www.pse.com



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

## Filed via Web Portal and Overnight Courier

June 1, 2015

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 RCW-Required Report, RCW 19.285.070 and WAC-Required Report, WAC 480-109-210

Dear Mr. King:

Enclosed for filing, please find an original and three copies of Puget Sound Energy, Inc.'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 2015 Renewable Energy Target of 626,663 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).

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

Mr. Steven V. King June 1, 2015 Page 2

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

Sincerely,

Ken Johnson Director, State Regulatory Affairs

Kalhemes Barrans

Enclosure

# Puget Sound Energy, Inc. 2015 Annual Renewable Portfolio Standard Report pursuant to RCW 19.285.070 and WAC 480-109-210

## **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 2015 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 31, 2014 Regarding Eligible Renewable Resources

Attachment 2: Appendix K from PSE's Integrated Resource Plan filed with the Commission on May 31, 2013

**Attachment 3: Reporting Tool** 

**Attachment 4: REC Sales** 

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

Delivered Load to Retail Customers (MWh) 21,208,608 20,568,949

The source of this data is the Puget Sound Energy, Inc. ("PSE") 2014 FERC Form 1, p. 301, line 10, columns d and e.

## Section 2. 2015 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 2015 will be 626,663 MWh.

## Calculation:

Delivered Load to Retail Customers (MWh)	2013 21,208,608	2014 20,568,949
Average Load 3% of Average Load	20,88 626	,

# Section 3 Renewable Energy Acquired To Meet 2015 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 2015 target.

As demonstrated in Attachment 1, PSE has sufficient eligible renewable resources to meet its 2015 target. PSE plans to meet its 2015 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	125,841
Eligible Wind Resources	963,861

## 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 rati.

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:

(\$·Millions/Year)¤	Renewable.	Equivaler	nt·Non-Ren	iewable¤	One-Year-	Annual←	
(*	Resource¤	Peaker¤	Market¤	Total¤	Incremental· Cost¤	MWH¤	
Hopkins·Ridge#	\$18.77	\$1.71:	\$19.264	\$20.97¤	(\$2.20)¤	466,908¤	
Wild·Horse#	\$34.941	\$3.214	\$26.53·	\$29.74¤	\$5.201	642,984¤	
Klondike·III¤	\$10.271	\$0.93·t	\$8.984	\$9.91¤	\$0.361	157,680¤	
Hopkins-Infill¤	\$1.281	\$0.17₁	\$1.19 <sub>1</sub>	\$1.36¤	(\$0.08)¤	21,024¤	
Wild·Horse·Expansion	\$10.031	\$0.811	\$5.09 <sub>1</sub>	\$5.90¤	\$4.141	91,980¤	
Lower-Snake-River-I#	\$70.611	\$1.69 <sub>1</sub>	\$48.51 <sub>1</sub>	\$50.20¤	\$20.421	897,900¤	
Snoqualmie·Falls· Upgrade¤	\$3.85¤	\$0.74¤	<b>\$2.44</b> n	\$3.18¤	\$0.67¤	34,164¤	
Lower-Baker-4#	\$8.60¤	\$1.37¤	\$7.92¤	\$9.29¤	(\$0.69)¤	109,500¤	
Total·¤	12	10	10	Ħ	\$27.811	2,422,140¤	

As demonstrated in the table above, the incremental cost of eligible renewable resources are \$27.81M resulting in an average cost/MWh of \$11.48. For the 2015 target year compliance, the incremental cost is \$7.2M (\$11.48 \* 626,663 MWh).

The total annual retail revenue requirement for 2015 is \$2040.615 million. The 2015 revenue requirement is based on the revenue requirement determined in PSE's last general ratecase (UE-11048) and adjusted for the 2013 and 2014 PCORC (Dockets UE-130617, and UE-141141 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 / 2040.615M = 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 2015 Renewable Energy Target.

## Section 6. 2015 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 2015 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 2015 compliance. Further details about this information can be found in Attachment 3.

2015 Compliance Pl	an
Target	626,663
Wanapum Hydro	3,571
Lower Baker Project Incremental Hydro	103,365
Snoqualmie Falls Project Incremental Hydro	18,904
Lower Snake River - Phalen Gulch (Vintage 2014)	209,515
Extra Apprenticeship Credits	41,903
Wild Horse Phase II (Vintage 2014)	50,832
Extra Apprenticeship Credits	10,166
Lower Snake River-Dodge Junction (Vintage 2014)	270,102
Extra Apprenticeship Credits	54,020
Balance	135,715

Data for 2015 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 three percent of its estimated load for the year 2015, in advance of January 1, 2015. Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2015 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 2015 or 2016.

Please also see Attachment 1.

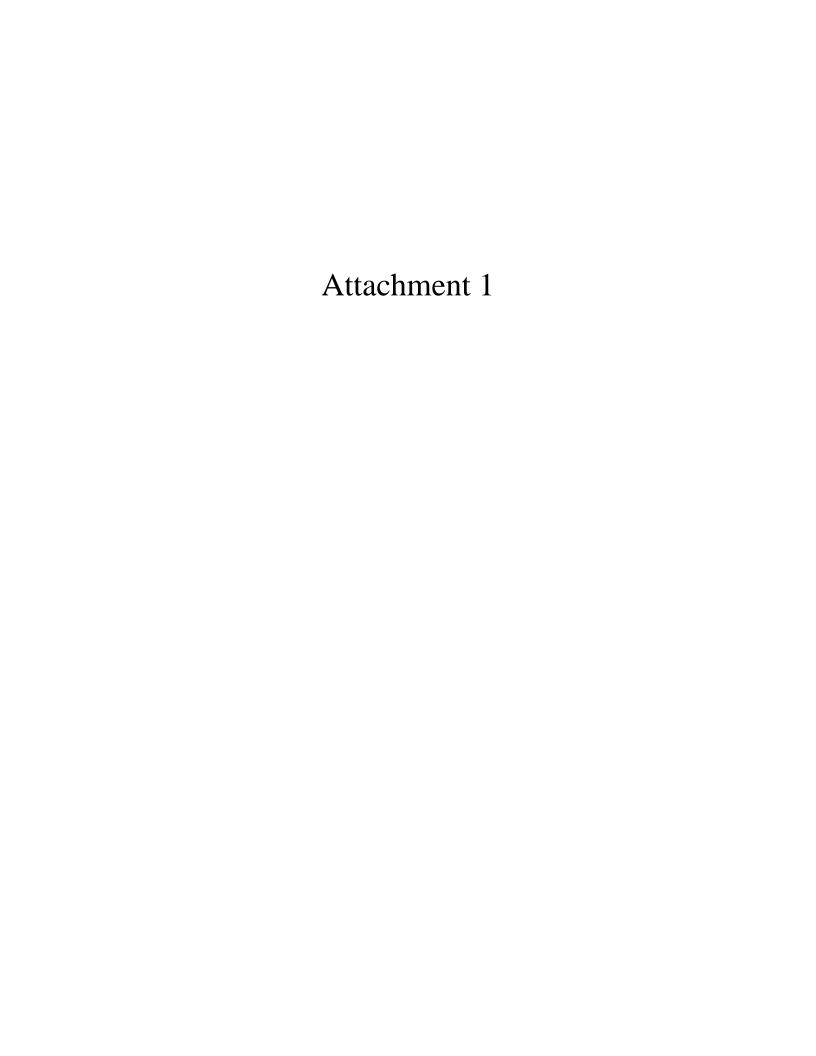
## **Section 8.** Sales

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 2014 vintages. To date, the company has not transferred title to any Vintage 2015 RECs. Any Vintage 2015 REC sales will be reported in the 2016 report.

