

Pacific Power & Light Company

Washington

Annual Renewable Portfolio Standard Report

**CONFIDENTIAL per WAC 480-07-160**

**- REDACTED -**

**June 1, 2016**

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# Introduction

Pacific Power & Light Company (Pacific Power or Company), a division of PacifiCorp, submits this 2016 Annual Renewable Portfolio Standard Report (Renewable Report) to the Washington Utilities and Transportation Commission (Commission) and the Washington Department of Commerce (Commerce) in accordance with reporting requirements established as part of the Energy Independence Act (EIA). The report is consistent with RCW 19.285.070 which states, in relevant part:

1. *On or before June 1, 2012, and annually thereafter, each qualifying utility shall report to the department on its progress in the preceding year in meeting the targets established in RCW 19.285.040, including expected electricity savings from the biennial conservation target, expenditures on conservation, actual electricity savings results, the utility’s annual load for the prior two years, the amount of megawatt-hours needed to meet the annual renewable energy target, the amount of megawatt-hours of each type of eligible renewable resource acquired, the type and amount of renewable energy credits acquired, and the percent of its total annual retail revenue requirement invested in the incremental cost of eligible renewable resources and the cost of renewable energy credits.*
2. *A qualifying utility that is an investor-owned utility shall also report all information required in subsection (1) of this section to the commission, and all other qualifying utilities shall also make all information required in subsection (1) of this section available to the auditor.*

This report is consistent with the collaborative workshop documents addressing annual reporting requirements, in Docket UE-110523, Order 01 in Docket UE-120813, Order 1 in Docket UE-140802, and Docket UE-131723.

# Executive Summary

Under RCW 19.285.040(2)(a), each qualifying utility must use eligible renewable resources, acquire equivalent renewable energy credits (RECs), or a combination of both, to meet annual targets. As demonstrated in this report, the Company will meet the targets in accordance with WAC 480-109-200(1). The Company met the 2015 renewable energy target with a combination of eligible renewable resources and RECs and the Company is positioned to use eligible renewable resources and RECs to supply at least nine percent of its average Washington load to satisfy the 2016 renewable energy target.

A summary of the Company’s 2015 and 2016 renewable targets and eligible renewable resources and RECs are provided below:

**Table 1**

|  |  |  |
| --- | --- | --- |
| **PacifiCorp Renewable Target, Eligible Resource and RECs** | | |
|  | **2015** | **2016** |
| Average Retail Sales (MWh) | 4,105,167 | 4,112,958 |
| Percentage Target | 3% | 9% |
| **Renewable Target** | **123,155** | **370,166** |
| **Qualifying Resources & RECs (MWh)** | **123,155** | **370,166** |

The Company does not intend to rely on any of the alternative compliance mechanisms provided in WAC 480-109-210 for meeting either the 2015 or 2016 renewable energy targets.

# Annual Load for Previous Two Years and Renewable Energy Target

Under RCW 19.285.040(2)(c) and WAC 480-109-200(1), a utility must calculate its annual target based on its average load for the previous two years. Accordingly, using the average of the Washington annual retail loads for the previous two years, Table 2 calculates the annual renewable targets for 2015 and 2016.

**Table 2**

|  |  |
| --- | --- |
| **Target Year 2015** | |
| Prior Year Retail Sales (2013) | 4,092,688 MWh |
| Prior Year Retail Sales (2014) | 4,117,646 MWh |
| Average Retail Sales | 4,105,167 MWh |
| Percentage Target | 3% |
| Renewable Target | **123,155 MWh/RECs** |
|  | |
| **Target Year 2016** | |
| Prior Year Retail Sales (2014) | 4,117,646 MWh |
| Prior Year Retail Sales (2015) | 4,108,270 MWh |
| Average Retail Sales | 4,112,958 MWh |
| Percentage Target | 9% |
| Renewable Target | **370,166 MWh/RECs** |

# Renewable Energy Acquired to Meet Renewable Energy Target

The Company met its 2015 renewable resource target and plans to meet its 2016 renewable resource target with a combination of eligible RECs, Company- and third-party-owned wind resources, and hydroelectric facilities with upgrades completed after March 1999.

