www.pse.com

PUGET SOUND ENERGY

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

Filed via Web Portal

June 1, 2017

Mr. Steven V. King, 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 - 2017
RCW-Required Report, RCW 19.285.070 and
WAC-Required Report, WAC 480-109-210

Dear Mr. King:

Attached for filing, please find Puget Sound Energy's ("PSE") 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 2017 Renewable Energy Target of 1,843,118 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 confidential 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).

Attached as Attachment 5 is the incremental cost template developed by Commission Staff in conjunction with Avista's 2016 RPS Report. We have completed this template specific to PSE's resource mix.

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

If you have any questions about the information contained in this filing, please contact Katherine Barnard, Director, Revenue Requirement & Compliance, at (425) 462-3716 or katherine.barnard@pse.com.

Sincerely,

/s/ Kenneth S. Johnson

Ken Johnson
Director, State Regulatory Affairs
Puget Sound Energy
PO Box 97034, PSE-08N
Bellevue, WA 98009-9734
425-456-2110
ken.s.johnson@pse.com

Attachments:
PSE 2017 RPS Report
Attachment 1: Memo
Attachment 2: IRP Appendix N
Attachment 3: Reporting Tool
Attachment 4: REC Sales
Attachment 5: Incremental Cost Template

Puget Sound Energy
2017 Annual Renewable Portfolio Standard Report
pursuant to RCW 19.285.070 and WAC 480-109-210

June 1, 2017

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	**Section 1 Annual Load For Previous Two Years** 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	**Section 2 Renewable Energy Target** 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	**Section 3 Renewable Energy Acquired To Have Met Renewable Energy Target** 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.	**Section 4 Incremental Cost Calculation and Revenue Requirement Ratio** Page 2
	State 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.	**Section 5 Alternative Compliance** Page 3

RCW 19.285.070	WAC 480-109-210(2)	Section/Page
	Describe the resources that the utility intends to use to meet the renewable resource requirements for the target year.	**Section 6** **2017 Compliance Plan** Page 3
	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.	**Section 7** **Eligible Resources** Page 4
	The number of certificates sold, their WREGIS certificate numbers, their source, and the revenues obtained from the sales.	**Section 8** **Sales** Page 4

Attachment 1: Memo dated December 8, 2016 Regarding Eligible Renewable Resources

Attachment 2: Appendix N from PSE's Integrated Resource Plan filed with the Commission on November 25, 2015

Attachment 3: Reporting Tool

Attachment 4: REC Sales

Attachment 5: Incremental Cost Template

Section 1. Annual Load for the Prior Two Years

	2015	**2016**
Delivered Load to Retail Customers (MWh)	20,509,764	20,448,423

The source of this data is the Puget Sound Energy ("PSE") 2016 FERC Form 1, p. 301, line 10, columns d and e.

Section 2. 2017 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 2017 will be 1,843,118 MWh.

Calculation:

	2015	2016
Delivered Load to Retail Customers (MWh)	20,509,764	20,448,423
Average Load	20,479,094	
9% of Average Load	1,843,118	

Section 3. Renewable Energy Acquired To Meet 2017 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 2017 target.

As demonstrated in Attachment 1, PSE has sufficient eligible renewable resources to meet its 2017 target. PSE plans to meet its 2017 target with a combination of incremental hydro along with other renewable energy certificates from qualifying resources as demonstrated in the following table:

Incremental Hydro Resources	114,286
Eligible Wind Resources	2,375,452

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.

As requested by Commission Staff, following is a summary of PSE's incremental cost.

Incremental Cost	$21.2M
Revenue Requirement	$2,003.605M
Percentage	1%
Source of Information	Please see table below.

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) for each eligible resource are as follows:

Resource	Renewable Resource	Equivalent Non-Renewable			One Year Incremental Cost	Annual MWh	Market Price/Peaker Assumptions*
		Peaker	Market	Total			
Hopkins Ridge	$18.77	$1.71	$19.26	$20.97	($2.20)	466,908	2004 RFP
Wild Horse	$34.94	$3.21	$26.53	$29.74	$5.20	642,984	2006 RFP
Klondike III	$10.27	$0.93	$8.98	$9.91	$0.36	157,680	2006 RFP
Hopkins Infill	$1.28	$0.17	$1.19	$1.36	($0.08)	21,024	2007 IRP
Wild Horse Expansion	$10.03	$0.81	$5.09	$5.90	$4.14	91,980	2007 IRP
Lower Snake River I	$70.61	$1.69	$48.51	$50.20	$20.42	897,900	2010 Trends
Snoqualmie Falls Upgrade	$3.85	$0.74	$2.44	$3.18	$0.67	34,164	2009 Trends
Lower Baker 4	$8.60	$1.37	$7.92	$9.29	($0.69)	109,500	2011 IRP Base
Total					$27.81	2,422,140	

($ Millions/Year)

*This information appears in PSE's 2015 IRP, Appendix N, Page N-127, Figure N-46 and is provided in Attachment 2.

