

Puget Sound Energy
2022 Annual Renewable Portfolio Standard Report
pursuant to RCW 19.285.070 and WAC 480-109-210
Docket UE-220405

June 1, 2022
Revised July 7, 2022

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A Note About PSE’s 2021 RPS Report

In preparing Puget Sound Energy’s (“PSE”’s) 2022 Renewable Portfolio Standard (“RPS”) Report, PSE found a discrepancy in Attachment 3 of the 2021 RPS Report (Docket UE-210411) related to the amount of 2019 vintage renewable energy certificates (“REC”) banked forward to 2020 due to the omission of certain purchase and sales of 2019 vintage RECs. The reporting error does not change the 2019 Final Compliance Report (Docket UE-190411) nor does it change the actual retirements for 2019 RPS compliance shown on the Compliance Summary of Attachment 3 of the 2021 RPS Report. Therefore, the 2019 Final Compliance Report filed in Docket UE-190411 does not require a revision. The only effect is that the amounts reflected for 2019 vintage RECs rolled forward to 2020 in this year’s Report will differ slightly than what was reported in PSE’s 2021 RPS Report filed in Docket UE-210411.

The following is a summary of the reporting errors:

- Purchases totaling 1,568 of Horse Butte Wind vintage 2019 RECs and sales totaling 107,321 of Wild Horse vintage RECs were inadvertently not reported in the 2021 RPS report. The unreported sales were greater than the unreported purchases, so there was an overall net over-reporting of 105,753 of the 2019 vintage surplus RECs.
- The net over-reporting resulted in the banking forward of too many vintage 2019 RECs to 2020 and subsequently too many 2020 vintage RECs were banked forward to 2021.

PSE’s 2022 RPS Report revises the 2019 vintage RECs for the above transactions and recognizes the downstream impacts to the number of RECs rolled forward, as shown in Attachment 3, rows 29 and 31 of the Compliance Summary tab and as highlighted in the Facility Detail tab for Wild Horse and Horse Butte Wind.

This discrepancy and PSE’s plan for communicating it in this Report was discussed with Commission Staff prior to filing.

Section 1. Annual Load for the Prior Two Years

This section provides the delivered load from the prior two calendar years that is the source for the 2022 target calculation in Section 2.

	<u>2020</u>	<u>2021</u>
Delivered Load to Retail Customers (MWh)	20,088,222	21,036,614

The source of this data is the PSE’s 2021 FERC Form 1, p. 301, line 10, columns d and e.

Section 2. 2022 Renewable Energy Target

This section provides the number of megawatt-hours from eligible renewable resources and/or renewable resource credits the utility needed to meet its annual renewable energy target by January 1st of the target year.

Subject to Commission approval, PSE’s Renewable Energy Target for 2022 will be 3,084,363 MWh.

Calculation:

	<u>2020</u>	<u>2021</u>
Delivered Load to Retail Customers (MWh)	20,088,222	21,036,614
Average Load	20,562,418	
15 Percent of Average Load	3,084,363	

Section 3. Renewable Energy Acquired To Meet 2022 Renewable Energy Target

This section provides the amount (in megawatt-hours) of each type of eligible renewable resource used, and the amount of renewable energy credits acquired to meet the 2022 target.

As was previously documented as shown in Attachment 1, PSE has sufficient eligible renewable resources to meet its 2022 target. PSE plans to meet its 2022 target with a combination of incremental hydro along with other RECs from qualifying resources. The following table, which is supported in the “Generation Rollup” tab of Attachment 3, shows RECs from all of PSE’s eligible resources for 2022, a subset of which will be used for compliance purposes:

Incremental Hydro Resources	118,195
Eligible Wind Resources	3,556,154
Biomass	120,421

Section 4. Incremental Cost Calculation and Revenue Requirement Ratio

Note: the below section was revised on July 7, 2022 from the original June 1, 2022 filing to reflect revisions to Attachment 5 that were also made in the July 7th revised filing. The revisions to Attachment 5 were to: 1) remove Golden Hills from the incremental cost calculation for the target year (calculation 2); 2) use the incremental cost for the target year from the tab titled “(2)(a)(iii)(A) and (B)” as the input for calculation 2; and 3) reflect expected REC sales in calculation 1.

This section calculates the total incremental cost as a dollar amount and in dollars per megawatt-hour of renewable energy generated by all eligible renewable resources and multiplies the dollars per megawatt-hour cost by the number of megawatt-hours needed for target year compliance and provides the annual revenue requirement ratio.

The following is a summary of PSE’s incremental cost calculation as developed in Staff’s template, attached as Attachment 5.