REC Sales by Year by Resource						
			Vintage		Total	
Source	WREGIS#	2012	2013	2014	Sales	
Wild Horse	W183	238,143	246,192	338,316	822,651	
Wild Horse Phase II	W1364	54,206	47,386	54,348	155,940	
Hopkins Ridge	W184	171,359	166,117	423,662	761,138	
Hopkins Ridge Phase II	W1382		7,309	18,641	25,950	
Klondike III	W237	58,264	68,465	99,363	226,092	
Lower Snake River-Dodge Junction	W2669		201,751	230,247	431,998	
Lower Snake River-Phalen Gulch	W2670		142,210	169,808	312,018	
		521,972	879,430	1,334,385	2,735,787	
*Reflects REC Transfers through 5/1	.5/15					

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





## **MEMORANDUM**

TO: Roger Garratt, Michael Mullally, Ken Johnson

FROM: Eric Englert, Anna Mikelsen Mills

SUBJECT: Requirements of Chapter 480-109-020 WAC

DATE: December 31, 2014

#### Background

Chapter 480-109-020 WAC Renewable resources states:

- "(1) Each utility must meet the following annual targets.
  - (a) By January 1 of each year beginning in 2012 and continuing through 2015, each utility must use sufficient eligible renewable resources, acquire equivalent renewable energy credits, or a combination of both, to supply at least three percent of its load for the remainder of each year.

. . .

- (2) 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 1 of the target year.
- (3) In meeting the annual targets of this subsection, a utility must calculate its annual load based on the average of the utility's load for the previous two years.
- (4) A renewable resource within the Pacific Northwest may receive integration, shaping, storage or other sevices from sources outside of the Pacific Northwest and remain eligible to count towards a utility's renewable resource target."

(Emphasis added.)

#### **Summary**

Pursuant to the requirements of Chapter 480-109-020 WAC, we have prepared this Memorandum to document that Puget Sound Energy, Inc. ("PSE") has acquired sufficient

eligible renewable resources in its portfolio by January 1, 2015 to supply at least three percent of its estimated load for the year 2015.

This is consistent with the information provided to the WUTC on May 31, 2013 in PSE's compliance filing in Docket No. UE-120767, in regard to PSE's 2013 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 the Company'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 three percent of its estimated load for the year 2015, in advance of January 1, 2015.

Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2015 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 2015 or 2016.

Total 2013 generation from Hopkins Ridge, Wild Horse, Wild Horse Expansion and Lower Snake River was about 1,884,000 megawatt-hours (not inclusive of the extra apprenticeship credits); similar generation may be achieved for 2014 and 2015.

These eligible renewable resources may be impacted by events beyond PSE's reasonable control that could not have been reasonably anticipated or ameliorated that prevented 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 a qualifying utility.

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 480.109.030(1),(3) instead of meeting its 2015 renewable energy target. However, there may be events beyond PSE's control during the remainder of the calendar year 2015 which could prompt PSE to utilize the alternative compliance mechanisms in RCW 19.285.040(2)(i) and WAC 480.109.030(2). Such determination will be made when PSE reports on its final 2015 compliance in the 2016 or 2017 report.

#### <u>Load</u>

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 2013 delivered load is 21,208,608,000 kilowatt-hours (i.e. 21,208,608 megawatt-hours) and the 2014 forecast load is about 20,773,350,255 kilowatt-hours (i.e. 20,773,350 megawatt-hours).

Consistent with WAC 480-109-020(3), based on the average of PSE's load in 2013 and 2014 and as reflected above, the Company's estimated load for purposes of meeting its 2015 target will likely be in the neighborhood of 20,990,979 megawatt-hours.

#### **2015 Renewable Energy Target**

Chapter 480-109-020(1)(a) WAC states: "By January 1 of each year beginning in 2012 and continuing through 2015, each utility must use sufficient eligible renewable resources, acquire equivalent renewable energy credits, or a combination of both, to supply at least three percent of its load for the remainder of each year." (Emphasis added.)

Based on the load estimations above and the three percent requirement in Chapter 480-109-020(1)(a) WAC, the Company's estimated renewable energy target for 2015 may end up being approximately 629,729 megawatt-hours.

PSE expects to generate more eligible renewable energy than its 2015 requirement (not including any renewable energy credits generated in 2014 that the Company may elect to use for its 2015 requirement).

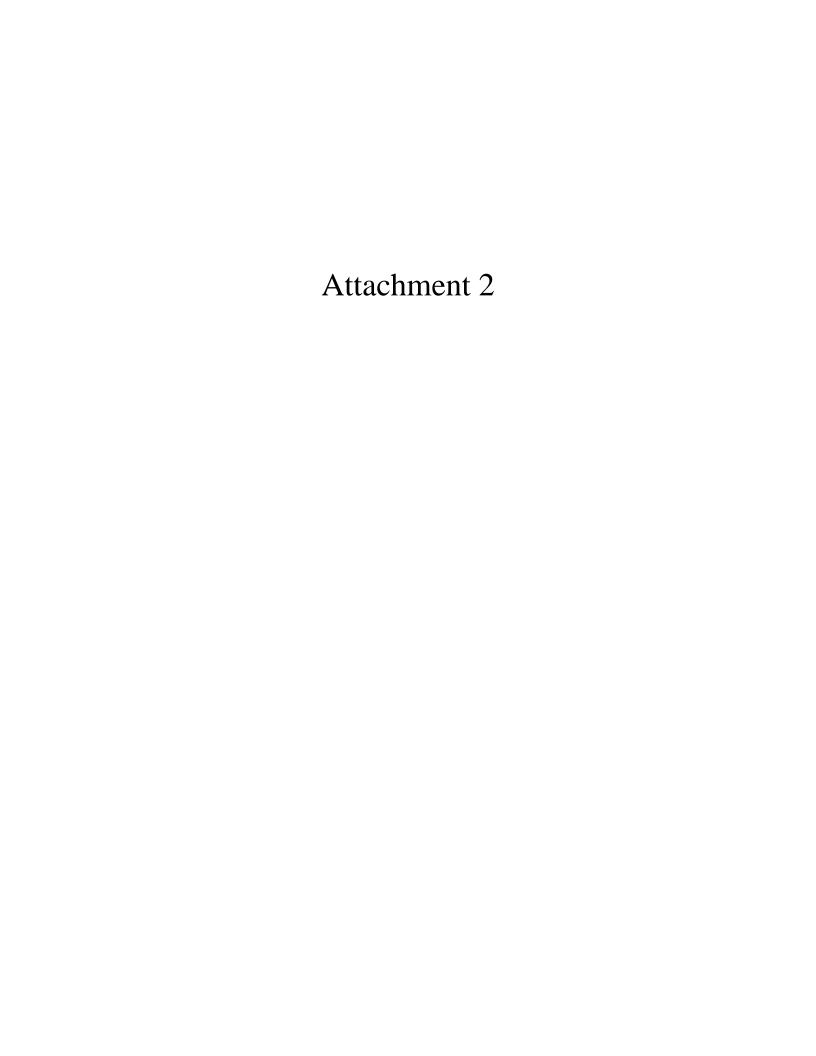
PSE will report on the specific renewable energy credits produced and to be retired for final compliance with the 2015 target in either its annual 2016 or 2017 report, and reserves the right to submit renewable energy credits from the resources reported here or to substitute with renewable energy credits produced from 2014 to 2016 by other eligible renewable resources or with 2015 generation from eligible renewable resources that have not been converted to renewable energy credits.