As demonstrated in the table above, the incremental cost of eligible renewable resources is $27.81M resulting in an average cost/MWh of $11.48. For the 2017 target year compliance, the incremental cost is $21.2M ($11.48 * 1,843,118 MWh).

The total annual retail revenue requirement for 2017 is $ $2,003.605 million. The 2017 revenue requirement is based on the revenue requirement determined in PSE's last general rate case

(UE-111048) and adjusted for the 2013 and 2014 PCORC and 2014 PCORC Update (Dockets UE-130617, UE-141141, and UE-161135 respectively) and UE-130137 (Expedited Rate Filing).

The resulting ratio of this investment relative to the utility's total annual retail revenue requirement is 1% (27.81M / 2003.605M = 1%).

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 2017 Renewable Energy Target.

Section 6. 2017 Compliance Plan

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

PSE is positioned to meet its 2017 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 2017 compliance. Further details about this information can be found in Attachment 3.

2017 Compliance Plan	
	MWh or Equiv
Lower Baker Project Incremental Hydro	93,789
Snoqualmie Falls Project Incremental Hydro	20,497
Lower Snake River - Phalen Gulch (Vintage 2016)	367,953
Extra Apprenticeship Credits	73,591
Wild Horse Phase II (Vintage 2016)	108,686
Extra Apprenticeship Credits	21,737
Lower Snake River-Dodge Junction (Vintage 2016)	500,734
Extra Apprenticeship Credits	100,147
Hopkins Ridge (Vintage 2016)	398,058
Hopkins Ridge Phase II (Vintage 2016)	19,184
Wild Horse (Vintage 2016)	150,000
Available to Meet Target	1,854,376
2017 RPS Target	1,843,118
(Deficit) / Surplus	11,258

Data for 2017 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 2017, in advance of January 1, 2017. Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2017 target include (but 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 2017 or 2018.

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 2015 vintages. To date, the Company has not transferred title to any Vintage 2016 RECs.

RECs Sold by Year by Resource						
		Vintage				Total
Source	WREGIS #	2012	2013	2014	2015	RECs Sold
Wild Horse	W183	1,880,149	204,993	553,758	193,389	2,832,289
Wild Horse Phase II	W1364	535,526	43,804	88,385	15,900	683,615
Hopkins Ridge	W184	180,359	140,338	359,785	252,947	933,428
Hopkins Ridge Phase II	W1382		5,482	15,953	1,475	22,909
Klondike III	W237	68,264	82,558	135,706	154,562	441,090
Lower Snake River-Dodge Junction	W2669	-	151,313	227,710	-	379,023
Lower Snake River-Phalen Gulch	W2670	-	106,658	168,048	10,822	285,528
		2,664,298	**735,145**	**1,549,345**	**629,095**	**5,577,883**

Reflects REC transfers through 3/31/17.

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, Chris Schaefer

SUBJECT: Requirements of Chapter 480-109-200 WAC

DATE: December 8, 2016

Background

Chapter 480-109-200 WAC 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 Chapter 480-109-200 WAC, we have prepared this Memorandum to document that Puget Sound Energy ("PSE") has acquired sufficient eligible renewable resources in its portfolio by January 1, 2017 to supply at least nine percent of its 2015-2016 average load for the 2017 target year.

This is consistent with the information provided to the WUTC on November 25, 2015 in PSE's compliance filing in Docket No. UE-141170, PSE's 2015 Integrated Resource Plan ("IRP"). In the Executive Summary of the IRP, PSE stated that:

"… PSE has acquired enough eligible renewable resources and RECs to meet the requirements of the law through 2022."

Following provides a summary of PSE's eligible renewable resources, load and renewable energy target.

Eligible Renewable Resources

PSE has acquired sufficient eligible renewable resources in its portfolio to supply at least nine percent of its estimated load for target year 2017, in advance of January 1, 2017.

Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2017 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 2017 or 2018.

Total 2015 generation from Hopkins Ridge, Wild Horse, Wild Horse Expansion and Lower Snake River was approximately 1,833,570 megawatt-hours (not inclusive of the extra apprenticeship credits); similar generation may be achieved for 2016 and 2017.

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 instead of meeting its 2017 renewable resource target. However, there may be events beyond PSE's control during the remainder of the calendar year 2017 which could prompt PSE to utilize the alternative compliance mechanisms in RCW 19.285.040(2)(i) and WAC 480-109-220. Such determination will be made when PSE reports on its final 2017 compliance in the 2018 or 2019 report.

Load

Load is defined in the rules as:

> *"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 2015 delivered load is 20,509,764,000 kilowatt-hours (20,509,764 megawatt-hours) and the 2016 forecast load is about 21,519,897,000 kilowatt-hours (21,519,897 megawatt-hours).

