

**Portland General Electric
Renewable Portfolio Standard
Oregon Compliance Report
2016**

As an introduction and summary of the Compliance Report, answer the following questions:

Why is PGE submitting a Compliance Report? What information was used as the basis of this Compliance Report?

PGE is submitting this Compliance Report to fulfill the requirements of ORS 469A.170. The report is based on information from PGE's 2013 Integrated Resource Plan (IRP) and PGE's 2014 Renewable Portfolio Standard (RPS) Implementation Plan (RPIP), UM 1683, filed December 31, 2013 (which covers the period 2015-2019).

Did the company meet its RPS target, and if not, describe in detail why not?

Yes, PGE has met its 2016 RPS target. The compliance details are provided in this report.

Provide the following information in response to the requirements of OAR 860-083-0350:

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| OAR 860-083-0350(2)(a) |
| The total number of megawatt-hours sold to retail electricity consumers covered by ORS 469A.052 by the electric company or sold in the service areas of each electric company covered by ORS 469A.052 by the electricity service supplier. |

Response:

For 2016, the total number of megawatt-hours sold to retail electricity consumers was:

PGE's Total Billed Load: 16,960,746 megawatt-hours

Source: 2016 PGE FERC Form 1 (Page 304, Row 41, Column (b)).

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| OAR 860-083-0350(2)(b) |
| The total number of renewable energy certificates, identified as either unbundled or bundled certificates, acquired in the compliance year and used to meet the renewable portfolio standard. |

Response:

There were 508,822 unbundled certificates and 84,059 bundled certificates acquired in the compliance year 2016 that will be used to meet the RPS requirement for compliance year 2016.

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| OAR 860-083-0350(2)(c) |
| The total number of renewable energy certificates, identified as either unbundled or bundled certificates, acquired on or before March 31 of the year following the compliance year and used to meet the renewable portfolio standard. |

Response:

There are no bundled certificates acquired on or before March 31, 2017 that will be used to meet the RPS requirement for compliance year 2016.

There are no unbundled certificates acquired and/or issued in 2017 that will be used to meet the RPS requirement for compliance year 2016.

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| OAR 860-083-0350(2)(d) |
| The total number and cost of unbundled renewable energy certificates, identified as either banked or non-banked certificates, used to meet the renewable portfolio standard. |

Response:

The table below shows the total number and cost by facility of the unbundled renewable energy certificates (RECs) used to meet the RPS. PGE is using the maximum allowable unbundled RECs, which is 20% of PGE’s total obligation.

| Facility | Unbundled RECs | Total Cost |
|--------------|----------------|------------|
| | | |
| Total | 508,822 | \$200,353 |

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| OAR 860-083-0350(2)(e) |
| The total number of banked bundled renewable energy certificates that were used to meet the renewable portfolio standard. |

Response:

The total number of banked bundled RECs that will be used to meet the RPS for compliance year 2016 is:

$$2,016,408^1 = (2,544,112 - 508,822 - 18,882)$$

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| OAR 860-083-0350(2)(f) |
| The total number of renewable energy certificates, identified as either bundled or unbundled certificates, issued in the compliance year that were banked to serve Oregon electricity consumers. |

Response:

There are 34,254 unbundled certificates that were issued in the compliance year that were banked to serve Oregon electricity consumers.

As of this filing, there are 2,875,391² bundled certificates issued for the compliance year 2016 that will be banked to serve Oregon electricity consumers.

See the 2016 column in Attachment C for detail by facility of total RECs generated.

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| OAR 860-083-0350(2)(g) |
| For electric companies, unless otherwise provided under subsection (2)(k) of this rule, the total number of renewable energy certificates included in the rates of Oregon retail electricity consumers that were sold since the last compliance report, including: |
| (A) The names of the associated generating facilities; and |
| (B) For each facility, the year or years the renewable energy certificates were issued. |

Response:

The table below shows the total number by facility and year issued of RECs included in the rates of Oregon retail electricity consumers that were sold since the last compliance report:

| Facility | Year | Number of RECs |
|---|-------------|-----------------------|
| Biglow Canyon Wind Farm - Biglow Canyon 3 | 2016 | 223,419 |
| Biglow Canyon Wind Farm - Biglow Phase 2 | 2016 | 265,132 |
| Tucannon River Wind Farm - Tucannon River | 2016 | 411,012 |
| Totals | | 899,563 |

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| OAR 860-083-0350(2)(h) |
| Unless otherwise provided under subsection (2)(k) of this rule, for each generating facility associated with the renewable energy certificates included in subsections (2)(b), (c), (f), or (g) of this rule the following information: |
| (A) The name of the facility; |

¹ Excludes 18,882 of two-for-one (2:1) RECs, for qualifying systems as prescribed in ORS 757.375, because these RECs are not banked.

