

www.pse.com



**PUGET SOUND ENERGY**

*Puget Sound Energy, Inc.  
P.O. Box 97034  
Bellevue, WA 98009-9734*

***Filed via Web Portal***

May 24, 2019

Mr. Mark L. Johnson, Executive Director and Secretary  
Washington Utilities and Transportation Commission  
1300 South Evergreen Park Drive S.W.  
P.O. Box 47250  
Olympia, WA 98504-7250

**Re: Annual Renewable Portfolio Standard Report - 2019  
RCW-Required Report, RCW 19.285.070 and  
WAC-Required Report, WAC 480-109-210**

Dear Mr. Johnson:

Attached for filing, please find Puget Sound Energy's ("PSE's") report detailing the annual reporting requirements for the Renewable Portfolio Standard Report (the "Report") in RCW 19.285.070 and WAC 480-109-210. PSE is asking the Commission to approve its 2019 Renewable Energy Target of 1,890,612 MWh.

PSE requests confidential treatment for Attachment 4 to the Report under RCW 80.04.095 and in accordance with WAC 480-07-160. The information labeled as confidential includes commercially sensitive data and confidential information related to renewable energy credit sales revenues, which could expose PSE to competitive injury if disclosure is unrestricted. Therefore, PSE requests confidential treatment on the basis that the information labeled "Shaded Information is Designated as Confidential per WAC 480-07-160" contains "valuable commercial information, including trade secrets or confidential marketing, cost, or financial information, or customer-specific usage and network configuration and design information," as provided in in RCW 80.04.095 in accordance with WAC 480-07-160(2)(c).

A copy of this report will also be submitted to the Department of Commerce.

Mr. Mark L. Johnson  
May 24, 2019  
Page 2

If you have any questions about the information contained in this filing, please contact me at (425) 462-3716 or [katherine.barnard@pse.com](mailto:katherine.barnard@pse.com).

Sincerely,

*/s/ Katherine J. Barnard*

Katherine J. Barnard  
Director, Revenue Requirements & Regulatory Compliance  
Puget Sound Energy  
PO Box 97034, EST-07W  
Bellevue, WA 98009-9734  
425-462-3716  
[katherine.barnard@pse.com](mailto:katherine.barnard@pse.com)

Attachments:

- PSE 2018 RPS Report
- Attachment 1: Memo
- Attachment 2: IRP Appendix N
- Attachment 3: Reporting Tool
- Attachment 4: REC Sales (Redacted Version)  
REC Sales (Confidential Version)
- Attachment 5: Incremental Cost Template
- Attachment 6: Department of Commerce EIA Workbook
- Attachment 7: Apprenticeship Credit Approval Letters

**Puget Sound Energy**  
**2019 Annual Renewable Portfolio Standard Report**  
**pursuant to RCW 19.285.070 and WAC 480-109-210**

May 24, 2019  
Revised June 27, 2019

## 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 Annual Load For Previous Two Years</b> 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 Renewable Energy Target</b> Page 1
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 Renewable Energy Acquired To Have Met Renewable Energy Target</b> Page 1
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 Incremental Cost Calculation and Revenue Requirement Ratio</b> 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 Alternative Compliance</b> Page 3

<b>RCW 19.285.070</b>	<b>WAC 480-109-210(2)</b>	<b>Section/Page</b>
	Describe the resources that the utility intends to use to meet the renewable resource requirements for the target year.	<b>Section 6 2019 Compliance Plan Page 3</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 Eligible Resources Page 4</b>
	The number of certificates sold, their WREGIS certificate numbers, their source, and the revenues obtained from the sales.	<b>Section 8 Sales Page 5</b>

**Attachment 1: Memo dated December 6, 2018 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**

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

**Attachment 7: Apprenticeship Credit Approval Letters**

**Section 1. Annual Load for the Prior Two Years**

	<u>2017</u>	<u>2018</u>
Delivered Load to Retail Customers (MWh)	21,316,397	20,697,195

The source of this data is the Puget Sound Energy (“PSE”) 2018 FERC Form 1, p. 301, line 10, columns d and e.

**Section 2. 2019 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 2019 will be 1,890,612 MWh.

Calculation:

	<u>2017</u>	<u>2018</u>
Delivered Load to Retail Customers (MWh)	21,316,397	20,697,195
Average Load	21,006,796	
9% of Average Load	1,890,612	

**Section 3. Renewable Energy Acquired To Meet 2019 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 2019 target.*

As demonstrated in Attachment 1, PSE has sufficient eligible renewable resources to meet its 2019 target. PSE plans to meet its 2019 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 2019, of which a subset will be used for compliance purposes:

Incremental Hydro Resources	115,922
Eligible Wind Resources	2,417,820

## 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 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
<b>Total</b>					<b>\$27.81</b>	<b>2,422,140</b>	

(\$ Millions/Year)

This information appears in PSE's 2017 IRP, Appendix N, Page N-177, Figure N-145, and is provided in Attachment 2.

As reflected in the above table, the incremental cost of the eligible renewable resources portfolio is \$27.81M resulting in an average cost/MWh of \$11.48. The incremental cost for the 2019

target year, based on the average cost for the portfolio of resources is \$21.7M (\$11.48 \* 1,890,612 MWh).

The resulting ratio of the portfolio's 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 2019 target year compliance is \$25.9M.

The total annual retail revenue requirement for 2019 is \$1,996.287 million.<sup>1</sup> The 2019 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).

## **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 2019 Renewable Energy Target.

## **Section 6. 2019 Compliance Plan**

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

---

<sup>1</sup> 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.



PSE is positioned to meet its 2019 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 2019 compliance. Further details about this information can be found in Attachment 3.

<b>2019 Compliance Plan</b>	
	MWh or Equiv
Lower Baker Project Incremental Hydro	99,050
Snoqualmie Falls Project Incremental Hydro	16,872
Lower Snake River - Phalen Gulch (Vintage 2018)	370,818
Extra Apprenticeship Credits	74,164
Wild Horse Phase II (Vintage 2018)	103,462
Extra Apprenticeship Credits	20,692
Lower Snake River-Dodge Junction (Vintage 2018)	508,243
Extra Apprenticeship Credits	101,649
Hopkins Ridge (Vintage 2018)	220,858
Hopkins Ridge Phase II (Vintage 2018)	8,722
Wild Horse (Vintage 2018)	304,253
Klondike III (Vintage 2018)	61,829
Available to Meet Target	1,890,612

Data for 2019 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 nine percent of its estimated load for the year 2019, in advance of January 1, 2019. Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2019 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 2019 or 2020.

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 2012 through 2018 vintages. Through March 31, 2019, the Company has not transferred title to any Vintage 2019 RECs.

**RECs Sold by Year by Resource**

Source	WREGIS No.	Vintage							Total RECs Sold
		2012	2013	2014	2015	2016	2017	2018	
Wild Horse	W183	238,143	246,192	541,930	43,254	138,677	44,385	68,932	1,321,513
Wild Horse Phase II	W1364	54,206	47,386	98,496	10,000	-	-	-	210,088
Hopkins Ridge	W184	171,359	166,117	423,662	109,781	190,560	74,400	171,162	1,307,041
Hopkins Ridge Phase II	W1382	-	7,309	18,641	1,735	9,184	-	10,171	47,040
Klondike III	W237	58,264	68,465	133,571	60,697	62,849	57,197	57,609	498,652
Lower Snake River-Dodge Junction	W2669	-	201,751	230,247	-	-	-	-	431,998
Lower Snake River-Phalen Gulch	W2670	-	142,210	169,808	12,732	-	-	-	324,750
		<b>521,972</b>	<b>879,430</b>	<b>1,616,355</b>	<b>238,199</b>	<b>401,270</b>	<b>175,982</b>	<b>307,874</b>	<b>4,141,082</b>

Reflects REC transfers through 3/31/19.

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



# MEMORANDUM

TO: Kathie Barnard, Paul Wetherbee and Chris Smith

FROM: Tricia Fischer and Chris Schaefer

DATE: December 6, 2018

SUBJECT: Renewable portfolio standard

---

## Background

Chapter 480-109 of Washington Administrative Code (WAC) establishes rules that electric utilities must follow to comply with the requirements of the Energy Independence Act (Chapter 19.285 RCW). Specifically, WAC 480-109-200 Renewable portfolio standard states:

(1) **Renewable resource target.** Each utility must meet the following annual targets.

...

(b) By January 1st of each year beginning in 2016 and continuing through 2019, each utility must use sufficient eligible renewable resources, acquire equivalent renewable energy credits, or a combination of both, to supply at least nine percent of its two-year average load for the remainder of each target year.

...

(2) **Credit eligibility.** Renewable energy credits produced during the target year, the preceding year or the subsequent year may be used to comply with this annual renewable resource requirement provided that they were acquired by January 1st of the target year.

(3) **WREGIS registration.** All eligible hydropower generation and all renewable energy credits used for utility compliance with the renewable resource target must be registered in WREGIS, regardless of facility ownership. Any megawatt-hour of eligible hydropower or renewable energy credit that a utility uses for compliance must have a corresponding certificate retired in the utility's WREGIS account.

...

(5) **Target calculation.** In meeting the annual targets of this section, a utility must calculate its annual target based on the average of the utility's load for the previous two years.

(6) **Integration services.** A renewable resource within the Pacific Northwest may receive integration, shaping, storage or other services from sources outside of the Pacific Northwest and remain eligible to count towards a utility's renewable resource target.

## **Summary**

Pursuant to the requirements of WAC 480-109-200 Renewable portfolio standard, we have prepared this Memorandum to document that Puget Sound Energy (“PSE”) has acquired sufficient eligible renewable resources in its portfolio, by January 1, 2019, to supply at least nine percent of its 2017-2018 average load for the 2019 target year. This is consistent with the information provided to the WUTC on November 14, 2017 in PSE’s compliance filing in Docket UE-160918, PSE’s 2017 Integrated Resource Plan (“IRP”). The Executive Summary of the IRP stated that, “... PSE has acquired enough eligible renewable resources and RECs to meet the requirements of the law until 2022.”

The following provides detail of PSE’s eligible renewable resources, load and renewable energy target.

## **Eligible Renewable Resources**

Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2019 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 2019 or 2020.

Total 2017 generation from Hopkins Ridge, Wild Horse, Wild Horse Expansion, Lower Snake River and Klondike III Wind Projects was approximately 1,784,746 megawatt-hours (not inclusive of the extra apprenticeship credits); similar generation may be achieved for 2018 and 2019.

These eligible renewable resources may be impacted by events beyond PSE’s reasonable control, which could not be reasonably anticipated, that could prevent PSE from meeting the renewable energy target. Such events may include weather-related damage, mechanical failure, strikes, lockouts, or actions of a governmental authority that adversely affect the generation, transmission, or distribution of an eligible renewable resource owned by or under contract to PSE.

PSE does not currently intend to utilize one of the alternative compliance mechanisms provided for in RCW 19.285.040(2)(d) or RCW 19.285.050(1) and WAC 480-109-220 for meeting its 2019 renewable resource target. However, there may be events beyond PSE’s control during

calendar year 2019 which could prompt PSE to utilize one of the above mentioned alternative compliance mechanisms. Such determination will be made when PSE reports on its final 2019 compliance in the 2020 or 2021 report.

### **Load**

As defined in the rule, "Load" means the amount of kilowatt-hours of electricity delivered in the most recently completed year by a qualifying utility to its Washington retail customers. Load does not include off-system sales or electricity delivered to transmission-only customers." PSE's actual 2017 delivered load was 21,316,397,000 kilowatt-hours (21,316,397 megawatt-hours) and the 2018 forecast load is 21,456,520,000 kilowatt-hours (21,456,520 megawatt-hours).

Consistent with WAC 480-109-210(2), based on the average of PSE's load in 2017 and 2018 and as reflected above, PSE's estimated load for purposes of meeting its 2019 target is 21,386,459 megawatt-hours.

### **2019 Renewable Resource Target**

Pursuant to Chapter 480-109-200(1)(b) WAC, PSE's renewable resource target shall be nine percent of its 2017-2018 average load. Therefore, PSE's estimated renewable energy target for 2019 is approximately 1,924,781 megawatt-hours (nine percent of 21,386,459 megawatt-hours.) PSE expects to generate eligible renewable energy in excess of its 2019 requirement (not including any renewable energy credits generated in 2018 that PSE may elect to use for its 2019 requirement).

PSE will report on the specific renewable energy credits produced and to be retired for final compliance with the 2019 target in either its 2020 or 2021 annual report, and reserves the right to submit renewable energy credits from the resources reported here or to substitute with renewable energy credits produced from 2018 to 2020 by other eligible renewable resources or with 2019 generation from eligible renewable resources that have not been converted to renewable energy credits.