Consistent with WAC 480-109-210(2), based on the average of PSE's load in 2015 and 2016 and as reflected above, PSE's estimated load for purposes of meeting its 2017 target is 21,014,831 megawatt-hours.

2017 Renewable Resource Target

Chapter 480-109-200(1)(b) WAC states: "*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." (Emphasis added.)

Based on the load estimations above and the nine percent requirement, PSE's estimated renewable energy target for 2017 is approximately 1,891,335 megawatt-hours.

PSE expects to generate more eligible renewable energy than its 2017 requirement (not including any renewable energy credits generated in 2016 that PSE may elect to use for its 2017 requirement). PSE may choose to purchase out of state eligible RECs to meet annual compliance targets and use PSE-owned and Washington located resources for other purposes such as compliance under the Clean Air Rule.

PSE will report on the specific renewable energy credits produced and to be retired for final compliance with the 2017 target in either its annual 2018 or 2019 report, and reserves the right to submit renewable energy credits from the resources reported here or to substitute with renewable energy credits produced from 2016 to 2018 by other eligible renewable resources or with 2017 generation from eligible renewable resources that have not been converted to renewable energy credits.

Conclusion

PSE's eligible renewable resources in 2017 are expected to generate approximately 2,417,368 megawatt-hours and/or renewable energy credits and/or extra apprenticeship credits, not inclusive of: i) any renewable energy credits that may be committed/sold to third parties and/or customers or ii) any renewable energy credits generated in 2016 that PSE may elect to use for its 2017 renewable resource target).

Events beyond PSE's reasonable control may yet occur during the calendar year 2017 which could prompt PSE to utilize the alternative compliance mechanism in RCW 19.285.040(2)(i) and WAC 480-109-220. 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 a qualifying utility. Such determination will be made when PSE reports on its final 2017 compliance in the annual 2018 or 2019 renewable portfolio standard report.

As provided to the WUTC on November 25, 2015 in PSE's compliance filing in Docket No. UE-141170, (PSE's 2015 IRP), PSE is on track to meet the renewable resource target requirements for the year 2017 and all the way to the year 2022. PSE has acquired enough eligible renewable resources or renewable energy credits to meet the estimated renewable energy target for 2017.

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 is 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."[9]

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).

9 / *RCW 19.285.050 (1) (a) (b)*

"Eligible Renewable Resources"

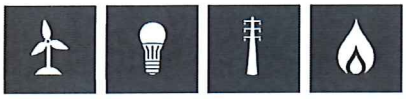
Figure N-46: Resources that meet RCW 19.285 definition of Eligible Renewable Resource

	Nameplate (MW)	Annual Energy (aMW)	Commercial Online Date	Market Price/ Peaker Assumptions	Capacity Credit Assumption
Hopkins Ridge	149.4	53.3	Dec 2005	2004 RFP	20%
Wild Horse	228.6	73.4	Dec 2006	2006 RFP	17.2%
Klondike III	50	18.0	Dec 2007	2006 RFP	15.6%
Hopkins Infill	7.2	2.4	Dec 2007	2007 IRP	20%
Wild Horse Expansion	44	10.5	Dec 2009	2007 IRP	15%
Lower Snake River I	342.7	102.5	Apr 2012	2010 Trends	5%
Snoqualmie Upgrades	6.1	3.9	Mar 2013	2009 Trends	95%
Lower Baker Upgrades	30	12.5	May 2013	2011 IRP Base	95%
Generic Wind 2023	206	71	Jan 2023	2015 IRP Base	8%
Generic Wind 2028	131	45	Jan 2028	2015 IRP Base	8%

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 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 MW

1. Calculate Wild Horse revenue requirement.

Figure N-47 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-47: 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				
Total revenue requirement	375				

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

Capacity = 39 MW

Capital Cost of Capacity: $462/KW

Figure N-48: 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				
Total revenue requirement	34				

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-49: 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 = $845
($Millions)						
Cost of Market				36	...	41
Imputed Debt				1	...	0
Total Revenue Requirement			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.