The Company is submitting the Commission’s Renewable Portfolio Standard (RPS) Report Tool as Confidential Attachment A. The RPS Report Tool details the renewable resource target for 2015 and 2016 and the RECs and renewable resources identified to meet the 2015 and 2016 targets.

PacifiCorp will use the following Company- and third-party-owned wind facilities for 2016:

**Table 3**

|  |  |
| --- | --- |
| **Resource Name** | **Location** |
| Goodnoe Hills | Washington |
| Leaning Juniper | Oregon |
| Marengo I | Washington |
| Marengo II | Washington |
| Campbell Hill/Three Buttes | Wyoming |
| Dunlap I | Wyoming |
| Glenrock Wind I | Wyoming |
| Rolling Hills | Wyoming |
| Top of the World | Wyoming |

Four of these nine wind facilities are located in the Pacific Northwest. The remainder are located in Wyoming and qualify as eligible to meet Washington’s RPS. [[1]](#footnote-2) Descriptions of the projects are referenced in the Supporting Documents for Renewable Report section of this report.

Additionally, the Company identified upgrades to hydroelectric facilities located in the Pacific Northwest that were completed after March 31, 1999, listed in Table 4 below.

**Table 4**

|  |  |
| --- | --- |
| **Resource Name** | **Upgrade Date** |
| Prospect 2 | 1999 |
| Lemolo 1 | 2003 |
| JC Boyle | 2005 |
| Lemolo 2 | 2009 |

The Company performed analyses to determine the incremental energy associated with upgrades to hydroelectric facilities, consistent with Method two, as identified in WAC 480-109-200(7)(c). The methodology, described in more detail in Attachment B, is consistent with the methodology the Company submitted to the Oregon Department of Energy to certify these facilities and calculate the percentage of the incremental energy for the Oregon RPS program. The Company performed an analysis of the incremental energy for upgrades to hydroelectric facilities that includes actual generation data from 2007 through 2012. The Company re-submitted the analysis to the Oregon Department of Energy in December 2013 and the Oregon Department of Energy approved the updated incremental hydropower efficiency percentages, effective January 2014. The eligibility was reviewed and made effective once again by the Oregon Department of Energy in December 2015. The Company is providing the analyses in Confidential Work Papers—PacifiCorp Hourly Incremental Hydro Analyses.

PacifiCorp had two contracts for REC-only transactions executed before January 1, 2012,[[2]](#footnote-3) and executed two additional REC-only contracts in November 2014. The counterparties will provide RECs from Washington RPS-eligible resources.

The following pages contain the Company’s Renewable report submitted to the Washington Department of Commerce on June 1, 2016, and include a summary of the forecasted number of megawatt-hours and RECs to meet the 2016 compliance target.

**Energy Independence Act (I-937) Commerce Renewable Report – 2016**



**Energy Independence Act (I-937) Commerce Renewable Report – Continued**

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**Energy Independence Act (I-937) Commerce Renewable Report – Continued**

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**Energy Independence Act (I-937) Commerce Renewable Report – Continued**

**REDACTED – Confidential per WAC 480-07-160**



**Energy Independence Act (I-937) Commerce Renewable Report – Continued**

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# Alternative Compliance

Under WAC 480-109-210(2)(b), the utility must state in its report if it is relying on one of the alternative compliance mechanisms provided in WAC 480-109-220 instead of meeting its renewable resource target. The Company does not anticipate investing at least four percent of its total annual retail revenue requirement on the incremental costs of eligible renewable resources, RECs, or a combination of both.

Further, the Company does not plan to rely on any other alternative compliance mechanisms to meet its renewable resource targets for 2015 or 2016.

# Resource Cost Compared to Annual Retail Revenue Requirement

Under RCW 19.285.070(1), a utility must report the percent of its total annual retail revenue requirement invested in the incremental cost of eligible renewable resources and the cost of RECs. Similarly, under WAC 480-109-210, a utility must report the incremental cost of eligible renewable resources and RECs, and the ratio of this investment relative to the utility’s total annual retail revenue requirement.

