

PacifiCorp

Renewable Report

Washington

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***Marengo Wind Project, Dayton, Washington***

**May 31, 2013**

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# Introduction

PacifiCorp’s (PacifiCorp or Company) June 1, 2013 Renewable Report (Renewable Report) is being submitted to the Washington Department of Commerce (Commerce) and Washington Utilities and Transportation Commission (WUTC or Commission) in accordance with reporting requirements established as part of the Energy Independence Act. 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, as well as Order 01 in Docket UE-120813, PacifiCorp’s 2012 Renewable Energy Target Progress Report.

As directed in Docket UE-110523 memorandum dated May 4, 2012, two separate filings will be made, one for “Conservation” and a second for “Renewables”. This report addresses the renewable targets and progress; the conservation report will be filed under separate cover.

This report demonstrates that PacifiCorp has met the 2012 renewable energy target of acquiring three percent of the Company’s Washington retail load with a combination of eligible renewable resources and renewable energy credits (RECs). This report also demonstrates that the Company is in the position to meet the 2013 renewable energy target with a combination of eligible renewable resources and RECs to supply at least three percent of its average Washington retail load.

# Executive Summary

Under RCW 19.285.040(2)(a), each qualifying utility shall use eligible renewable resources or acquire equivalent RECs, or a combination of both, to meet annual targets. As will be demonstrated herein, the Company has met the targets in accordance with WAC 480-109-020. The Company has met the 2012 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 three percent of its Washington load to satisfy the 2013 renewable energy target. The Company plans to do so with a combination of RECs from company-owned resources, REC purchases, and eligible renewable resources, primarily hydroelectric facilities that were upgraded after March 1999.

A summary of the Company’s 2012 and 2013 renewable resource targets and eligible renewable resources and RECs are provided below:

**Table 1**

|  |  |  |
| --- | --- | --- |
| **PacifiCorp Renewable Target, Eligible Resource and RECs** | | |
|  | **2012** | **2013** |
| Average Retail Sales (MWh) | 3,995,247 | 4,023,881 |
| Percentage Target | 3% | 3% |
| **Renewable Target** | **119,857** | **120,716** |
| **Qualifying Resources (MWh) & RECs** | **119,857** | **120,716** |

As such, the Company will not be relying on any of the alternative compliance mechanisms provided in WAC 480-109-030 for meeting either the 2012 or 2013 renewable energy targets.

# Annual Load for Previous Two Years and Renewable Energy Target

Under RCW 19.285.040(2)(c) and WAC 480-109-020(3), 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 prior two years, Table 2 calculates the annual renewable targets for 2012 and 2013.

**Table 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2010 | 2011 | 2012 | 2013 |
| Retail Sales (MWh) | 3,984,631 | 4,005,863 | 4,041,898 | NA |
| Average Retail Sales (MWh) | NA | NA | 3,995,247 | 4,023,881 |
| Percentage Target | 0% | 0% | 3% | 3% |
| **Renewable Target** | **0** | **0** | **119,857** | **120,716** |

**Renewable Energy Acquired To Meet Renewable Energy Target**

The Company has met its 2012 renewable resource target and plans to meet its 2013 renewable resource target with a combination of RECs from company-owned and third-party wind facilities and eligible renewable resources that are hydroelectric facilities with upgrades completed after March 1999.

The Company is submitting the Commission’s RPS Report Tool as Confidential Attachment A. The RPS Report Tool details the renewable resource target for 2012 and 2013 and the RECs and renewable resources to meet the 2012 and 2013 targets.

The Company will use RECs from the following Company-owned facilities or power purchase agreements:

**Table 3**

|  |  |
| --- | --- |
| **Resource Name** | **Fuel Source** |
| Goodnoe Hills | Wind |
| Leaning Juniper | Wind |
| Marengo I | Wind |
| Marengo II | Wind |
| Wolverine Creek | Wind |

These five wind facilities are located in the Pacific Northwest. Descriptions of the projects are referenced in the Supporting Documents for Renewable Report section.

Additionally, the Company has identified upgrades to hydroelectric facilities located in the Pacific Northwest that were completed after March 31, 1999, listed in Table 4 below. The Company performed analyses to determine the incremental energy associated with upgrades to hydroelectric facilities. The methodology is described in Attachment B. This methodology 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 is providing the analyses in Confidential Work Papers – PacifiCorp Hourly Incremental Hydro Analyses.

**Table 4**

|  |  |
| --- | --- |
| **Resource Name** | **Fuel Source** |
| Prospect 2 | Water – Hydro Upgrade 1999 |
| Lemolo 1 | Water – Hydro Upgrade 2003 |
| JC Boyle | Water – Hydro Upgrade 2005 |
| Lemolo 2 | Water – Hydro Upgrade 2009 |

PacifiCorp has two contracts for REC only transactions executed prior to January 1, 2012. The counterparties are to provide RECs from Washington RPS eligible resources.

The Company also has an executed power purchase contract for the output from a facility owned by Grant Public Utilities District (PUD) – the Wanapum Dam, where Grant PUD has determined the average amount of incremental hydro generation associated with the Wanapum Future Unit Fish Bypass. The Company is providing the analysis conducted by Grant PUD in Confidential Work Papers – Wanapum Incremental Hydro Analysis.

