(73.08)	25.51	55.28	34.44			12.58		30.43
6518 1				20	(73.97)	24.48	57.03	34.24			15.34		32.48
5234 1 Own				Own	(80.11)	17.36	55.28	28.74			12.58		24.73
3060 2				20	(78.15)	19.64	46.25	27.62			15.05		28.80
5234 2 Own				Own	(82.43)	14.68	55.28	26.86			12.58		22.85
5703 2				20	(86.13)	10.40	36.92	18.35			13.78		21.06
5684 3				20	(95.10)	-	54.69	16.41			16.88		16.88

PUBLIC VERSION

Pumped Storage Hydro - All bids passed through

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit/ Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
8728_2			30	(48.05)	80.83	40.69	68.79		
8728_3			30	(52.92)	78.10	40.69	66.88		
4763_2			20	(62.29)	72.86	40.69	63.21		
4763_3			20	(66.68)	70.40	40.69	61.49		
8728_1			30	(84.12)	60.64	40.69	54.65		
4763_1			20	(98.31)	52.70	40.69	49.10		
1810_3_Own			Own	(169.38)	12.91	42.92	21.91		
1810_2_Own			Own	(176.92)	8.69	42.92	18.96		
1810_3_PPA			30	(177.55)	8.34	42.92	18.71		
1810_2_PPA			30	(182.12)	5.78	42.92	16.92		
1810_1_Own			Own	(191.26)	0.66	42.92	13.34		
1810_1_PPA			30	(192.45)	-	42.92	12.88		

PUBLIC VERSION

Project Offer ID	Proposal Name	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit/ Nameplate	Quantitative Score (P/E/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)	BW NP Score	BW LCOE (\$/kw-yr)	Score with BW NP Score
1054_3			20	(13.80)	100.00	43.25	82.98			13.88		83.88
1058_3			20	(19.65)	96.72	43.25	80.68			13.88		81.59
1054_2			20	(20.63)	96.18	43.25	80.30			13.88		81.21
1054_1			20	(30.08)	90.89	43.25	76.60			13.88		77.50
1058_2			20	(30.09)	90.88	43.25	76.59			13.88		77.50
9831_3			20	(30.36)	90.73	43.25	76.48			13.88		77.39
4101_2	GREENWATER ENERGY STORAGE	200	20	(37.07)	86.97	51.03	76.19	0	50	16.78		77.66
7871_1			20	(30.03)	90.91	41.69	76.15			14.28		77.92
8179_1			20	(38.58)	86.13	47.03	74.40			16.78		77.07
4644_3			20	(44.28)	82.94	50.14	73.10			13.62		71.68
9788_1			20	(42.29)	84.05	47.03	72.95			18.65		77.49
4101_1			20	(45.97)	81.99	51.03	72.70			16.78		74.17
9136_1			20	(38.76)	86.03	40.36	72.33			16.78		77.00
9831_2			20	(41.90)	84.27	43.25	71.97			13.88		72.87
1058_1			20	(42.21)	84.10	43.25	71.84			13.88		72.75
4644_2			20	(47.49)	81.14	50.14	71.84			13.62		70.42
4644_1			20	(48.58)	80.53	50.14	71.41			13.62		70.42
2889_1			20	(52.62)	78.27	54.25	71.06			15.01		69.80
5008_3			20	(53.37)	77.85	51.25	69.87			15.49		69.99
2841_1	SPIRE STORAGE	100	20	(55.88)	76.45	54.25	69.79	0	25	15.01		68.52
5008_1			20	(58.44)	75.01	51.25	67.88			15.49		68.00
5008_2			20	(60.17)	74.04	51.25	67.20			15.49		67.32
9831_1			20	(55.80)	76.49	43.25	66.52			13.88		67.43
9439_1			20	(63.90)	71.96	48.69	64.98			14.06		64.43
2608_1			20	(64.82)	71.44	48.69	64.62			14.06		64.07
3387_3			20	(62.41)	72.79	36.92	62.03			11.74		62.70
3387_2			20	(66.61)	70.44	36.92	60.38			11.74		61.05
3387_1			20	(81.49)	62.11	54.69	59.89			16.88		60.36
5684_1			20	(83.00)	61.27	48.69	57.49			14.06		56.94
9439_2			22	(78.63)	63.71	38.58	56.17			12.91		57.50
5999_1			20	(83.82)	60.81	43.92	55.74			11.74		54.31
6465_3			20	(83.98)	60.71	43.92	55.67			11.74		54.24
7418_3			20	(83.98)	60.71	43.92	55.67			11.74		54.24
3387_1			20	(79.20)	63.39	36.92	55.45			11.74		56.11
5999_2			22	(82.09)	61.77	38.58	54.81			12.91		56.15
5435_3			20	(87.29)	58.86	43.92	54.38			11.74		52.95
9851_1			20	(88.02)	58.45	43.92	54.09			11.74		52.66
6465_1			20	(88.37)	58.26	43.92	53.96			11.74		52.52
7418_1			20	(88.37)	58.26	43.92	53.96			11.74		52.52
7508_3			20	(84.60)	60.37	36.92	53.33			11.74		54.00
1412_1			20	(91.03)	56.77	42.58	52.51			12.91		52.65
5435_1			20	(92.27)	56.08	43.92	52.43			11.74		51.00
7508_1			20	(88.92)	57.95	36.92	51.64			11.74		52.31
9136_2			20	(92.79)	55.79	40.36	51.16			16.78		55.83
3771_1			20	(113.81)	44.02	61.60	49.29			15.01		45.82
7418_2			20	(100.43)	51.51	43.92	49.23			11.74		47.80
6465_2			20	(100.53)	51.45	43.92	49.19			11.74		47.76
9851_2			20	(100.93)	51.23	43.92	49.03			11.74		47.60
7508_2			20	(99.26)	52.16	36.92	47.59			11.74		48.26
5435_2			20	(110.60)	45.82	43.92	45.25			11.74		43.81
1412_2			20	(112.38)	44.82	42.58	44.15			12.91		44.28
7736_3			20	(123.93)	38.35	40.14	38.89			16.56		43.41
7736_2			20	(128.36)	35.87	40.14	37.15			16.56		41.67
7736_1			20	(133.00)	33.27	40.14	35.33			16.56		39.85
5684_2			20	(179.43)	7.29	54.69	21.51			16.88		21.98