### **Conclusion**

PSE has acquired sufficient eligible renewable resources or renewable energy credits to meet the estimated renewable energy target for 2019.

PSE's expected 2019 eligible renewable resource generation of 2,090,855 megawatt-hours, not including extra apprenticeship credits, exceeds its 2019 renewable resource target of 1,924,781 megawatt-hours.



## 9. INCREMENTAL COST OF RENEWABLE RESOURCES

According to RCW 19.285, certain electric utilities in Washington must meet 15 percent of their retail electric load with eligible renewable resources by the calendar year 2020. The annual target for the calendar year 2012 was 3 percent of retail electric load, and for 2016, it was 9 percent. However, if the incremental cost of those renewable resources compared to an equivalent non-renewable is greater than 4 percent of its revenue requirement, then a utility will be considered in compliance with the annual renewable energy target in RCW 19.285. The law states it this way: “The incremental cost of an eligible renewable resource is calculated as the difference between the levelized delivered cost of the eligible renewable resource, regardless of ownership, compared to the levelized delivered cost of an equivalent amount of reasonably available substitute resources that do not qualify as eligible renewable resources.”

### Analytic Framework

This analysis compares the revenue requirement cost of each renewable resource with the projected market value and capacity value at the time of the renewable acquisition. There may be other approaches to calculating these costs – such as using variable costs from different kinds of thermal plants instead of market. However, PSE’s approach is most reasonable because it most closely reflects how customers will experience costs; i.e., PSE would not dispatch a peaker or CCCT with the ramping up and down of a wind farm without regard to whether the unit is being economically dispatched. For example, a peaker will not be economically dispatched often at all, so capacity from the thermal plant and energy from market is the closest match to actual incremental costs – and that is the point of this provision in the law – a to ensure customers don’t pay too much. This, “contemporaneous” with the decision-making aspect of PSE’s approach, is important. Utilities should be able to assess whether they will exceed the cost cap before an acquisition, without having to worry about ex-post adjustments that could change compliance status. The analytical framework here reflects a close approximation of the portfolio analysis used by PSE in resource planning, as well as in the evaluation of bids received in response to the company’s request for proposals (RFP).



## “Eligible Renewable Resources”

Figure N-145: Resources that Meet RCW 19.285 Definition of Eligible Renewable Resources

	Nameplate (MW)	Annual Energy (aMW)	Commercial Online Date	Market Price/Peaker Assumptions	Capacity Credit Assumption
Hopkins Ridge	149.4	53.3	Dec-05	2004 RFP	20%
Wild Horse	228.6	73.4	Dec-06	2006 RFP	17.20%
Klondike III	50	18	Dec-07	2006 RFP	15.60%
Hopkins Infill	7.2	2.4	Dec-07	2007 IRP	20%
Wild Horse Expansion	44	10.5	Dec-09	2007 IRP	15%
Lower Snake River I	342.7	102.5	Apr-12	2010 Trends	5%
Snoqualmie Upgrades	6.1	3.9	Mar-13	2009 Trends	95%
Lower Baker Upgrades	30	12.5	May-13	2011 IRP Base	95%
Generic Solar 2022	266	70.8	Jan-22	2017 IRP Base	0%
Generic Solar 2024	112	29.8	Jan-24	2017 IRP Base	0%
Generic Solar 2032	25	6.7	Jan-32	2017 IRP Base	0%
Generic Solar 2033	59	15.7	Jan-33	2017 IRP Base	0%
Generic Solar 2037	25	6.6	Jan-37	2017 IRP Base	0%

## Equivalent Non-renewable

The incremental cost of a renewable resource is defined as the difference between the levelized cost of the renewable resource compared to an equivalent non-renewable resource. An equivalent non-renewable is an energy resource that does not meet the definition of a renewable resource in RCW 19.285, but is equal to a renewable resource on an energy and capacity basis. For the purpose of this analysis, the cost of an equivalent non-renewable resource has three components:

1. **Capacity Cost:** There are two parts of capacity cost. First is the capacity in MW. This would be the nameplate for a firm resource like biomass, or the assumed capacity of a wind plant. Second is the \$/kW cost, which we assumed to be equal to the cost of a peaker.



2. **Energy Cost:** This was calculated by taking the hourly generation shape of the resource, multiplied by the market price in each hour. This is the equivalent cost of purchasing the equivalent energy on the market.
3. **Imputed Debt:** The law states the non-renewable must be an “equivalent amount,” which includes a time dimension. If PSE entered into a long-term contract for energy, there would be an element of imputed debt. Therefore, it is included in this analysis as a cost for the non-renewable equivalent.

For example, Hopkins Ridge produces 466,900 MWh annually. The equivalent non-renewable is to purchase 466,900 MWh from the Mid-C market and then build a 30 MW (149.4\*20 percent = 30) peaker plant for capacity only. With the example, the cost comparison includes the hourly Mid-C price plus the cost of building a peaker, plus the cost of the imputed debt. The total revenue requirement (fixed and variable costs) of the non-renewable is the cost stream – including end effects – discounted back to the first year. That net present value is then levelized over the life of the comparison renewable resource.

### Cost of Renewable Resource

Levelized cost of the renewable resource is more direct. It is based on the proforma financial analysis performed at the time of the acquisition. The stream of revenue requirement (all fixed and variable costs, including integration costs) are discounted back to the first year – again, including end effects. That net present value is then levelized out over the life of the resource/contract. The levelized cost of the renewable resource is then compared with the levelized cost of the equivalent non-renewable resource to calculate the incremental cost.

The following is a detailed example of how PSE calculated the incremental cost of Wild Horse. It is important to note that PSE’s approach uses information contemporaneous with the decision making process, so this analysis will not reflect updated assumptions for capacity, capital cost, or integration costs, etc.

Eligible Renewable: Wild Horse Wind Facility

Capacity Contribution Assumption:  $228.6 * 17.2\% = 39 \text{ MW}$





## 1. Calculate Wild Horse revenue requirement.

Figure N-146 is a sample of the annual revenue requirement calculations for the first few years of Wild Horse, along with the NPV of revenue requirement.

*Figure N-146: Calculation of Wild Horse Revenue Requirement*

(\$ Millions)	20-yr NPV	2007	2008	...	2025
Gross Plant		384	384	...	384
Accumulative depreciation (Avg.)		(10)	(29)	...	(355)
Accumulative deferred tax (EOP)		(20)	(56)	...	(7)
Rate base		354	299	...	22
After tax WACC		7.01%	7.01%	...	7.01%
After tax return		25	21	...	2
Grossed up return		38	32	...	2
PTC grossed up		(20)	(20)	...	-
Expenses		16	16	...	22
Book depreciation		19	19	...	19
Revenue required	370.9	53	48	...	44
End effects	4.6				
<b>Total revenue requirement</b>	<b>375</b>				



## 2. Calculate revenue requirement for equivalent non-renewable: Peaker capacity.

Capacity = 39 MW

Capital Cost of Capacity: \$462/KW

Figure N-147: Calculation of Peaker Revenue Requirement

(\$ Millions)	20-yr NPV	2007	2008	...	2025
Gross Plant		18	18	...	18
Accumulative depreciation (Avg.)		(0)	(1)	...	(10)
Accumulative deferred tax (EOP)		(0)	(0)	...	(3)
Rate base		18	17	...	5
After tax WACC		7.01%	7.01%	...	7.01%
After tax return		1	1	...	0
Grossed up return		2	2	...	0
Expenses		1	1	...	2
Book depreciation		1	1	...	1
Revenue required	32	4	4	...	3
End effects	2				
<b>Total revenue requirement</b>	<b>34</b>				



### 3. Calculate revenue requirement for equivalent non-renewable: Energy

Energy: 642,814 MWh

For the market purchase, we used the hourly power prices from the 2006 RFP plus a transmission adder of \$1.65/MWh in 2007 and escalated at 2.5 percent.

Figure N-148:: Calculation of Energy Revenue Requirement

Month	Day	Hour	20-yr NPV	2007	...	2025
1	1	1		49 MW * \$59/MW = \$2891	...	49 MW * \$61/MW = \$2989
1	1	2		92 MW * \$60/MW = \$5520	...	92 MW * \$63/MW = \$5796
...	....	...		...	...	...
12	31	24		13 MW * \$59/MW = \$767	...	13 MW * \$65/MW = \$845
<b>(\$Millions)</b>						
<b>Cost of Market</b>				36	...	41
<b>Imputed Debt</b>				1	...	0
<b>Total Revenue Requirement</b>			285	37	...	41



## 4. Incremental cost

The table below is the total cost of Wild Horse less the cost of the peaker and less the cost of the market purchases for the total 20-year incremental cost difference of the renewable to an equivalent non-renewable.

*Figure N-149: 20-yr Incremental Cost of Wild Horse*

(\$ Millions)	20-yr NPV
Wild Horse	375
Peaker	34
Market	285
<b>20-yr Incremental Cost of Wild Horse</b>	<b>56</b>

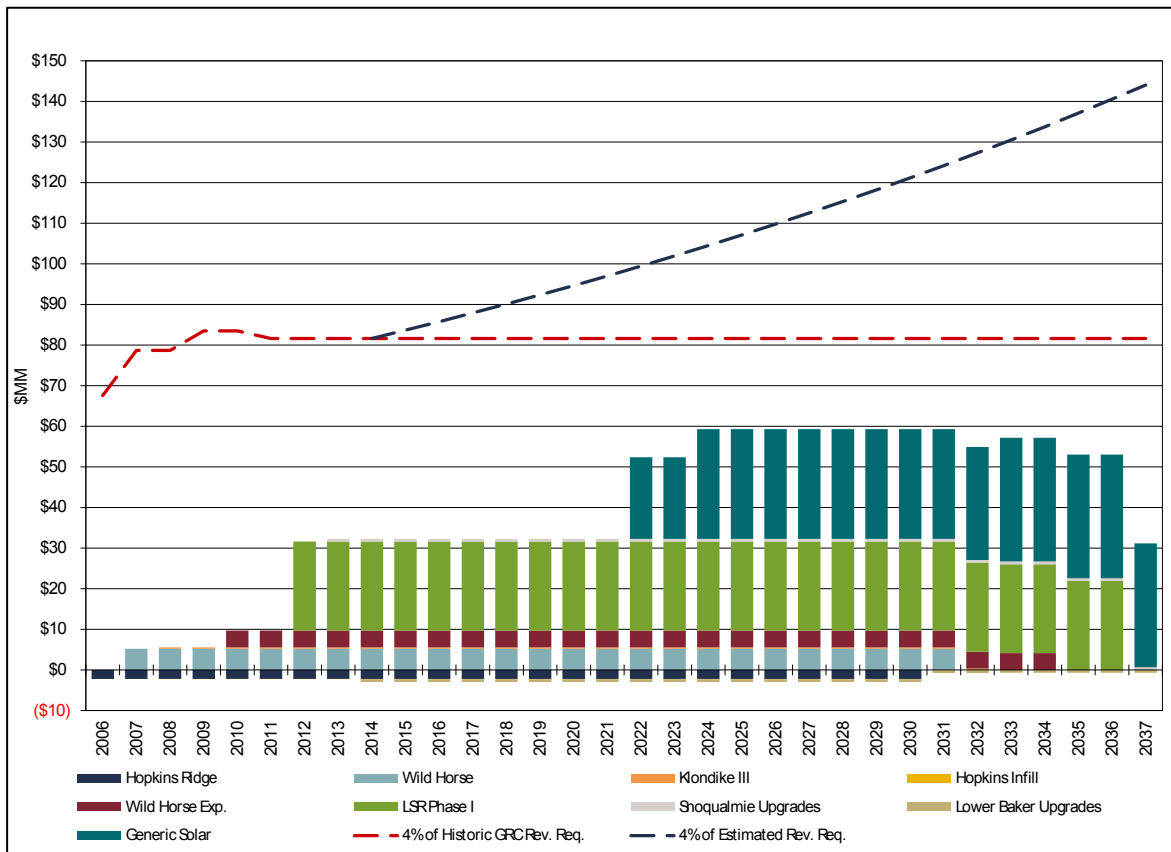
We chose to spread the incremental cost over 25 years since that is the depreciable life of a wind project used by PSE. The payment of \$56 Million over 25 years comes to \$5.2 Million per year using the 7.01 percent discount rate.



## Summary Results

Each renewable resource that counts towards meeting the renewable energy target was compared to an equivalent non-renewable resource starting in the same year and levelized over the book life of the plant: 25 years for wind power and 40 years for hydroelectric power. Figure N-150 presents results of this analysis for existing resources and projected resources. This demonstrates PSE expects to meet the physical targets under RCW 19.285 without being constrained by the cost cap. A negative cost difference means that the renewable was lower-cost than the equivalent non-renewable, while a positive cost means that the renewable was a higher cost.

