Annual Reporting Requirements
Renewable Energy Target
RCW 19.285.070 and WAC 480-109-040
Puget Sound Energy
2014

Required Contents: Checklist and Table of Contents

RCW 19.285.070	WAC 480-109-040	Section/Page
For each year that a qualifying utility elects to demonstrate alternative compliance under RCW 19.285.040(2) (d) or (i) or 19.285.050(1), it must include in its annual report relevant data to demonstrate that it met the criteria in that section.	The report must state if the utility is relying upon one of the alternative compliance mechanisms provided in WAC 480-109-030 instead of meeting its renewable resource target. A utility using an alternative compliance mechanism must include sufficient data, documentation and other information in its report to demonstrate that it qualifies to use that alternative mechanism.	**Section 1 - Alternative Compliance** Page 3
the utility's annual load for the prior two years,	the utility's annual load for the prior two years,	**Section 2 -Annual Load For Previous Two Years** Page 4
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 3 - Renewable Energy Target** Page 4
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) and cost of each type of eligible renewable resource used	**Section 4 - Renewable Energy Acquired To Have Met Renewable Energy Target** Page 5
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	the type and cost (per megawatt-hour) of the least-cost substitute resources available to the utility that do not qualify as eligible renewable resources, the incremental cost of eligible renewable resources and renewable energy credits, and the ratio of this investment relative to the utility's total annual retail revenue requirement.	**Section 5 - Incremental Cost Compared To Annual Retail Revenue Requirement** Page 8
	The report must describe the steps the utility is taking to meet the renewable resource requirements for the current year. This description should indicate whether the utility plans to use or acquire its own renewable resources, plans to or has acquired contracted renewable resources, or plans to use an alternative compliance mechanism.	**Section 6 - Current Year Progress** Page 10

SECTION 1 Alternative Compliance

This section states if the utility is relying upon one of the alternative compliance mechanisms provided in WAC 480-109-030 instead of meeting its renewable resource target. A utility using an alternative compliance mechanism instead of meeting its renewable resource target, must include sufficient data, documentation and other information in its report to demonstrate that it qualifies to use that alternative mechanism.

Puget Sound Energy, Inc. (PSE) is not utilizing 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 commission-approved 2012 Renewable Energy Target or its commission-approved 2013 Renewable Energy Target.

SECTION 2 Annual Load For Previous Two Years

This section states the utility's annual load for the prior two years.

	2012	2013
Delivered Load to Retail Customers (MWh)	21,138,168	21,208,608

The source of this data is the PSE 2012 FERC Form 1, page 301, line number 10, columns d and e.

SECTION 3 Renewable Energy Target

This section contains the total number of megawatt-hours from eligible renewable resources, and/or renewable energy credits, and/or multiplier credits the utility needed to meet its annual renewable energy target.

PSE's Commission-approved Renewable Energy Target for 2012 is 635,958 MWh.
PSE's Commission-approved Renewable Energy Target for 2013 is 639,514 MWh.

After Commission approval, PSE's Renewable Energy Target for 2014 will be 635,202 MWh.

Calculation:

	2012	2013
Delivered Load to Retail Customers (MWh)	21,138,168	21,208,608
Average load	21,173,388	
3% of Average load	635,202	

SECTION 4 Renewable Energy Acquired To Have Met Renewable Energy Target

This section contains the total number of megawatt-hours from eligible renewable resources, renewable energy credits, and/or multiplier credits the utility acquired to meet its annual renewable energy target.

To meet its Commission-approved Renewable Energy Target for 2012 of 635,958 MWh, PSE will use, and upon Commission order or other directive, retire the RECs and associated Extra Apprenticeship Credits from Lower Snake River-Dodge Junction, and Lower Snake River-Phalen Gulch. A small amount of incremental hydro generation from the Wanapum Fish Bypass facility is also being utilized. The following RECs from the following facilities will be retired, upon Commission order or other directive, for compliance with the Commission-approved 2012 Renewable Energy Target. Please also see Attachment 1.