PUBLIC VERSION

Flexible Capacity

Project Offer ID	Proposal Name	Offer Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)	BW NP Score	BW LCOC (\$/kw-yr)	Score with BW NP Score
4929 3			30	(117.19)	98.93	45.36	82.86			10.91		80.16
4240 3			30	(118.85)	98.19	45.36	82.34			10.91		79.64
5964 3			30	(114.78)	100.00	36.69	81.01			8.91		78.91
5943 2			20	(146.50)	85.92	65.75	79.87			21.6		81.74
4929 1			30	(132.06)	92.33	45.36	78.24			10.91		75.54
4240 1			30	(134.20)	91.38	45.36	77.57			10.91		74.87
4929 2			25	(135.95)	90.60	45.36	77.03			10.91		74.33
5943 1			10	(137.69)	89.83	65.75	76.49			21.6		84.48
4240 2			25	(129.53)	93.45	45.36	76.42			10.91		76.32
5964 1			30	(157.35)	81.10	36.69	76.49			8.91		65.68
5964 2			25	(132.58)	92.09	36.69	75.47			8.91		73.38
2343 1 Own			Own	(191.62)	65.88	37.81	57.46			8.91		55.03
2343 2 Own			Own	(206.02)	59.49	36.14	52.48			8.91		50.55
2343 3 Own			Own	(237.67)	45.44	36.14	42.65			8.91		40.72
2343 1 PPA			40	(340.01)	-	37.81	11.34			8.91		8.91
2343 2 PPA			40	(339.60)	0.18	36.14	10.97			8.91		9.04
2343 3 PPA			40	(339.63)	0.17	36.14	10.96			8.91		9.03

Hybrid Wind/Solar/Storage - All bids passed through

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
8051 1				20	(26.72)	65.80	37.58	57.34		
8051 3				20	(27.63)	65.23	37.58	56.93		
8051 2				20	(54.00)	48.59	37.58	45.29		
2807 3				20	(70.70)	38.06	43.69	39.75		
2180 1				20	(102.27)	18.14	42.92	25.58		
2180 2				15	(119.89)	7.04	42.92	17.80		
2180 3				12	(131.04)	-	42.92	12.88		

MT/WT Wind - All bids passed through

Project Offer ID	Proposal Name	Offer Capacity (MW)	ESS Capacity (MW)	Offer Term	NPV Portfolio Benefit / Nameplate	Quantitative Score (PB/NP) 70% Weight	Qualitative Score 30% Weight	Combined Score	CETA Contribution (MWh)	Peak Capacity Contribution (MW)
3923 1				25	27.49	100.00	56.58	86.98		
3923 2				20	13.32	91.06	56.58	80.72		
1413 2	Haymaker Wind + BESS NWMIT 230 kV	220		25	(4.06)	80.10	63.03	74.98	876,495	-
2958 1				25	(36.91)	59.38	69.28	62.35		
2958 2				25	(46.22)	53.50	69.28	58.24		
1413 3				20	(109.54)	13.56	61.36	27.90		

PUBLIC VERSION