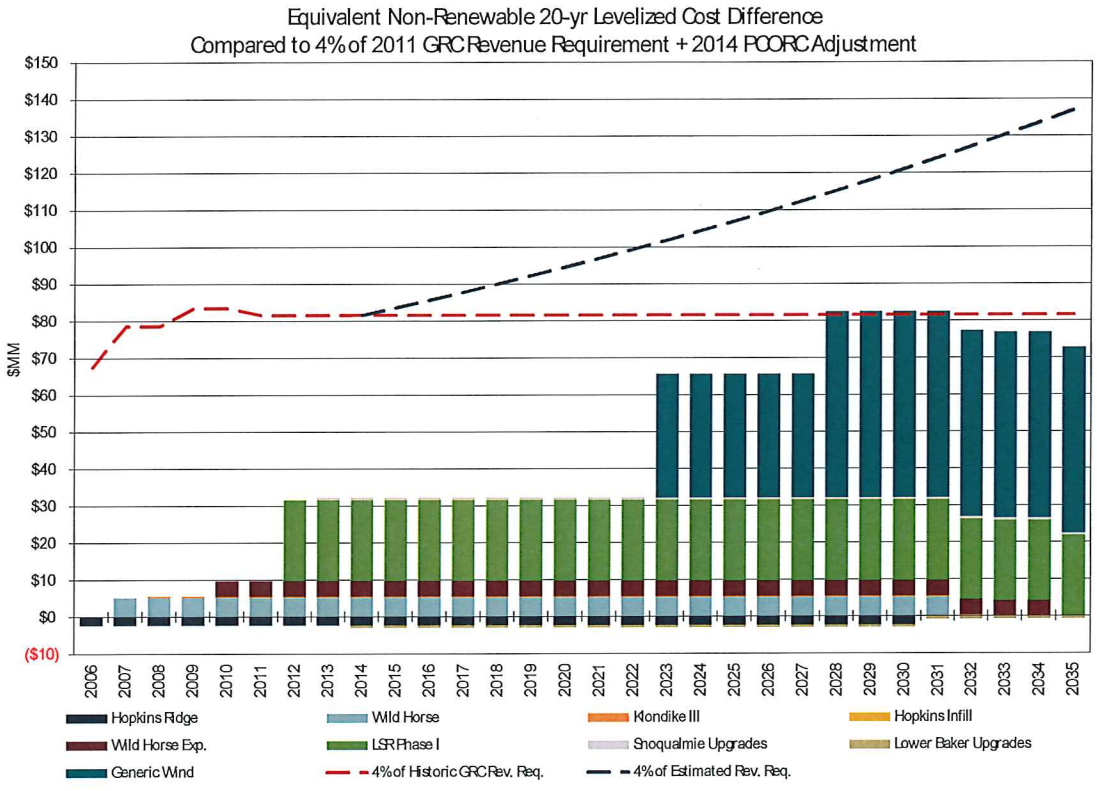
Figure N-50: 20-yr Incremental Cost of Wild Horse

($ Millions)	20-yr NPV
Wild Horse	375
Peaker	34
Market	285
20-yr Incremental Cost of Wild Horse	56

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/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-51 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-51: 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
Instructions in the section are for the cells B2:F31. Each row represents a different facility. FIRST UPDATE cell B1053 For Start Year					
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
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.					
	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, 2017

RCW 19.285 Compliance Need

	2013	2014	2015	2016	2017
Delivered Load to Retail Customers (MWh)	21,208,608	20,568,949	20,509,764	20,448,423	Not Applicable
WA State RCW 19.285 Requirement	3%	3%	3%	9%	9%
Quantity Required for Compliance		635,202	626,663	1,848,542	1,843,118

Eligible Quantity Acquired

	2013	2014*	2015*	2016	2017
Qualifying MWh Allocated to WA	2,019,929	2,156,021	1,931,011	2,205,548	202,580
Quantity from Non REC Eligible Generation	184,567	196,970	166,886	195,475	5,160
Total Quantity Available for RCW 19.285 Compliance	**2,204,496**	**2,352,991**	**2,097,897**	**2,401,023**	**207,740**

Sales and Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold	(879,430)	(1,616,355)	(238,199)	-	-
Bonus Incentives Transferred	-	-	-	-	-
Bonus Incentives Not Realized	(78,269)	(99,710)	(4,546)	-	-
Total Sold / Transferred / Unrealized	**(957,699)**	**(1,716,065)**	**(242,745)**	**-**	**-**

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	(1,246,796)	1,246,796			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		(588,088)	588,088		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			(1,757,710)	1,757,710	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				(2,281,999)	2,281,999
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**(293,096)**	**658,708**	**(1,169,622)**	**(524,288)**	**2,281,999**
Adjustment for Events Beyond Control	-	-	-	-	-

	2013	2014*	2015*	2016	2017
RCW 19.285 Compliance Surplus / (Deficit)	**318,818**	**660,432**	**58,866**	**28,192**	**646,620**

* Any surplus shown in 2015 or 2016 may be sold or used for compliance in subsequent years.

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	---	
Facility 11				---	---	
Facility 12				---	---	
Facility 13				---	---	
Facility 14				---	---	
Facility 15				---	---	
Facility 16				---	---	
Facility 17				---	---	
Facility 18				---	---	
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

	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Wild Horse	554,637	546,457	512,757	564,671	35,141
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	**554,637**	**546,457**	**512,757**	**564,671**	**35,141**

Non REC Eligible Generation

	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**-**	**-**	**-**	**-**	**-**

REC Sales / Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold	246,192	541,930	43,254	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	**246,192**	**541,930**	**43,254**	**-**	**-**

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	308,445	308,445			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		4,527	4,527		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			469,503	469,503	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				564,671	564,671
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**(308,445)**	**303,918**	**(464,976)**	**(95,168)**	**564,671**
Adjustment for Events Beyond Control					
Contribution to RCW 19.285 Compliance	**-**	**308,445**	**4,527**	**469,503**	**599,812**