Lower Snake River-Dodge Junction (Facility WREGIS ID: W2669) WREGIS Certificate Serial Numbers:
2669-WA-64707-1 to 48312
2669-WA-59215-1 to 1443
2669-WA-66597-1 to 49336
2669-WA-61012-1 to 57622
2669-WA-68472-1 to 25553
2669-WA-72339-1 to 21542
2669-WA-74136-1 to 44107
2669-WA-77938-1 to 56484
2669-WA-70387-1 to 29801
2669-WA-76114-1 to 28969
2669-WA-62823-1 to 43656

Lower Snake River-Phalen Gulch (Facility WREGIS ID: W2670) WREGIS Certificate Serial Numbers:
2670-WA-62824-1 to 34934
2670-WA-61013-1 to 44213
2670-WA-66598-1 to 102
2670-WA-59216-1 to 1387
2670-WA-64708-1 to 38366

Summary of 2012 PSE Compliance	
Target	635,958
Wanapum Hydro	4,966
Lower Snake River - Dodge Junction (Vintage 2012)	406,825
Extra Apprenticeship Credits	81,365
Lower Snake River - Phalen Gulch (Vintage 2012)	119,002

Extra Apprenticeship Credits	23,800
Balance	(0)

To meet its Commission-approved Renewable Energy Target for 2013 of 639,514 MWh, PSE will use, and upon Commission order or other directive, retire the RECs and associated Extra Apprenticeship Credits from Wild Horse, Wild Horse Phase II, Hopkins Ridge, Hopkins Ridge Phase II, and Lower Snake River-Phalen Gulch. A small amount of incremental hydro generation from the Wanapum Fish Bypass facility is also being utilized. The following RECs from the following facilities will be retired, upon Commission order or other directive, for compliance with the Commission-approved 2013 Renewable Energy Target. Please also see Attachment 1.

Wild Horse (Facility WREGIS ID: W183) WREGIS Certificate Serial Numbers:
183-WA-55766-38144 to 59540
183-WA-57591-1 to 3851
183-WA-57591- 3852 to 48037
183-WA-59369-1 to 25463
183-WA-59369-25464 to 27755

Wild Horse Phase II (Facility WREGIS ID: W1364) WREGIS Certificate Serial Numbers:
1364-WA-58432-1 to 9246
1364-WA-60271-1 to 13386
1364-WA-62065-1 to 9780
1364-WA-63926-1 to 11808
1364-WA-65795-1 to 11316

Hopkins Ridge (Facility WREGIS ID: W184) WREGIS Certificate Serial Numbers:
184-WA-55767-1 to 41665
184-WA-57592-1 to 27509
184-WA-59370-1 to 51422
184-WA-61176-1 to 35900
184-WA-63005-1 to 39824
184-WA-64900-1 to 42522

Hopkins Ridge Phase II (Facility WREGIS ID: W1382) WREGIS Certificate Serial Numbers:
1382-WA-56628-1 to 1834
1382-WA-58443-1 to 1210
1382-WA-60282-1 to 2263
1382-WA-62077-1 to 1579
1382-WA-63938-1 to 1752
1382-WA-65807-1 to 1871

Lower Snake River-Phalen Gulch (Facility WREGIS ID: W2670) WREGIS Certificate Serial Numbers:
2670-WA-66598-103 to 40387
2670-WA-68473-1 to 19052
2670-WA-70388-1 to 21835
2670-WA-72340-1 to 13379

2670-WA-74137-1 to 32339
2670-WA-76115-1 to 19073
2670-WA-77939-1 to 38787

Summary of 2013 PSE Compliance	
Target	639,514
Wanapum Hydro	4,631
Lower Snake River - Phalen Gulch (Vintage 2012)	184,750
Extra Apprenticeship Credits	36,950
Wild Horse Phase II (Vintage 2012)	55,536
Extra Apprenticeship Credits	11,107
Hopkins Ridge (Vintage 2012)	238,842
Hopkins Ridge Phase II (Vintage 2012)	10,509
Wild Horse (Vintage 2012)	97,189
Balance	0

SECTION 5 Incremental Cost Compared To Annual Retail Revenue Requirement

This section contains 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. This includes the type and cost (per megawatt-hour) of the least-cost substitute resources available to the utility that do not qualify as eligible renewable resources, the incremental cost of eligible renewable resources and renewable energy credits, and the ratio of this investment relative to the utility's total annual retail revenue requirement.

