

Puget Sound Energy
2024 Annual Renewable Portfolio Standard Report
pursuant to RCW 19.285.070 and WAC 480-109-210

May 31, 2024

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Renewable Energy Certificate Transfers – WREGIS Report for
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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 2024 target calculation in Section 2.

| | <u>2022</u> | <u>2023</u> |
|------------------------------------------|-------------|-------------|
| Delivered Load to Retail Customers (MWh) | 21,613,415 | 21,165,762 |

The source of this data is the PSE’s 2023 FERC Form 1, p. 301, line 10, columns d and e.

Section 2. 2024 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 2024 will be 3,208,438 MWh.

Calculation:

| | <u>2022</u> | <u>2023</u> |
|------------------------------------------|-------------|-------------|
| Delivered Load to Retail Customers (MWh) | 21,613,415 | 21,165,762 |
| Average Load | 21,389,589 | |
| 15 Percent of Average Load | 3,208,438 | |

Section 3. Renewable Energy Acquired To Meet 2024 Renewable Energy Target

This section provides the amount (in megawatt-hours) of each type of eligible renewable energy credits planned to be acquired to meet the 2024 target.

As was previously documented as shown in Attachment 1, PSE has sufficient eligible renewable resources to meet its 2024 target. PSE plans to meet its 2024 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 2024, a subset of which will be used for compliance purposes:

| | |
|-----------------------------|-----------|
| Incremental Hydro Resources | 119,157 |
| Eligible Wind Resources | 5,704,559 |
| Biomass | 123,178 |

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.

| 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 | \$45.4 million | \$32.5 million |
| Revenue Requirement | \$3,196.2 million | \$3,196.2 million |
| Percentage | 1.421% | 1.018% |
| Source of Information | Attachment 5 “(2)(a)(ii)Annual2024est (C)” tab | Attachment 5 “(2)(a)(ii)Annual2024est (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’s most recently filed Electric IRP was filed on April 1, 2021 in Docket UE-200304. PSE’s Petition for a Five Year Exemption from WAC 480-109-210(2)(a)(i)(B) and (E) in Docket UE-240278 was granted on May 23, “in order [for PSE] to use the most recently filed electric Integrated Resource Plan or the most recent Integrated Resource Plan Progress Report for the basis of determining eligible and ineligible leveled capacity costs.” While PSE filed its Electric Progress Report on March 31, 2023 in Docket UE-200304, it does not include information regarding capacity value or eligible and ineligible leveled capacity costs. Based on PSE’s 2021 IRP in Docket UE-200304, 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 See Attachment 5, tab “(2)(a)(ii)Annual2024est”. Amounts are net of anticipated proceeds from the sales of RECs during the target year. PSE does not anticipate having any REC sales in 2024. RECs related to specific source sales into California are included in the sales section of Attachment 3 and are assigned a \$0 value.

| (\$ 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 | \$4.13 | 91,980 | 2007 IRP |
| Lower Snake River I | \$70.61 | \$1.69 | \$48.51 | \$50.20 | \$20.41 | 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 |
| Clearwater | \$58.95 | \$13.79 | \$36.47 | \$50.26 | \$8.69 | 1,419,558 | 2020 RFP |
| Total | \$256.64 | \$36.35 | \$177.12 | \$213.47 | \$43.17 | 4,650,972 | |

As reflected in the above table, the incremental cost of all eligible renewable resources portfolio is \$43.17 million² resulting in an average cost/MWh of \$8.93.³ Based on anticipated REC utilization for the 2024 target year, the incremental cost for the portfolio of resources is \$30.93 million⁴ (\$9.64/MWh x 3,208,438 MWh).⁵

The resulting ratios of the portfolio’s annualized cost of investment, net of anticipated REC sales⁶, relative to the utility’s total annual retail revenue requirement is 1.421% for all eligible resources and 1.018% for resources anticipated to be used for the target year.⁷

The total annual retail revenue requirement for 2024 is \$3,196.2 million. The 2024 revenue requirement is based on the revenue requirement underlying the rates approved in PSE’s 2022 general rate case under Docket No. UE-220066 plus the revenues approved in PSE’s 2024 power cost update approved in Docket No. UE-230805.

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

³ Amount includes the impact of apprenticeship credits. See Attachment 5, tab “(2)(a)(iii)(A) and (B)” cell D24.

⁴ Attachment 5, tab “(2)(a)(iii)(A) and (B)” cell F24.

⁵ Attachment 5, tab “(2)(a)(iii)(A) and (B)” cells E24 and F25.

⁶ PSE is not anticipating any REC sales in 2024. RECs related to specific source sales into California are included in the sales section of Attachment 3 and are assigned a \$0 value.

⁷ Attachment 5, tab “(2)(a)(ii)Annual2024est (C)”, cells D49 and G49.

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 2024 Renewable Energy Target.

