Puget Sound Energy
2020 Annual Renewable Portfolio Standard Report
pursuant to RCW 19.285.070 and WAC 480-109-210

June 1, 2020

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	Describe the resources that the utility intends to use to meet the renewable resource requirements for the target year.	**Section 6** **2019 Compliance Plan** Page 3
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Attachment 1: **Memo dated December 24, 2019 Regarding Eligible Renewable Resources**

Attachment 2: **Appendix N from PSE's Integrated Resource Plan filed with the Commission on November 14, 2017**

Attachment 3: **Reporting Tool**

Attachment 4: **REC Sales, Confidential Version**
REC Sales, Redacted Version

Attachment 5: **Incremental Cost Template, Confidential Version**
Incremental Cost Template, Redacted Version

Attachment 6: **Department of Commerce EIA Workbook**

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Section 1. Annual Load for the Prior Two Years

	2018	**2019**
Delivered Load to Retail Customers (MWh)	20,697,195	20,833,230

The source of this data is the Puget Sound Energy ("PSE") 2019 FERC Form 1, p. 301, line 10, columns d and e.

Section 2. 2020 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.

After Commission approval, PSE's Renewable Energy Target for 2020 will be 3,114,782 MWh.

Calculation:

	2018	2019
Delivered Load to Retail Customers (MWh)	20,697,195	20,833,230
Average Load	20,765,213	
15 Percent of Average Load	3,114,782	

Section 3. Renewable Energy Acquired To Meet 2020 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 2020 target.

As demonstrated in Attachment 1, PSE has sufficient eligible renewable resources to meet its 2020 target. PSE plans to meet its 2020 target with a combination of incremental hydro along with other renewable energy certificates from qualifying resources. The following table shows all of PSE's eligible resources for 2020, of which a subset will be used for compliance purposes:

Incremental Hydro Resources	88,091
Eligible Wind Resources	3,992,072
Landfill Gas	2,361

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	$27.8M
Revenue Requirement	$1,996M
Percentage	1.459%
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 not acquired any new resources since 2013 and therefore continues to utilize incremental cost calculations as documented in Attachment 2. The incremental costs (in millions of dollars) along with the annual megawatt hour (MWh) as sourced from PSE's 2017 IRP, for each eligible resource are as follows:

Resource	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
Total					$27.81	2,422,140	

($ Millions/Year)

This information appears in PSE's 2017 IRP, Appendix N, Page N-177, Figure N-145, and is provided in Attachment 2. Due to the implementation of the Clean Energy Transformation Act, PSE's next IRP will be filed April 1, 2021.

As reflected in the above table, the incremental cost of the eligible renewable resources portfolio is $27.81 million resulting in an average cost/MWh of $11.48. The incremental cost for the 2020 target year, based on the average cost for the portfolio of resources is $35.8 million ($11.48/MWh * 3,114,782 MWh).

The resulting ratio of the portfolio's annualized cost of investment relative to the utility's total annual retail revenue requirement is 1.459%.

Utilizing Staff's template, attached as Attachment 5, that calculates the incremental cost for the target based on the actual planned resources, the incremental cost for 2020 target year compliance is $42.6 million.

The total annual retail revenue requirement for 2020 is $1,996.287 million.[1] The 2020 revenue requirement is based on the revenue requirement determined in PSE's last general rate case (UE-170033) after adjusting for Tax Cuts and Jobs Act ("Tax Reform") (Docket UE-180282), Expedited Rate Filing ("ERF") (Docket UE-180899 and UG-180900**)** and Protected-Plus Excess Deferred Income Tax Reversal ("EDIT ARAM") (Docket UE-180899).

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 2020 Renewable Energy Target.

[1] Figure reflects Revenue Requirement from PSE's 2017 General Rate Case, after adjusting for Tax Reform updates approved by the Commission in Docket UE-180282. Electric Revenue Requirement as originally approved in UE-170033 was $2,069,159,344. Utilizing the pre-tax reform, revenue requirement results in a 1.408% revenue requirement ratio.

Section 6. 2020 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 2020 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 2020 compliance. Further details about this information can be found in Attachment 3.