The type and cost of the least-cost substitute resources available to the utility at the time of decision that do not qualify as eligible renewable resources is contained in Attachment 2.

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 – and 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).

The incremental cost of eligible renewable resources and renewable energy credits for 2014 is $27.81 million. A detailed description of the methodology for this calculation is contained in Attachment 2, which was filed with the Commission on May 31, 2013, as part of PSE's 2013 Integrated Resource Plan. One important element of that section is the description on page K-106, which demonstrates that 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.

($ Millions/Year)	Renewable Resource	Equivalent Non-Renewable			2014 One Year Incremental Cost
		Peaker	Market	Total	
Hopkins Ridge	$18.77	$1.71	$19.26	$20.97	($2.20)
Wild Horse	$34.94	$3.21	$26.53	$29.74	$5.20
Klondike III	$10.27	$0.93	$8.98	$9.91	$0.36
Hopkins Infill	$1.28	$0.17	$1.19	$1.36	($0.08)
Wild Horse Expansion	$10.03	$0.81	$5.09	$5.90	$4.14
Lower Snake River I	$70.61	$1.69	$48.51	$50.20	$20.42
Snoqualmie Falls Upgrade	$3.85	$0.74	$2.44	$3.18	$0.67
Lower Baker 4	$8.60	$1.37	$7.92	$9.29	($0.69)
Total					$27.81

The incremental cost of each of the eligible renewable resources is shown in the table above. The analysis is conducted over a 25 year life of the project for wind and 40 years for Hydro and levelized over that life, producing a one-year cost, in this case, for 2014.

The total annual retail revenue requirement for 2014 is $2,112.297 million. This total annual retail revenue requirement for 2014 is based on the revenue requirement determined in PSE's 2011 GRC (UE-111048) and adjusted in subsequent dockets such as UE-130137, UE-121697, UE-130617, and UE-140599.

Thus the ratio of this investment relative to the utility's total annual retail revenue requirement is 1% (27.81 / 2,112.297 = 1%).

Please also see Attachment 2.

SECTION 6 Current Year Progress

This section contains a description of the steps the utility is taking to meet the annual renewable energy target for the current year. This description should indicate whether the utility plans to use or acquire its own renewable resources, plans to or has acquired contracted renewable resources, or plans to use an alternative compliance mechanism.

PSE has previously informed the Commission that it is on track to meet the Renewable Energy Target requirement for both the current year of 2014 as well as through the year 2022.

On March 29, 2013, in its compliance filing in Docket No. U-072375, in regard to merger commitment number 4, PSE informed the Commission:

> *"PSE is on track to meet the Renewable Energy Target requirement for the year 2013. PSE believes that it has acquired enough eligible renewable resources or renewable energy credits to meet the renewable energy target through 2021 as noted in RCW 19.285.040(2)."*

On May 31, 2013, PSE filed its 2013 Integrated Resource Plan. In the Executive Summary (Chapter 1) on page 1-6, the Integrated Resource Plan concludes:

> *"Figure 1-3 compares existing qualifying renewable resources with this annual target, and shows that PSE has acquired enough renewable resources and RECs to meet the requirements of the law through 2022."*

On December 31, 2013, PSE determined it would have sufficient eligible renewable resources in its portfolio by January 1, 2014 to supply at least three percent of its load for the year 2014. Please see Attachment 3, which documents this determination and also lists sufficient resources that meet the definition of "eligible renewable resource" in RCW 19.285. Evidence of sufficient resources for 2014 from that document includes:

> *"Total 2012 generation from Hopkins Ridge, Wild Horse, Wild Horse Expansion and Lower Snake River was about 1,821,000 megawatt-hours (not inclusive of the extra apprenticeship credits); similar generation may be achieved for 2013 and 2014."*

and;

> *"PSE's eligible renewable resources in 2014 may be expected to generate approximately 2,424,985 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 2013 that the Company may elect to use for its 2014 renewable energy target)."