Facility Name: **Hopkins Ridge**

MWh Allocated to WA Compliance	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Hopkins Ridge	389,463	423,662	348,166	398,058	10,500
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	**389,463**	**423,662**	**348,166**	**398,058**	**10,500**

Non REC Eligible Generation	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**-**	**-**	**-**	**-**	**-**

REC Sales / Transfers	2013	2014	2015	2016	2017
Quantity of RECs Sold	166,117	423,662	109,781	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	**166,117**	**423,662**	**109,781**	**-**	**-**

Adjustments	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	223,346	223,346			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		-	-		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			238,385	238,385	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				398,058	398,058
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**(223,346)**	**223,346**	**(238,385)**	**(159,673)**	**398,058**
Adjustment for Events Beyond Control					
Contribution to RCW 19.285 Compliance		**223,346**	**-**	**238,385**	**408,558**

Facility Name: **Klondike III** May be used for Target Year 2017 Compliance

MWh Allocated to WA Compliance	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Klondike III	135,860	133,571	121,605	127,238	16,349
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	**135,860**	**133,571**	**121,605**	**127,238**	**16,349**

Non REC Eligible Generation	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**-**	**-**	**-**	**-**	**-**

REC Sales / Transfers	2013	2014	2015	2016	2017
Quantity of RECs Sold	68,465	133,571	60,697	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	**68,465**	**133,571**	**60,697**	**-**	**-**

Adjustments	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	67,395	67,395			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		-	-		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			60,908	60,908	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				127,238	127,238
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**(67,395)**	**67,395**	**(60,908)**	**(66,330)**	**127,238**
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance	**-**	**67,395**	**-**	**60,908**	**143,587**

Facility Name: **Wild Horse Phase II**

MWh Allocated to WA Compliance	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Wild Horse Phase II	106,755	105,180	98,693	108,686	6,763
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	**106,755**	**105,180**	**98,693**	**108,686**	**6,763**

Non REC Eligible Generation	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	21,351	21,036	19,739	21,737	1,353
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**21,351**	**21,036**	**19,739**	**21,737**	**1,353**

REC Sales / Transfers	2013	2014	2015	2016	2017
Quantity of RECs Sold	47,386	98,496	10,000	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized	9,477	19,699	2,000		
Total Sold / Transferred / Unrealized	**56,863**	**118,195**	**12,000**	**-**	**-**

Adjustments	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	71,243	71,243			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		8,021	8,021		
2015 Surplus Applied to 2014		-	-		
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				-	-
Net Surplus Adjustments	**(71,243)**	**63,222**	**(98,411)**	**(23,992)**	**130,423**
Adjustment for Events Beyond Control					
Contribution to RCW 19.285 Compliance	**-**	**71,243**	**8,021**	**106,432**	**138,539**
Actual 2014 Retirement		**65,090**			

Facility Name: **Hopkins Ridge Phase II**

MWh Allocated to WA Compliance

	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Hopkins Ridge Phase II	17,136	18,641	16,614	19,184	506
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	**17,136**	**18,641**	**16,614**	**19,184**	**506**

Non REC Eligible Generation

	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**-**	**-**	**-**	**-**	**-**

REC Sales / Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold	7,309	18,641	1,735	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	**7,309**	**18,641**	**1,735**	**-**	**-**

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	9,827	9,827			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		-	-		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			14,879	14,879	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				19,184	19,184
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**(9,827)**	**9,827**	**(14,879)**	**(4,305)**	**19,184**
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance

	-	**9,827**	**-**	**14,879**	**19,690**

Facility Name: **Lower Snake River - Dodge Junction**

MWh Allocated to WA Compliance

	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Lower Snake River - Dodge Junction	470,881	500,349	421,560	500,734	11,277
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	**470,881**	**500,349**	**421,560**	**500,734**	**11,277**

Non REC Eligible Generation

	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	94,176	100,070	84,312	100,147	2,255
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**94,176**	**100,070**	**84,312**	**100,147**	**2,255**

REC Sales / Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold	201,751	230,247	-	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized	40,350	46,049	-		
Total Sold / Transferred / Unrealized	**242,101**	**276,296**	**-**	**-**	**-**

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	322,956	322,956			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		324,122	324,122		
2015 Surplus Applied to 2014		-	-		
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				-	-
Net Surplus Adjustments	**(322,956)**	**(1,166)**	**(181,750)**	**(95,009)**	**600,881**
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance

	-	**322,956**	**324,122**	**505,872**	**614,413**
Actual Retirements		**280,655**	**323,934**		

Lower Snake River - Phalen Gulch

MWh Allocated to WA Compliance	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Lower Snake River - Phalen Gulch	345,197	379,323	314,175	367,953	7,758
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	**345,197**	**379,323**	**314,175**	**367,953**	**7,758**