2020 Compliance Plan	
	MWh or Equiv
Lower Baker Project Incremental Hydro	70,693
Snoqualmie Falls Project Incremental Hydro	17,398
Lower Snake River - Phalen Gulch (Vintage 2019)	298,679
Extra Apprenticeship Credits	59,736
Wild Horse Phase II (Vintage 2019)	99,359
Extra Apprenticeship Credits	19,872
Lower Snake River-Dodge Junction (Vintage 2019)	412,098
Extra Apprenticeship Credits	82,420
Hopkins Ridge (Vintage 2019)	324,844
Hopkins Ridge Phase II (Vintage 2019)	15,655
Wild Horse (Vintage 2019)	343,366
Klondike III (Vintage 2019)	93,031
Camp Reed Wind Park -- REC only (Vintage 2019)	18,037
Golden Valley Wind Park -- REC only (Vintage 2019)	8,707
Klondike III -- REC only (Vintage 2019)	15,341
Meadow Creek Wind Farm - Five Pine Project -- REC only (Vintage 2019)	25,276
Meadow Creek Wind Farm - North Point Wind Farm -- REC only (Vintage 2019)	49,724
Nine Canyon Wind Project - Nine Canyon Phase 3 -- REC Only (Vintage 2019)	3,486
Oregon Trail Wind Park, LLC - Oregon Trail Wind Park -- REC Only (Vintage 2019)	9,879
PaTu Wind Farm - PaTu Wind -- REC Only (Vintage 2019)	12,375
Roseburg LFG - Roseburg LFG Energy -- REC Only (Vintage 2019)	2,361
Salmon Falls Wind Park, LLC - Salmon Falls Wind Park -- REC Only (Vintage 2019)	17,090
Sawtooth Wind Project - Sawtooth Wind Project -- REC Only (Vintage 2019)	30,077
Thousand Springs Wind Park, LLC - Thousand Springs Wind Park -- REC Only (Vintage 2019)	8,681
Tuana Gulch Wind Park, LLC - Tuana Gulch Wind Park -- REC Only (Vintage 2019)	7,912
Tuana Springs Energy, LLC - Tuana Springs -- REC Only (Vintage 2019)	17,961
White Creek Wind 1 - White Creek -- REC Only (Vintage 2019)	2,797
Lower Snake River - Phalen Gulch (Vintage 2020)	310,207
Extra Apprenticeship Credits	62,041
Wild Horse Phase II (Vintage 2020)	90,930
Extra Apprenticeship Credits	18,186
Lower Snake River-Dodge Junction (Vintage 2020)	423,793
Extra Apprenticeship Credits	84,759
Klondike III (Vintage 2020)	40,467
Hopkins Ridge Phase II (Vintage 2020)	17,545
Available to Meet Target	3,114,783

Data for 2020 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 2020, in advance of January 1, 2020. Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2020 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 Iberdrola);
- Snoqualmie Falls Hydroelectric Efficiency Upgrades;
- Lower Baker River Hydroelectric Efficiency Upgrades;
- Allocation of Hydroelectric Efficiency Upgrades that may be (now or in the future) a part of PSE's Mid-C Contracts;
- Customer-Generator owned facilities taking service from PSE under PSE electric rate Schedule 91; and
- Any other eligible renewable resources that may become available in 2020 or 2021.

Please also see Attachment 1.

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 by source and vintage year for 2014 through 2019 vintages. Through March 31, 2020, the Company has not transferred title to any Vintage 2020 RECs.

REC Sold by Year by Resource

Source	WREGIS No.	Vintage 2014	2015	2016	2017	2018	2019	Total REC Sold
Wild Horse	W183	541,930	43,254	138,677	44,385	203,209	172,850	1,628,640
Wild Horse Phase II	W1364	98,496	10,000	-	-	-	-	210,088
Hopkins Ridge	W184	423,662	109,781	190,560	74,400	176,270	-	1,312,149
Hopkins Ridge Phase II	W1382	18,641	1,735	9,184	-	10,171	-	47,040
Klondike III	W237	133,571	60,697	62,849	57,197	57,609	24,620	523,272
Lower Snake River-Dodge Junction	W2669	230,247	-	-	-	-	-	431,998
Lower Snake River-Phalen Gulch	W2670	169,808	12,732	-	-	-	-	324,750
		1,616,355	**238,199**	**401,270**	**175,982**	**447,259**	**197,470**	**4,477,937**

Reflects REC transfers through 3/31/2020.

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