The Commission has determined that PSE's acquisition of the following eligible renewable resources was prudent, the docket numbers and the order number in which the Commission made the prudence determination is provided. The cost of each eligible renewable resource and its expected production output is contained within the documentation in those dockets.

- Hopkins Ridge wind generation facility, Docket No. UE-050870 (Order No. 04)
- Wild Horse wind farm, Docket No. UE-060266 (Order No. 08)
- 7.2 MW additional wind capacity at PSE-owned Hopkins Ridge Wind Farm ("the Hopkins Ridge Infill"), Docket No. UE-072300 (Order No. 12)
- 44 MW additional wind capacity at PSE-owned Wild Horse Wind Facility ("the Wild Horse Expansion"), Docket No. UE-090704 (Order No. 11)
- Lower Snake River 1 ("LSR-1") wind farm, Docket No. UE-111048 (Order No. 08)
- Snoqualmie Falls Project, Docket No. UE-130617 (Order No. 06)
- Baker River Project, Docket No. UE-130617 (Order No. 06)

Attachment 1 – RCW 19.285 Compliance Reporting Tool (WUTC)

Reporting Entity: Puget Sound Energy, Inc.

Reporting Date: May 30, 2014

RCW 19.285 Compliance Need

	2010	2011	2012	2013
Delivered Load to Retail Customers (MWh)	20,901,139	21,496,074	21,138,168	
WA State RCW 19.285 Requirement		0%	3%	3%
Quantity Required for Compliance		-	635,958	639,514

Eligible Quantity Acquired

	2010	2011	2012*	2013*
Qualifying MWh Allocated to WA		-	1,117,619	4,631
Quantity from Non REC Eligible Generation		-	153,223	-
Total Quantity Available for RCW 19.285 Compliance		**-**	**1,270,842**	**4,631**

Sales and Transfers

	2010	2011	2012	2013
Quantity of RECs Sold		-	-	-
Bonus Incentives Transferred		-	-	-
Bonus Incentives Not Realized		-	-	-
Total Sold / Transferred / Unrealized		**-**	**-**	**-**

Adjustments

	2010	2011	2012	2013
2011 Surplus Applied to 2012		-	-	
2012 Surplus Applied to 2011		-	-	
2012 Surplus Applied to 2013			(634,883)	634,883
2013 Surplus Applied to 2012			-	-
Net Surplus Adjustments		**-**	**(634,883)**	**634,883**
Adjustment for Events Beyond Control		-	-	-

	2010	2011	2012*	2013*
RCW 19.285 Compliance Surplus / (Deficit)		-	**0**	**0**

* Any surplus shown in 2012 or 2013 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	---	---	
Wild Horse Phase II	W1364	Wind	Eligible	---	
Hopkins Ridge Phase II	W1382	Wind	---	---	
Lower Snake River - Dodge Junction	W2669	Wind	Eligible	---	
Lower Snake River - Phalen Gulch	W2670	Wind	Eligible	---	
Wanapum Fish Bypass	N/A	Water (Incremental Hydro)	Not Eligible	---	
Facility 9			---	---	
Facility 10			---	---	
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

WREGIS Certificate Serial Numbers that will be used for compliance for 2013

183-WA-55766-38144 to 59540
183-WA-57591-1 to 3851
183-WA-57591- 3852 to 48037
183-WA-59369-1 to 25463
183-WA-59369-25464 to 27755

MWh Allocated to WA Compliance

	2011	2012	2013
Total MWh Produced / Purchased from Wild Horse			
Percent of MWh Qualifying Under RCW 19.285		100%	
Percent of Qualifying MWh Allocated to WA		100%	
Eligible MWh Available for RCW 19.285 Compliance	-	**97,189**	-

Non REC Eligible Generation

	2011	2012	2013
Extra Apprenticeship Credit	-	-	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-