*Figure N-150: Equivalent Non-renewable 20-year Levelized Cost Difference Compared to 4% of 2011 GRC Revenue Requirement + 2014 PCORC Adjustment*





As the chart reveals, even if the company's revenue requirement were to stay the same for the next 10 years, PSE would still not hit the 4 percent requirement. The estimated revenue requirement uses a 2.5 percent assumed escalation from the company's current revenue requirement.

# Attachment 3

## General Instructions:

Grey shading indicates cells where information is not required

Yellow shading indicate cells where inputs are entered

Green shading indicate cells with dropdown lists

White shading indicate formulated cells

Blue shading indicates summary calculations

## "Compliance Summary" Worksheet

Enter "X" When Complete	Checklist Item	Cell/Row Description	Units	Cell/Row	Comments
X	1	Reporting Entity	Text	B2	Enter the name of the reporting entity
X	2	Reporting Date	Year	B4	Enter the date the report is submitted
	3	Delivered Load to Retail Customers	MWh	B7:E7	Enter the MWh delivered to customers

## "Facility Detail" Worksheet

Enter "X" When Complete	Checklist Item	Cell/Row Description	Units	Cell/Row	Comments
<b>Instructions in the section are for the cells B2:F31. Each row represents a different facility. FIRST UPDATE cell B1053 For Start Year</b>					
X	1	Facility Name	Text	B2:B31	Enter the name of the qualifying facility or contract
X	2	WREGIS ID	Text	C2:C31	Enter the WREGIS ID for the qualifying facility
X	3	Facility Type	Toggle	D2:D31	Select the generation type for the qualifying facility
X	4	Extra Apprenticeship Credit Eligibility	Toggle	E2:E31	For facilities that qualify for extra apprenticeship credits select "Eligible". Select "Not Eligible for non-qualifying facilities.
X	5	Distributed Generation Eligibility	Toggle	F2:F31	For facilities that qualify for distributed generation select "Eligible". Select "Not Eligible for non-qualifying facilities.

Enter "X" When Complete	Checklist Item	Cell/Row Description	Units	Cell/Row	Comments
<b>Instructions in this section identify the input locations for the 1st facility found in the "Facility Detail" worksheet. Inputs for facilities 2 through 30, also found in the "Facility Detail" worksheet, are identical to facility 1.</b>					
	6	Total MWh Produced from Facility	Number	D39:F39	Enter the annual MWh output from the qualifying facility
	7	Percent of MWh Qualifying	%	D40:F40	Enter the percent of MWh produced that are eligible for meeting RCW 19.285
	8	Percent of Qualifying MWh Allocated to WA State Compliance	%	D41:F41	Enter the percent of qualifying MWh used for compliance with RCW 19.285. Used for facilities that are utilized for RPS compliance in two or more states.
	9	Quantity of RECs from MWh Sold	Number	D50:F50	Enter the annual amount of RECs sold. For Multi-Jurisdictional Utilities, enter in annual WA allocated amount of RECs sold.
	10	Bonus Incentives Transferred	Number	D51:F51	Enter the annual amount of transferred RECs procured from bonus incentives
	11	Bonus Incentives Not Realized	Number	D52:F52	Enter the annual number of bonus incentives that were not realized
	12	2011 Surplus Applied to 2012	Number	D56	Enter the amount of RECs procured in 2011 used for compliance in 2012
	13	2012 Surplus Applied to 2011	Number	E57	Enter the amount of RECs procured in 2012 used for compliance in 2011
	14	2012 Surplus Applied to 2013	Number	E58	Enter the amount of RECs procured in 2012 used for compliance in 2013
	15	2013 Surplus Applied to 2012	Number	F59	Enter the amount of RECs procured in 2013 used for compliance in 2012



**Reporting Entity:**

**Puget Sound Energy**

**Reporting Date:**

**June 1, 2019**

**RCW 19.285 Compliance Need**

Delivered Load to Retail Customers (MWh)  
 WA State RCW 19.285 Requirement  
 Quantity Required for Compliance

	2015	2016	2017	2018	2019
Delivered Load to Retail Customers (MWh)	20,509,764	20,448,423	21,316,397	20,697,195	Not Applicable
WA State RCW 19.285 Requirement	3%	3%	9%	9%	9%
Quantity Required for Compliance		1,848,542	1,843,118	1,879,417	1,890,612

**Eligible Quantity Acquired**

Qualifying MWh Allocated to WA  
 Quantity from Non REC Eligible Generation  
 Total Quantity Available for RCW 19.285 Compliance

	2015	2015	2016	2018	2019
Qualifying MWh Allocated to WA	1,931,011	2,205,548	1,934,234	2,175,902	554,418
Quantity from Non REC Eligible Generation	166,886	195,475	162,488	196,505	40,285
Total Quantity Available for RCW 19.285 Compliance	2,097,897	2,401,023	2,096,722	2,372,407	594,703

**Sales and Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
 Total Sold / Transferred / Unrealized

	2015	2016	2017	2018	2019
Quantity of RECs Sold	(238,199)	(521,270)	(175,982)	(307,874)	-
Bonus Incentives Transferred	-	-	-	-	-
Bonus Incentives Not Realized	(4,546)	-	-	-	-
Total Sold / Transferred / Unrealized	(242,745)	(521,270)	(175,982)	(307,874)	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
 Net Surplus Adjustments

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	(1,757,710)	1,757,710			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		(1,760,729)	1,760,729		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			(1,771,252)	1,771,252	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				(1,939,039)	1,939,039
2019 Surplus Applied to 2018				-	-
Net Surplus Adjustments	(1,757,710)	(3,018)	(10,523)	(167,787)	1,939,039

**Adjustment for Events Beyond Control**

	-	-	-	-	-
--	---	---	---	---	---

**RCW 19.285 Compliance Surplus / (Deficit)**

	2015	2016	2017	2018	2019
RCW 19.285 Compliance Surplus / (Deficit)	97,441	28,192	67,098	17,329	643,130

In both the "Compliance Summary" and "Facility Detail" worksheets, utilities may need to protect commercially sensitive information by use of the CONFIDENTIAL designation.

Facility Name:	Facility WREGIS ID:		Facility Type	Extra Apprenticeship Credit Eligibility:	Distributed Generation Bonus Eligibility:	Online Date:
Wild Horse	W183		Wind	Not Eligible	---	
Hopkins Ridge	W184		Wind	Not Eligible	---	
Klondike III	W237		Wind	Not Eligible	---	
Wild Horse Phase II	W1364		Wind	Eligible	---	
Hopkins Ridge Phase II	W1382		Wind	Not Eligible	---	
Lower Snake River - Dodge Junction	W2669		Wind	Eligible	---	
Lower Snake River - Phalen Gulch	W2670		Wind	Eligible	---	
Wanapum Fish Bypass	Not Available		Water (Incremental Hydro)	Not Eligible	---	
Baker River Project	W4865		Water (Incremental Hydro)	Not Eligible	---	
Snoqualmie Falls Project	W4866		Water (Incremental Hydro)	Not Eligible	---	
Klondike 1--REC only**	W238		Wind	Not Eligible	---	
Stateline WA Wind--REC Only **	W248		Wind	Not Eligible	---	
Horse Butte Wind--REC only **	W3260		Wind	Not Eligible	---	
Grand View 5 East--REC Only**	W5069		Solar	Not Eligible	---	
Grand View 2 West--REC Only **	W5070		Solar	Not Eligible	---	
ID Solar 1 -- REC Only **	W5076		Solar	Not Eligible	---	
Condon Wind Power -- REC Only **	W774		Wind	Not Eligible	---	
Condon Wind Power Phase II -- REC Only *	W833		Wind	Not Eligible	---	
Facility 19				---	---	
Facility 20				---	---	
Facility 21				---	---	
Facility 22				---	---	
Facility 23				---	---	
Facility 24				---	---	
Facility 25				---	---	
Facility 26				---	---	
Facility 27				---	---	
Facility 28				---	---	
Facility 29				---	---	
Facility 30				---	---	

In both the "Compliance Summary" and "Facility Detail" worksheets, utilities may need to protect commercially sensitive information by use of the CONFIDENTIAL designation.

Facility Name:

Wild Horse

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Wild Horse  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Wild Horse	512,757	564,671	516,263	537,534	124,095
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>512,757</b>	<b>564,671</b>	<b>516,263</b>	<b>537,534</b>	<b>124,095</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold	43,254	258,677	44,385	68,932	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
<b>Total Sold / Transferred / Unrealized</b>	<b>43,254</b>	<b>258,677</b>	<b>44,385</b>	<b>68,932</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	469,503	469,503			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		305,994	305,994		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			471,878	471,878	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				468,602	468,602
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>(469,503)</b>	<b>163,509</b>	<b>(165,884)</b>	<b>3,276</b>	<b>468,602</b>

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	469,503	305,994	471,878	592,697
Actual Retirements for RPS Compliance		469,503	238,895		

Facility Name:

Hopkins Ridge

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Hopkins Ridge  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Hopkins Ridge	348,166	398,058	329,544	392,020	85,805
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>348,166</b>	<b>398,058</b>	<b>329,544</b>	<b>392,020</b>	<b>85,805</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold	109,781	190,560	74,400	171,162	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
<b>Total Sold / Transferred / Unrealized</b>	<b>109,781</b>	<b>190,560</b>	<b>74,400</b>	<b>171,162</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	238,385	238,385			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		207,498	207,498		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			255,144	255,144	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				220,858	220,858
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>(238,385)</b>	<b>30,887</b>	<b>(47,646)</b>	<b>34,286</b>	<b>220,858</b>

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	238,385	207,498	255,144	306,663
Actual Retirements for RPS Compliance		238,385	207,498		

Facility Name:

Klondike III

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Klondike III  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Klondike III	121,605	127,238	110,618	119,438	22,838
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>121,605</b>	<b>127,238</b>	<b>110,618</b>	<b>119,438</b>	<b>22,838</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold	60,697	62,849	57,197	57,609	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
<b>Total Sold / Transferred / Unrealized</b>	<b>60,697</b>	<b>62,849</b>	<b>57,197</b>	<b>57,609</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	60,908	60,908			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		64,389	64,389		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			53,421	53,421	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				61,829	61,829
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>(60,908)</b>	<b>(3,481)</b>	<b>10,968</b>	<b>(8,408)</b>	<b>61,829</b>

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	60,908	64,389	53,421	84,667
Actual Retirements for RPS Compliance		32,714	64,389		

Facility Name:

Wild Horse Phase II

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Wild Horse Phase II  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
 Eligible MWh Available for RCW 19.285 Compliance

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Wild Horse Phase II	98,693	108,686	99,368	103,462	29,578
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
Eligible MWh Available for RCW 19.285 Compliance	98,693	108,686	99,368	103,462	29,578

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
 Total Quantity from Non REC Eligible Generation

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	19,739	21,737	19,874	20,692	5,916
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	19,739	21,737	19,874	20,692	5,916

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
 Total Sold / Transferred / Unrealized

	2015	2016	2017	2018	2019
Quantity of RECs Sold	10,000	-	-	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized	2,000	-	-	-	-
Total Sold / Transferred / Unrealized	12,000	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
 Net Surplus Adjustments

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	106,432	106,432			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		130,423	130,423		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			119,242	119,242	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				124,154	124,154
2019 Surplus Applied to 2018				-	-
Net Surplus Adjustments	(106,432)	(23,992)	11,182	(4,913)	124,154

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	106,432	130,423	119,242	159,648
Actual Retirements for RPS Compliance		106,432	108,686		

Facility Name:

Hopkins Ridge Phase II

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Hopkins Ridge Phase II  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Hopkins Ridge Phase II	16,614	19,184	15,881	18,893	4,333
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>16,614</b>	<b>19,184</b>	<b>15,881</b>	<b>18,893</b>	<b>4,333</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold	1,735	9,184	-	10,171	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
<b>Total Sold / Transferred / Unrealized</b>	<b>1,735</b>	<b>9,184</b>	<b>-</b>	<b>10,171</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	14,879	14,879			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		10,000	10,000		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			15,881	15,881	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				8,722	8,722
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>(14,879)</b>	<b>4,879</b>	<b>(5,881)</b>	<b>7,159</b>	<b>8,722</b>

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	14,879	10,000	15,881	13,055
Actual Retirements for RPS Compliance		14,879	10,000		

Facility Name:

**Lower Snake River - Dodge Junction**

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Lower Snake River - Dodge Junction

