

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

June 1, 2022

## Required Contents: Checklist and Table of Contents

| RCW 19.285.070   | WAC 480-109-210(2)  | Section/Page   |
|--|---|--|
| The utility's annual load for the prior two years  | The utility's annual load for the prior two years   | <b>Section 1<br/>Annual Load For Previous Two Years</b><br>Page 1                            |
| The amount of megawatt-hours needed to meet the annual renewable energy target   | The total 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 1 of the target year  | <b>Section 2<br/>Renewable Energy Target</b><br>Page 2                                       |
| The amount of megawatt-hours of each type of eligible renewable resource acquired, the type and amount of renewable energy credits acquired                          | The amount (in megawatt-hours) of each type of eligible renewable resource used and the amount of renewable energy credits acquired   | <b>Section 3<br/>Renewable Energy Acquired To Have Met Renewable Energy Target</b><br>Page 2 |
| The percent of its total annual retail revenue requirement invested in the incremental cost of eligible renewable resources and the cost of renewable energy credits | Total incremental cost as a dollar amount and in dollars per megawatt-hour of renewable energy generated by all eligible renewable resources and multiply the dollars per megawatt-hour cost by the number of megawatt-hours needed for target year compliance. | <b>Section 4<br/>Incremental Cost Calculation and Revenue Requirement Ratio</b><br>Page 2    |
|  | State whether the utility is relying upon one of the alternative compliance mechanisms provided in WAC <a href="#">480-109-220</a> instead of fully meeting its renewable resource target.  | <b>Section 5<br/>Alternative Compliance</b><br>Page 4  |

| RCW 19.285.070 | WAC 480-109-210(2)   | Section/Page   |
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|                | Describe the resources that the utility intends to use to meet the renewable resource requirements for the target year.  | <b>Section 6<br/>2020 Compliance Plan<br/>Page 4</b> |
|                | A list of each eligible renewable resource that serves Washington customers, for which a utility owns the certificates, with an installed capacity greater than twenty-five kilowatts. | <b>Section 7<br/>Eligible Resources<br/>Page 5</b>   |
|                | The number of certificates sold, their WREGIS certificate numbers, their source, and the revenues obtained from the sales.   | <b>Section 8<br/>Sales<br/>Page 7</b>                |

**Attachment 1: Memo dated December 9, 2021 Regarding Sufficient Eligible Renewable Resources for 2022 Compliance**

**Attachment 2: Appendix G from PSE’s 2021 Integrated Resource Plan**

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**Attachment 4: Renewable Energy Certificate Sales, Confidential Version  
Renewable Energy Certificate Sales, Redacted Version**

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**Attachment 8A: First Time Facilities - Summary, Confidential Version  
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**Renewable Energy Certificate Transfers – WREGIS Report for First Time Facilities, Redacted Version**

## 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

*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.*

|                       |                         |
|-----------------------|-------------------------|
| Incremental Cost      | \$34.5 million          |
| Revenue Requirement   | \$2,133 million         |
| Percentage            | 1.617%                  |
| Source of Information | Please see table below. |

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 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. The incremental costs (in millions of dollars) along with the annual megawatt hour (MWh) for each eligible resource are as follows:

| (\$ 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 | \$4.69                    | 682,692    | 2019 IRP Process Mid            |
| <b>Total</b>             |                    |                          |         |         | \$34.50                   | 3,321,414  |                                 |

As reflected in the above table, the incremental cost of the eligible renewable resources portfolio is \$34.5 million resulting in an average cost/MWh of \$10.68. 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 million (\$13.23/MWh \* 3,084,363 MWh).

The resulting ratio of the portfolio’s annualized cost of investment relative to the utility’s total annual retail revenue requirement is 1.617%. Utilizing Staff’s template, attached as Attachment 5, the calculation of the incremental cost for satisfying the target based on the resources that are planned to be used for 2022 target year compliance is \$40.8 million.

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 market<sup>1</sup> and replace them by purchasing lower cost RPS compliant RECs to satisfy its RPS compliance.<sup>2</sup> 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) 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.

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<sup>1</sup> The sales are reflected in Section 8, in Attachment 3 and in Attachment 4.

<sup>2</sup> Purchases are reflected 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<br>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          |
| <b>Grand Total</b>               |          | <b>447,259</b> | <b>526,228</b> | <b>176,368</b> | <b>22,700</b> | <b>15,500</b> | <b>1,188,055</b> |

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 report<sup>3</sup> but that were not included in Attachment 3 which only covered reporting for vintages back to 2018.

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<sup>3</sup> 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.