² Total RECs generated in 2016 (See Attachment C) less 2:1 RECs, plus unbundled REC purchased issued in 2016 (34,254) plus purchased bundled RECs issued in 2016 (84,059).

(B) The county and state where the facility is located;
(C) The type of renewable resource;
(D) The total nameplate megawatt capacity of the facility;
(E) For an electric company, the Oregon share of the nameplate megawatt capacity of the facility;
(F) The year of the first delivery of qualifying electricity or the first year of the contract for the purchase of unbundled renewable energy certificates; and
(G) The duration of the contract or the amortization period of a facility owned by the electric company or the planned lifetime of a facility owned by the electricity service supplier.

Response:

See Attachment A.

OAR 860-083-0350(2)(i)

The amount of alternative compliance payments the electric company or electricity service supplier elected to use or was required to use to comply with the applicable renewable portfolio standard.

Response:

There were no alternative compliance payments that PGE elected to use or was required to use to comply with the applicable renewable portfolio standard.

OAR 860-083-0350(2)(j)

For an electric company, sufficient data, documentation, and other information to demonstrate that any voluntary alternative compliance payments were a reasonable compliance method.

Response:

PGE will not be making any voluntary alternative compliance payments.

OAR 860-083-0350(2)(k)

Documentation of use of renewable energy certificates from the system under OAR 330-160-0020 established for compliance with the applicable renewable portfolio standard.

Response:

The attached WREGIS report (Attachment B) shows all RECs to be used to meet the 2016 RPS. The RECs are currently in an active sub-account named "2016 Compliance RPS." Within 30 days of the approval of PGE's RPS Compliance Report by the Commission, the RECs will be retired to a retirement sub-account named "OR RPS 2016." To validate compliance, PGE will then send a retirement report from WREGIS to the Commission.

OAR 860-083-0350(2)(l)

For each electric company, a detailed explanation of any material deviations from

the applicable implementation plan filed under OAR 860-083-0400, as acknowledged by the Commission.

Response:

The table below presents a comparison between the 2016 REC requirements as forecasted in UM 1683 (PGE’s 2014 RPIP) and the proposed 2016 REC retirements for 2016 RPS Compliance.

Material changes arose due to:

- Lower overall compliance requirement due to lower than forecast loads; a reduction of 363,392 RECs. The load forecast for 2016 used in our 2014 RPIP was developed in the third-quarter of 2013.
- Unbundled REC purchases. As stated in prior RPIPs, PGE intends to continue monitoring REC markets and may purchase or sell bundled or unbundled RECs in the market opportunistically on behalf of customers. Unbundled RECs beyond those included in our 2014 RPIP were available at low price at low prices consistent with prior unbundled REC purchases; thus, PGE purchased and proposes to retire unbundled RECs equal to 20% of the 2016 RPS obligation.
- Changes to REC banking rules. Consistent with SB 1547, existing resources began generating 5-yr RECs in March of 2016. These RECs can only be used in the year of generation or banked for up to five years. RECs generated prior to this date are infinite-life, or can be retired in any year. For this reason, PGE opted to prioritize the retirement of 5-yr RECs before infinite-life RECs, all else equal. This strategy resulted in a broader distribution of retired RECs across resources than was originally contemplated in the 2014 RPIP. For example, the 2014 RPIP projected retirement of Biglow Canyon RECs before Tucannon River RECs, instead, PGE proposes to retire 5-yr RECs from Tucannon River prior to retiring some infinite-life RECs from Biglow Canyon.

| Resource | 2016 Projection from 2014 RPIP | Actual RECs in 2016 Compliance Plan | Deviation from Forecast |
|--|---|--|--|
| Unbundled RECs | - | 508,822 | 508,822 |
| Biglow Canyon Phase 1 | 555,656 | 293,053 | (262,603) |
| Biglow Canyon Phase 2 | 645,626 | 402,994 | (242,632) |
| Biglow Canyon Phase 3 | 598,946 | 91,564 | (507,382) |
| Tucannon River | | 357,134 | 357,134 |
| Klondike II | 335,676 | 195,621 | (140,055) |
| Vansycle Wind Project | 118,910 | 64,088 | (54,822) |
| Pelton/Sullivan/Round Butte Low-Impact Hydro | 439,200 | 439,200 | - |
| Hydro Upgrades | 184,062 | 73,970 | (110,092) |
| Bellevue/Yamhill Solar | 6,516 | 2,698 | (3,818) |

| | | | |
|---------------------|------------------|------------------|------------------|
| Outback Solar | 2,201 | 9,391 | 7,190 |
| ETO and Other Solar | 20,710 | 397 | (20,313) |
| Purchased Bundled | - | 105,180 | 105,180 |
| Total | 2,907,504 | 2,544,112 | (363,392) |

OAR 860-083-0350(2)(m)

As specified in OAR 860-083-0100, the total number and cost of bundled renewable energy certificates used for compliance.

