



Portland General Electric
121 SW Salmon Street · Portland, Ore. 97204

July 23, 2019

Email / US Mail

Public Utility Commission of Oregon
201 SE High Street
P.O. Box 1088
Salem, OR 97308-1088

Attn: **Filing Center**

Re: **UM 2016 - PGE 2018 Renewable Portfolio Standard *Supplemental Compliance Report***

Enclosed please find Portland General Electric Company's ("PGE") 2018 Renewable Portfolio Standard ("RPS") Supplemental Compliance Report. The Report is submitted pursuant to OAR 860-083-0350 and ORS 469A.170, and provides supplemental information about how PGE has met its 2018 RPS target.

The following attachments refer to OAR 860-038-0350 and are being provided to support this Supplemental filing:

- 1) Confidential Work Paper-Attachment A_(2)(d), total number of unbundled and bundled RECs.
- 2) Work Paper B-1__ (2)(f)(r)(s), supplemented
- 3) Work Paper C-1__ (2)(h) generating facilities, supplemented
- 4) Work Paper D__ (2)(k) RECs compliance
- 5) Work Paper E__ (2)(b)(c)(d)(e) RECs compliance, inadvertently omitted from the original filing; and
- 6) Work Paper F__ (2)(k)(l)(m)(n) RECs to Retire, and inadvertently omitted from the original filing.

Work Papers B-1, C-1, D, E and F have been forwarded to the OPUC work paper e-mail address. Work Paper-Attachment A is proprietary and confidential information and subject to OPUC Protective Order No. 19-194 issued by the Public Utility Commission of Oregon and is provided through the US Mail.

UM 2016PGE Supplemental Compliance Report
Page two
Public Utility Commission of Oregon
July 23, 2019

If you have any questions or require further information, please call Jay Tinker at (503) 464-7805 or Richard George at (503) 464-7611. Please direct all formal correspondence and requests to the following email addresses: richard.george@pgn.com and pge.opuc.filings@pgn.com

Sincerely,



Jay Tinker
Director, Regulatory Policy and Affairs

JT/lh

Enclosures

cc: UM 2016 Service List

Service Lists

UM 2016

I certify that I served a true and correct copy of Portland General Electric Company's (PGE's) Renewable Portfolio Standard Supplemental Compliance Report for 2018 on the parties listed below via electronic mail in compliance with OAR 860-001-0180.

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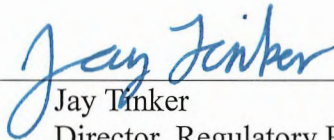
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Dated this 23rd day of July, 2019.



Jay Tinker

Director, Regulatory Policy and Affairs



UM 2016

Portland General Electric Company

**Renewable Portfolio Standard
Supplemental Compliance Report
2018**

July 23, 2019

**Portland General Electric Company
2018 Renewable Portfolio Standard
Supplemental Compliance Report
UM 2016**

Introduction and Summary:

As required by ORS 469A.170, Portland General Electric Company (PGE), respectfully submits this 2018 Renewable Portfolio Standard Supplemental Compliance Report to the Public Utility Commission of Oregon (Commission or OPUC), to fulfill the requirements of Oregon’s renewable portfolio standard (RPS). This report is based on information from PGE’s 2016 Integrated Resource Plan (IRP), LC 66, and PGE’s 2016 Renewable Portfolio Standard (RPS) Revised Renewable Portfolio Implementation Plan (RPIP), UM 1788, filed July 15, 2016.

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

Yes. The 2018 RPS Compliance Report (supplemented) shows that PGE has met its 2018 RPS target. The compliance details are provided in this report.

2018 RPS Compliance Report and Requirements of OAR 860-083-0350:

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 2018, the total number of megawatt-hours sold to retail electricity consumers was:

PGE's Total Billed Load: 17,344,830 megawatt-hours

Source: 2018 PGE FERC Form 1 (Page 304, Row 41, Column b).

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:

A total of 520,345 unbundled renewable energy certificates (RECs) were acquired in and used to meet the renewal portfolio standard in compliance year 2018 (Jan.1, 2018 – Dec. 31, 2018). A total of 5,092 bundled RECs were acquired in compliance year 2018 and used to meet the renewal portfolio standard in compliance year 2018 (Jan.1, 2018 through Dec. 31, 2018).

See PGE Work Paper E (2)(b)(c)(d)(e).

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 were 4,500 bundled RECs acquired between January 1, 2019 and March 31, 2019 that will be used to meet the RPS requirement for compliance year 2018.