The incremental cost of an eligible renewable resource is defined in RCW 19.285.050(1)(b) 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, where the resources being compared have the same contract length or facility life.

With the adoption of General Order R-578 in Docket UE-131723, the Commission revised rules implementing RCW 19.285, the EIA, including the application of a new methodology for calculating incremental cost. The Company performed the incremental cost calculations as defined in WAC 480-109-210.

REC Costs for REC-only Purchases

The cost of RECs from the REC-only purchase is based on the contractual price set forth in the applicable bilateral agreement between the Company and the counterparty.

Incremental Costs for Wind Resources

The estimated cost of the RECs from renewable wind resources is the calculated levelized cost of each eligible renewable resource at the time of acquisition, compared to an equivalent amount of the lowest-reasonable-cost resource available to the utility at the time of the eligible resource’s acquisition.[[3]](#footnote-4)

Incremental Costs for Renewable Energy from Incremental Hydro Upgrades

The estimated cost of eligible renewable energy from incremental hydro represents the calculated levelized cost of each hydro upgrade at the time of investment in the upgrade, compared to an equivalent amount of the lowest-reasonable-cost resource available to the utility at the time of the eligible resource’s acquisition.

Confidential Work Papers—PacifiCorp Resource Cost Analysis provides the key assumptions and analysis that the Company used to forecast the estimated resource costs associated with the renewable resources and RECs for the target years 2015 and 2016.

Revenue Requirement

The revenue requirement amounts are from recent general rate cases. The 2015 revenue requirement is $328,641,634,[[4]](#footnote-5) prorated from Dockets UE-130043 and UE-140762 and the 2016 revenue requirement is $331,168,861 from Docket UE-140762.

Resource Costs Compared to Revenue Requirement

Table 6 shows the expected Washington-allocated resource costs (incremental cost of eligible renewable resources and the cost of RECs) compared to the annual revenue requirement for 2015 and 2016.

**Table 6**

|  |  |  |  |
| --- | --- | --- | --- |
| **Calendar Year** | **Total Washington Allocated Resource Costs** | **Washington Annual Revenue Requirement** | **% of Washington Expected Allocated Resource Costs to Annual Revenue Requirement** |
| 2015 | $ 777,598 | $ 328,641,634 | 0.24% |
| 2016 | $ 2,704,648 | $ 331,168,861 | 0.82% |

Based on this analysis, the Company will not exceed the four percent of annual revenue requirement threshold.

# Multistate Allocations

Under WAC 480-109-210(e)(i), a utility serving retail customers in more than one state must allocate certificates consistent with the utility’s most recent commission-approved interstate cost allocation methodology.  This section explains how the Company applied the allocation methodology to arrive at the number of RECs allocated to Washington ratepayers.

PacifiCorp is a multijurisdictional utility providing electric retail service to approximately 1.8 million customers in California, Idaho, Oregon, Utah, Washington, and Wyoming. Of those customers, the Company serves approximately 133,000 customers in the state of Washington.

PacifiCorp allocates RECs to its states consistent with the inter-jurisdictional allocation methodologies approved in each state.  All of PacifiCorp’s jurisdictions, except Washington, use the 2010 Protocol inter-jurisdictional allocation methodology, which allocates all generation-related costs, revenues, rate base balances and RECs to each state using the system generation (SG) allocation factor. The SG factor is calculated based on each state’s contribution to PacifiCorp’s energy and capacity requirements for its entire six-state system. Using this methodology, Washington’s SG factor is approximately 8 percent (i.e. Washington comprises approximately 8 percent of PacifiCorp’s six-state system).

In Washington, however, PacifiCorp uses the West Control Area (WCA) inter-jurisdictional allocation methodology. This methodology allocates west control area generation resources, primarily located in California, Oregon, and Washington, using the control area generation west (CAGW) allocation factor. The CAGW factor is calculated based on each state’s contribution to PacifiCorp’s energy and capacity requirements for the west control area (California, Oregon, and Washington). Washington’s CAGW factor is approximately 23 percent (i.e. Washington comprises approximately 23 percent of the west control area).