## **Conclusion**

PSE's eligible renewable resources in 2015 may be expected to generate approximately 2,524,274 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 2014 that the Company may elect to use for its 2015 renewable energy target).

Events beyond PSE's reasonable control may yet occur during the remainder of calendar year 2015 which could prompt PSE to utilize the alternative compliance mechanism in RCW 19.285.040(2)(i) and WAC 480.109.030(2). 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 2015 compliance in the annual 2016 or 2017 renewable energy target report.

As reported to the WUTC on May 31, 2013 in PSE's compliance filing in Docket No. UE-120767, in regard to PSE's 2013 IRP, PSE is on track to meet the Renewable Energy Target requirements for the year 2015 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 2015 as noted in RCW 19.285.040(2).



# Incremental cost of renewable resources to meet RCW 19.285 incremental cost alternative compliance

## **Overview**

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 is 3 percent of retail electric load. 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".<sup>7</sup>

## 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

<sup>&</sup>lt;sup>7</sup> RCW 19.285.050 (1) (a) (b)

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).

# Resources that meet RCW 19.285 definition of "eligible renewable resource"

Figure K-41
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 2022	300	90	Jan 2022	2013 IRP Base	4%
Generic Wind 2027	100	30	Jan 2027	2013 IRP Base	4%
Generic Wind 2029	100	30	Jan 2029	2013 IRP Base	4%
Generic Wind 2033	100	30	Jan 2033	2013 IRP Base	4%

## **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.

## **Example**

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 K-42 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 K-42
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 K-43
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 K-44
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	ited Debt		outed Debt		1		0	
	285		tal Revenue equirement		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 K-45
20-yr Incremental Cost of Wild Horse

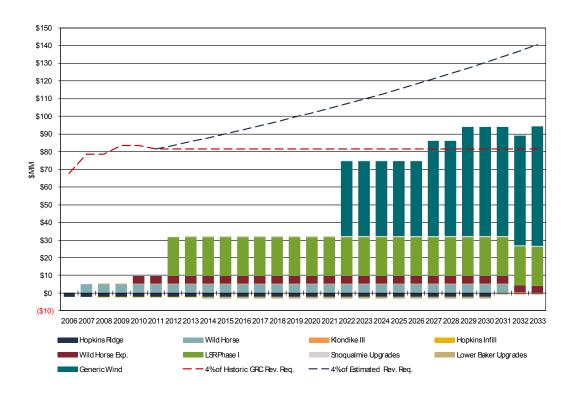
(\$ Millions)	20-yr NPV
Wild Horse	375
Peaker	34
Market	285
20-yr Incremental Cost of Wild Horse	56

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 K-46 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 K-46
Equivalent Non-renewable 20-year Levelized Cost Difference Compared to
4 Percent of 2011 GRC Revenue Requirement



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 2011 General Rate Case 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.							
х	1	Facility Name	Text	B2:B31	Enter the name of the qualifying facility or contract		
х	2	WREGIS ID	Text	C2:C31	Enter the WREGIS ID for the qualifying facility		
х	3	Facility Type	Toggle	D2:D31	Select the generation type for the qualifying facility		
Х	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.		
Х	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
		ntify the input locations for tund in the "Facility Detail" w			Facility Detail" worksheet. Inputs for cility 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

#### **Puget Sound Energy, Inc. Reporting Entity:** June 1, 2015 **Reporting Date: RCW 19.285 Compliance Need** 2014 2015 2013 20,568,949 Delivered Load to Retail Customers (MWh) 21,208,608 Not Applicable WA State RCW 19.285 Requirement 3% 3% **Quantity Required for Compliance** 639,514 635,202 626,663 **Eligible Quantity Acquired** 2013\* 2014\* 2015 Qualifying MWh Allocated to WA 2,024,560 2,156,021 203,228 Quantity from Non REC Eligible Generation 184,567 196,970 7,406 **Total Quantity Available for RCW 19.285 Compliance** 2,209,127 2,352,991 210,633 **Sales and Transfers** 2015 2013 2014 Quantity of RECs Sold (879,430) (1,334,385)**Bonus Incentives Transferred** (90,881) **Bonus Incentives Not Realized** (78, 269)Total Sold / Transferred / Unrealized (957,699) (1,425,266) **Adjustments** 2013 2014 2015 953,701 2012 Surplus Applied to 2013 2013 Surplus Applied to 2012 2013 Surplus Applied to 2014 (1,246,796)1,246,796 2014 Surplus Applied to 2013 2014 Surplus Applied to 2015 (878,888)878,888 2015 Surplus Applied to 2014 **Net Surplus Adjustments** (293,096)367,908 878,888 **Adjustment for Events Beyond Control** 2013\* 2014\* 2015

318,818

660,432

462,858

RCW 19.285 Compliance Surplus / (Deficit)

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

 $<sup>^{\</sup>ast}$  Any surplus shown in 2013 or 2014 may be sold or used for compliance in subsequent years.

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	Not Available	Water (Incremental Hydro)	Not Eligible		
Snoqualmie Falls Project	Not Available	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
Total MWh Produced / Purchased from \	Vild Horse	554,637	546,457	26,747
Percent of MWh Qualifying Under RCW 1	19.285	100%	100%	100%
Percent of Qualifying MWh Allocated to	WA	100%	100%	100%
Eligible MWh Available for RCW 19.285	Compliance	554,637	546,457	26,747
Non REC Eligible Generation		2013	2014	2015
Extra Apprenticeship Credit		-	-	-
Distributed Generation Bonus		-	-	-
Total Quantity from Non REC Eligible Ge	neration	-	-	=
REC Sales / Transfers		2013	2014	2015
Quantity of RECs Sold		246,192	338,316	
Bonus Incentives Transferred				
Bonus Incentives Not Realized				
Total Sold / Transferred / Unrealized		246,192	338,316	-
Adjustments		2013	2014	2015
2012 Surplus Applied to 2013		332,017		
2013 Surplus Applied to 2012				
2013 Surplus Applied to 2014		308,445	308,445	
2014 Surplus Applied to 2013		-		
2014 Surplus Applied to 2015			208,141	208,141
2015 Surplus Applied to 2014			-	
Net Surplus Adjustments		23,572	100,304	208,141
Adjustment for Events Beyond Control				
Contribution to RCW 19.285 Complia	ance	332,017	308,445	234,888
•	Actual 2013 Retirement	92,779		