Non REC Eligible Generation	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	69,039	75,865	62,835	73,591	1,552
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**69,039**	**75,865**	**62,835**	**73,591**	**1,552**

REC Sales / Transfers	2013	2014	2015	2016	2017
Quantity of RECs Sold	142,210	169,808	12,732	-	-
Bonus Incentives Transferred					
Bonus Incentives Not Realized	28,442	33,962	2,546	-	-
Total Sold / Transferred / Unrealized	**170,652**	**203,770**	**15,278**	**-**	**-**

Adjustments	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	243,584	243,584			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		251,418	251,418		
2015 Surplus Applied to 2014		-	-		
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				-	-
Net Surplus Adjustments	**(243,584)**	**(7,834)**	**(110,314)**	**(79,812)**	**441,544**
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance					
	-	**243,584**	**251,418**	**361,732**	**450,853**
Actual Retirements		**240,619**	**205,228**		

Facility Name: **Wanapum Fish Bypass** May be used for 2017 RPS Compliance

MWh Allocated to WA Compliance

	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Wanapum Fish Bypass		Not Eligible	Not Eligible	Not Eligible	Not Eligible
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%	100%	100%
Percent of MWh Allocated to WA	100%	100%	100%	100%	100%
Eligible MWh Available for RCW 19.285 Compliance	-	-	-	-	-

Non REC Eligible Generation

	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-	-	-

REC Sales / Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold					
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	-	-	-	-	-

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	-	-			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		-	-		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			-	-	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				-	-
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	-	-	-	-	-
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance

		-	-	-	-

Use of Wanapum Fish Bypass for 2016 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

	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Baker River Project	-	121,480	308,611	358,833	331,411
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%
Eligible MWh Available for RCW 19.285 Compliance	**-**	**34,379**	**87,337**	**101,550**	**93,789**

Non REC Eligible Generation

	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**-**	**-**	**-**	**-**	**-**

REC Sales / Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold					
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	**-**	**-**	**-**		

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	-	-			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		-	-		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			-	-	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				-	-
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**-**	**-**	**-**	**-**	**-**
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance

	2013	2014	2015	2016	2017
	-	**34,379**	**87,337**	**101,550**	**93,789**
Actual Retirements		**34,379**	**87,337**		

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

	2013	2014	2015	2016	2017
Total MWh Produced / Purchased from Snoqualmie Falls Project		170,104	118,871	205,584	241,137
Percent of MWh Qualifying Under RCW 19.285		8.5%	8.5%	8.5%	8.5%
Percent of Qualifying MWh Allocated to WA		100%	100%	100%	100%
Eligible MWh Available for RCW 19.285 Compliance	**-**	**14,459**	**10,104**	**17,475**	**20,497**

Non REC Eligible Generation

	2013	2014	2015	2016	2017
Extra Apprenticeship Credit	-	-	-	-	-
Distributed Generation Bonus	-	-	-	-	-
Total Quantity from Non REC Eligible Generation	**-**	**-**	**-**	**-**	**-**

REC Sales / Transfers

	2013	2014	2015	2016	2017
Quantity of RECs Sold					
Bonus Incentives Transferred					
Bonus Incentives Not Realized					
Total Sold / Transferred / Unrealized	**-**	**-**	**-**	**-**	**-**

Adjustments

	2013	2014	2015	2016	2017
2013 Surplus Applied to 2014	-	-			
2014 Surplus Applied to 2013	-	-			
2014 Surplus Applied to 2015		-	-		
2015 Surplus Applied to 2014		-	-		
2015 Surplus Applied to 2016			-	-	
2016 Surplus Applied to 2015			-	-	
2016 Surplus Applied to 2017				-	-
2017 Surplus Applied to 2016				-	-
Net Surplus Adjustments	**-**	**-**	**-**	**-**	**-**
Adjustment for Events Beyond Control					

Contribution to RCW 19.285 Compliance

	-	**14,459**	**10,104**	**17,475**	**20,497**
Actual Retirement		**14,459**	**10,104**		

Snoqualmie Falls Project estimated RPS Eligible generation based on Incremental Hydro Calculation Method 2. Snoqualmie Falls Project WREGIS Registration was completed June, 2016

Compliance Contribution by Generation Type

	2013	2014	2015	2016	2017
Wind	-	1,246,796	588,088	1,757,710	2,375,452
Solar	-	-	-	-	-
Water (Incremental Hydro)	-	48,838	97,441	119,024	114,286
Biomass	-	-	-	-	-
Geothermal	-	-	-	-	-
Landfill Gas	-	-	-	-	-
Sewage Treatment Gas	-	-	-	-	-
Wave, Ocean, Tidal	-	-	-	-	-
Biodiesel Fuel	-	-	-	-	-