There were no unbundled RECs acquired and/or issued between January 1, 2019 and March 31, 2019 that will be used to meet the RPS requirement for compliance year 2018.

See PGE Work Paper E (2)(b)(c)(d)(e).

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:

Confidential Work Paper A provides the RECs and cost by facility for the 2018 unbundled RECs used to meet the RPS. PGE is using the maximum allowable unbundled RECs, which is 20% of PGE's total obligation.

See also PGE Work Paper E (2)(b)(c)(d)(e).

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 (generated and planned to be used for retirement purposes) bundled RECs that will be used to meet the RPS for compliance year 2018 is:

$$2,066,469 = (2,601,725 - 520,345 - 14,911^1)$$

See PGE Work Paper E (2)(b)(c)(d)(e).

¹ Excludes 14,911 of two-for-one (2:1) RECs, for qualifying systems as prescribed in ORS 757.375, because these RECs are not banked

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:

As of this filing there were no unbundled RECs issued in the compliance year that were banked to serve Oregon electricity consumers.

As of this filing, there are 2,187,774 bundled RECs issued for the compliance year 2018 that will be banked to serve Oregon electricity consumers.

2018 Bundled Recs	2,193,093
Subtract 2 for 1 Solar RECs	(14,911)
Total Less 2 for 1 Solar Recs	2,178,182
Add Purchased Bundled for 2018	9,592
Total for (2)(f)	2,187,774
Total Bundled Certificates for (2)(f)	9,592

See also Supplemental Work Paper B-1_Supp (f)(r)(s), for detail by facility of total RECs generated, the 2018 column.

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 2017 Compliance Report filed June of 2018 and supplemented in July of 2018.

Facility	Year	Total
Biglow Canyon Wind Farm - Biglow Canyon 3	2018	266,848
Biglow Canyon Wind Farm - Biglow Phase 2	2018	356,848
Tucannon River Wind Farm - Tucannon River 1	2018	392,750
Tucannon River Wind Farm - Tucannon River 2	2018	345,843
Totals		1,362,289

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;
- (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 Supplemental Work Paper C-1_(2)(h).

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 has not made any voluntary alternative compliance payments for 2018.

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:

See PGE Work Paper D_(2)(k). The WREGIS report titled ‘Certificates in Active Sub-Account’ shows all RECs to be used to meet PGE’s 2018 RPS. The RECs are currently in an active sub-account named “2018 Compliance RPS.” Within 30 days of the approval of PGE’s 2018 RPS Compliance Report by the Commission, the RECs will be retired to a retirement sub-account named “OR RPS 2018.” To validate compliance, PGE will then send a retirement report from WREGIS to the Commission.

See also Work Paper F_(2)(k)(l)(m)(n) for additional support for (2)(k).

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 2018 REC requirements as forecasted in UM 1788 (PGE’s 2016 Revised RPIP) and the proposed 2018 REC retirements for 2018 RPS Compliance (Work Paper “D_(2)(k)). There is a lower overall compliance requirement due to lower than forecast loads;

- REC purchases: as stated in prior RPIPs, PGE intends to continue monitoring REC activity and may transact for bundled or unbundled RECs strategically on behalf of customers. Unbundled RECs beyond those included in our 2016 Revised RPIP were available at low prices consistent with prior unbundled REC purchases; thus, PGE purchased and proposes to retire unbundled RECs at the allowed amount equal to 20% of the 2018 RPS obligation. Consistent with previous years, PGE monitors for and attempts to acquire bundled RECs beyond what was included in our 2016 Revised RPIP where available at low prices and when economically beneficial to PGE’s customers considering PGE’s overall compliance strategy. The opportunities for REC transactions continue to be illiquid, meaning limited counterparties and pricing uncertainty, thus, PGE does not project to procure any unbundled or bundled RECs on a forward basis.

Biglow Canyon and Tucannon River RECs: The distribution of actual retired RECs across the Biglow Canyon and Tucannon River wind projects differ from the 2016 Revised RPIP due to differences in the forecasted and actual REC bank positions by REC type and vintage prior to retirement and the use of unbundled RECs for compliance. PGE retired RECs in the following priority: retirement of 5-year RECs over infinite-life RECs, and retirement of older 5-year RECs over newer 5-year RECs. The distribution of REC retirements by resource is highly dependent on the REC type and vintage within each resource. These differences increased the retired RECs from Biglow Canyon Phase 1 and

2 and fewer of the retired RECs from Biglow Canyon Phase 3 and Tucannon River. Retirement of purchased RECs also offset the retirement of Tucannon River RECs.