Facility Name:	H	lopkins Ridge	]		
MWh Allocated to WA Compliance	2		2013	2014	2015
Total MWh Produced / Purchased from			389,463	423,662	13,037
Percent of MWh Qualifying Under RCV	N 19.285		100%	100%	1009
Percent of Qualifying MWh Allocated t			100%	100%	1009
Eligible MWh Available for RCW 19.28	85 Compliance		389,463	423,662	13,037
Non REC Eligible Generation			2013	2014	2015
Extra Apprenticeship Credit			-	-	-
Distributed Generation Bonus			-	-	-
Total Quantity from Non REC Eligible	Generation		-	-	-
REC Sales / Transfers			2013	2014	2015
Quantity of RECs Sold			166,117	423,662	
Bonus Incentives Transferred					
Bonus Incentives Not Realized  Total Sold / Transferred / Unrealized			166,117	423,662	
Total Solu / Transferreu / Officalizeu			100,117	423,002	-
Adjustments			2013	2014	2015
2012 Surplus Applied to 2013			241,131		
2013 Surplus Applied to 2012			222.246	222.246	
2013 Surplus Applied to 2014 2014 Surplus Applied to 2013			223,346	223,346	
2014 Surplus Applied to 2015 2014 Surplus Applied to 2015				-	
2015 Surplus Applied to 2014				-	
Net Surplus Adjustments			17,785	223,346	=
Adjustment for Events Beyond Contro	ol				
			244 424	223,346	13,037
Contribution to RCW 19.285 Comp	oliance		241.131	223.340	
Contribution to RCW 19.285 Comp		Actual 2013 Retirement	241,131   238,842	223,340	
Facility Name:		Actual 2013 Retirement  Klondike III			
Facility Name:			238,842  May be used for Target Year 20  2013	115 Compliance 2014	2015
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased from	e n Klondike III		238,842  May be used for Target Year 20  2013  135,860	2014 133,571	2015
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased from  Percent of MWh Qualifying Under RCV	e n Klondike III N 19.285		238,842  May be used for Target Year 20  2013  135,860  100%	2014 133,571 100%	2015
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron	e n Klondike III <i>N</i> 19.285 to WA		238,842  May be used for Target Year 20  2013  135,860	2014 133,571	2015
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron  Percent of MWh Qualifying Under RCV  Percent of Qualifying MWh Allocated to  Eligible MWh Available for RCW 19.28	e n Klondike III <i>N</i> 19.285 to WA		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860	2014 133,571 100% 100% 133,571	2015 1009 1009
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron  Percent of MWh Qualifying Under RCV  Percent of Qualifying MWh Allocated to  Eligible MWh Available for RCW 19.28  Non REC Eligible Generation	e n Klondike III <i>N</i> 19.285 to WA		238,842  May be used for Target Year 20  2013  135,860  100% 100% 135,860  2013	115 Compliance  2014  133,571  100%  100%  133,571  2014	2015
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron  Percent of MWh Qualifying Under RCV  Percent of Qualifying MWh Allocated to  Eligible MWh Available for RCW 19.28  Non REC Eligible Generation  Extra Apprenticeship Credit	e n Klondike III <i>N</i> 19.285 to WA		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860	2014 133,571 100% 100% 133,571	2015 1009 1009
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron  Percent of MWh Qualifying Under RCV  Percent of Qualifying MWh Allocated to  Eligible MWh Available for RCW 19.28  Non REC Eligible Generation	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  135,860  2013  -	115 Compliance  2014  133,571  100%  100%  133,571  2014	2015 1009 1009
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased from Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation  Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  135,860  2013	2014 133,571 100% 100% 133,571 2014	2015 1009 1009 - 2015 - -
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased from Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860  2013	2014 2014 133,571 100% 100% 133,571 2014 - -	2015 1009 1009
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased from Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation  Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  135,860  2013	2014 133,571 100% 100% 133,571 2014	2015 1009 1009 - 2015 - -
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECS Sold	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860  2013	2014 2014 133,571 100% 100% 133,571 2014 - -	2015 1009 1009 - 2015 - -
Facility Name:  MWh Allocated to WA Compliance Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated t Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECS Sold Bonus Incentives Transferred	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860  2013	2014 2014 133,571 100% 100% 133,571 2014 - -	2015 1003 1003 - 2015 - -
Facility Name:  MWh Allocated to WA Compliance    Total MWh Produced / Purchased fron    Percent of MWh Qualifying Under RCV    Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation    Extra Apprenticeship Credit    Distributed Generation Bonus    Total Quantity from Non REC Eligible  REC Sales / Transfers    Quantity of RECs Sold    Bonus Incentives Transferred    Bonus Incentives Not Realized    Total Sold / Transferred / Unrealized	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100% 135,860  2013  2013  68,465	2014  133,571  100%  100%  133,571  2014	2015 1003 1003 - 2015 - -
Facility Name:  MWh Allocated to WA Compliance    Total MWh Produced / Purchased fron    Percent of MWh Qualifying Under RCV    Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation    Extra Apprenticeship Credit    Distributed Generation Bonus    Total Quantity from Non REC Eligible  REC Sales / Transfers    Quantity of RECs Sold    Bonus Incentives Transferred    Bonus Incentives Not Realized    Total Sold / Transferred / Unrealized	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100% 135,860  2013  2013  68,465  68,465	2014  133,571  100%  100%  133,571  2014	2015 1009 1009 - 2015 - 2015
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECS Sold Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments 2012 Surplus Applied to 2013 2013 Surplus Applied to 2012	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  135,860  2013  2013  68,465  68,465  2013	2014  133,571  100%  100%  133,571  2014  2014  99,363  99,363	2015  1009
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased from Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments 2012 Surplus Applied to 2013 2013 Surplus Applied to 2012 2013 Surplus Applied to 2014	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860  2013  2013  68,465  68,465  2013  69,649  67,395	2014  133,571  100%  100%  133,571  2014	2015  1009
Facility Name:  MWh Allocated to WA Compliance Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated t Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECS Sold Bonus Incentives Transferred Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments  2012 Surplus Applied to 2013 2013 Surplus Applied to 2014 2013 Surplus Applied to 2014 2014 Surplus Applied to 2014	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  135,860  2013  2013  68,465  68,465  2013	2014  133,571  100%  100%  133,571  2014  2014  99,363  99,363  2014  67,395	2015 1000 1000 - 2015 - 2015
Facility Name:  MWh Allocated to WA Compliance Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated I Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments  2012 Surplus Applied to 2013 2013 Surplus Applied to 2014 2014 Surplus Applied to 2013 2014 Surplus Applied to 2013 2014 Surplus Applied to 2013	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860  2013  2013  68,465  68,465  2013  69,649  67,395	2014  133,571  100%  100%  133,571  2014  2014  99,363  99,363	2015 100 100 - 2015 - 2015
Facility Name:  MWh Allocated to WA Compliance Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated t Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECS Sold Bonus Incentives Transferred Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments  2012 Surplus Applied to 2013 2013 Surplus Applied to 2014 2013 Surplus Applied to 2014 2014 Surplus Applied to 2014	e n Klondike III N 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100%  100%  135,860  2013  2013  68,465  68,465  2013  69,649  67,395	2014  133,571  100%  100%  133,571  2014  2014  99,363  99,363  2014  67,395	2015  1009 1009 - 2015 - 2015 - 2015 - 34,208
Facility Name:  MWh Allocated to WA Compliance  Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments  2012 Surplus Applied to 2013 2013 Surplus Applied to 2014 2014 Surplus Applied to 2014 2014 Surplus Applied to 2013 2014 Surplus Applied to 2015 2015 Surplus Applied to 2015	e m Klondike III W 19.285 to WA 85 Compliance		238,842  May be used for Target Year 20  2013  135,860  100% 135,860  2013  2013  68,465  68,465  2013  69,649  67,395	2014  133,571  100%  100%  133,571  2014  2014  99,363  99,363  2014  67,395  34,208  -	2015  1009 1009 - 2015 - 2015 - 2015 - 34,208
Facility Name:  MWh Allocated to WA Compliance Total MWh Produced / Purchased fron Percent of MWh Qualifying Under RCV Percent of Qualifying MWh Allocated to Eligible MWh Available for RCW 19.28  Non REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  REC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized  Adjustments  2012 Surplus Applied to 2013 2013 Surplus Applied to 2014 2014 Surplus Applied to 2014 2014 Surplus Applied to 2015 2015 Surplus Applied to 2014 Net Surplus Applied to 2014	e m Klondike III N 19.285 to WA 85 Compliance  Generation		238,842  May be used for Target Year 20  2013  135,860  100% 135,860  2013  2013  68,465  68,465  2013  69,649  67,395	2014  133,571  100%  100%  133,571  2014  2014  99,363  99,363  2014  67,395  34,208  -	2015 1009 1009 - 2015 - - 2015