Facility Name	**Facility Type**	**2013**	**2014**	**2015**	**2016**	**2017**
Wild Horse	Wind	-	308,445	4,527	469,503	599,812
Hopkins Ridge	Wind	-	223,346	-	238,385	408,558
Klondike III	Wind	-	67,395	-	60,908	143,587
Wild Horse Phase II	Wind	-	71,243	8,021	106,432	138,539
Hopkins Ridge Phase II	Wind	-	9,827	-	14,879	19,690
Lower Snake River - Dodge Junct	Wind	-	322,956	324,122	505,872	614,413
Lower Snake River - Phalen Gulch	Wind	-	243,584	251,418	361,732	450,853
Wanapum Fish Bypass	Water (Incremental Hydro)	-	-	-	-	-
Baker River Project	Water (Incremental Hydro)	-	34,379	87,337	101,550	93,789
Snoqualmie Falls Project	Water (Incremental Hydro)	-	14,459	10,104	17,475	20,497
Facility 11		-	-	-	-	-
Facility 12		-	-	-	-	-
Facility 13		-	-	-	-	-
Facility 14		-	-	-	-	-
Facility 15		-	-	-	-	-

Facility 16		-	-	-	-	-
Facility 17		-	-	-	-	-
Facility 18		-	-	-	-	-
Facility 19		-	-	-	-	-
Facility 20		-	-	-	-	-
Facility 21		-	-	-	-	-
Facility 22		-	-	-	-	-
Facility 23		-	-	-	-	-
Facility 24		-	-	-	-	-
Facility 25		-	-	-	-	-
Facility 26		-	-	-	-	-
Facility 27		-	-	-	-	-
Facility 28		-	-	-	-	-
Facility 29		-	-	-	-	-
Facility 30		-	-	-	-	-

CONFIDENTIAL PER WAC 480-07-160 **REDACTED**

Attachment 4

Attachment 4
CONFIDENTIAL PER WAC 480-07-160
REDACTED

REC Revenues by Year by Resource

Source	WREGIS #	Vintage 2012	2013	2014	2015	Total REC Revenues
Wild Horse	W183					
Wild Horse Phase II	W1364					
Hopkins Ridge	W184					
Hopkins Ridge Phase II	W1382	REDACTED				
Klondike III	W237					
Lower Snake River-Dodge Junction	W2669					
Lower Snake River-Phalen Gulch	W2670					
		$ -	$ -	$ -	$ -	$ -

PUGET SOUND ENERGY - 2017 RPS Report

Attachment 4

Deferred REC Revenue Proceeds

CONFIDENTIAL PER WAC 480-07-160

A/C 25400221

REDACTED

Vintages 2012 through 2015

Facility	Transaction Vintage	Mo/Yr	WREGIS #	Qty	REC Revenues	Total Qty	Total REC Revenues	
Wild Horse Phase II	2012-01WH2	May-12	W1364	11,460		54,206		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	**REDACTED**		**REDACTED**	
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 - 2017 RPS Report

Attachment 4

Deferred REC Revenue Proceeds

CONFIDENTIAL PER WAC 480-07-160

A/C 25400221

REDACTED

Vintages 2012 through 2015

Facility	Transaction Vintage	Transaction Mo/Yr	WREGIS #	Qty	REC Revenues	Total Qty	Total REC Revenues	
Hopkins Ridge Phase II	2013-09HR2	Oct-14	W1382	1,486		1,735		2015 Vintage
Hopkins Ridge Phase II	2013-10HR2	Oct-14	W1382	819				
Hopkins Ridge Phase II	2013-11HR2	Oct-14	W1382	1,330				
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	**REDACTED**		**REDACTED**	
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				
Wild Horse	2012-01WH	May-12	W183	38,143		484,335		2012 Vintage
Wild Horse	2012-07WH	Dec-13	W183	26,875		246,192		2013 Vintage
Wild Horse	2012-08WH	Dec-13	W183	39,253		541,930		2014 Vintage
Wild Horse	2012-09WH	Dec-13	W183	29,767		43,254		2015 Vintage
Wild Horse	2012-10WH	Dec-13	W183	45,454				
Wild Horse	2012-11WH	Dec-13	W183	34,606				
Wild Horse	2012-12WH	Dec-13	W183	24,045				
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				

PUGET SOUND ENERGY - 2017 RPS Report

Attachment 4

Deferred REC Revenue Proceeds

CONFIDENTIAL PER WAC 480-07-160

A/C 25400221

REDACTED

Vintages 2012 through 2015

Facility	Vintage	Transaction Mo/Yr	WREGIS #	Qty	REC Revenues	Total Qty	Total REC Revenues	
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	REDACTED		REDACTED	
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				
Wild Horse	2014-12WH	Mar-16	W183	883				
Wild Horse	2015-07WH	Mar-17	W183	43,254				
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				
Hopkins Ridge	2012-11HR	Nov-13	W184	25,218				
Hopkins Ridge	2012-12-HR	Nov-13	W184	48,949				
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				