Description	All Eligible Resources (RCW 19.285.070(1))	Resources Used for Target Year (WAC 480-109-210(2)(a)(ii)(B) and (C))
Incremental Cost ¹	\$34.4 million	\$40.8 million
Revenue Requirement	\$2,133.2 million	\$2,133.2 million
Percentage	1.611%	1.912%
Source of Information	Attachment 5 “(2)(a)(ii)Annual2022est (C)” tab	Attachment 5 “(2)(a)(ii)Annual2022est (C)” tab

PSE’s incremental cost is based on the average cost of eligible renewable resources. Consistent with the requirements outlined in WAC 480-109-210 (2)(a)(i) (A) through (G), the calculation of incremental costs for each eligible resource is performed at the time of acquisition. PSE has acquired one new eligible resource (Golden Hills) and, for purposes of RCW 19.285.070(1), has utilized the method from its 2019 Integrated Resource Plan (“IRP”) as documented in Attachment 2 for calculating the incremental cost for Golden Hills as the 2019 IRP was the most up to date information available to PSE at the time the decision was made to enter into the Golden Hills contract. PSE’s next Electric IRP Progress Report is due April 1, 2023 and the next full Electric IRP is due April 1, 2025. As Golden Hills is not planned for use in the target year, it is not included in the calculation for purposes of WAC 480-109-210(2)(a)(ii)(B) and (C) reflected in the table above. The one-time incremental costs (in millions of dollars) at the time of acquisition along with the annual megawatt hour (MWh) assumed for each eligible resource are as follows:

¹ Amounts are net of anticipated proceeds from the sales of RECs during the target year.

(\$ Millions/Year)	Renewable Resource	Equivalent Non-Renewable			One Year Incremental Cost	Annual MWh	Market Price/Peaker Assumptions
		Peaker	Market	Total			
Hopkins Ridge	\$18.77	\$1.71	\$19.26	\$20.97	(\$2.20)	466,908	2004 RFP
Wild Horse	\$34.94	\$3.21	\$26.53	\$29.74	\$5.20	642,984	2006 RFP
Klondike III	\$10.27	\$0.93	\$8.98	\$9.91	\$0.36	157,680	2006 RFP
Hopkins Infill	\$1.28	\$0.17	\$1.19	\$1.36	(\$0.08)	21,024	2007 IRP
Wild Horse Expansion	\$10.03	\$0.81	\$5.09	\$5.90	\$4.14	91,980	2007 IRP
Lower Snake River I	\$70.61	\$1.69	\$48.51	\$50.20	\$20.42	897,900	2010 Trends
Snoqualmie Falls Upgrade	\$3.85	\$0.74	\$2.44	\$3.18	\$0.67	34,164	2009 Trends
Lower Baker 4	\$8.60	\$1.37	\$7.92	\$9.29	(\$0.69)	109,500	2011 IRP Base
SPI PPA	\$6.77	\$1.41	\$3.37	\$4.78	\$1.99	126,582	2019 IRP Process Mid
Golden Hills	\$32.57	\$10.52	\$17.36	\$27.88	\$4.67	682,692	2019 IRP Process Mid
Total					\$35.94	3,231,414	

As reflected in the above table, the incremental cost of all eligible renewable resources portfolio is \$34.5 million² resulting in an average cost/MWh of \$10.68.³ Based on anticipated REC utilization for the 2022 target year, the incremental cost for the portfolio of resources net of anticipated REC sales is \$40.8 million⁴ (\$13.23/MWh * 3,084,363 MWh).⁵

The resulting ratios of the portfolio’s annualized cost of investment, net of anticipated REC sales, relative to the utility’s total annual retail revenue requirement is 1.611% for all eligible resources and 1.912% for resources used for the target year.⁶

RECs from PSE’s Lower Snake River Dodge Junction wind facility are Center for Resource Solutions (“CRS”) Listed and will be sold in the voluntary REC market in 2022. Pacific Northwest wind has a higher value in the REC markets as do CRS Listed RECs. PSE has been able to sell these CRS Listed wind RECs in the voluntary REC market⁷ and replace them by purchasing lower cost RPS compliant RECs to satisfy its RPS compliance.⁸ The net proceeds are provided to PSE’s customers through the Schedule 137 Tracker. This ongoing optimization strategy allows PSE to lower the cost of PSE’s RPS compliance.

The total annual retail revenue requirement for 2022 is \$2,133.2 million. The 2022 revenue requirement is based on the base rates revenue requirement determined in PSE's last general rate case (Docket UE-190529), as well as Schedule 95 Power Cost Adjustment (Docket UE-200980)

² This amount is not net of the anticipated REC sales.

³ Attachment 5, tab “(2)(a)(iii)(A) and (B)” cell D23

⁴ This amount is not net of the anticipated REC sales.

⁵ Attachment 5, tab “(2)(a)(iii)(A) and (B)” cells E23 and F24

⁶ Attachment 5, tab “(2)(a)(ii)Annual2022est (C)”, cells D49 and G49.