The generation and RECs are allocated to Washington based on the system generation inter-jurisdictional allocation factor except for any RECs that are situs assigned to Washington. For calendar year 2012, the company is using the actual system generation factor, and for calendar year 2013, the company is using an estimated system generation factor based on a July 2012 forecast. A summary of the REC volumes and the incremental hydro generation allocated to Washington are listed below:

**Table 5**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **WA – Allocated Volume (MWh)** | |
| **Type** | **Fuel Source** | **2012**  **Actual** | **2013**  **Forecast** |
| RECs | Wind | 117,079 | 118,483 |
| Incremental Hydro Generation | Water | 2,779 | 2,234 |
| Total |  | 119,858 | 120,717 |

The Company has included the power purchase agreements in Confidential Work Papers - REC Only Contracts and Power Purchase Agreements.

In the following pages the Company has included, PacifiCorp’s report submitted to Commerce that provides the summary of the forecasted number of megawatt-hours and renewable energy credits to meet the 2013 compliance target.

# Energy Independence Act (I-937) Commerce Renewable Report



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



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



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



# Alternative Compliance

Under WAC 480-109-040(c), the utility must state in its report if it is relying upon one of the alternative compliance mechanisms provided in WAC 480-109-030 instead of meeting its renewable resource target. The Company does not anticipate that it will invest at least four percent of its total annual retail revenue requirement on the incremental costs of eligible renewable resources, renewable energy credits, 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 2012 or 2013.

# 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 renewable energy credits. Similarly, under WAC 480-109-040(1)(b), a utility must report 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 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. The incremental cost of an eligible renewable resource is also defined in WAC 480-109-030(1) as the difference between the levelized delivered system cost of the eligible renewable resource and the levelized delivered cost of an equivalent amount of reasonably available nonrenewable resource.

REC Costs for Wind Resources

The cost of the RECs from renewable wind resources is the nominal levelized cost of the renewable resource or contractual price for energy delivered from the renewable resource compared to an equivalent amount of a substitute resource, in this case, the market purchases (Mid-Columbia) shaped to the output of the renewable resource.

REC Costs for RECs Only Purchases

The cost of the RECs from REC only purchases are based on the contractual price set-forth in the applicable bilateral agreements between the Company and the counterparty.

Incremental Costs for Renewable Energy from Incremental Hydro Upgrades

The incremental cost of the eligible incremental renewable energy from owned hydro and purchase power agreements was deemed to be zero.

The majority of the equipment replacements associated with the Company-owned hydro electric facilities was made in conjunction with facility overhauls; the incremental cost associated with the equipment replacements is zero on the economic basis that the marginal cost of gaining output was less than the cost of an equivalent alternative. The upgrades to the hydro electric facilities were economic decisions, as the upgrades were made to increase efficiency and to prevent forced outages from old and less reliable equipment. As such, the Company would have made the upgrades regardless of the RPS requirement.

The cost associated with incremental renewable energy from the Wanapum facility is based on the average estimated energy cost for the compliance years. The equivalent volume is compared to the monthly heavy load hour and light load hour market price (Mid-Columbia) shaped to the output of the incremental generation for the target compliance year to determine the incremental cost. Because the nominal levelized cost associated with the incremental energy is less than the levelized cost of the substitute resource, in this case market, the incremental cost is zero.

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 2012 and 2013.

Revenue Requirement

The most recent annual revenue requirement approved in Docket UE-111190 by the WUTC is $307,695,000. Rates from this general rate case become effective on June 1, 2012.

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 renewable energy credits) compared to the annual revenue requirement for 2012 and 2013.

**Table 6**

|  |  |  |  |
| --- | --- | --- | --- |
| **Calendar Year** | **Washington Allocated Resource Costs** | **Washington Annual Revenue Requirement** | **% of Washington Expected Allocated Resource Costs to Annual Revenue Requirement** |
| 2012 | $ 1,885,417 | $307,695,000 | 0.61% |
| 2013 | $ 1,794,350 | $307,695,000 | 0.58% |

Based on this analysis, the Company will not exceed the four percent threshold.

# Prior Year Progress

As evidenced in this report, the Company has met its Washington 2012 renewable compliance target with a combination of RECs from wind 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 2012 compliance target and upon Commission approval, the Company will retire these WREGIS certificates. Under RCW 19.285.030(17) no RECs shall be created from generation facilities powered by fresh water; however, the Company has set-aside the WREGIS certificates associated with the renewable generation from facilities powered by fresh water so that those WREGIS certificates may not be transferred, sold or otherwise claimed by another third-party. The Company is providing a listing of the WREGIS certificates in Confidential Work Papers – WREGIS Certificates for Washington Compliance for 2012.

The Company will invest less than four percent of its total annual retail Washington revenue requirement on the incremental costs of eligible renewable resources, renewable energy credits, or a combination of both for 2012.

Further, the Company does not rely on any other alternative compliance mechanisms to meet its renewable resource targets for 2012.

# Current Year Progress

The Company is positioned to meet its Washington 2013 renewable compliance target with a combination of RECs from wind 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 2013 compliance target. The Company is providing a listing of the WREGIS certificates in Confidential Work Papers – WREGIS Certificates for Washington Compliance for 2013.

The Company will invest less than four percent of its total annual retail Washington revenue requirement on the incremental costs of eligible renewable resources, renewable energy credits, or a combination of both for 2013.

Further, the Company does not rely on any other alternative compliance mechanisms to meet its renewable resource targets for 2013.

# 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

Goodnoe Hills

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

Leaning Juniper

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

Marengo

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

Marengo II

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

Wolverine Creek

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

1. Collaborative group documents from workshops conducted at the Commission and through a number of multiple issues-specific teleconference meetings, filed in Docket UE-110523.

<http://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=110523>

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# Listing of Attachments

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

## Attachment B – PacifiCorp Description of Incremental Hydro Methodology