REC Sales / Transfers

	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments

	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013		97,189	97,189
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	**(97,189)**	**97,189**
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	-	**97,189**

Facility Name: Hopkins Ridge

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Hopkins Ridge			
Percent of MWh Qualifying Under RCW 19.285		100%	
Percent of Qualifying MWh Allocated to WA		100%	
Eligible MWh Available for RCW 19.285 Compliance	-	**238,842**	

Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	-	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-

REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013		238,842	238,842
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	**(238,842)**	**238,842**
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	-	**238,842**

WREGIS Certificate Serial Numbers
that will be used for compliance for 2013
184-WA-55767-1 to 41665
184-WA-57592-1 to 27509
184-WA-59370-1 to 51422
184-WA-61176-1 to 35900
184-WA-63005-1 to 39824
184-WA-64900-1 to 42522

Facility Name: Klondike III May be used for Target Year 2014 Compliance

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Klondike III			
Percent of MWh Qualifying Under RCW 19.285			
Percent of Qualifying MWh Allocated to WA			
Eligible MWh Available for RCW 19.285 Compliance	-	-	-

Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	-	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-

REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013			-
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	-	-
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	-	-

Facility Name: Wild Horse Phase II

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Wild Horse Phase II			
Percent of MWh Qualifying Under RCW 19.285		100%	
Percent of Qualifying MWh Allocated to WA		100%	
Eligible MWh Available for RCW 19.285 Compliance	-	**55,536**	

Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	11,107	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	**11,107**	-

REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013		66,643	66,643
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	**(66,643)**	**66,643**
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	-	**66,643**

WREGIS Certificate Serial Numbers that will be used for compliance for 2013

1364-WA-58432-1 to 9246
1364-WA-60271-1 to 13386
1364-WA-62065-1 to 9780
1364-WA-63926-1 to 11808
1364-WA-65795-1 to 11316

Facility Name: Hopkins Ridge Phase II

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Hopkins Ridge Phase II			
Percent of MWh Qualifying Under RCW 19.285		100%	
Percent of Qualifying MWh Allocated to WA		100%	
Eligible MWh Available for RCW 19.285 Compliance	-	**10,509**	

Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	-	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-

REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013		10,509	10,509
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	**(10,509)**	**10,509**
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	-	**10,509**

WREGIS Certificate Serial Numbers that will be used for compliance for 2013

1382-WA-56628-1 to 1834
1382-WA-58443-1 to 1210
1382-WA-60282-1 to 2263
1382-WA-62077-1 to 1579
1382-WA-63938-1 to 1752
1382-WA-65807-1 to 1871

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

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Lower Snake River - Dodge Junction		406,825	
Percent of MWh Qualifying Under RCW 19.285		100%	
Percent of Qualifying MWh Allocated to WA		100%	
Eligible MWh Available for RCW 19.285 Compliance	-	**406,825**	-
Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	81,365	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	**81,365**	-
REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-
Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013			-
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	-	-
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	**488,190**	-

WREGIS Certificate Serial Numbers that will be used for compliance for 2012

2669-WA-64707-1 to 48312
2669-WA-59215-1 to 1443
2669-WA-66597-1 to 49336
2669-WA-61012-1 to 57622
2669-WA-68472-1 to 25553
2669-WA-72339-1 to 21542
2669-WA-74136-1 to 44107
2669-WA-77938-1 to 56484
2669-WA-70387-1 to 29801
2669-WA-76114-1 to 28969
2669-WA-62823-1 to 43656

Lower Snake River - Phalen Gulch

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Lower Snake River - Phalen Gulch		303,752	
Percent of MWh Qualifying Under RCW 19.285		100%	
Percent of Qualifying MWh Allocated to WA		100%	
Eligible MWh Available for RCW 19.285 Compliance	-	**303,752**	
Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	60,750	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	**60,750**	-
REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-
Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013		221,700	221,700
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	**(221,700)**	**221,700**
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	**142,802**	**221,700**