Percent of MWh Qualifying Under RCW 19.285

Percent of Qualifying MWh Allocated to WA

Eligible MWh Available for RCW 19.285 Compliance

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Lower Snake River - Dodge Junction	421,560	500,734	413,806	508,243	100,435
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
Eligible MWh Available for RCW 19.285 Compliance	421,560	500,734	413,806	508,243	100,435

**Non REC Eligible Generation**

Extra Apprenticeship Credit

Distributed Generation Bonus

Total Quantity from Non REC Eligible Generation

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	84,312	100,147	82,761	101,649	20,087
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	84,312	100,147	82,761	101,649	20,087

**REC Sales / Transfers**

Quantity of RECs Sold

Bonus Incentives Transferred

Bonus Incentives Not Realized

Total Sold / Transferred / Unrealized

	2015	2016	2017	2018	2019
Quantity of RECs Sold	-	-	-	-	-
Bonus Incentives Transferred	-	-	-	-	-
Bonus Incentives Not Realized	-	-	-	-	-
Total Sold / Transferred / Unrealized	-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016

2016 Surplus Applied to 2015

2016 Surplus Applied to 2017

2017 Surplus Applied to 2016

2017 Surplus Applied to 2018

2018 Surplus Applied to 2017

2018 Surplus Applied to 2019

2019 Surplus Applied to 2018

Net Surplus Adjustments

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	505,872	505,872			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		600,881	600,881		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			496,567	496,567	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				609,892	609,892
2019 Surplus Applied to 2018				-	-
Net Surplus Adjustments	(505,872)	(95,009)	104,314	(113,324)	609,892

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	505,872	600,881	496,567	730,413
Actual Retirements for RPS Compliance	323,934	323,934	500,734		



**Lower Snake River - Phalen Gulch**

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Lower Snake River - Phalen Gulch  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Lower Snake River - Phalen Gulch	314,175	367,953	299,266	370,818	71,412
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>314,175</b>	<b>367,953</b>	<b>299,266</b>	<b>370,818</b>	<b>71,412</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	62,835	73,591	59,853	74,164	14,282
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>62,835</b>	<b>73,591</b>	<b>59,853</b>	<b>74,164</b>	<b>14,282</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold	12,732	-	-	-	-
Bonus Incentives Transferred	-	-	-	-	-
Bonus Incentives Not Realized	2,546.40	-	-	-	-
<b>Total Sold / Transferred / Unrealized</b>	<b>15,278</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	361,732	361,732			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		441,544	441,544		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			359,119	359,119	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				444,982	444,982
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>(361,732)</b>	<b>(79,812)</b>	<b>82,424</b>	<b>(85,862)</b>	<b>444,982</b>

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

Contribution to RCW 19.285 Compliance	-	361,732	441,544	359,119	530,676
Actual Retirements for RPS Compliance	205,228	361,732	367,953		

Facility Name:

Wanapum Fish Bypass

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Wanapum Fish Bypass  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Not Eligible		Not Eligible	Not Eligible	Not Eligible	Not Eligible
	100%	100%	100%	100%	100%
	100%	100%	100%	100%	100%
	-	-	-	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
	-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
	-	-			
	-	-			
		-	-		
		-	-		
			-	-	
			-	-	-
				-	-
	-	-	-	-	-

**Adjustment for Events Beyond Control**

--	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

	-	-	-	-	-
--	---	---	---	---	---

Use of Wanapum Fish Bypass for RPS Compliance will be dependent upon Grant County filing WREGIS registration. To-date Grant County has not filed Wanapum in WREGIS.

Facility Name:

Baker River Project

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Baker River Project  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Baker River Project	308,611	358,833	313,000	385,059	350,000
Percent of MWh Qualifying Under RCW 19.285	28.3%	28.3%	28.3%	28.3%	28.3%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>87,337</b>	<b>101,550</b>	<b>88,579</b>	<b>108,971</b>	<b>99,050</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold					
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
<b>Total Sold / Transferred / Unrealized</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	-	-			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017	-	-	-		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			-	-	
2018 Surplus Applied to 2017				-	
2018 Surplus Applied to 2019				-	-
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Adjustment for Events Beyond Control

--	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

	<b>87,337</b>	<b>101,550</b>	<b>88,579</b>	<b>108,971</b>	<b>99,050</b>
Actual Retirements for RPS Compliance	87,337	101,550	88,579		

2019 generation estimated based on 3 year average of generation at this facility. Baker estimated RPS Eligible generation based on Incremental Hydro Calculation Method 2. Baker Project WREGIS Registration was completed June, 2016

Facility Name:

Snoqualmie Falls Project

**MWh Allocated to WA Compliance**

Total MWh Produced / Purchased from Snoqualmie Falls Project  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

	2015	2016	2017	2018	2019
Total MWh Produced / Purchased from Snoqualmie Falls Project	118,871	205,584	195,400	194,398	198,500
Percent of MWh Qualifying Under RCW 19.285	8.5%	8.5%	8.5%	8.5%	8.5%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%	100%	100%
<b>Eligible MWh Available for RCW 19.285 Compliance</b>	<b>10,104</b>	<b>17,475</b>	<b>16,609</b>	<b>16,523</b>	<b>16,872</b>

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

	2015	2016	2017	2018	2019
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
<b>Total Quantity from Non REC Eligible Generation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

	2015	2016	2017	2018	2019
Quantity of RECs Sold					
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
<b>Total Sold / Transferred / Unrealized</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

	2015	2016	2017	2018	2019
2015 Surplus Applied to 2016	-	-			
2016 Surplus Applied to 2015	-	-			
2016 Surplus Applied to 2017		-	-		
2017 Surplus Applied to 2016		-	-		
2017 Surplus Applied to 2018			-	-	
2018 Surplus Applied to 2017			-	-	
2018 Surplus Applied to 2019				-	-
2019 Surplus Applied to 2018				-	-
<b>Net Surplus Adjustments</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Adjustment for Events Beyond Control

Adjustment for Events Beyond Control					
--------------------------------------	--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

Actual Retirements for RPS Compliance

<b>Contribution to RCW 19.285 Compliance</b>	<b>10,104</b>	<b>17,475</b>	<b>16,609</b>	<b>16,523</b>	<b>16,872</b>
Actual Retirements for RPS Compliance	10,104	17,475	16,609		

2019 generation estimated based on 3 year average of generation at this facility. Snoqualmie Falls Project estimated RPS Eligible generation based on Incremental Hydro Calculation Method 2. Snoqualmie Falls Project WREGIS Registration was completec

Facility Name:

Klondike 1--REC only\*\*

**MWh Allocated to WA Compliance**

Purchased from Klondike 1--REC only\*\*  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

2015	2016	2017	2018	2019
		968		
		100%		
		100%		
-	-	968		

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018

2015	2016	2017	2018	2019
-				
-	-			
	-	-		
	-	-		
		-	-	
			-	-
			-	-

**Net Surplus Adjustments**

Adjustment for Events Beyond Control

-	-	-	-	-

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	968	-	-
		968		

Facility Name:

Stateline WA Wind--REC Only \*\*

**MWh Allocated to WA Compliance**

Purchased from Stateline WA Wind--REC Only \*\*  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

2015	2016	2017	2018	2019
		3,890		
		100%		
		100%		
-	-	3,890		

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

2015	2016	2017	2018	2019
-	-			
-	-			
	-	-		
	-	-		
			-	
		-	-	
			-	-
			-	-
-	-	-	-	-

**Adjustment for Events Beyond Control**

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	3,890	-	-
		3,890		

Facility Name:

Horse Butte Wind--REC only \*\*

**MWh Allocated to WA Compliance**

Purchased from Horse Butte Wind--REC only \*\*

Percent of MWh Qualifying Under RCW 19.285

Percent of Qualifying MWh Allocated to WA

Eligible MWh Available for RCW 19.285 Compliance

2015	2016	2017	2018	2019
		27		
		100%		
		100%		
-	-	27	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit

Distributed Generation Bonus

Total Quantity from Non REC Eligible Generation

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold

Bonus Incentives Transferred

Bonus Incentives Not Realized

Total Sold / Transferred / Unrealized

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016

2016 Surplus Applied to 2015

2016 Surplus Applied to 2017

2017 Surplus Applied to 2016

2017 Surplus Applied to 2018

2018 Surplus Applied to 2017

2018 Surplus Applied to 2019

2019 Surplus Applied to 2018

Net Surplus Adjustments

2015	2016	2017	2018	2019
-				
-	-			
-	-	-		
-	-	-		
	-		-	
	-		-	
			-	-
			-	-
-	-	-	-	-

Adjustment for Events Beyond Control

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	27	-	-
		27		

Facility Name:

**Grand View 5 East--REC Only\*\***

**MWh Allocated to WA Compliance**

Purchased from Grand View 5 East--REC Only\*\*

Percent of MWh Qualifying Under RCW 19.285

Percent of Qualifying MWh Allocated to WA

Eligible MWh Available for RCW 19.285 Compliance

2015	2016	2017	2018	2019
		6,741		
		100%		
		100%		
-	-	6,741	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit

Distributed Generation Bonus

Total Quantity from Non REC Eligible Generation

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold

Bonus Incentives Transferred

Bonus Incentives Not Realized

Total Sold / Transferred / Unrealized

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016

2016 Surplus Applied to 2015

2016 Surplus Applied to 2017

2017 Surplus Applied to 2016

2017 Surplus Applied to 2018

2018 Surplus Applied to 2017

2018 Surplus Applied to 2019

2019 Surplus Applied to 2018

Net Surplus Adjustments

2015	2016	2017	2018	2019
-	-			
-	-			
	-	-		
	-	-		
		-	-	
		-	-	-
			-	-
			-	-
-	-	-	-	-

Adjustment for Events Beyond Control

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	6,741	-	-
		6,741		



Facility Name:

**Grand View 2 West--REC Only \*\***

**MWh Allocated to WA Compliance**

Purchased from Grand View 2 West--REC Only \*\*  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

2015	2016	2017	2018	2019
		18,511		
		100%		
		100%		
-	-	18,511	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

2015	2016	2017	2018	2019
-	-			
-	-			
	-	-		
	-	-		
			-	
			-	
			-	-
			-	-
-	-	-	-	-

Adjustment for Events Beyond Control

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	18,511	-	-
		18,511		

Facility Name:

ID Solar 1 -- REC Only \*\*

**MWh Allocated to WA Compliance**

Purchased from ID Solar 1 -- REC Only \*\*  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

2015	2016	2017	2018	2019
		12,048		
		100%		
		100%		
-	-	12,048	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

2015	2016	2017	2018	2019
-	-			
-	-			
	-	-		
	-	-		
			-	
		-	-	
			-	-
			-	-
-	-	-	-	-

**Adjustment for Events Beyond Control**

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	12,048	-	-
		12,048		

Facility Name:

Condon Wind Power -- REC Only \*\*

**MWh Allocated to WA Compliance**

Purchased from Condon Wind Power -- REC Only \*\*  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

2015	2016	2017	2018	2019
		1,046		
		100%		
		100%		
-	-	1,046	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

2015	2016	2017	2018	2019
-	-			
-	-			
	-	-		
	-	-		
			-	
			-	
			-	-
			-	-
-	-	-	-	-

Adjustment for Events Beyond Control

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	1,046	-	-
		1,046		

Facility Name:

Condon Wind Power Phase II -- REC Only \*\*

**MWh Allocated to WA Compliance**

Purchased from Condon Wind Power Phase II -- REC Only \*\*  
 Percent of MWh Qualifying Under RCW 19.285  
 Percent of Qualifying MWh Allocated to WA  
**Eligible MWh Available for RCW 19.285 Compliance**

2015	2016	2017	2018	2019
		1,069		
		100%		
		100%		
-	-	1,069	-	-

**Non REC Eligible Generation**

Extra Apprenticeship Credit  
 Distributed Generation Bonus  
**Total Quantity from Non REC Eligible Generation**

2015	2016	2017	2018	2019
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**REC Sales / Transfers**

Quantity of RECs Sold  
 Bonus Incentives Transferred  
 Bonus Incentives Not Realized  
**Total Sold / Transferred / Unrealized**

2015	2016	2017	2018	2019
-	-	-	-	-

**Adjustments**

2015 Surplus Applied to 2016  
 2016 Surplus Applied to 2015  
 2016 Surplus Applied to 2017  
 2017 Surplus Applied to 2016  
 2017 Surplus Applied to 2018  
 2018 Surplus Applied to 2017  
 2018 Surplus Applied to 2019  
 2019 Surplus Applied to 2018  
**Net Surplus Adjustments**