As a result of Washington’s use of the WCA methodology, PacifiCorp’s Washington rates reflect a CAGW share, approximately 23 percent, of west control area generation resources. Accordingly, Washington customers are entitled to approximately 23 percent of RECs from these facilities. Using different inter-jurisdictional allocation methodologies for different states, however, creates challenges because the sum of each state’s allocated share may not equal 100 percent. To address this issue, PacifiCorp first allocates each state its share of RECs using the SG factor. Using this process, Washington receives approximately 8 percent of RECs from west control area resources.

The WCA contains the following eligible resources:

* Goodnoe Hills (wind)
* Leaning Juniper (wind)
* Marengo I (wind)
* Marengo II (wind)
* Prospect 2 (incremental hydro)

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* Lemolo 1 (incremental hydro)
* Lemolo 2 (incremental hydro)
* JC Boyle (incremental hydro)

PacifiCorp addresses the variance between Washington’s SG share of west control area resources (approximately 8 percent) and Washington’s CAGW share (approximately 23 percent) by providing Washington RECs from other eligible resources. In the past, PacifiCorp’s shareholders have purchased unbundled RECs to make up the difference.[[5]](#footnote-6) Recent changes in the EIA allow PacifiCorp to use RECs from PacifiCorp facilities in other states where PacifiCorp makes retail sales.[[6]](#footnote-7) This means that the actual RECs used to fulfill Washington’s CAGW share may include RECs from resources located in any of PacifiCorp’s jurisdictions or include unbundled REC purchases, but the total will equal Washington’s CAGW share of west control area resources.

In 2016, PacifiCorp plans to use generation from the following resources to provide Washington with its full CAGW allocation:

* Top of the World (wind – Wyoming)
* Dunlap I (wind – Wyoming)
* Campbell Hill/Three Buttes (wind – Wyoming)
* Glenrock I (wind – Wyoming)
* Rolling Hills (wind – Wyoming)
* Seven Mile Hill (wind – Wyoming)

PacifiCorp does not plan to use any unbundled REC purchases to supply Washington’s CAGW allocation in 2015 or 2016. Table 7 summarizes how PacifiCorp plans to supply Washington with its CAGW share of renewable generation in 2015 and 2016.

**Table 7: Allocation of PacifiCorp’s Eligible Generation to Washington**

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|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Total WCA Eligible Generation (Projected)** | **Washington CAGW Allocation Factor[[7]](#footnote-8)** | **Washington WCA Allocation** | **SG Allocation of WCA Generation** | **Adjustments from Other Eligible (Company) Resources** | **Adjustments from Purchased RECs** | **Final Allocation** |
| 2015 | 811,932 | 23.085% | 187,434 | 65,390 | 122,044 | -- | 187,434 |
| 2016 | \_\_\_\_\_\_\_\_ | 23.085% | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | -- | \_\_\_\_\_\_\_\_ |

Any unbundled REC purchases necessary for RPS compliance in excess of Washington’s CAGW share of west control area resources will be reflected in Washington customers’ rates.[[8]](#footnote-9)  This treatment ensures that Washington customers receive an allocation of costs and benefits of RECs proportionate to its share of renewable resource costs reflected in rates.

PacifiCorp follows the Western Renewable Energy Generation Information System (WREGIS) and state renewable portfolio standards (RPS) requirements to ensure that under no circumstances are any RECs double-counted.

# Prior Year Progress

As evidenced in this report, the Company met its Washington 2015 renewable compliance target with a combination of eligible renewable resources, unbundled REC purchases and renewable energy from hydroelectric facilities with upgrades completed after March 1999. The Company has set aside the WREGIS certificates for the 2015 compliance target and upon Commission approval, will retire these WREGIS certificates. The Company is providing a listing of the WREGIS certificates in Confidential Work Papers—WREGIS Certificates for Washington Compliance for 2015.

The Company will invest less than four percent of its total annual retail Washington revenue requirement on the incremental costs of eligible renewable resources, RECs, or a combination of both for 2015.

Further, the Company does not rely on any other alternative compliance mechanisms to meet its renewable resource targets for 2015.