#### **Facility Name:** Wild Horse Phase II MWh Allocated to WA Compliance 2013 2014 2015 Total MWh Produced / Purchased from Wild Horse Phase II 106,755 105,180 5,148 Percent of MWh Qualifying Under RCW 19.285 100% 100% 100% Percent of Qualifying MWh Allocated to WA 100% 100% 100% Eligible MWh Available for RCW 19.285 Compliance 106,755 105,180 5,148 Non REC Eligible Generation 2013 2014 2015 Extra Apprenticeship Credit 21,351 21,036 1,030 Distributed Generation Bonus **Total Quantity from Non REC Eligible Generation** 21,351 21,036 1,030 **REC Sales / Transfers** 2014 2015 Quantity of RECs Sold 47,386 54,348 Bonus Incentives Transferred Bonus Incentives Not Realized 9,477 10,870 Total Sold / Transferred / Unrealized 65,218 56,863 Adjustments 2014 2015 2012 Surplus Applied to 2013 66,643 2013 Surplus Applied to 2012 2013 Surplus Applied to 2014 71,243 71,243 2014 Surplus Applied to 2013 2014 Surplus Applied to 2015 60,998 60,998 2015 Surplus Applied to 2014 (4,600) 10,244 60,998 Net Surplus Adjustments **Adjustment for Events Beyond Control** Contribution to RCW 19.285 Compliance 66,643 71,243 67,176 **Actual 2013 Retirement** 55,536 \_\_.\_\_\_

Facility Name:	Hopkins Ridge Phase II			
MWh Allocated to WA Compliance		2013	2014	2015
Total MWh Produced / Purchased from I	Hopkins Ridge Phase II	17,136	18,641	574
Percent of MWh Qualifying Under RCW	19.285	100%	100%	100%
Percent of Qualifying MWh Allocated to	WA	100%	100%	100%
Eligible MWh Available for RCW 19.285	Compliance	17,136	18,641	574
Non REC Eligible Generation		2013	2014	2015
Extra Apprenticeship Credit		-	_	-
Distributed Generation Bonus		-	-	-
Total Quantity from Non REC Eligible Ge	eneration	-	-	-
REC Sales / Transfers		2013	2014	2015
Quantity of RECs Sold		7,309	18,641	
Bonus Incentives Transferred		,	,	
Bonus Incentives Not Realized				
Total Sold / Transferred / Unrealized		7,309	18,641	-
Adjustments		2013	2014	2015
2012 Surplus Applied to 2013		18,150		
2013 Surplus Applied to 2012		,		
2013 Surplus Applied to 2014		9,827	9,827	
2014 Surplus Applied to 2013		-		
2014 Surplus Applied to 2015			-	-
2015 Surplus Applied to 2014			-	
Net Surplus Adjustments		8,323	9,827	=
Adjustment for Events Beyond Control				
Contribution to PCW 10 205 Compli	anca	10.450	0.037	F74
Contribution to RCW 19.285 Compli		18,150	9,827	574
	Actual 2013 Retirement	10,509		

## Facility Name: Lower Snake River - Dodge Junction

<b>NWh Allocated to WA Complian</b>	ce	2013	2014	2015
Total MWh Produced / Purchased fr	om Lower Snake River - Dodge Junction	470,881	500,349	19,149
Percent of MWh Qualifying Under R	CW 19.285	100%	100%	100%
Percent of Qualifying MWh Allocate	d to WA	100%	100%	100%
Eligible MWh Available for RCW 19	285 Compliance	470,881	500,349	19,149
Ion REC Eligible Generation		2013	2014	2015
Extra Apprenticeship Credit		94,176	100,070	3,830
Distributed Generation Bonus		-	=	-
Total Quantity from Non REC Eligib	e Generation	94,176	100,070	3,830
EC Sales / Transfers		2013	2014	2015
Quantity of RECs Sold		201,751	230,247	
Bonus Incentives Transferred				
Bonus Incentives Not Realized		40,350	46,049	
Total Sold / Transferred / Unrealize	d	242,101	276,296	-
djustments		2013	2014	2015
2012 Surplus Applied to 2013		-		
2013 Surplus Applied to 2012				
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			-	
Net Surplus Adjustments		(322,956)	(1,166)	324,122
Adjustment for Events Beyond Con	trol			

MWh Allocated to WA Compliance	2013	2014	2015
Total MWh Produced / Purchased from Lower Snake River - Phalen Gulch	345,197	379,323	12,732
Percent of MWh Qualifying Under RCW 19.285	100%	100%	100%
Percent of Qualifying MWh Allocated to WA	100%	100%	100%
Eligible MWh Available for RCW 19.285 Compliance	345,197	379,323	12,732
Non REC Eligible Generation	2013	2014	2015
Extra Apprenticeship Credit	69,039	75,865	2,546
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	69,039	75,865	2,546
REC Sales / Transfers	2013	2014	2015
Quantity of RECs Sold	142,210	169,808	
Bonus Incentives Transferred			
Bonus Incentives Not Realized	28,442	33,962	
Total Sold / Transferred / Unrealized	170,652	203,770	-
Adjustments	2013	2014	2015
2012 Surplus Applied to 2013	226,110		
2013 Surplus Applied to 2012			
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		-	
Net Surplus Adjustments	(17,474)	(7,834)	251,418
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	226,110	243,584	266,696
Actual 2013			