Resource	2018 Projection from 2016 RPIP	Actual RECs in 2018 Compliance Plan	Deviation from Forecast
Unbundled RECs	0	520,345	520,345
Biglow Canyon Phase 1	253,035	935,533	682,498
Biglow Canyon Phase 2	445,109	43,564	331,484
Biglow Canyon Phase 3	238,725	76,990	(401,545)
Tucannon River	892,764	99,600	(793,164)
Klondike II	217,434	192,653	(24,781)
Vansycle Wind Project	71,163	66,611	(4,552)
Pelton/Sullivan/Round Butte Low-Impact Hydro	438,000	438,000	-
Hydro Upgrades	100,785	91,577	(9,208)
Bellevue/Yamhill Solar	6,379	2,847	(3,532)
Outback Solar	20,244	9,275	(10,969)
ETO and Other Solar	26,821	16,168	(10,653)
Biogas	5,143	0	(5,143)
Purchased Bundled	-	93,651	93,651
Total	1,822,838	2,586,814	(763,976)

See also Work Paper F_(2)(k)(l)(m)(n) for additional support for (2)(l).

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)²
Biglow Canyon Phase 1	935,533	\$ 38,213,929
Biglow Canyon Phase 2	43,564	1,612,801
Biglow Canyon Phase 3	76,990	4,698,474
Tucannon River	99,600	2,089,355
Purchased Bundled	93,651	334,310
TOTAL	1,249,338	\$ 46,948,870

² Incremental cost as calculated in PGE's 2016 Revised RPIP (UM 1788) filed July 15, 2016 and updated for: 1) tax rates; 2) historical gas commodity prices and gas transportation rates; 3) forecasted gas transportation rates; and 4) forecasted gas commodity costs.

* 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.

See also work paper F_(2)(k)(l)(m)(n) for additional support for (2)(m).

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 2018 is: \$1,813,197,333³

PGE's total cost of compliance for 2018 is:

$$[2(d) + 2(m)] = \$189,375 + \$46,948,870 = \$47,138,245$$

Cost of compliance as percentage of revenue requirement is:

$$\$47,138,245 / \$1,813,197,333 = \mathbf{2.6\%}$$

See also work paper F_(2)(k)(l)(m)(n) for additional support for (2)(n).

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:

PGE did not reach the 2018 Compliance Cost limit specified in ORS 469A.100(1).

³ Source: PGE's final revenue requirement as authorized by Commission Order No. 17-511, Docket No. UE 319 (2018 general rate case).

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 Supplemental Work Paper B-1_(2)(f)(r)(s).

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 Work Paper B-1_(2)(f)(r)(s) for items associated with footnote 5.

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 post its compliance report in accordance with the 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 provide information about its compliance report to its customers in accordance with this requirement, within 90-days of the Commission decision or coordinated within the next available bill insert as required under OAR 860-038-0300.

**Portland General Electric
Renewable Portfolio Standard
Supplemental Compliance Report 2018
UM 2016**

Confidential Work Paper – Attachment A

Total number and cost of unbundled RECs,
banked and/or non-banked certificate

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

[Word Format]

submitted to puc.workpapers@state.or.us]

**Confidential and proprietary and subject to
OPUC Protective Order No. 19-194**

**Portland General Electric
Renewable Portfolio Standard
Supplemental Compliance Report 2018**

UM 2016

Supplemental Work Paper B-1

REC Retirements

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

[Excel Format – Supplemented]

submitted to puc.workpapers@state.or.us]

**Portland General Electric
Renewable Portfolio Standard
Supplemental Compliance Report 2018**

UM 2016

Supplemental Work Paper C-1

Generating Facilities

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

[Excel Format – Supplemented]

Submitted to puc.workpapers@state.or.us

**Portland General Electric
Renewable Portfolio Standard
Supplemental Compliance Report 2018**

UM 2016

Work Paper D

RECs Compliance

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

[Excel Format]

submitted to puc.workpapers@state.or.us

**Portland General Electric
Renewable Portfolio Standard
Supplemental Compliance Report 2018**

UM 2016

Work Paper E

RECs Compliance

OAR 860-083-0350(2)(b)(c)(d)(e)

[Excel Format- inadvertently omitted from original filing]

and submitted to puc.workpapers@state.or.us

**Portland General Electric
Renewable Portfolio Standard
Supplemental Compliance Report 2018**

UM 2016

Work Paper F

RECs To Retire

OAR 860-083-0350 (2)(k)(l)(m)(n)

[Excel Format- inadvertently omitted from original filing]

and submitted to puc.workpapers@state.or.us