2015	2016	2017	2018	2019
-	-			
-	-			
	-	-		
	-	-		
			-	
		-	-	
			-	-
			-	-
-	-	-	-	-

**Adjustment for Events Beyond Control**

--	--	--	--	--

**Contribution to RCW 19.285 Compliance**

\*\* REC purchase only, no generation provided with purchase -Actual Retirements for RPS Compliance

-	-	1,069	-	-
		1,069		

PUGET SOUND ENERGY 2019 RPS REPORT

## Compliance Contribution by Generation Type

	2015	2016	2017	2018	2019
Wind	-	1,757,710	1,767,729	1,771,252	2,417,820
Solar	-	-	37,300	-	-
Water (Incremental Hydro)		119,024	105,188	125,494	115,922
Biomass	-	-	-	-	-
Geothermal	-	-	-	-	-
Landfill Gas	-	-	-	-	-
Sewage Treatment Gas	-	-	-	-	-
Wave, Ocean, Tidal	-	-	-	-	-
Biodiesel Fuel	-	-	-	-	-

Facility Name	Facility Type	2015	2016	2017	2018	2019
Wild Horse	Wind	-	469,503	305,994	471,878	592,697
Hopkins Ridge	Wind	-	238,385	207,498	255,144	306,663
Klondike III	Wind	-	60,908	64,389	53,421	84,667
Wild Horse Phase II	Wind	-	106,432	130,423	119,242	159,648
Hopkins Ridge Phase II	Wind	-	14,879	10,000	15,881	13,055
Lower Snake River - Dodge Junction	Wind	-	505,872	600,881	496,567	730,413
Lower Snake River - Phalen Gulch	Wind	-	361,732	441,544	359,119	530,676
Wanapum Fish Bypass	Water (Incremental Hydro)	-	-	-	-	-
Baker River Project	Water (Incremental Hydro)	87,337	101,550	88,579	108,971	99,050
Snoqualmie Falls Project	Water (Incremental Hydro)	10,104	17,475	16,609	16,523	16,872
Klondike 1--REC only**	Wind	-	-	968	-	-
Stateline WA Wind--REC Only **	Wind	-	-	3,890	-	-
Horse Butte Wind--REC only **	Wind	-	-	27	-	-
Grand View 5 East--REC Only**	Solar	-	-	6,741	-	-
Grand View 2 West--REC Only **	Solar	-	-	18,511	-	-
ID Solar 1 -- REC Only **	Solar	-	-	12,048	-	-

Condon Wind Power -- REC Only *	Wind	-	-	1,046	-	-
Condon Wind Power Phase II -- RE	Wind	-	-	1,069	-	-
Facility 19		-	-	-	-	-
Facility 20		-	-	-	-	-
Facility 21		-	-	-	-	-
Facility 22		-	-	-	-	-
Facility 23		-	-	-	-	-
Facility 24		-	-	-	-	-
Facility 25		-	-	-	-	-
Facility 26		-	-	-	-	-
Facility 27		-	-	-	-	-
Facility 28		-	-	-	-	-
Facility 29		-	-	-	-	-
Facility 30		-	-	-	-	-

Puget Sound Energy - 2018 RPS Report

**DESIGNATED INFORMATION IS CONFIDENTIAL PER WAC 480-07-160**

Attachment 4





**PUGET SOUND ENERGY - 2019 RPS Report**

**Deferred REC Revenue Proceeds**

A/C 25400221

Vintages 2012 through 2018

Attachment 4

**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Facility	Transaction			Qty	REC	Total Qty	Total REC	
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues	
Wild Horse Phase II	2012-01WH2	May-12	W1364	11,460	REDACTED	54,206	REDACTED	2012 Vintage
Wild Horse Phase II	2012-07WH2	Nov-13	W1364	5,173		47,386		2013 Vintage
Wild Horse Phase II	2012-08WH2	Nov-13	W1364	7,555		98,496		2014 Vintage
Wild Horse Phase II	2012-09WH2	Nov-13	W1364	5,730		10,000		2015 Vintage
Wild Horse Phase II	2012-10WH2	Nov-13	W1364	8,749				
Wild Horse Phase II	2012-11WH2	Nov-13	W1364	6,660				
Wild Horse Phase II	2012-12WH2	Nov-13	W1364	8,879				
Wild Horse Phase II	2013-07WH2	Oct-14	W1364	8,048				
Wild Horse Phase II	2013-08WH2	Oct-14	W1364	4,733				
Wild Horse Phase II	2013-09WH2	Oct-14	W1364	7,637				
Wild Horse Phase II	2013-10WH2	Oct-14	W1364	4,582				
Wild Horse Phase II	2013-10WH2	Jan-15	W1364	1,600				
Wild Horse Phase II	2013-11WH2	Oct-14	W1364	7,682				
Wild Horse Phase II	2013-12WH2	Oct-14	W1364	9,931				
Wild Horse Phase II	2013-12WH2	Jan-15	W1364	3,173				
Wild Horse Phase II	2014-01WH2	Apr-15	W1364	5,002				
Wild Horse Phase II	2014-02WH2	Apr-15	W1364	7,583				
Wild Horse Phase II	2014-03WH2	Apr-15	W1364	11,579				
Wild Horse Phase II	2014-04WH2	Apr-15	W1364	12,732				
Wild Horse Phase II	2014-05WH2	Apr-15	W1364	9,343				
Wild Horse Phase II	2014-06WH2	Apr-15	W1364	8,109				
Wild Horse Phase II	2014-06WH2	Aug-15	W1364	3,314				
Wild Horse Phase II	2014-07WH2	Apr-15	W1364	5,008				
Wild Horse Phase II	2014-08WH2	Mar-16	W1364	290				
Wild Horse Phase II	2014-09WH2	Apr-15	W1364	6,626				
Wild Horse Phase II	2014-09WH2	Dec-15	W1364	1,440				
Wild Horse Phase II	2014-10WH2	Jan-16	W1364	7,625				
Wild Horse Phase II	2014-11WH2	Jan-16	W1364	11,591				
Wild Horse Phase II	2014-12WH2	Dec-15	W1364	500				
Wild Horse Phase II	2014-12WH2	Dec-15	W1364	7,678				
Wild Horse Phase II	2014-12WH2	Mar-16	W1364	76				
Wild Horse Phase II	2015-07WH2	Mar-16	W1364	10,000				
Hopkins Ridge Phase II	2013-07HR2	Oct-14	W1382	1,222		7,309		2013 Vintage
Hopkins Ridge Phase II	2013-08HR2	Oct-14	W1382	932		18,641		2014 Vintage

**PUGET SOUND ENERGY - 2019 RPS Report**  
**Deferred REC Revenue Proceeds**  
**A/C 25400221**

Attachment 4  
**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Vintages 2012 through 2018

Facility	Transaction			Qty	REC	Total Qty	Total REC	
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues	
Hopkins Ridge Phase II	2013-09HR2	Oct-14	W1382	1,486	REDACTED	1,735	REDACTED	2015 Vintage
Hopkins Ridge Phase II	2013-10HR2	Oct-14	W1382	819		9,184		2016 Vintage
Hopkins Ridge Phase II	2013-11HR2	Oct-14	W1382	1,330		10,171		2018 Vintage
Hopkins Ridge Phase II	2013-12HR2	Oct-14	W1382	1,520				
Hopkins Ridge Phase II	2014-01HR2	Oct-14	W1382	1,233				
Hopkins Ridge Phase II	2014-02HR2	Oct-14	W1382	1,376				
Hopkins Ridge Phase II	2014-03HR2	Oct-14	W1382	2,173				
Hopkins Ridge Phase II	2014-04HR2	Oct-14	W1382	2,147				
Hopkins Ridge Phase II	2014-05HR2	Oct-14	W1382	1,884				
Hopkins Ridge Phase II	2014-06HR2	Oct-14	W1382	1,883				
Hopkins Ridge Phase II	2014-07HR2	Jan-15	W1382	1,262				
Hopkins Ridge Phase II	2014-08HR2	Jan-15	W1382	1,165				
Hopkins Ridge Phase II	2014-09HR2	Jan-15	W1382	693				
Hopkins Ridge Phase II	2014-09HR2	Apr-15	W1382	437				
Hopkins Ridge Phase II	2014-10HR2	Apr-15	W1382	1,483				
Hopkins Ridge Phase II	2014-11HR2	Apr-15	W1382	1,813				
Hopkins Ridge Phase II	2014-12HR2	Apr-15	W1382	1,092				
Hopkins Ridge Phase II	2015-01HR2	Apr-15	W1382	574				
Hopkins Ridge Phase II	2015-02HR2	Apr-15	W1382	1,161				
Hopkins Ridge Phase II	2016-07HR2	Mar-18	W1382	1,583				
Hopkins Ridge Phase II	2016-08HR2	Mar-18	W1382	1,129				
Hopkins Ridge Phase II	2016-09HR2	Mar-18	W1382	1,478				
Hopkins Ridge Phase II	2016-10HR2	Mar-18	W1382	1,724				
Hopkins Ridge Phase II	2016-11HR2	Mar-18	W1382	1,705				
Hopkins Ridge Phase II	2016-12HR2	Mar-18	W1382	1,565				
Hopkins Ridge Phase II	2018 - 01HR2	Mar-19	W1382	1,961				
Hopkins Ridge Phase II	2018 - 07HR2	Feb-19	W1382	1,158				
Hopkins Ridge Phase II	2018 - 08HR2	Feb-19	W1382	1,529				
Hopkins Ridge Phase II	2018 - 09HR2	Feb-19	W1382	1,243				
Hopkins Ridge Phase II	2018 - 10HR2	Feb-19	W1382	947				
Hopkins Ridge Phase II	2018 - 11HR2	Jan-19	W1382	1,740				
Hopkins Ridge Phase II	2018 - 12HR2	Jan-19	W1382	1,593				
Wild Horse	2012-01WH	May-12	W183	38,143		238,143		2012 Vintage
Wild Horse	2012-07WH	Dec-13	W183	26,875		246,192		2013 Vintage

**PUGET SOUND ENERGY - 2019 RPS Report**

**Deferred REC Revenue Proceeds**

A/C 25400221

Vintages 2012 through 2018

Attachment 4

**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Facility	Transaction			Qty	REC	Total Qty	Total REC	
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues	
Wild Horse	2012-08WH	Dec-13	W183	39,253	REDACTED	541,930	REDACTED	2014 Vintage
Wild Horse	2012-09WH	Dec-13	W183	29,767		43,254		2015 Vintage
Wild Horse	2012-10WH	Dec-13	W183	45,454		138,677		2016 Vintage
Wild Horse	2012-11WH	Dec-13	W183	34,606		44,385		2017 Vintage
Wild Horse	2012-12WH	Dec-13	W183	24,045		68,932		2018 Vintage
Wild Horse	2013-07WH	Jul-14	W183	15,535				
Wild Horse	2013-07WH	Oct-14	W183	26,280				
Wild Horse	2013-08WH	Oct-14	W183	24,591				
Wild Horse	2013-09WH	Oct-14	W183	39,676				
Wild Horse	2013-10WH	Oct-14	W183	32,117				
Wild Horse	2013-11WH	Oct-14	W183	27,336				
Wild Horse	2013-11WH	Jan-15	W183	12,577				
Wild Horse	2013-12WH	Jan-15	W183	25,465				
Wild Horse	2013-12WH	Feb-15	W183	3,000				
Wild Horse	2013-12WH	Apr-15	W183	39,615				
Wild Horse	2014-01WH	Oct-14	W183	25,000				
Wild Horse	2014-01WH	Nov-14	W183	991				
Wild Horse	2014-02WH	Nov-14	W183	39,394				
Wild Horse	2014-03WH	Nov-14	W183	60,000				
Wild Horse	2014-03WH	Apr-15	W183	160				
Wild Horse	2014-04WH	Nov-14	W183	66,150				
Wild Horse	2014-05WH	Nov-14	W183	48,537				
Wild Horse	2014-06WH	Nov-14	W183	39,928				
Wild Horse	2014-06WH	Apr-15	W183	19,422				
Wild Horse	2014-07WH	Apr-15	W183	26,017				
Wild Horse	2014-08WH	Apr-15	W183	36,234				
Wild Horse	2014-09WH	Apr-15	W183	41,907				
Wild Horse	2014-10WH	Apr-15	W183	38,734				
Wild Horse	2014-10WH	Dec-15	W183	882				
Wild Horse	2014-11WH	Jun-15	W183	30,000				
Wild Horse	2014-11WH	Jan-16	W183	24,038				
Wild Horse	2014-11WH	Feb-16	W183	1,653				
Wild Horse	2014-12WH	May-15	W183	20,000				
Wild Horse	2014-12WH	Dec-15	W183	22,000				