WREGIS Certificate Serial Numbers that will be used for compliance for 2013

2670-WA-66598-103 to 40387
2670-WA-68473-1 to 19052
2670-WA-70388-1 to 21835
2670-WA-72340-1 to 13379
2670-WA-74137-1 to 32339
2670-WA-76115-1 to 19073
2670-WA-77939-1 to 38787

Facility Name: Wanapum Fish Bypass

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Wanapum Fish Bypass		4,966	4,631
Percent of MWh Qualifying Under RCW 19.285		100%	100%
Percent of Qualifying MWh Allocated to WA		100%	100%
Eligible MWh Available for RCW 19.285 Compliance	-	**4,966**	**4,631**

Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	-	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-

REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013			-
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	-	-
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	**4,966**	**4,631**

Facility Name: Facility 9

MWh Allocated to WA Compliance	2011	2012	2013
Total MWh Produced / Purchased from Facility 9			
Percent of MWh Qualifying Under RCW 19.285			
Percent of Qualifying MWh Allocated to WA			
Eligible MWh Available for RCW 19.285 Compliance	-	-	-

Non REC Eligible Generation	2011	2012	2013
Extra Apprenticeship Credit	-	-	-
Distributed Generation Bonus	-	-	-
Total Quantity from Non REC Eligible Generation	-	-	-

REC Sales / Transfers	2011	2012	2013
Quantity of RECs Sold			
Bonus Incentives Transferred			
Bonus Incentives Not Realized			
Total Sold / Transferred / Unrealized	-	-	-

Adjustments	2011	2012	2013
2011 Surplus Applied to 2012		-	
2012 Surplus Applied to 2011	-		
2012 Surplus Applied to 2013			-
2013 Surplus Applied to 2012		-	
Net Surplus Adjustments	-	-	-
Adjustment for Events Beyond Control			
Contribution to RCW 19.285 Compliance	-	-	-

Attachment 2 – Portion of PSE's 2013 IRP describing: the type and cost of the least-cost substitute resources available to the utility at the time of decision that do not qualify as eligible renewable resource; and the incremental cost of eligible renewable resources

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".[7]

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

[7] *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.

APPENDIX K – ELECTRIC ANALYSIS RESULTS

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 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 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

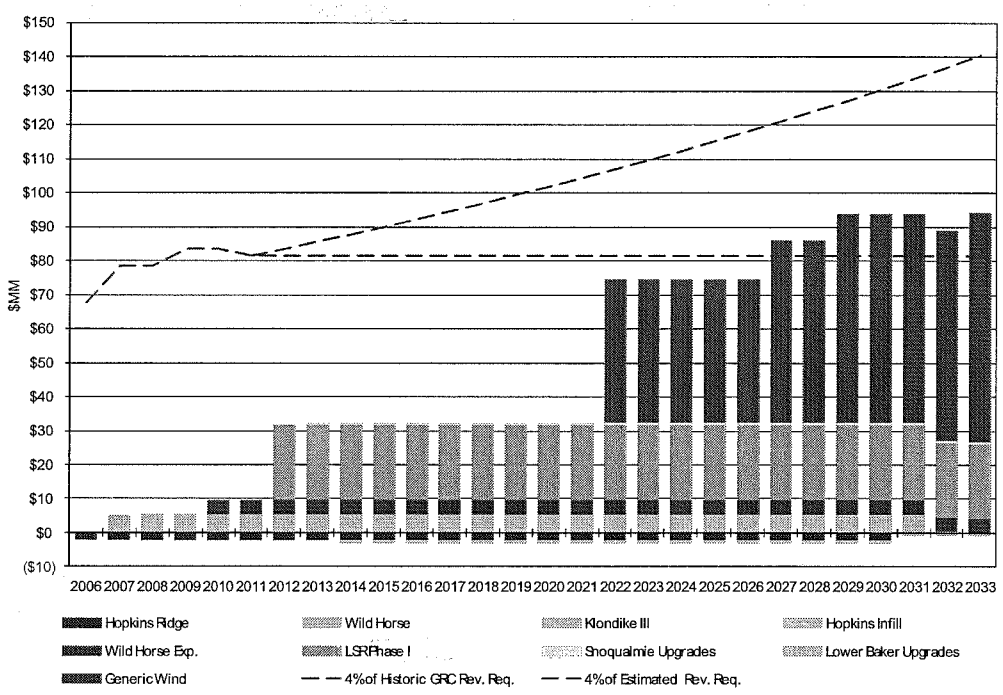
We chose to spread the incremental cost over 25 years since that is the depreciable life of a wind project used by PSE. The payment of $56 Million over 25 years comes to $5.2 Million/Year using the 7.01 percent discount rate.