PUGET SOUND ENERGY - 2017 RPS Report

Attachment 4

Deferred REC Revenue Proceeds

CONFIDENTIAL PER WAC 480-07-160

A/C 25400221

REDACTED

Vintages 2012 through 2015

Facility	Transaction Vintage	Transaction Mo/Yr	WREGIS #	Qty	REC Revenues	Total Qty	Total REC Revenues	
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				
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				
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
Klondike III	2012-11K3	Oct-13	W237	4,082				
Klondike III	2012-11K3	Nov-13	W237	101				
Klondike III	2012-12K3	Nov-13	W237	3,641				
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				

PUGET SOUND ENERGY - 2017 RPS Report
Deferred REC Revenue Proceeds
A/C 25400221
Vintages 2012 through 2015

Attachment 4
CONFIDENTIAL PER WAC 480-07-160
REDACTED

Facility	Vintage	Transaction Mo/Yr	WREGIS #	Qty	REC Revenues	Total Qty	Total REC Revenues	
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	**REDACTED**		**REDACTED**	
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				
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				
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				

PUGET SOUND ENERGY - 2017 RPS Report

Attachment 4

Deferred REC Revenue Proceeds

CONFIDENTIAL PER WAC 480-07-160

A/C 25400221

REDACTED

Vintages 2012 through 2015

Facility	Vintage	Transaction Mo/Yr	WREGIS #	Qty	REC Revenues	Total Qty	Total REC Revenues	
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				
Lower Snake River-Phalen Gulch	2013-10PG	Oct-14	W2670	16,782				
Lower Snake River-Phalen Gulch	2013-11PG	Oct-14	W2670	27,555	**REDACTED**		**REDACTED**	
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				
	GRAND TOTAL			**3,255,956**		**3,502,148**	**$ -**	

One Time Calculation of Incremental Cost for Each (All) Eligible Resource(s)

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 acquistion

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 Levelized Cost Eligible Renewable Resource ($/REC/MWh)	$ Total Annual Cost ($)	Energy Levelized Cost Alternative ($/MWh)	Capacity Levelized Cost Alternative ($/kW-yr)	Capacity Total Alternative Cost ($)	$ 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
						-	-
						-	-
Total Renewable Resource Cost		158,350,000			130,540,000	27,810,000	27,810,000

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.

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

2017 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:
{[sum of incremental costs of All* eligible resources + cost of unbundled RECs] - [revenue RECs]} / annual revenue requirement
**required because of excess generation, Avista needs to report 2 incremental costs*
2) Total Incremental Cost Required Resources for Target Year:
{[sum of incremental costs of Target Year* eligible resources used for target year compliance + cost of unbundled RECs] - [revenue RECs]} / annual revenue requirement

	ALL AVAILABLE RESOURCES ESTIMATED			TARGET YEAR: FORCAST SUBJECT TO CHANGE		
Resource--Washington Only	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-Dodg	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
Total	27,810,000	0	0	27,810,000	0	0
Total WA Only Resources	**27,810,000**	**0**	**0**	**27,810,000**	**0**	**0**

	0	**0**	**0**	**0**	**0**	**0**
Total WA Share of Costs	**27,810,000**	**0**	**0**	**27,810,000**	**0**	**0**

Annual Revenue Requirement (most recent rate case)		2,003,605,159		2,003,605,159
	CALCULATION 1 (Note 2):	29,139,374	CALCULATION 2 (Note 2):	29,139,374
		1.454%		1.454%

NOTES

Note 1: Benefit of REC sales during 2012 to 2016 period were considered and included in original one time calcuation of incremental costs, therefore would not be appropriate to include again in annual costs. Additionally, no vintage 2016 RECS sold.

Note 2: To calculate revenue requirements all costs/revenues are multiplied by 1.047802 to account for Washington's share Excise Tax, Uncollectibles and Commission Fees.

(iii)(A) & (B) Annual Reporting Summary Data: 2017

2017

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 calcualtion (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.

	(A)			(B)	
Resource	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)	93,789	(590,999)
Snoqualmie Falls - Snoqualmie Falls Units 1	670,000	34,164	20	20,497	401,973
Wild Horse - Wild Horse	5,200,000	642,984	8	150,000	1,213,094
Hopkins Ridge - Hopkins Ridge	(2,200,000)	466,908	(5)	398,058	(1,875,589)
Wild Horse - Wild Horse - Phase II **	4,130,000	91,980	45	108,686	4,880,117
Hopkins Ridge - Hopkins Ridge Phase II	(80,000)	21,024	(4)	19,184	(72,998)
Lower Snake River - Dodge Junction - LSR-	11,370,000	500,172	23	500,734	11,382,775
Lower Snake River - Phalen Gulch - LSR-Ph	9,050,000	397,728	23	367,953	8,372,492
Klondike III - Klondike Wind Power III LLC	360,000	157,680	2		-
Apprenticeship Credits for Eligible Resources				195,475	-

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