**PUGET SOUND ENERGY - 2019 RPS Report**

**Deferred REC Revenue Proceeds**

A/C 25400221

Vintages 2012 through 2018

Attachment 4

**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Facility	Transaction			Qty	REC	Total Qty	Total REC	
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues	
Wild Horse	2014-12WH	Mar-16	W183	883				
Wild Horse	2015-07WH	Mar-17	W183	43,254				
Wild Horse	2016-07WH	Dec-17	W183	39,127				
Wild Horse	2016-07WH	Dec-17	W183	4,603				
Wild Horse	2016-07WH	Feb-18	W183	4,837				
Wild Horse	2016-08WH	Feb-18	W183	19,294				
Wild Horse	2016-08WH	Mar-18	W183	17,912				
Wild Horse	2016-09WH	Mar-18	W183	50,678				
Wild Horse	2016-10WH	Mar-18	W183	2,226				
Wild Horse	2017-07 WH	Dec-18	W183	44,385				
Wild Horse	2018 - 07WH	Feb-19	W183	33,427				
Wild Horse	2018 - 08WH	Feb-19	W183	35,505				
Hopkins Ridge	2012-07HR	Nov-13	W184	22,170		171,359		2012 Vintage
Hopkins Ridge	2012-08HR	Nov-13	W184	23,942		166,117		2013 Vintage
Hopkins Ridge	2012-09HR	Nov-13	W184	17,681		423,662		2014 Vintage
Hopkins Ridge	2012-10HR	Nov-13	W184	32,566		109,781		2015 Vintage
Hopkins Ridge	2012-10HR	Nov-13	W184	833		190,560		2016 Vintage
Hopkins Ridge	2012-11HR	Nov-13	W184	25,218		74,400		2017 Vintage
Hopkins Ridge	2012-12-HR	Nov-13	W184	48,949		171,162		2018 Vintage
Hopkins Ridge	2013-07HR	Aug-14	W184	27,772				
Hopkins Ridge	2013-08HR	Aug-14	W184	7,228				
Hopkins Ridge	2013-08HR	Oct-14	W184	13,962				
Hopkins Ridge	2013-09HR	Oct-14	W184	33,769				
Hopkins Ridge	2013-10HR	Oct-14	W184	18,608				
Hopkins Ridge	2013-11HR	Oct-14	W184	30,236				
Hopkins Ridge	2013-12HR	Oct-14	W184	34,542				
Hopkins Ridge	2014-01HR	Oct-14	W184	28,019				
Hopkins Ridge	2014-02HR	Oct-14	W184	31,279				
Hopkins Ridge	2014-03HR	Oct-14	W184	49,384				
Hopkins Ridge	2014-04HR	Oct-14	W184	48,790				
Hopkins Ridge	2014-05HR	Oct-14	W184	42,826				
Hopkins Ridge	2014-06HR	Oct-14	W184	42,793				
Hopkins Ridge	2014-07HR	Oct-14	W184	17,305				
Hopkins Ridge	2014-07HR	Jan-15	W184	11,371				

**PUGET SOUND ENERGY - 2019 RPS Report**  
**Deferred REC Revenue Proceeds**  
A/C 25400221

Attachment 4  
**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Vintages 2012 through 2018

Facility	Transaction			Qty	REC	Total Qty	Total REC	
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues	
Hopkins Ridge	2014-08HR	Oct-14	W184	5,970	REDACTED		REDACTED	
Hopkins Ridge	2014-08HR	Jan-15	W184	20,509				
Hopkins Ridge	2014-09HR	Apr-15	W184	25,682				
Hopkins Ridge	2014-10HR	Apr-15	W184	33,693				
Hopkins Ridge	2014-11HR	Apr-15	W184	41,204				
Hopkins Ridge	2014-12HR	Apr-15	W184	24,837				
Hopkins Ridge	2015-01HR	Apr-15	W184	13,037				
Hopkins Ridge	2015-02HR	Apr-15	W184	22,496				
Hopkins Ridge	2015-07HR	Mar-17	W184	33,651				
Hopkins Ridge	2015-08HR	Mar-17	W184	32,313				
Hopkins Ridge	2015-09HR	Mar-17	W184	8,284				
Hopkins Ridge	2016-07HR	Nov-17	W184	32,841				
Hopkins Ridge	2016-08HR	Nov-17	W184	23,440				
Hopkins Ridge	2016-09HR	Nov-17	W184	30,662				
Hopkins Ridge	2016-10HR	Nov-17	W184	35,770				
Hopkins Ridge	2016-11HR	Nov-17	W184	14,438				
Hopkins Ridge	2016-11HR	Feb-18	W184	20,940				
Hopkins Ridge	2016-12HR	Feb-18	W184	32,469				
Hopkins Ridge	2017-07HR	Oct-18	W184	25,526				
Hopkins Ridge	2017-08HR	Oct-18	W184	19,992				
Hopkins Ridge	2017-09HR	Oct-18	W184	22,694				
Hopkins Ridge	2017-10HR	Oct-18	W184	6,188				
Hopkins Ridge	2018 - 11HR	Jan-19	W184	36,121				
Hopkins Ridge	2018 - 12HR	Jan-19	W184	27,937				
Hopkins Ridge	2018 - 07HR	Feb-19	W184	24,033				
Hopkins Ridge	2018 - 08HR	Feb-19	W184	31,728				
Hopkins Ridge	2018 - 09HR	Feb-19	W184	6,557				
Hopkins Ridge	2018 - 09HR	Feb-19	W184	19,239				
Hopkins Ridge	2018 - 10HR	Feb-19	W184	19,634				
Hopkins Ridge	2018 - 01HR	Mar-19	W184	5,913				
Klondike III	2012-07K3	Oct-13	W237	16,041		58,264		2012 Vintage
Klondike III	2012-08K3	Oct-13	W237	14,164		68,465		2013 Vintage
Klondike III	2012-09K3	Oct-13	W237	9,214		133,571		2014 Vintage
Klondike III	2012-10K3	Oct-13	W237	6,499		60,697		2015 Vintage

**PUGET SOUND ENERGY - 2019 RPS Report**  
**Deferred REC Revenue Proceeds**  
**A/C 25400221**

Vintages 2012 through 2018

Attachment 4

**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Facility	Transaction			Qty	REC	Total Qty	Total REC		
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues		
Klondike III	2012-11K3	Oct-13	W237	4,082	REDACTED	62,849	REDACTED	2016 Vintage	
Klondike III	2012-11K3	Nov-13	W237	101		57,197		2017Vintage	
Klondike III	2012-12K3	Nov-13	W237	3,641		57,609		2018 Vintage	
Klondike III	2012-12K3	Nov-13	W237	4,522					
Klondike III	2013-01K3	Mar-14	W237	4,000					
Klondike III	2013-07K3	Jul-14	W237	18,439					
Klondike III	2013-08K3	Jul-14	W237	12,249					
Klondike III	2013-09K3	Jul-14	W237	10,448					
Klondike III	2013-10K3	Jul-14	W237	5,856					
Klondike III	2013-11K3	Jul-14	W237	7,926					
Klondike III	2013-12K3	Jul-14	W237	9,547					
Klondike III	2014-01K3	Aug-14	W237	6,730					
Klondike III	2014-02K3	Aug-14	W237	8,102					
Klondike III	2014-03K3	Aug-14	W237	9,982					
Klondike III	2014-04K3	Aug-14	W237	10,186					
Klondike III	2014-04K3	Oct-14	W237	2,256					
Klondike III	2014-05K3	Oct-14	W237	2,957					
Klondike III	2014-05K3	Jan-15	W237	11,854					
Klondike III	2014-06K3	Jan-15	W237	13,146					
Klondike III	2014-06K3	Apr-15	W237	6,455					
Klondike III	2014-07K3	Oct-14	W237	14,575					
Klondike III	2014-08K3	Oct-14	W237	13,120					
Klondike III	2014-09K3	Apr-15	W237	10,070					
Klondike III	2014-10K3	Apr-15	W237	6,107					
Klondike III	2014-11K3	Apr-15	W237	10,298					
Klondike III	2014-12K3	Apr-15	W237	7,733					
Klondike III	2015-01K3	Jun-15	W237	3,410					
Klondike III	2015-02K3	Jun-15	W237	6,590					
Klondike III	2015-02K3	Aug-15	W237	1,516					
Klondike III	2015-03K3	Aug-15	W237	6,429					
Klondike III	2015-07K3	Feb-17	W237	17,267					
Klondike III	2015-08K3	Feb-17	W237	10,233					
Klondike III	2015-08K3	Mar-17	W237	4,674					
Klondike III	2015-09K3	Mar-17	W237	10,578					

**PUGET SOUND ENERGY - 2019 RPS Report**

**Deferred REC Revenue Proceeds**

A/C 25400221

Vintages 2012 through 2018

Attachment 4

**SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160**

Facility	Transaction				REC	Total Qty	Total REC	
	Vintage	Mo/Yr	WREGIS #	Qty	Revenues		Revenues	
Klondike III	2016-07K3	Nov-17	W237	17,398				
Klondike III	2016-08K3	Nov-17	W237	13,079				
Klondike III	2016-09K3	Nov-17	W237	12,312				
Klondike III	2016-10K3	Nov-17	W237	6,457				
Klondike III	2016-11K3	Nov-17	W237	5,775				
Klondike III	2016-12K3	Nov-17	W237	7,828				
Klondike III	2017-07K3	Jul-18	W237	17,830				
Klondike III	2017-08K3	Jul-18	W237	11,863				
Klondike III	2017-09K3	Jul-18	W237	7,147				
Klondike III	2017-10K3	Jul-18	W237	9,254				
Klondike III	2017-11K3	Jul-18	W237	6,026				
Klondike III	2017-12K3	Jul-18	W237	5,077				
Klondike III	2018 - 07K3	Jan-19	W237	14,947				
Klondike III	2018 - 08K3	Jan-19	W237	14,527				
Klondike III	2018 - 09K3	Jan-19	W237	10,066				
Klondike III	2018 - 10K3	Jan-19	W237	4,524				
Klondike III	2018 - 11K3	Jan-19	W237	6,974				
Klondike III	2018 - 12K3	Jan-19	W237	6,571				
Lower Snake River-Dodge Junction	2013-07DJ	Oct-14	W2669	32,666		201,751		2013 Vintage
Lower Snake River-Dodge Junction	2013-08DJ	Oct-14	W2669	26,144		230,247		2014 Vintage
Lower Snake River-Dodge Junction	2013-09DJ	Oct-14	W2669	43,424				
Lower Snake River-Dodge Junction	2013-10DJ	Oct-14	W2669	22,926				
Lower Snake River-Dodge Junction	2013-11DJ	Oct-14	W2669	37,127	<b>REDACTED</b>		<b>REDACTED</b>	
Lower Snake River-Dodge Junction	2013-12DJ	Oct-14	W2669	39,464				
Lower Snake River-Dodge Junction	2014-07DJ	Oct-14	W2669	38,161				
Lower Snake River-Dodge Junction	2014-08DJ	Oct-14	W2669	30,132				
Lower Snake River-Dodge Junction	2014-09DJ	Apr-15	W2669	34,897				
Lower Snake River-Dodge Junction	2014-10DJ	Apr-15	W2669	40,553				
Lower Snake River-Dodge Junction	2014-11DJ	Apr-15	W2669	50,548				
Lower Snake River-Dodge Junction	2014-12DJ	Apr-15	W2669	35,956				
Lower Snake River-Phalen Gulch	2013-07PG	Oct-14	W2670	22,993		142,210		2013 Vintage
Lower Snake River-Phalen Gulch	2013-08PG	Oct-14	W2670	18,193		169,808		2014 Vintage
Lower Snake River-Phalen Gulch	2013-09PG	Oct-14	W2670	13,056		12,732		2015 Vintage
Lower Snake River-Phalen Gulch	2013-09PG	Oct-14	W2670	19,776				



**PUGET SOUND ENERGY - 2019 RPS Report**

**Deferred REC Revenue Proceeds**

A/C 25400221

Vintages 2012 through 2018

Attachment 4

SHADED INFORMATION IS DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160

Facility	Transaction			Qty	REC	Total Qty	Total REC
	Vintage	Mo/Yr	WREGIS #		Revenues		Revenues
Lower Snake River-Phalen Gulch	2013-10PG	Oct-14	W2670	16,782	REDACTED		REDACTED
Lower Snake River-Phalen Gulch	2013-11PG	Oct-14	W2670	27,555			
Lower Snake River-Phalen Gulch	2013-12PG	Oct-14	W2670	23,855			
Lower Snake River-Phalen Gulch	2014-07PG	Oct-14	W2670	28,789			
Lower Snake River-Phalen Gulch	2014-08PG	Oct-14	W2670	21,948			
Lower Snake River-Phalen Gulch	2014-09PG	Apr-15	W2670	26,547			
Lower Snake River-Phalen Gulch	2014-10PG	Apr-15	W2670	30,269			
Lower Snake River-Phalen Gulch	2014-11PG	Apr-15	W2670	37,582			
Lower Snake River-Phalen Gulch	2014-12PG	Apr-15	W2670	24,673			
Lower Snake River-Phalen Gulch	2015-01PG	Apr-15	W2670	12,732			
<b>GRAND TOTAL</b>				<b>4,141,082</b>		-	