⁷ The sales are reflected in Section 8, in Attachment 3 and in Attachment 4.

⁸ Purchases are reflected in Attachment 3.

and Schedule 141Z Unprotected Excess Deferred Income Tax (“UP EDIT”) Reversals Rate Adjustment (Docket UE-190529).

Section 5. Alternative Compliance

This section states whether the utility is relying upon one of the alternative compliance mechanisms provided in WAC 480-109-220 instead of fully meeting its renewable resource target. A utility using an alternative compliance mechanism must use the incremental cost methodology described in this section and include sufficient data, documentation and other information in its report to demonstrate that it qualifies to use that alternative mechanism.

PSE is not utilizing an alternative compliance mechanism provided for in RCW 19.285.040(2)(d) or RCW 19.285.050(1) and WAC 480.109.220 instead of meeting its 2022 Renewable Energy Target.

Section 6. 2022 Compliance Plan

This section describes the resources that PSE intends to use to meet the renewable resource requirements for the target year.

PSE is positioned to meet its 2022 Renewable Energy Target with a combination of qualified hydroelectric upgrades and other renewable energy certificates from qualifying resources. The following table provides a summary of PSE’s expected 2022 compliance. Further details about this information can be found in Attachment 3.

Facility	Source	PSE 2022 Compliance Plan		
		2021 Vintage	2022 Vintage	2022 Plan
Baker River Project	Water		99,248	99,248
Golden Hills	Wind			-
Hopkins Ridge	Wind	-	378,051	378,051
Hopkins Ridge Phase II	Wind	-	19,145	19,145
Klondike III	Wind	-	107,392	107,392
Lower Snake River - Dodge Junction	Wind	527,221	458,973	986,194
Lower Snake River - Dodge Junction - Apprenticeship Credits	Wind-A	105,444	91,795	197,239
Lower Snake River - Phalen Gulch	Wind	395,070	12,215	407,285
Lower Snake River - Phalen Gulch - Apprenticeship Credits	Wind-A	79,014	2,443	81,457
Snoqualmie Falls Project	Water		18,947	18,947
Sierra Pacific Burlington - Sierra Pacific Burlington	Biomass	-	120,421	120,421
Wild Horse	Wind	-	539,741	539,741
Wild Horse Phase II	Wind	13,149	94,553	107,702
Wild Horse Phase II - Apprenticeship Credits	Wind-A	2,630	18,911	21,541
Totals		1,122,528	1,961,835	3,084,363

Blue = Hydro, Gray = Apprenticeship Credits

Data for 2022 provided above is an estimate and is subject to change.

Section 7. Eligible Resources

This section provides a list of each eligible renewable resource that serves Washington customers, for which PSE owns the certificates, with an installed capacity greater than twenty-five kilowatts and each resource's WREGIS registration status and use of certificates, whether it be for annual target compliance, a voluntary renewable energy program as provided for in RCW 19.29A.090, or owned by the customer; and eligible resources being included in the report for the first time and documentation of their eligibility.

PSE has acquired sufficient eligible renewable resources in its portfolio to supply at least fifteen percent of its estimated load for the year 2022, in advance of January 1, 2022. Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2022 target include (but are not limited to):

- Hopkins Ridge Wind Project;
- Wild Horse Wind Project;
- Wild Horse Expansion Wind Project (including extra apprenticeship credits);
- Lower Snake River Wind Project (including extra apprenticeship credits);
- Klondike III Wind Project (e.g. the output PSE purchases from Avangrid Renewables);
- Snoqualmie Falls Hydroelectric Efficiency Upgrades;
- Lower Baker River Hydroelectric Efficiency Upgrades;
- Golden Hills Wind Facility;

- Allocation of Hydroelectric Efficiency Upgrades that may be (now or in the future) a part of PSE’s Mid-C Contracts;
- Biomass;
- Customer-Generator owned facilities taking service from PSE under PSE electric rate Schedule 91;
- Washington RPS compliant REC purchases; and
- Any other eligible renewable resources that may become available in 2022 or 2023.

Please also see Attachment 1.

Attestation

PSE has purchased RECs for RPS compliance from the following 2 facilities for the first time. PSE respectfully requests the Commission consider and approve these 2 facilities as eligible renewable resources for annual RPS compliance. In support of this request, PSE provides documentation supporting the eligibility of these first time facilities in Attachment 7. PSE has provided the REC purchase contracts under which the RECs were purchased from the 2 facilities (see Confidential Attachments 8A (Summary) and 8B (Contracts)). Additionally, PSE has provided a WREGIS report indicating that both facilities have a Commenced Operation Date prior to January 1, 2020, the year in which these RECs are intended to be used (see highlighted rows of Attachment 9, WREGIS Proof of Operability).