acility Name:	Wanapum Fish Bypass	May be used for 2015 RPS Con	npliance	
IWh Allocated to WA Complian	ce.	2013	2014	2015
Total MWh Produced / Purchased fro		4,631	-	3,571
Percent of MWh Qualifying Under RO	• • • • • • • • • • • • • • • • • • • •	100%	100%	100%
Percent of Qualifying MWh Allocated		100%	100%	100%
Eligible MWh Available for RCW 19.		4,631	-	3,571
on REC Eligible Generation		2013	2014	
Extra Apprenticeship Credit		-	-	_
Distributed Generation Bonus		-	-	-
Total Quantity from Non REC Eligible	e Generation	-	ē	-
EC Sales / Transfers		2013	2014	
Quantity of RECs Sold				
Bonus Incentives Transferred				
Bonus Incentives Not Realized				
Total Sold / Transferred / Unrealized	d	-	-	-
djustments		2013	2014	
2012 Surplus Applied to 2013		-		
2013 Surplus Applied to 2012				
2013 Surplus Applied to 2014			-	
2014 Surplus Applied to 2013		-		
2014 Surplus Applied to 2015				-
2015 Surplus Applied to 2014		_	-	
Net Surplus Adjustments		-	-	-
Adjustment for Events Beyond Cont	rol			
		4,631	-	3,571
ontribution to RCW 19.285 Com			-	3,571
ontribution to RCW 19.285 Com	pliance		-	3,571
ontribution to RCW 19.285 Com e of Wanapum Fish Bypass for 2015 RPS	pliance Compliance will be dependent upon Grant County		-	3,571
ontribution to RCW 19.285 Com se of Wanapum Fish Bypass for 2015 RPS	pliance		-	3,571
ontribution to RCW 19.285 Com se of Wanapum Fish Bypass for 2015 RPS	pliance Compliance will be dependent upon Grant County Baker River Project		2014	3,571
contribution to RCW 19.285 Come of Wanapum Fish Bypass for 2015 RPS  acility Name:  IWh Allocated to WA Compliance  Total MWh Produced / Purchased fro	ppliance Compliance will be dependent upon Grant County  Baker River Project  Description:	filing WREGIS registration.	121,480	2015 365,249
contribution to RCW 19.285 Comes of Wanapum Fish Bypass for 2015 RPS  acility Name:  1Wh Allocated to WA Compliance  Total MWh Produced / Purchased fre  Percent of MWh Qualifying Under RC	Ppliance Compliance will be dependent upon Grant County  Baker River Project  Description:  Baker River Project  Description:  D	filing WREGIS registration.	121,480 28.3%	2015 365,249 28.3%
e of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliant Total MWh Produced / Purchased fre Percent of MWh Qualifying Under Re Percent of Qualifying MWh Allocated	pliance Compliance will be dependent upon Grant County  Baker River Project  ce om Baker River Project CW 19.285 It to WA	/ filing WREGIS registration.	121,480 28.3% 100%	2015 365,249 28.39 1009
contribution to RCW 19.285 Comes of Wanapum Fish Bypass for 2015 RPS  acility Name:  1Wh Allocated to WA Compliance  Total MWh Produced / Purchased fre  Percent of MWh Qualifying Under RC	pliance Compliance will be dependent upon Grant County  Baker River Project  ce om Baker River Project CW 19.285 It to WA	filing WREGIS registration.	121,480 28.3%	2015 365,249 28.3%
contribution to RCW 19.285 Comse of Wanapum Fish Bypass for 2015 RPS  Cacility Name:  Why Allocated to WA Compliane Total MWh Produced / Purchased for Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.	pliance Compliance will be dependent upon Grant County  Baker River Project  ce om Baker River Project CW 19.285 It to WA	/ filing WREGIS registration.	121,480 28.3% 100%	2015 365,249 28.39 1009
contribution to RCW 19.285 Come of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliant  Total MWh Produced / Purchased for Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  on REC Eligible Generation  Extra Apprenticeship Credit	pliance Compliance will be dependent upon Grant County  Baker River Project  ce om Baker River Project CW 19.285 It to WA	2013  - 2013 - 2013	121,480 28.3% 100% 34,379 2014	2015 365,249 28.39 1009 103,365
contribution to RCW 19.285 Come of Wanapum Fish Bypass for 2015 RPS  acility Name:  IWh Allocated to WA Compliant  Total MWh Produced / Purchased fred  Percent of MWh Qualifying Under RC  Percent of Qualifying MWh Allocated  Eligible MWh Available for RCW 19.  on REC Eligible Generation  Extra Apprenticeship Credit  Distributed Generation Bonus	Baker River Project  Compliance will be dependent upon Grant County  Baker River Project  Compliance  Discussion of the County o	2013	121,480 28.3% 100% 34,379	2015 365,249 28.39 1009 103,365
e of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliane Total MWh Produced / Purchased fre Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  on REC Eligible Generation Extra Apprenticeship Credit	Baker River Project  Compliance will be dependent upon Grant County  Baker River Project  Compliance  Discussion of the County o	2013  - 2013 - 2013	121,480 28.3% 100% 34,379 2014	2015 365,249 28.39 1009 103,365
contribution to RCW 19.285 Comes of Wanapum Fish Bypass for 2015 RPS  acility Name:  IWh Allocated to WA Compliant Total MWh Produced / Purchased free Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  on REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  EC Sales / Transfers	Baker River Project  Compliance will be dependent upon Grant County  Baker River Project  Compliance  Discussion of the County o	2013  - 2013 - 2013	121,480 28.3% 100% 34,379 2014	2015 365,249 28.39 1009 103,365
acility Name:  Wh Allocated to WA Compliane Total MWh Produced / Purchased fre Percent of Muh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  On REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible EC Sales / Transfers Quantity of RECS Sold	Baker River Project  Compliance will be dependent upon Grant County  Baker River Project  Compliance  Discussion of the County o	2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2014 - 2015 - 20	28.3% 100% 34,379 2014	2015 365,249 28.39 1009 103,365 2015
e of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliane Total MWh Produced / Purchased for Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  on REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible EC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred	Baker River Project  Compliance will be dependent upon Grant County  Baker River Project  Compliance  Discussion of the County o	2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2014 - 2015 - 20	28.3% 100% 34,379 2014	2015 365,249 28.39 1009 103,365 2015
e of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliane Total MWh Produced / Purchased fre Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  on REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible EC Sales / Transfers Quantity of RECs Sold	Baker River Project  Description  Baker River Project  Description  De	2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2013 - 2014 - 2015 - 20	28.3% 100% 34,379 2014	2015 365,249 28.39 1009 103,365 2015
contribution to RCW 19.285 Come of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliant Total MWh Produced / Purchased for Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  On REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  EC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized	Baker River Project  Description  Baker River Project  Description  De	2013 - 20	121,480 28.3% 100% 34,379 2014 - - 2014	2015 365,245 28.39 1009 103,365 2015
contribution to RCW 19.285 Comes of Wanapum Fish Bypass for 2015 RPS  accility Name:  IWh Allocated to WA Compliant Total MWh Produced / Purchased for Percent of MWh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  On REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible  EC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized	Baker River Project  Description  Baker River Project  Description  De	2013 - 20	28.3% 100% 34,379 2014 	2015 365,249 28.39 1009 103,365 2015
e of Wanapum Fish Bypass for 2015 RPS  acility Name:  Wh Allocated to WA Compliant Total MWh Produced / Purchased free Percent of Mwh Qualifying Under RC Percent of Qualifying MWh Allocated Eligible MWh Available for RCW 19.  On REC Eligible Generation Extra Apprenticeship Credit Distributed Generation Bonus Total Quantity from Non REC Eligible EC Sales / Transfers Quantity of RECs Sold Bonus Incentives Transferred Bonus Incentives Not Realized Total Sold / Transferred / Unrealized	Baker River Project  Description  Baker River Project  Description  De	2013 - 20	121,480 28.3% 100% 34,379 2014 - - 2014	2015 365,245 28.39 1009 103,365 2015
ontribution to RCW 19.285 Comse of Wanapum Fish Bypass for 2015 RPS  acility Name:  //Wh Allocated to WA Compliant     Total MWh Produced / Purchased for     Percent of MWh Qualifying Under RC     Percent of Qualifying MWh Allocated     Eligible MWh Available for RCW 19.  Ion REC Eligible Generation     Extra Apprenticeship Credit     Distributed Generation Bonus     Total Quantity from Non REC Eligible  EC Sales / Transfers     Quantity of RECs Sold     Bonus Incentives Transferred     Bonus Incentives Not Realized     Total Sold / Transferred / Unrealized  djustments	Baker River Project  Description  Baker River Project  Description  De	2013 - 20	121,480 28.3% 100% 34,379 2014 - - 2014	2015 365,245 28.39 1009 103,365 2015

