Eugene Water Electric Board

Oregon Renewable Portfolio Standard
2015 Compliance Report

June 1, 2016

Introduction

In 2007 Oregon enacted Senate Bill 838, the Oregon Renewable Energy Act (Act), which created a Renewable Portfolio Standard (RPS) that all Oregon electric utilities must follow. The purpose of the RPS is to decrease Oregon utilities reliance on fossil fuels for electric generation and increase their use of renewable energy sources.

The Act established standards for Oregon's electric utilities requiring that a percentage of their annual sales must come from qualifying renewable resources beginning in 2011. The exact percentage requirement and the year the requirement begins differs for large and small electric utilities, which are shown in Figure 1. The size of the utility is a percentage of Oregon's total retail electric sales in the year. EWEB is the only Consumer Owned Utility (COU) classified as a large electric utility, along with PacifiCorp and Portland General Electric. All of Oregon's other COUs are classified as small electric utilities, which under the Act do not have compliance obligations until 2025. [1]

Figure 1. Annual percentage target of qualifying electricity by year

	Utility Size	2011	2015	2020	2025
Large Utilities	3% or more	5%	15%	20%	25%
Smaller Utilities	From 1.5% to 3%				10%
Smallest Utilities	Under 1.5%				5%

The Oregon Public Utilities Commission (PUC) oversees Investor Owned Utilities (IOU) reporting and compliance with the RPS. Because the PUC does not generally regulate Oregon COUs, the statute governing compliance reports, ORS 469A.170, states "A consumer-owned utility shall make the report to the members or customers of the utility." EWEB's longer term compliance strategy is addressed in its Integrated Electric Resource Plan (IERP) which is updated every 5 years or as needed.

The Act also defines which types of renewable generation are considered qualifying electricity. In general, qualifying renewable resources must have an on-line date of January 1, 1995 or later, with some exceptions.[2]

In recognition of the low-emission resources already existing in the region and other reasonable barriers to compliance, there are four exemptions in the Act that allow utilities to reduce the annual compliance target. These exemptions prevent utilities from taking actions for compliance that:

- Would cause the utility to spend over 4 percent of annual costs to comply with RPS
- Force Consumer Owned Utilities (COU) to replace BPA Tier 1 power with new renewable electricity
- Force a utility to acquire resources in excess of their load requirement
- Force a utility to replace older renewable or non-fossil fuel generation (i.e. legacy hydro projects) with new renewable generation.

[1] For additional information on the Oregon RPS see http://www.oregon.gov/energy/RENEW/Pages/RPS_home.aspx

[2] See Attachment 1, Table 2 for a list of conditions under which pre-1995 resources that eligible to produce qualifying electricity. A later amendment to the RPS allows for pre-1995 woody biomass to qualify, but the RECs will not be eligible for use in compliance until 2026.

Currently, the vast majority of EWEB's resources are from BPA Tier 1 resources and EWEB owned or contracted legacy hydro. It is EWEB's interpretation that these resources can be used towards the exemption.

The Act also requires Oregon utilities to offer customers the option to elect a green power rate. EWEB's Greenpower program, implemented prior to the passage of the Act, is an example of such a voluntary retail green power rate.

RPS Compliance rules

The RPS requires that utilities include a percentage of electricity generated from qualifying renewable energy sources in their portfolio of power sold to retail customers. Measurement of compliance is based on annual megawatt hours (MWh) of retail sales and qualifying generation.

Per rules adopted by the Oregon Department of Energy, qualifying generation volumes are based on values recorded and reported to the Western Renewable Energy Generation Information System (WREGIS). WREGIS is a large database that receives monthly generation volumes of renewable generation and serves as the regional system of record to issue, monitor, account for or transfer Renewable Energy Certificates (REC). Each MWh of renewable generation equals one REC. Each REC has a unique identification number that indicates the generation project and the month the electricity was generated. The purpose of this system is to ensure that renewable generation and its associated REC are not used to meet the requirements of more than one program.