Section 6. 2024 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 2024 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 2024 compliance. Further details about this information can be found in Attachment 3.

| Blue = Hydro, Gray = Apprenticeship Credits Facility | Source | PSE 2024 Compliance Plan | | |
|-------------------------------------------------------------|---------|--------------------------|------------------|------------------|
| | | 2023 Vintage | 2024 Vintage | 2024 Plan |
| Baker River Project | Water | | 101,979 | 101,979 |
| Clearwater | Wind | 1,291,253 | | 1,291,253 |
| Golden Hills Wind Farm LLC | Wind | - | | - |
| Hopkins Ridge | Wind | | 383,773 | 383,773 |
| Hopkins Ridge Phase II | Wind | | 18,495 | 18,495 |
| Klondike III | Wind | 61,644 | | 61,644 |
| Lower Snake River - Dodge Junction | Wind | - | 482,685 | 482,685 |
| Lower Snake River - Dodge Junction - Apprenticeship Credits | Wind-A | | 96,537 | 96,537 |
| Lower Snake River - Phalen Gulch | Wind | - | 350,201 | 350,201 |
| Lower Snake River - Phalen Gulch - Apprenticeship Credits | Wind-A | | 70,040 | 70,040 |
| Snoqualmie Falls Project | Water | - | 17,178 | 17,178 |
| Sierra Pacific Burlington - Sierra Pacific Burlington | Biomass | - | 101,051 | 101,051 |
| Wild Horse | Wind | 142,828 | | 142,828 |
| Wild Horse Phase II | Wind | - | 75,645 | 75,645 |
| Wild Horse Phase II - Apprenticeship Credits | Wind-A | - | 15,129 | 15,129 |
| Totals | | 1,495,725 | 1,712,713 | 3,208,438 |

Data for 2024 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 2024, in advance of January 1, 2024. Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2024 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);
- Sierra Pacific Burlington
- Snoqualmie Falls Hydroelectric Efficiency Upgrades;
- Lower Baker River Hydroelectric Efficiency Upgrades;
- Golden Hills Wind Facility Power Purchase Agreement;
- Clearwater Wind Project Power Purchase Agreement;
- 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 2024 or 2025.

Please also see Attachment 1.

PSE has purchased RECs that it anticipates using for 2023 RPS compliance from the following two facilities for the first time. PSE respectfully requests the Commission consider and approve these two facilities as eligible renewable resources for annual RPS compliance prior to the need to retire them. In support of this request, PSE provides documentation supporting the eligibility of these first time facilities in Attachments 8 through 11. PSE has provided the REC purchase contract under which the RECs were purchased from the two facilities (see Confidential Attachment 9.) Additionally, PSE has provided a WREGIS report indicating that both facilities have a Commenced Operation Date prior to January 1, 2023, the year in which these RECs are intended to be used (see Attachment 10, WREGIS Proof of Operability). Confidential

Attachment 11 shows Sierra Pacific Burlington Onsite Load and Mt. Home Solar 1 LLC RECs transferred to PSE.

| No. | Facility | WREGIS ID | Facility Type per Att. 9 | Compliant Pursuant to WAC 480-109-060 |
|-----|---------------------------------------|-----------|--------------------------|---------------------------------------|
| 1 | Sierra Pacific Burlington Onsite Load | W2042 | Biomass | (12)(a)(i) and (32)(j) |
| 2 | Mt. Home Solar 1 LLC | W5616 | Solar | (12)(a)(i) and (32)(c) |

PSE requests the Commission consider and approve these facilities as eligible renewable resources for RPS compliance:

1. Sierra Pacific Burlington Onsite Load qualifies as an eligible biomass facility under WAC 480-109-060(12)(a)(i) and WAC 480-109-060(32)(j) and has been assigned WREGIS ID W2042 and commenced operation on March 15, 2007. The proof of operability for this facility is evidenced by the Commercial Operation Date provided in Attachment 10. These RECs are intended to be used for 2023 or future RPS compliance.

2. Mt. Home Solar 1 LLC qualifies as an eligible renewable solar energy facility under WAC 480-109-060(12)(a)(i) and WAC 480-109-060(32)(c) and has been assigned WREGIS ID W5616 and commenced operation on March 21, 2017. The proof of operability for this facility is evidenced by the Commercial Operation Date provided in Attachment 10. These RECs are intended to be used for 2023 or future RPS compliance.

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 2020 through 2023 vintages as reported in Attachment 3.

| Sum of Qty | Vintage Year | | | | | |
|----------------------------------|--------------|----------------|---------------|---------------|---------------|----------------|
| Facility | WREGIS # | 2020 Vintage | 2021 Vintage | 2022 Vintage | 2023 Vintage | Grand Total |
| Hopkins Ridge Phase II | W1382 | | 7,200 | | | 7,200 |
| Klondike III | W237 | 43,165 | | | | 43,165 |
| Lower Snake River-Dodge Junction | W2669 | 4,000 | 15,500 | 15,500 | 15,500 | 50,500 |
| Wild Horse | W183 | 129,203 | | | 14,359 | 143,562 |
| Clearwater | W14351 | | | | 20,663 | 20,663 |
| Snoqualmie Falls Project | W4866 | | | | 462 | 462 |
| Grand Total | | 176,368 | 22,700 | 15,500 | 50,984 | 265,552 |

Confidential Attachment 4 provides transaction details including the revenue proceeds associated with the above sales.