# Current Year Progress

The Company is positioned to meet its Washington 2016 renewable compliance target with a combination of eligible renewable resources, unbundled REC purchases and renewable energy from hydroelectric facilities with upgrades completed after March 1999. The Company has also identified, to date, the WREGIS certificates that it intends to use toward the 2016 compliance target. The Company is providing a listing of the WREGIS certificates in Confidential Work Papers—WREGIS Certificates for Washington Compliance for 2016.

The Company will invest less than four percent of its total annual retail Washington revenue requirement on the incremental costs of eligible renewable resources, RECs, or a combination of both for 2016.

Further, the Company does not rely on any other alternative compliance mechanisms to meet its renewable resource targets for 2016.

# Supporting Documents for Renewable Report

Provided below are links to supporting documents in support of the Company’s Renewable Report.

1. Wind Project Fact Sheets/Information
2. Goodnoe Hills

<http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/EnergyGeneration_FactSheets/PP_GFS_Goodnoe_Hills.pdf>

1. Leaning Juniper

<http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/EnergyGeneration_FactSheets/PP_GFS_Leaning_Juniper.pdf>

1. Marengo

<http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/EnergyGeneration_FactSheets/PP_GFS_Marengo.pdf>

1. Marengo II

<http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/EnergyGeneration_FactSheets/PP_GFS_Marengo_II.pdf>

1. Campbell Hill/Three Buttes

<http://www.pacificorp.com/es/re/tb.html>

1. Dunlap I

http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\_Sources/EnergyGeneration\_FactSheets/RMP\_GFS\_Dunlap.pdf

1. Glenrock

<http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/EnergyGeneration_FactSheets/RMP_GFS_Glenrock.pdf>

1. Rolling Hills

<http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/EnergyGeneration_FactSheets/RMP_GFS_Rolling_Hills.pdf>

1. Top of the World

<http://www.pacificorp.com/es/re/totw.html>

Collaborative group documents from workshops conducted at the Commission and through a number of multiple issues-specific teleconference meetings, filed in Dockets UE-110523 and UE-131723.[[9]](#footnote-10)

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# List of Attachments

## Attachment A (Confidential) – Washington Utilities and Transportation Commission RPS Report Tool

## Attachment B – PacifiCorp Description of Incremental Hydro Methodology and Oregon Department of Energy Correspondence on Updated Certification for Efficiency Upgrades at Eleven Hydropower Generating Units

1. In Docket UE-151162, Order 01, the Commission found all of these resources to be eligible renewable resources under RCW 19.285.030(12)(e). [↑](#footnote-ref-2)
2. RECs were used toward compliance years 2012 - 2014. [↑](#footnote-ref-3)
3. The cost of RECs from PacifiCorp’s resource(s) located outside of the West Control Area are not included in Washington customers’ rates. To determine the ratio of incremental cost to revenue requirement, resource costs *outside* the West Control Area are calculated using the weighted average cost of the resources *within* the West Control Area (Goodnoe Hills, Leaning Juniper, Marengo I and Marengo II). Please refer to PacifiCorp Workpaper, PacifiCorp Resource Cost Analysis. [↑](#footnote-ref-4)
4. Rates approved in Docket No. UE-130043 in effect through March 30, 2015: $321,059,953 \*3/12 = $80,264,988 plus rates approved in Docket No. UE-140762 in effect from March 31, 2015, forward: $331,168,861 \*9/12 = $248,376,646. [↑](#footnote-ref-5)
5. Washington customers received the full value of their CAGW share of renewable generation through shareholder-purchased unbundled RECs and revenues from REC sales through the REC revenue tracking mechanism. [↑](#footnote-ref-6)
6. RCW 19.285.030(12)(e) [↑](#footnote-ref-7)
7. Washington’s CAGW factor from the most recent rate case, per UE-140762. [↑](#footnote-ref-8)
8. The Company filed a petition for an order authorizing the Company to defer its purchase of unbundled RECs necessary for compliance with the renewable portfolio standard in Docket UE-143915. [↑](#footnote-ref-9)
9. UE-110523 http://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=110523

   UE-131723 http://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=131723 [↑](#footnote-ref-10)