The compliance target for EWEB in 2015 is 15 percent of retail sales, subject to the four exemptions that can reduce the compliance target. Compliance is demonstrated by retiring a quantity of WREGIS RECs equal to the compliance target. Once a REC is retired in WREGIS it is no longer available to be used in any other program. However, as long as a REC has not been retired it can be retained or banked for a future use such as compliance, a voluntary program, or sold to another entity.

Under EWEB's interpretation, two exemptions significantly reduce EWEB's current and projected compliance targets. The first exemption releases EWEB from reducing purchases of BPA Tier 1 energy in order to take in qualifying electricity. The second exemption releases EWEB from replacing energy produced by non-fossil resources (such as our legacy hydro) with qualifying electricity.

EWEB's understanding of the policy rationale for these exemptions is that the intent of the RPS is to displace fossil fuels, not to require EWEB to replace energy from our existing legacy hydro projects with other renewable energy resources. The Act strikes a balance in doing no harm to the many legacy hydro projects in the Northwest while disqualifying them from creating RECs, in order to promote the deployment of new renewable generation projects to displace fossil fuels and spur economic development. For the purposes of this calculation, EWEB has reduced the Tier 1 generation volumes by the portion of BPA generation that generated RECs through hydro efficiency upgrades and the contribution of existing BPA renewable resources.

EWEB's generation portfolio is overwhelmingly supplied from BPA Tier 1 power and our legacy hydro generation. Under Oregon's RPS rules, if exempt generation in 2015 exceeds 85 percent of total retail sales then EWEB can reduce the 15 percent compliance target by the amount the

exempt generation exceeds 85 percent. If exempt generation exceeds 100 percent of total retail sales then EWEB can reduce its compliance target to zero.

2015 Oregon Renewable Energy Act and RPS Compliance Information

RPS compliance is measured in annual MWh. Figure 2 contains annual MWh information used to calculate EWEB's RPS compliance.

Figure 2. EWEB 2015 RPS Compliance Obligation Calculation

Category	MWh
System Load	2,377,381
RPS Target	15%
RPS obligation BEFORE exempt	356,607
Exempt resources	
BPA Tier 1 net purchases	2,289,426
Mid-C hydro (contract)	13,155
EWEB hydro (owned)	414,724
Total Exempt Resources	2,717,305
Fraction of retail sales from exempt resources	114%
RPS obligations AFTER exemption	0

EWEB interprets the exemptions reflected in the table to mean EWEB does not have any RPS compliance obligation in 2015; however, EWEB did retire a number of RECs to satisfy the portion of the Act that refers to voluntary renewable purchases by EWEB customers under the Greenpower program. Surplus RECs will be banked for future use or sold.

The Greenpower program allows customers the choice to voluntarily pay an additional one cent per kWh which contributes to the development and use of renewable energy. Just as RECs are retired to satisfy any obligations under the mandatory RPS, RECs are also retired to match the volume of sales under EWEB's voluntary retail Greenpower program, with one REC retired for every MWh of program sales.

In 2015, sales to EWEB customers under the Greenpower totaled 28,973 MWh. EWEB has retired this amount of RECs from our available portfolio. For additional information on EWEB's Greenpower program please see http://www.eweb.org/greenpower.

EWEB will publish the 2016 compliance report by June 1st of 2017.

Attachment 1

Summary of Oregon's Renewable Portfolio Standard

Summary of Oregon's Renewable Portfolio Standard

The Renewable Portfolio Standard (RPS) requires that all utilities and electricity service suppliers (ESSs)[1] serving Oregon load must sell a percentage of their electricity from qualifying renewable energy sources. The percentage of qualifying electricity that must be included varies over time, with all utilities and ESSs obligated to include some renewable resources in their power portfolio by 2025.

For current information on Oregon eligible facilities, please visit www.oregon-rps.org.

Table 1 summarizes the percentage targets for the RPS.