Baker estimated RPS Eligible generation based on Incremental Hydro Calculation Method 2. Baker Project pending WREGIS Registration

34,379

103,365

2014 Surplus Applied to 2013 2014 Surplus Applied to 2015 2015 Surplus Applied to 2014 Net Surplus Adjustments

Adjustment for Events Beyond Control

Contribution to RCW 19.285 Compliance

Contribution to RCW 19.285 Compliance		14,459	18,904
Adjustment for Events Beyond Control			
Net Surplus Adjustments	-	-	-
2015 Surplus Applied to 2014		-	
2014 Surplus Applied to 2015			-
2014 Surplus Applied to 2013	-		
2013 Surplus Applied to 2014		-	
2013 Surplus Applied to 2012			
2012 Surplus Applied to 2013	-		
Adjustments	2013	2014	2015
Total Sold / Transferred / Unrealized	-	-	-
Bonus Incentives Not Realized			
Bonus Incentives Transferred			
Quantity of RECs Sold			
REC Sales / Transfers	2013	2014	2015
Total Quantity from Non REC Eligible Generation	-	-	-
Distributed Generation Bonus	-	-	-
Extra Apprenticeship Credit	-	-	-
Non REC Eligible Generation	2013	2014	2015
Eligible MWh Available for RCW 19.285 Compliance	-	14,459	18,90
Percent of Qualifying MWh Allocated to WA		100%	100
Percent of MWh Qualifying Under RCW 19.285		8.5%	8.5
Total MWh Produced / Purchased from Snoqualmie Falls Project		170,104	222,402
MWh Allocated to WA Compliance	2013	2014	2015

Snoqualmie Falls Project

**Facility Name:** 

Contribution to RCW 19.285 Compliance - 14,459 18,
Snoqualmie Falls Project estimated RPS Eligible generation based on Incremental Hydro Calculation Method 2. Snoqualmie Falls Project pending WREGIS Registration

## **Compliance Contribution by Generation Type**

Wind
Solar
Water (Incremental Hydro)
Biomass
Geothermal
Landfill Gas
Sewage Treatment Gas
Wave, Ocean, Tidal
Biodiesel Fuel

2012	2013	2014	2015	
630,992	953,701	1,246,796	963,681	
=	-	-	ı	
4,966	4,631	48,838	125,841	
=	-	-	ı	
-	=	-	-	
=	-	-	ı	
-	-	-	ı	
-	-	-	-	
=	=	=	ı	

Facility Name	Facility Type	2012	2013	2014	2015
Wild Horse	Wind	-	332,017	308,445	234,888
Hopkins Ridge	Wind	4,410	241,131	223,346	13,037
Klondike III	Wind	-	69,649	67,395	34,208
Wild Horse Phase II	Wind	-	66,643	71,243	67,176
Hopkins Ridge Phase II	Wind	-	18,150	9,827	574
Lower Snake River - Dodge Junct	Wind	488,190	-	322,956	347,101
Lower Snake River - Phalen Gulch	Wind	138,392	226,110	243,584	266,696
Wanapum Fish Bypass	Water (Incremental	4,966	4,631	-	3,571
Baker River Project	Water (Incremental	-	-	34,379	103,365
Snoqualmie Falls Project	Water (Incremental	-	-	14,459	18,904
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		-	1	-	-
Facility 28		-	-	-	-
Facility 29		-	-	-	-
Facility 30		-	-	-	-

#### PUGET SOUND ENERGY Deferred REC Revenue Proceeds

A/C 25400221

Vintages 2012 through 2014

## Attachment 4 Redacted Version

Vintages 2012 through 2014		Transaction			REC		Total REC	
Facility	Vintage	Mo/Yr	WREGIS#	Qty	Revenues	Total Qty	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		54,348		2014 Vintage
Wild Horse Phase II	2012-09WH2	Nov-13	W1364	5,730		- 1,- 1-		
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	Jan-15	W1364	3,173				
Wild Horse Phase II	2013-12WH2	Oct-14	W1364	9,931				
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				
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
Hopkins Ridge Phase II	2013-09HR2	Oct-14	W1382	1,486				
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	REDACTED		REDACTED	
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	693 437				
Hopkins Ridge Phase II Hopkins Ridge Phase II	2014-09HR2	May-15	W1382	1,483				
Hopkins Ridge Phase II	2014-10HR2 2014-11HR2	May-15 May-15	W1382 W1382	1,813				
Hopkins Ridge Phase II	2014-11HR2 2014-12HR2	May-15	W1382 W1382	1,092				
Wild Horse	2012-01WH	May-12	W183	38,143		238,143		2012 Vintage
Wild Horse	2012-07WH	Dec-13	W 183	26,875		246,192		2013 Vintage
Wild Horse	2012-08WH	Dec-13	W183	39,253		338,316		2014 Vintage
Wild Horse	2012-09WH	Dec-13	W183	29,767		000,010		2011 Villago
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				
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				