No.	Facility	WREGIS ID	Contract	Facility Type per Att. 9	Compliant Pursuant to WAC 480-109-200
1	Kettle Falls Woodwaste Plant	W130	A	Biomass *	(12)(a)(i) & (32)(j)
2	Kettle Falls Woodwaste Plant – Kettle Falls 2	W797	B	Biomass *	(12)(a)(i) & (32)(j)

* Kettle Falls was determined to be eligible for Washington RPS compliance in Order 01, paragraph 22, of Avista’s 2016 RPS report in Docket No. UE-160779. A copy of Order 01 is included as Attachment 7.

Additionally, PSE has entered into a Power Purchase Agreement with Golden Hills Wind Farm, LLC. PSE requests the Commission consider and approve this facility as an eligible renewable resource for annual RPS compliance. In support of this request, PSE provides documentation supporting the eligibility of this first time facility in Attachments 8B (Contracts) and 9 (Proof of Operability). Golden Hills qualifies as an eligible wind facility under WAC 480-109-060(12)(a)(ii) and WAC 480-109-060(32)(b) and has been assigned WREGIS ID W13230 and commenced operation on April 29, 2022. The proof of operability for Golden Hills is evidenced by the Commercial Operation Certificate provided in Attachment 9. These RECs are intended to be used for 2021 or future RPS compliance.

The following is a summary of the two times distributed generation multiplier for Hidden Hollow and Stoltze Cogeneration Plant that PSE is requesting be approved in Docket UE-200504, the 2020 final compliance report (“2020 final compliance filing”) that has been filed at

the same time as this filing. The following was provided in PSE’s 2021 RPS Report, but was not addressed in Order 01 of Docket UE-210411:

Hidden Hollow was determined to be eligible for Washington RPS compliance in the compliance letter in PacifiCorp’s 2016 RPS report in Docket No. UE-160777. A copy of the compliance letter is included in PSE’s 2020 final compliance filing in Docket UE-200504. Additionally, PSE is requesting in the 2020 final compliance filing that this facility be approved to receive a two times multiple as distributed generation. As previously mentioned, this facility has been approved as an eligible renewable resource and it has a nameplate capacity of less than 5 MW of alternating current. Hidden Hollow’s nameplate capacity is 3.2 MW-AC. As an eligible renewable resource with a nameplate capacity of less than 5 MW of alternating current, Hidden Hollow meets the definition of Distributed generation per WAC 480-109-060(11). Accordingly, this resource qualifies for the DG multiplier under WAC 480-109-200(4)(b)(ii).

** Stoltze Cogeneration Plant 1 received an advisory opinion from Department of Commerce (“DOC”) on January 22, 2013 that the facility qualifies as a WA RPS eligible resource that also qualifies as distributed generation for the two times multiplier. A copy of the DOC advisory opinion has been included in the 2020 final compliance filing. PSE is requesting in the 2020 final compliance filing that this facility be approved to receive a two times multiple as distributed generation. As previously mentioned, this facility has been approved as an eligible renewable resource and it has a nameplate capacity of less than 5 MW of alternating current. Stoltze Cogeneration Plant 1’s nameplate capacity is 2.8 MW-AC. As an eligible renewable resource with a nameplate capacity of less than 5 MW of alternating current, Stoltze Cogeneration Plant 1 meets the definition of Distributed generation per WAC 480-109-060(11). Accordingly, this resource qualifies for the DG multiplier under WAC 480-109-200(4)(b)(ii).

Section 8. Sales

This section reports on the number of certificates sold, their WREGIS certificate numbers, their source, and the revenues obtained from the sales.

The following table summarizes PSE’s REC sales volumes by source and vintage year for 2018 through 2022 vintages as reported in Attachment 3.

Sum of Qty Facility	WREGIS #	Vintage Year					Grand Total
		2018 Vintage	2019 Vintage	2020 Vintage	2021 Vintage	Pend Vintage	
Hopkins Ridge	W184	176,270	25,000				201,270
Hopkins Ridge Phase II	W1382	10,171			7,200		17,371
Klondike III	W237	57,609	87,499	43,165			188,273
Lower Snake River-Dodge Junction	W2669			4,000	15,500	15,500	35,000
Wild Horse	W183	203,209	413,729	129,203			746,141
Grand Total		447,259	526,228	176,368	22,700	15,500	1,188,055

Confidential Attachment 4 provides transaction details including the revenue proceeds associated with the above sales. Additionally, Attachment 4 provides information related to sales of RECs of older vintages that occurred since the last report⁹ but that were not included in Attachment 3 which only covered reporting for vintages back to 2018.

⁹ Sales proceeds for all vintages included in Attachment 4 were included in the incremental cost calculation discussed in Section 4 and included in Attachment 5.