480-109-210(2)(a)(i) Utility must make a one-time calculation of incremental cost for each eligible resource at the time of acquisition or, for historic acquisitions, the best information available at the time of acquisition  
 Formula **One Time Calculation** of Incremental Cost:

Energy-Levelized Incremental Cost:  
 [Levelized Cost Eligible Renewable Resource – Levelized Cost Alternative]

Capacity-Levelized Incremental Cost:  
 [Levelized Cost Eligible Renewable Resource – Levelized Cost Alternative]

Energy + Capacity = Incremental Cost

Note:  
 Levelized cost of eligible renewable resource should include integration

Resource	ENERGY	\$	Energy	Capacity	Capacity	\$	\$
	Levelized Cost Eligible Renewable Resource (\$/REC/MWh)	Total Annual Cost (\$)	Levelized Cost Alternative (\$/MWh)	Levelized Cost Alternative (\$/kW-yr)	Total Alternative Cost (\$)	Incremental Cost (\$)	Washington Share
Baker River Project - Lower Baker	78.54	8,600,000	7.92	120	9,290,000	(690,000)	(690,000)
Snoqualmie Falls - Snoqualmie Fall	112.69	3,850,000	2.44	65	3,180,000	670,000	670,000
Wild Horse - Wild Horse	54.34	34,940,000	26.53	281	29,740,000	5,200,000	5,200,000
Hopkins Ridge - Hopkins Ridge	40.20	18,770,000	19.26	150	20,970,000	(2,200,000)	(2,200,000)
Wild Horse - Wild Horse - Phase II	109.05	10,030,000	5.09	71	5,900,000	4,130,000	4,130,000
Hopkins Ridge - Hopkins Ridge Pha	60.88	1,280,000	1.19	15	1,360,000	(80,000)	(80,000)
Lower Snake River - Dodge Junctio	78.63	39,330,000	48.51	148	27,960,000	11,370,000	11,370,000
Lower Snake River - Phalen Gulch	78.65	31,280,000	48.51	148	22,230,000	9,050,000	9,050,000
Klondike III - Klondike Wind Power	65.13	10,270,000	8.98	81	9,910,000	360,000	360,000
						-	-
						-	-
<b>Total Renewable Resource Cost</b>		<b>158,350,000</b>			<b>130,540,000</b>	<b>27,810,000</b>	<b>27,810,000</b>

Note 1: WAC 480-109-210 (2) (G): Legacy resources. Any eligible resource that the utility acquired prior to March 31, 1999, is deemed to have an incremental cost of zero.

<b>Washington Share:</b>	100.00%
<b>ALL RESOURCES TOTAL INCREMENTAL COST = ENERGY + CAPACITY</b>	27,810,000

## 2019 Estimated Data: Annual Calculation of Revenue Requirement Ratio

480-109-210(2)(a)(ii) Utility must annually calculate its revenue requirement ratio for 1) All Resources 2) Required Resources Target Year

Formula **Annual Calculation** of Incremental Cost (Revenue Requirement Ratio):

1) Total Incremental Cost All\* Resources:

$\{[\text{sum of incremental costs of All* eligible resources} + \text{cost of unbundled RECs}] - [\text{revenue RECs}]\} / \text{annual revenue requirement}$

*\*required because of excess generation, Avista needs to report 2 incremental costs*

2) Total Incremental Cost Required Resources for Target Year:

$\{[\text{sum of incremental costs of Target Year* eligible resources used for target year compliance} + \text{cost of unbundled RECs}] - [\text{revenue RECs}]\} / \text{annual revenue requirement}$

Resource--Washington Only	ALL AVAILABLE RESOURCES ESTIMATED			TARGET YEAR: FORCAST SUBJECT TO CHANGE		
	sum of incremental costs of all eligible resources	RECs purchased	Revenue from REC sales/Note 1	sum of incremental costs of all eligible resources	RECs purchased	Revenue from REC sales/Note 1
Baker River Project - Lower Baker Unit 3	(690,000)			(690,000)		
Snoqualmie Falls - Snoqualmie Falls Units 1-4	670,000			670,000		
Wild Horse - Wild Horse	5,200,000			5,200,000		
Hopkins Ridge - Hopkins Ridge	(2,200,000)			(2,200,000)		
Wild Horse - Wild Horse - Phase II	4,130,000			4,130,000		
Hopkins Ridge - Hopkins Ridge Phase II	(80,000)			(80,000)		
Lower Snake River - Dodge Junction - LSR-Dodge	11,370,000			11,370,000		
Lower Snake River - Phalen Gulch - LSR-Phalen	9,050,000			9,050,000		
Klondike III - Klondike Wind Power III LLC	360,000			360,000		
	0			0		0
	0			0		0
	0			0		0
<b>Total</b>	<b>27,810,000</b>	<b>0</b>	<b>0</b>	<b>27,810,000</b>	<b>0</b>	<b>0</b>
<b>Total WA Only Resources</b>	<b>27,810,000</b>	<b>0</b>	<b>0</b>	<b>27,810,000</b>	<b>0</b>	<b>0</b>

	0	0	0	0	0	0
<b>Total WA Share of Costs</b>	<b>27,810,000</b>	<b>0</b>	<b>0</b>	<b>27,810,000</b>	<b>0</b>	<b>0</b>

Annual Revenue Requirement (most recent rate case) (Note 3)	1,996,287,283	1,996,287,283
CALCULATION 1 (Note 2):	29,134,145	CALCULATION 2 (Note 2): 29,134,145
	1.459%	1.459%

**NOTES**

Note 1: Benefit of REC sales during 2012 to 2019 period were considered and included in original one time calculation of incremental costs, therefore would not be appropriate to include again in annual costs. Additionally, no vintage 2019 RECS sold to date.

Note 2: To calculate revenue requirements all costs/revenues are multiplied by 1.047614 to account for Washington's share Excise Tax, Uncollectibles and Commission Fees.

Note 3: Figure reflects Revenue Requirement from PSE's 2017 General Rate Case, after adjusting for Tax Cuts and Job Acts ("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

**(iii)(A) & (B) Annual Reporting Summary Data: 2019**

Utility must (A) report its total incremental cost as a dollar amount and in dollars per megawatt-hour of renewable energy generated by all eligible renewable resources in the calculation (a)(i) of this subsection; and (B) multiply the dollars per megawatt-hour cost calculated in (a)(iii)(A) of this subsection by the number of megawatt-hours needed for target year compliance.

**2019**

Resource	(A)			(B)	
	Total Incremental Cost (as dollar \$ amt.)	MWh	Total Incremental Cost (\$/MWh)	Number of Megawatt-hours Needed for Target Year Compliance	Total Incremental Cost (\$/MWh) Multiplied by Number of Megawatt-hours Needed for Target Year Compliance
Baker River Project - Lower Baker Unit 3	(690,000)	109,500	\$ (6.30)	99,050	(624,151)
Snoqualmie Falls - Snoqualmie Falls Units 1-4	670,000	34,164	\$ 19.61	16,872	330,882
Wild Horse - Wild Horse	5,200,000	642,984	\$ 8.09	304,253	2,460,583
Hopkins Ridge - Hopkins Ridge	(2,200,000)	466,908	\$ (4.71)	220,858	(1,040,650)
Wild Horse - Wild Horse - Phase II **	4,130,000	91,980	\$ 44.90	103,462	4,645,554
Hopkins Ridge - Hopkins Ridge Phase II	(80,000)	21,024	\$ (3.81)	8,722	(33,189)
Lower Snake River - Dodge Junction - LSR-Dodge Junction**	11,370,000	500,172	\$ 22.73	508,243	11,553,471
Lower Snake River - Phalen Gulch - LSR-Phalen Gulch**	9,050,000	397,728	\$ 22.75	370,818	8,437,683
Klondike III - Klondike Wind Power III LLC	360,000	157,680	\$ 2.28	61,829	141,162
Apprenticeship Credits for Eligible Resources				196,505	
<b>Total Renewable Portfolio</b>	<b>27,810,000</b>	<b>2,422,140</b>	<b>\$ 11.48</b>	<b>1,890,612</b>	<b>25,871,347</b>

13.68

\*\*Note--These facilities qualify for apprenticeship credits therefore requiring less MWh for compliance

(Avg cost/MWH for resources used)

**(iii)(A) & (B) Annual Reporting Summary Data: 2019**

**2019** Utility must (A) report its total incremental cost as a dollar amount and in dollars per megawatt-hour of renewable energy generated by all eligible renewable resources in the calculation (a)(i) of this subsection; and (B) multiply the dollars per megawatt-hour cost calculated in (a)(iii)(A) of this subsection by the number of megawatt-hours needed for target year compliance.

Resource	(A)			(B)	
	Total Incremental Cost (as dollar \$ amt.)	MWh	Total Incremental Cost (\$/MWh)	Number of Megawatt-hours Needed for Target Year Compliance	Total Incremental Cost (\$/MWh) Multiplied by Number of Megawatt-hours Needed for Target Year Compliance
Baker River Project - Lower Baker Unit 3	(690,000)	109,500	\$ (6.30)	99,050	(624,151)
Snoqualmie Falls - Snoqualmie Falls Units 1-4	670,000	34,164	\$ 19.61	16,872	330,882
Wild Horse - Wild Horse	5,200,000	642,984	\$ 8.09	304,253	2,460,583
Hopkins Ridge - Hopkins Ridge	(2,200,000)	466,908	\$ (4.71)	220,858	(1,040,650)
Wild Horse - Wild Horse - Phase II **	4,130,000	91,980	\$ 44.90	103,462	4,645,554
Hopkins Ridge - Hopkins Ridge Phase II	(80,000)	21,024	\$ (3.81)	8,722	(33,189)
Lower Snake River - Dodge Junction - LSR-Dodge Junction**	11,370,000	500,172	\$ 22.73	508,243	11,553,471
Lower Snake River - Phalen Gulch - LSR-Phalen Gulch**	9,050,000	397,728	\$ 22.75	370,818	8,437,683
Klondike III - Klondike Wind Power III LLC	360,000	157,680	\$ 2.28	61,829	141,162
Apprenticeship Credits for Eligible Resources				196,505	-
<b>Total Renewable Portfolio</b>	<b>27,810,000</b>	<b>2,422,140</b>	<b>\$ 11.48</b>	<b>1,890,612</b>	<b>25,871,347</b>

13.68

\*\*Note--These facilities qualify for apprenticeship credits therefore requiring less MWh for compliance

(Avg cost/MWH for resources used)

**Deadline:** June 1, 2019

**Submission:** Email this workbook and all supporting documentation to [EIA@commerce.wa.gov](mailto:EIA@commerce.wa.gov)

**Questions:** Glenn Blackmon, State Energy Office, (360) 339-5619, [glenn.blackmon@commerce.wa.gov](mailto:glenn.blackmon@commerce.wa.gov)

Enter information in green-shaded fields.

Do not modify blue-shaded fields.

#### **RCW 19.285.070**

##### **Reporting and public disclosure.**

(1) On or before June 1, 2012, and annually thereafter, each qualifying utility shall report to the department on its progress in the preceding year in meeting the targets established in RCW 19.285.040, including expected electricity savings from the biennial conservation target, expenditures on conservation, actual electricity savings results, the utility's annual load for the prior two years, the amount of megawatt-hours needed to meet the annual renewable energy target, the amount of megawatt-hours of each type of eligible renewable resource acquired, the type and amount of renewable energy credits acquired, and 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. For each year that a qualifying utility elects to demonstrate alternative compliance under RCW 19.285.040(2) (d) or (i) or 19.285.050(1), it must include in its annual report relevant data to demonstrate that it met the criteria in that section. A qualifying utility may submit its report to the department in conjunction with its annual obligations in chapter 19.29A RCW.

(2) A qualifying utility that is an investor-owned utility shall also report all information required in subsection (1) of this section to the commission, and all other qualifying utilities shall also make all information required in subsection (1) of this section available to the auditor.

(3) A qualifying utility shall also make reports required in this section available to its customers.