Table 1: Summary of RPS Targets and Timelines

RPS obligations on all utilities and electricity service suppliers						
	Percent of Oregon's Total Retail Electric Sales	**Utilities[2] and ESSs**	**Applicable Targets in Year:**			
			2011	**2015**	**2020**	**2025**
Large Utilities	Three percent or more	Portland General Electric, PacifiCorp, Eugene Water & Electric Board	**5%**	**15%**	**20%**	**25%**
Small Utilities	At least one and a half percent but less than three percent	Central Lincoln PUD, Idaho Power, McMinnville W&L, Clatskanie PUD, Springfield Utility Board, Umatilla Electric Cooperative	**No Interim Targets**			**10%**
	Below one and a half percent	All other utilities (31 consumer-owned utilities)				**5%**
Electricity Service Suppliers (ESSs)	Any sales in Oregon	Any Electricity Service Supplier (ESS)	If an ESS sells electricity in the service area of more than one utility its targets may calculated as an aggregate of electricity sold in its territory.			

Conditional Targets

There are two conditions when a small utility would be required to meet the large utility standard regardless of their size if purchase coal power (ORS 469A.055 (4) or if they annex utility territory (ORS 469A.0555 (5)). In the case that a small utility's load increases to exceed three percent of the state load for a period of three consecutive years they would also be subject to the standard as a large utility (ORS 469A.052 (2).

[1] Oregon's deregulation law allows non-utility power sellers (called ESSs) to sell power to non-residential customers. Currently, this applies only to Portland General Electric and PacifiCorp service territory.
[2] Based on 2010 Oregon Public Utility Commission (OPUC) utility data. See the Statistics Book: http://www.puc.state.or.us/puc/Pages/Oregon_Utility_Statistics_Book.aspx.

Exemptions to RPS Targets
Utilities are not required to comply with an RPS target to the extent that compliance will:

- Lead to a utility expending more than four percent of its electricity-related annual revenue requirement in order to comply with the RPS.
- Displace firm Federal Base System (FBS) preference power rights from the Bonneville Power Administration (BPA) for a consumer-owned utility.
- Result in acquisition of power resources in excess of their load requirements in a given compliance year.
- Result in the displacement of a non-fossil-fueled power resource.
- Unavoidably displace hydropower contracts with Mid-Columbia River dams until such a time when those contracts cannot be renewed or replaced.

Eligible Resources and Facility Eligibility Date

Qualifying electricity for Oregon's RPS must be derived from the sources and types of facilities listed in Table 2. Qualifying facilities must also be located within the Western Electricity Coordinating Council's territory. Note that where multiple fuels are used to power a generating facility only the proportion of output that uses qualifying resources can count toward the RPS.

Table 2: Eligible Resource Types Based on Facility Operational Date

<table>
<tr><th>From Generating Facilities in Operation Before January 1, 1995</th><th>From Generating Facilities That Became Operational On or After January 1, 1995</th></tr>
<tr><td rowspan="5">Up to 90 average megawatts (aMW) per utility per compliance year of low-impact certified hydropower, capped at 50 aMW owned by an Oregon utility and 40 aMW not owned by a utility but located in Oregon.</td><td>Hydropower, if located outside of certain state, federal, or NW Power & Conservation Council protected water areas.</td></tr>
<tr><td>Wind</td></tr>
<tr><td>Solar Photovoltaic and Electricity from Solar Thermal</td></tr>
<tr><td>Wave, Tidal, and Ocean Thermal</td></tr>
<tr><td>Geothermal</td></tr>
<tr><td>The increment of improvement from efficiency upgrades made to hydropower facilities, although if the improvement is to a federally-owned BPA facility only Oregon's share of the generation can qualify.</td><td>Biomass and biomass byproducts; including but not limited to organic waste, spent pulping liquor, woody debris or hardwoods as defined by harvesting criteria, agricultural wastes, dedicated energy crops and biogas from digesters, organic matter, wastewater, and landfill gas. Under certain conditions, municipal solid waste may qualify. The burning of biomass treated with chemical preservatives disqualifies any biomass resource.</td></tr>
<tr><td rowspan="2">The increment of improvement from capacity or efficiency upgrades made to facilities other than hydropower facilities.</td><td>Other resources as determined to qualify through ODOE rulemaking. However, nuclear fission and fossil fuel sources are prohibited in all cases as qualifying resources.</td></tr>
<tr><td>Electricity from hydrogen derived from any of the above resources.</td></tr>
</table>