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.

APPENDIX K – ELECTRIC ANALYSIS RESULTS

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 – Memorandum determining that PSE has sufficient eligible renewable resources in its portfolio by January 1, 2014 to supply at least three percent of its load for the year 2014.

PUGET SOUND ENERGY

MEMORANDUM

TO: Roger Garratt, Ken Johnson

FROM: Eric Englert, Anna Mikelsen Mills

SUBJECT: Requirements of Chapter 480-109-020 WAC

DATE: December 31, 2013

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, 2014 to supply at least three percent of its estimated load for the year 2014.

This is consistent with the information provided to the WUTC on March 29, 2013 in PSE's compliance filing in Docket No. U-072375, in regard to merger commitment number 4, PSE stated that:

> *"PSE is on track to meet the Renewable Energy Target requirement for the year 2013. PSE believes that it has acquired enough eligible renewable resources or renewable energy credits to meet the renewable energy target through the year 2021, as noted in RCW 19.285.040(2)."*

It is also 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 2014, in advance of January 1, 2014.

Eligible renewable resources that PSE may elect to use in whole or in part to meet its 2014 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[1];
- 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 2014 or 2015.

Total 2012 generation from Hopkins Ridge, Wild Horse, Wild Horse Expansion and Lower Snake River was about 1,821,000 megawatt-hours (not inclusive of the extra apprenticeship credits); similar generation may be achieved for 2013 and 2014.

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 2014 renewable energy target. However, there may be events beyond PSE's control during the remainder of the calendar year 2014 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 2014 compliance in the 2015 or 2016 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.*

[1] Lower Baker River Hydroelectric Efficiency Upgrades are expected to be completed in 2014.

PSE's actual 2012 delivered load is 21,175,116,785 kilowatt-hours (i.e. 21,175,117 megawatt-hours) and the 2013 forecast load is about 21,145,480,923 kilowatt-hours (i.e. 21,145,481 megawatt-hours).

Consistent with WAC 480-109-020(3), based on the average of PSE's load in 2012 and 2013 and as reflected above, the Company's estimated load for purposes of meeting its 2014 target will likely be in the neighborhood of 21,160,299 megawatt-hours.

2014 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 2014 may end up being approximately 634,809 megawatt-hours.

PSE expects to generate more eligible renewable energy than its 2014 requirement (not including any renewable energy credits generated in 2013 that the Company may elect to use for its 2014 requirement).

PSE will report on the specific renewable energy credits produced and to be retired for final compliance with the 2014 target in either its annual 2015 or 2016 report, and reserves the right to submit renewable energy credits from the resources reported here or to substitute with renewable energy credits produced from 2013 to 2015 by other eligible renewable resources or with 2014 generation from eligible renewable resources that have not been converted to renewable energy credits.

Conclusion

PSE's eligible renewable resources in 2014 may be expected to generate approximately 2,424,985 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 2013 that the Company may elect to use for its 2014 renewable energy target).

Events beyond PSE's reasonable control may yet occur during the remainder of calendar year 2014 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 2014 compliance in the annual 2015 or 2016 renewable energy target report.

As reported to the WUTC on March 29, 2013, PSE is on track to meet the Renewable Energy Target requirements for the year 2014 and all the way to the year 2021. PSE has acquired enough eligible renewable resources or renewable energy credits to meet the estimated renewable energy target for 2014 as noted in RCW 19.285.040(2).