#### **WAC 194-37-060**

##### **Conservation reporting requirements.**

<Conservation targets and achievement are reported in a separate worksheet.>

#### **WAC 194-37-110**

##### **Renewable resource energy reporting.**

Each utility must submit a renewable resource energy report to the department by June 1st of each year using a form provided by the department. The report must reflect the actions that the utility took by the previous January 1st to meet the renewable requirements of chapter [19.285](#) RCW for that year. For example, a utility must report by June 1, 2015, the actions it took by January 1, 2015, to meet requirements applicable to the 2015 target year.

(1) **Reporting requirements applicable to all utilities.** Each utility must report the following information:

(a) The compliance method:

(i) Renewable energy target using renewable resources and RECs – RCW [19.285.040](#) (2)(a);

(ii) Incremental cost – RCW [19.285.050](#); or

(iii) No-growth cost – RCW [19.285.040](#) (2)(d)

RENEWABLE ENERGY WORKSHEET – REVISIONS TO 2017 REPORT

In addition to submitting the 2019 report, each qualifying utility should review the renewable energy report it submitted in 2017. In many cases, the specific resources and quantities actually used to comply with the 2017 target differ from what the utility reported in June 2017. Utilities should submit a revised 2017 report if the actual values differ from the values reported in 2017.

**WAC 194-37-110(4): Final compliance report.** A utility must submit a final renewable compliance report by the later of (a) two years after the filing of the report required in subsections (1) through (3) of this section; or (b) ninety days after the issuance of the auditor's report for the target year. The final renewable compliance report must provide an update of any revisions to the information previously reported pursuant to this section or, if no revisions were made, notify the department that the initial report should be considered the final report.

Please use the 2017 template and mark it as "revised." Contact Commerce to obtain a copy of the 2017 reporting template if necessary.

#NAME?

Energy Independence Act (EIA) Renewable Energy Report 2019

<b>Utility</b>	<b>Puget Sound Energy</b>
Report Date	June 1, 2019
Utility Contact Name/Dept	Puget Sound Energy
Phone	425-456-2932
Email	<a href="mailto:chris.schaefer@pse.com">chris.schaefer@pse.com</a>

Loads and Resources	
2017 Annual Load (MWh)	21,316,397
2018 Annual Load (MWh)	20,697,195
Average of 2017 & 2018 Annual Loads (MWh)	21,006,796
2019 Renewable Target (% of load)	9%
2019 Eligible Renewable Energy Target (MWh)	1,890,612
2019 Eligible Renewable Resources and RECs	1,890,612

**2019 Compliance Method:**

- RPS Target [RCW 19.285.040(2)(a)]
- Resource Cost [RCW 19.285.050]
- No Load Growth [RCW 19.285.040(2)(d)]

Expenditures on Renewable Resources and RECs - 2019	
Amount invested in incremental cost of eligible renewable resources and the cost of RECs	\$27,810,000
Total annual retail revenue requirement - 2019	\$1,996,287,283
Investment in renewables and RECs as a percent of retail revenue requirement	1.4%

	Water	Wind	Solar	Geothermal	Landfill Gas	Wave, Ocean, Tidal	Gas from Sewage Treatment	Biodiesel	Biomass	Qualified Biomass (pre-1999)	Apprentice Labor Credit	Distributed Generation Credit
Eligible Renewable Resources (MWh)	115,922	-	-	-	-	-	-	-	-	-	-	-
Renewable Energy Credits		1,578,185	-	-	-	-	-	-	-	-	196,505	-
Total Renewables (MWh+RECs)	115,922	1,578,185	-	-	-	-	-	-	-	-	196,505	-

**2019 Reporting Year:**

This renewable energy report summarizes the eligible renewables resources and renewable energy credits (RECs) that the utility has acquired by January 1, 2019 for the purpose of meeting its Energy Independence Act (EIA) renewables target for 2019. The actual resources and RECs used to comply with the 2019 EIA target may vary from those reported here. Utilities will report in June of 2021 on the actual results for 2019.

**Compliance Methods:**

The EIA provides three compliance methods for utilities:

- Meet the renewable energy target using any combination of renewable resources and RECs. The target for 2019 is 9% of the utility's load.
- Invest at least 4% of the utility's annual revenue requirement in the incremental cost of renewable resources and RECs.
- Invest at least 1% of its annual revenue requirement in renewable resources and RECs. This option is available only to certain utilities that are not growing.

All utilities must report the renewable resources and RECs acquired for the 2019 target year. Utilities that elect to use a compliance method based on renewable investments must provide additional information demonstrating compliance with that method. Refer to WAC 194-37-110(2) and (3) for specific requirements.

*NOTE: This is a general explanation of the renewable energy requirements of the Energy Independence Act, intended to help members of the public understand the information reported by the utility. Consult Chapter 19.285 RCW and Chapter 194-37 WAC for details.*









Energy Independence Act (EIA) Renewable Energy Report 2019

<b>Utility</b>	<b>Puget Sound Energy</b>
Report Date	June 1, 2019
Utility Contact Name/Dept	Puget Sound Energy
Phone	425-456-2932
Email	<a href="mailto:chris.schaefer@pse.com">chris.schaefer@pse.com</a>

Loads and Resources	
2017 Annual Load (MWh)	21,316,397
2018 Annual Load (MWh)	20,697,195
Average of 2017 & 2018 Annual Loads (MWh)	21,006,796
2019 Renewable Target (% of load)	9%
2019 Eligible Renewable Energy Target (MWh)	1,890,612
2019 Eligible Renewable Resources and RECs	1,890,612

**2019 Compliance Method:**

- RPS Target [RCW 19.285.040(2)(a)]
- Resource Cost [RCW 19.285.050]
- No Load Growth [RCW 19.285.040(2)(d)]

Expenditures on Renewable Resources and RECs - 2019	
Amount invested in incremental cost of eligible renewable resources and the cost of RECs	\$27,810,000
Total annual retail revenue requirement - 2019	\$1,996,287,283
Investment in renewables and RECs as a percent of retail revenue requirement	1.4%

	Water	Wind	Solar	Geothermal	Landfill Gas	Wave, Ocean, Tidal	Gas from Sewage Treatment	Biodiesel	Biomass	Qualified Biomass (pre-1999)	Apprentice Labor Credit	Distributed Generation Credit
Eligible Renewable Resources (MWh)	115,922	-	-	-	-	-	-	-	-	-	-	-
Renewable Energy Credits		1,578,185	-	-	-	-	-	-	-	-	196,505	-
Total Renewables (MWh+RECs)	115,922	1,578,185	-	-	-	-	-	-	-	-	196,505	-

**2019 Reporting Year:**

This renewable energy report summarizes the eligible renewables resources and renewable energy credits (RECs) that the utility has acquired by January 1, 2019 for the purpose of meeting its Energy Independence Act (EIA) renewables target for 2019. The actual resources and RECs used to comply with the 2019 EIA target may vary from those reported here. Utilities will report in June of 2021 on the actual results for 2019.

**Compliance Methods:**

The EIA provides three compliance methods for utilities:

- Meet the renewable energy target using any combination of renewable resources and RECs. The target for 2019 is 9% of the utility's load.
- Invest at least 4% of the utility's annual revenue requirement in the incremental cost of renewable resources and RECs.
- Invest at least 1% of its annual revenue requirement in renewable resources and RECs. This option is available only to certain utilities that are not growing.

All utilities must report the renewable resources and RECs acquired for the 2019 target year. Utilities that elect to use a compliance method based on renewable investments must provide additional information demonstrating compliance with that method. Refer to WAC 194-37-110(2) and (3) for specific requirements.

*NOTE: This is a general explanation of the renewable energy requirements of the Energy Independence Act, intended to help members of the public understand the information reported by the utility. Consult Chapter 19.285 RCW and Chapter 194-37 WAC for details.*



**Renewable Energy Credits**

Utility Puget Sound Energy  
Compliance Year 2019

WREGIS ID	Facility Name	REC Vintage (Year)	Resource Type	Apprentice Labor Eligibility	Distributed Generation Eligibility	Quantity RECs	Apprentice Labor Amount MWh equiv.	Distributed Generation Amount MWh equiv.	Explanatory Notes (as needed)
W183	Wild Horse - Wild Horse	2018	Wind	No	No	304,253	-	-	Quantity reflects planned RPS Compliance Usage Only
W184	Hopkins Ridge - Hopkins Ridge	2018	Wind	No	No	220,858	-	-	Quantity reflects planned RPS Compliance Usage Only
W1364	Wild Horse - Wild Horse - Phase II	2018	Wind	Yes	No	103,462	20,692	-	Quantity reflects planned RPS Compliance Usage Only
W1382	Hopkins Ridge - Hopkins Ridge Phase II	2018	Wind	No	No	8,722	-	-	Quantity reflects planned RPS Compliance Usage Only
W2669	Lower Snake River - Dodge Junction - LSR-D	2018	Wind	Yes	No	508,243	101,649	-	Quantity reflects planned RPS Compliance Usage Only
W2670	Lower Snake River - Phalen Gulch - LSR-Pha	2018	Wind	Yes	No	370,818	74,164	-	Quantity reflects planned RPS Compliance Usage Only
W237	Klondike III - Klondike Wind Power III LLC	2018	Wind	No	No	61,829	-	-	Quantity reflects planned RPS Compliance Usage Only
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	
				No	No		-	-	

Utility Puget Sound Energy  
Compliance Year 2019

**Other notes and explanations:**

Please note actual resources and RECs used to comply with the 2019 EIA Target may vary from those reported here. PSE will report in June of 2021 on the actual results for 2019



STATE OF WASHINGTON  
DEPARTMENT OF LABOR AND INDUSTRIES  
Apprenticeship Section  
PO Box 44530; Olympia, Washington 98504-4530  
(360) 902-5320; fax (360) 902-4248  
website: [www.apprenticeship.lni.wa.gov](http://www.apprenticeship.lni.wa.gov)

April 25, 2012

Puget Sound Energy  
Attn: Brian Doughty, Consulting Project Manager  
Lower Snake River Wind Project - Phase 1  
P.O. Box 97034  
Bellevue, WA 98009-9734

RE: Certification of Apprentice Labor Standard on Lower Snake River Wind Project - Phase 1

Dear Brian Doughty:

Thank you for submitting a request for certification of the apprentice labor standard on your project to the Washington State Apprenticeship and Training Council (Council). Department staff completed a review and we received confirmation that you indeed provided sufficient evidence to verify the claim of greater than 15 percent Washington approved apprentice labor hours utilized on the Lower Snake River Wind Project - Phase 1.

The Council voted unanimously on April 19, 2012 to approve the apprentice labor standard certification request for this project. Please accept this letter as confirmation that Puget Sound Energy achieved greater than 15 percent of the total labor hours performed by registered apprentices in programs approved by the Washington State Apprenticeship and Training Council on the Lower Snake River Wind Project - Phase 1. Thank you for supporting the use of registered apprentices in the renewable energy field.

Sincerely,

Lee Newgent, Chair  
Washington State Apprenticeship and Training Council

LN/jr

Cc: Council Members  
Jose Rodriguez, Assistant Director/Secretary  
Melinda Nichols, Apprenticeship Program Manager  
Troy W. Nutter, PSE Manager for Training & Procedures





STATE OF WASHINGTON  
DEPARTMENT OF LABOR AND INDUSTRIES  
Washington State Apprenticeship and Training Council  
PO Box 44530; Olympia, Washington 98504-4530  
(360) 902-5320; fax (360) 902-4248  
website: [www.apprenticeship.lni.wa.gov](http://www.apprenticeship.lni.wa.gov)

Scott Williams, Project manager  
Puget Sound Energy  
PO Box 90868  
Bellevue, WA 98009-0868

RE: Apprentice Utilization on Wild Horse Wind Farm Expansion Project

Dear Mr. Williams:

Thank you for attending our recent Washington State Apprenticeship and Training Council (Council) meeting in Tumwater and the overview of the Wild Horse Wind Farm Expansion project. Department staff completed their review and I received confirmation that you have indeed provided sufficient evidence to verify your claim of greater than 15 percent Washington approved apprentice labor hours utilized during facility construction.

Please accept this letter as confirmation that Puget Sound Energy Company achieved greater than 15 percent of the total labor hours performed by registered apprentices in programs approved by the Council on the Wild Horse Wind Farm Expansion project.

Sincerely,

A handwritten signature in black ink, appearing to read "D. L. D'Hondt".

David D'Hondt, Chair  
Washington State Apprenticeship and Training Council

DD/jr

Cc: Council Members  
Steve McLain, Council Secretary  
Elizabeth Smith, Apprenticeship Program Manager