#### PUGET SOUND ENERGY Deferred REC Revenue Proceeds

A/C 25400221

Vintages 2012 through 2014

## Attachment 4 Redacted Version

Vintages 2012 through 2014		T			550		T-1-1 DE0	
Facility	Vintage	Transaction Mo/Yr	WREGIS#	Qty	REC Revenues	Total Qty	Total REC Revenues	
Wild Horse	2014-04WH	Nov-14	W183	66,150		_		
Wild Horse	2014-05WH	Nov-14	W183	48,537				
Wild Horse	2014-06WH	Apr-15	W183	19,422				
Wild Horse	2014-06WH	Nov-14	W183	39,928				
Wild Horse	2014-10WH	May-15	W183	38,734				l
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				
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 Hopkins Ridge	2013-08HR	Aug-14 Oct-14	W184 W184	7,228 13,962				
Hopkins Ridge	2013-08HR 2013-09HR	Oct-14	W 184	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				
Hopkins Ridge	2014-08HR	Jan-15	W184	20,509				
Hopkins Ridge	2014-08HR	Oct-14	W184	5,970				
Hopkins Ridge Hopkins Ridge	2014-09HR	May-15	W184	25,682 33,693				
Hopkins Ridge	2014-10HR 2014-11HR	May-15 May-15	W184 W184	41,204				
Hopkins Ridge	2014-11HR 2014-12HR	May-15	W 184	24,837				
Klondike III	2012-07K3	Oct-13	W237	16,041		58,264		2012 Vintage
Klondike III		001.0			REDACTED		REDACTED	2013 Vintage
NUMBER	2012-08K3	Oct-13	W 237	14,164		08,400		
Klondike III	2012-08K3 2012-09K3	Oct-13 Oct-13	W237 W237	14,164 9,214		68,465 99,363		2014 Vintage
	2012-08K3 2012-09K3 2012-10K3						1,127,131,22	
Klondike III	2012-09K3	Oct-13	W237	9,214			1.23.0122	
Klondike III Klondike III	2012-09K3 2012-10K3	Oct-13 Oct-13	W237 W237	9,214 6,499				
Klondike III Klondike III Klondike III Klondike III Klondike III	2012-09K3 2012-10K3 2012-11K3	Oct-13 Oct-13	W237 W237 W237	9,214 6,499 4,082				
Klondike III Klondike III Klondike III Klondike III Klondike III Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13	W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522				
Klondike III Klondike III Klondike III Klondike III Klondike III Klondike III Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14	W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000				
Klondike III Klondike III Klondike III Klondike III Klondike III Klondike III Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Mar-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3 2013-08K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3 2013-08K3 2013-09K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3 2013-08K3 2013-09K3 2013-10K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-07K3 2013-07K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-09K3 2013-09K3 2013-10K3 2013-11K3 2013-12K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-07K3 2013-07K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-09K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-01K3	Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Nov-13 Jul-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3 2013-09K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-01K3 2014-02K3	Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Aug-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3 2013-09K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-02K3 2014-03K3 2014-04K3	Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Aug-14 Aug-14 Aug-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-07K3 2013-09K3 2013-10K3 2013-10K3 2013-12K3 2014-01K3 2014-02K3 2014-04K3 2014-04K3 2014-04K3 2014-04K3 2014-04K3 2014-05K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-07K3 2013-07K3 2013-09K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-02K3 2014-04K3 2014-04K3 2014-05K3 2014-05K3 2014-05K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Aug-14 Oct-14 Oct-14 Jan-15 Jan-15	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256 2,957 11,854 13,146				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-07K3 2013-07K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3 2014-01K3 2014-04K3 2014-04K3 2014-04K3 2014-04K3 2014-05K3 2014-05K3 2014-05K3 2014-06K3 2014-06K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Oct-14 Oct-14 Jan-15 Jan-15 Apr-15	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256 2,957 11,854 13,146 6,455				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-07K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-02K3 2014-04K3 2014-04K3 2014-05K3 2014-05K3 2014-06K3 2014-06K3 2014-06K3 2014-06K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Oct-14 Oct-14 Jan-15 Jan-15 Oct-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256 2,957 11,854 13,146 6,455 14,575				
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-04K3 2014-05K3 2014-05K3 2014-05K3 2014-06K3 2014-06K3 2014-06K3 2014-06K3 2014-07K3 2014-07K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Oct-14 Oct-14 Jan-15 Jan-15 Oct-14 Oct-14 Oct-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256 2,957 11,854 13,146 6,455 14,575 13,120		99,363		2014 Vintage
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-04K3 2014-05K3 2014-05K3 2014-05K3 2014-06K3 2014-06K3 2014-06K3 2014-07K3 2014-07K3 2014-07K3 2014-08K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Aug-15 Jan-15 Apr-15 Oct-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256 2,957 11,854 13,146 6,455 14,575 13,120		201,751		2014 Vintage  2013 Vintage
Klondike III	2012-09K3 2012-10K3 2012-11K3 2012-11K3 2012-12K3 2012-12K3 2013-01K3 2013-09K3 2013-10K3 2013-10K3 2013-11K3 2013-12K3 2014-01K3 2014-04K3 2014-05K3 2014-05K3 2014-05K3 2014-06K3 2014-06K3 2014-06K3 2014-06K3 2014-07K3 2014-07K3	Oct-13 Oct-13 Oct-13 Nov-13 Nov-13 Nov-13 Mar-14 Jul-14 Jul-14 Jul-14 Jul-14 Aug-14 Aug-14 Aug-14 Oct-14 Oct-14 Jan-15 Jan-15 Oct-14 Oct-14 Oct-14	W237 W237 W237 W237 W237 W237 W237 W237	9,214 6,499 4,082 101 3,641 4,522 4,000 18,439 12,249 10,448 5,856 7,926 9,547 6,730 8,102 9,982 10,186 2,256 2,957 11,854 13,146 6,455 14,575 13,120		99,363		2014 Vintage

### PUGET SOUND ENERGY Deferred REC Revenue Proceeds

A/C 25400221

Vintages 2012 through 2014

## Attachment 4 Redacted Version

·····gg · ·	Transaction			REC			Total REC	
Facility	Vintage	Mo/Yr	WREGIS #	Qty	Revenues	Total Qty	Revenues	
LSR-Dodge Junction	2013-10DJ	Oct-14	W2669	22,926				
LSR-Dodge Junction	2013-11DJ	Oct-14	W2669	37,127				
LSR-Dodge Junction	2013-12DJ	Oct-14	W2669	39,464				
LSR-Dodge Junction	2014-07DJ	Oct-14	W2669	38,161				
LSR-Dodge Junction	2014-08DJ	Oct-14	W2669	30,132				
LSR-Dodge Junction	2014-09DJ	May-15	W2669	34,897				
LSR-Dodge Junction	2014-10DJ	May-15	W2669	40,553				
LSR-Dodge Junction	2014-11DJ	May-15	W2669	50,548				
LSR-Dodge Junction	2014-12DJ	May-15	W2669	35,956				
LSR-Phalen Gulch	2013-07PG	Oct-14	W2670	22,993		142,210		2013 Vintage
LSR-Phalen Gulch	2013-08PG	Oct-14	W2670	18,193		169,808		2014 Vintage
LSR-Phalen Gulch	2013-09PG	Oct-14	W2670	13,056	REDACTED	]	REDACTED	
LSR-Phalen Gulch	2013-09PG	Oct-14	W2670	19,776	REDAGIES		KEBAGIEB	
LSR-Phalen Gulch	2013-10PG	Oct-14	W2670	16,782				
LSR-Phalen Gulch	2013-11PG	Oct-14	W2670	27,555				
LSR-Phalen Gulch	2013-12PG	Oct-14	W2670	23,855				
LSR-Phalen Gulch	2014-07PG	Oct-14	W2670	28,789				
LSR-Phalen Gulch	2014-08PG	Oct-14	W2670	21,948				
LSR-Phalen Gulch	2014-09PG	May-15	W2670	26,547				
LSR-Phalen Gulch	2014-10PG	May-15	W2670	30,269				
LSR-Phalen Gulch	2014-11PG	May-15	W2670	37,582				
LSR-Phalen Gulch	2014-12PG	May-15	W2670	24,673				
LSR-Phalen Gulch								d <mark>.</mark>
	GRAND TOTAL			2,735,787		2,735,787		<u> </u>