Renewable Energy Certificates

Compliance with the RPS requires proof of generation of the qualifying electricity. Like many states, Oregon requires proof in the form of a Renewable Energy Certificate (REC). Oregon Administrative Rule states that a REC is a unique representation of the environmental, economic and social benefit associated with the generation of electricity from renewable energy sources that produce Qualifying Electricity. Each REC represents one megawatt-hour (MWh) of generation of qualifying electricity. By rule, all RECs must be issued by the Western Renewable Energy Generation Information System (WREGIS).

Oregon recognizes two types of Renewable Energy Certificates (RECs) in the RPS. Initially, all RECs are "bundled" together with their associated electricity that is produced at the renewable electricity generation facility. When both a REC and the electricity associated with that REC are acquired together, one has acquired a "bundled" REC.

A generator or REC owner may decide to "unbundle" the REC from the electricity associated with that REC by using or selling the two components separately. In doing so the purchaser of the power loses the ability to claim that the power is renewable energy. The "unbundled" REC may be used by its new owner to comply with the RPS.

To meet an RPS target obligated utilities or ESSs must permanently retire the number of RECs equivalent to the target load percentages. For example, if a utility is subject to a 10% target and sold 100,000 MWh to Oregon customers, then it must retire 10,000 RECs to meet its compliance target.

For large utilities, no more than 20 percent of their compliance target in a given year may be met through the use of unbundled RECs, although large consumer-owned utilities such as EWEB have a limit of 50 percent until 2020. RECs from PURPA facilities in Oregon are exempt from this limit.[3]

RECs may be banked indefinitely and used in future years. Older RECs must be used before newer RECs, called the "first in first out" principle.

Implementation Plans and Compliance

The Oregon Renewable Portfolio Standard compliance schedule for the state's three largest utilities began in 2011. In 2012, Eugene Water and Electric Board, PacifiCorp, and Portland General Electric will demonstrate REC retirement in an amount equivalent to five percent of its 2011 retail sales, unless otherwise exempted (see Exemptions to RPS Targets, above).

Every two years, large utilities submit implementation plans detailing how they expect to comply with the standard.[4] The plans include annual targets for acquisition and use of qualifying

[3] PURPA is a federal law that requires utilities to purchase the output of smaller energy projects.
[4] EWEB reports its plan to comply with the RPS in its Integrated Energy Resource Plan.

electricity and the estimated cost of meeting the annual targets. Prudently incurred costs associated with RPS compliance are recoverable in rates.

Investor-owned utilities and ESSs must submit their annual compliance reports to the OPUC. Consumer-owned utilities report compliance to their customers, boards, or members.

Consumer Protection and Cost Controls

There are two mechanisms that serve as cost protections for Oregon consumers: an alternative compliance payment mechanism and an overarching "cost cap" on utility RPS expenditures.

Alternative Compliance Payment: In lieu of acquiring a REC to comply with a portion of the RPS, a utility or ESS may instead pay a set amount of money per megawatt-hour (MWh) into a special fund that can be used only for acquiring renewable energy resources in the future, or for energy efficiency and conservation programs. This mechanism sets an effective cap on the cost of complying with the RPS on a per MWh basis.

Cost Cap: Utilities are not required to comply with the RPS to the extent that the sum of the incremental costs of compliance with the RPS (as compared with fossil-fuel power), the costs of unbundled RECs, and alternative compliance payments exceed four (4) percent of a utility's annual revenue requirement in a compliance year. Consumer-owned utilities may also include R&D costs associated with renewable energy projects in this calculation. As of 2012, the incremental cost of compliance for all Oregon utilities has been well below the four percent cap.