Response:

| Incremental Cost of Compliance Bundled RECs | | |
|--|----------------------------|---|
| Resource | No. of RECs (A) | Total Cost (A) * (B)³ |
| Biglow 1 | 293,053 | \$ 9,283,919 |
| Biglow 2 | 402,994 | 16,829,029 |
| Biglow 3 | 91,564 | 3,560,008 |
| Tucannon | 357,134 | 3,849,905 |
| Purchased Bundled | 105,180 | 273,734 |
| TOTAL | | \$33,796,595 |

* Per OAR 860-083-0100(1)(i), incremental costs are deemed to be zero for qualifying electricity from generating facilities or contracts that became operational before June 6, 2007 and for certified low-impact hydroelectric facilities. Therefore, only the RECs from Biglow, Tucannon, and purchased bundled RECs are included in this response. Part 13(a) states if new qualifying electricity in a compliance year totals less than 20 MW, the incremental cost is not required to be included in compliance reports.

OAR 860-083-0350(2)(n)

For each electric company, its projected annual revenue requirement as calculated in OAR 860-083-0200 and its total cost of compliance.

Response:

PGE's annual revenue requirement for 2016 is: \$1,755,079,545⁴

PGE's total cost of compliance for 2016 is:

$$[2(d) + 2(m)] = \$200,353 + \$33,796,595 = \$33,996,948$$

³ Incremental cost as calculated in PGE's 2014 Implementation Plan (UM 1683) filed December 31, 2013.

⁴ Source: Table 1- Base Rates, Estimated Effect on Customer Total Electric Bills, 2016 COS Only

Cost of compliance as percentage of revenue requirement is:

$$\$33,996,948 / \$1,755,079,545 = 1.9\%$$

OAR 860-083-0350(2)(o)

For each electricity service supplier, its total cost of compliance, its average cost of compliance, and its cost limit as specified in OAR 860-083-0300(2), including all calculations.

Response:

Not applicable.

OAR 860-083-0350(2)(p)

For each electric company, an accounting of the use of the renewable energy certificates and alternative cost payments consistent with OAR 860-083-0300(3) if the cost limit in ORS 469A.100(1) is reached for the compliance year.

Response:

The cost limit in ORS 469A.100(1) was not reached for the 2016 compliance year.

OAR 860-083-0350(2)(q)

For each electricity service supplier, an accounting of the use of the renewable energy certificates and alternative cost payments consistent with OAR 860-083-0300(3) if the cost limit in OAR 860-083-0300(2) is reached for the compliance year.

Response:

Not applicable.

OAR 860-083-0350(2)(r)

As specified in OAR 860-083-0100, the number and total cost of all bundled renewable energy certificates issued.

Response:

See Attachment C.

OAR 860-083-0350(2)(s)

As specified in OAR 860-083-0100, the number and total cost of bundled renewable energy certificates issued that are associated with new qualifying electricity since the last compliance report.

Response:

See Footnote 5 on Attachment C.

OAR 860-083-0350(6)

Each electric company subject to ORS 469A.052 and each electricity service

supplier subject to ORS 469A.065 must post on its web site the public portion of the four most recent annual compliance reports required under this rule and provide a copy of the most recent such report to any person upon request. The public portions of the most recent compliance report must be posted within 30 days of the Commission decision in section (5) of this rule. The posting must include any Commission determinations under section (5) of this rule.

Response:

PGE will comply with this requirement within 30 days of the Commission decision.

OAR 860-083-0350(7)

Consistent with Commission orders for disclosure under OAR 860-038-0300, each electric company subject to ORS 469A.052 and each electricity service supplier subject to ORS 469A.065 must provide information about its compliance report to its customers by bill insert or other Commission-approved method. The information must be provided within 90 days of the Commission decision in section (5) of this rule or coordinated with the next available insert required under OAR 860-038-0300. The information must include the URL address for the compliance reports posted under section (6) of this rule.

Response:

PGE will comply with this requirement within 90 days of the Commission decision.