PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah, Suite 2000
Portland, Oregon 97232

December 27, 2021

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
Attn: Filing Center
201 High Street SE, Suite 100
Salem, OR 97301-3398

RE: UM 2212—PacifiCorp's Renewable Portfolio Standard Implementation Plan 2023–2025

On December 10, 2021, the Public Utility Commission of Oregon (Commission) Staff issued an email indicating they will be requesting a waiver of certain requirements of Oregon Administrative Rules (OAR) 860-083-0400 at the December 28, 2021 Public Meeting and that the recommendations would be similar to those requested for the 2019 compliance filings. In light of the timing of this waiver request, Staff provided guidance to the utilities on what should be included in their 2021 compliance filing based on Staff's proposed recommendations.

In compliance with ORS 469A.075, OAR 860-083-0400(1) and (6)-(10), and the guidance provided by Staff on December 10, 2021, PacifiCorp d/b/a Pacific Power encloses for filing its Oregon Renewable Portfolio Standard Implementation Plan for the compliance years 2023-2025 (2023-2025 Plan).

This filing includes confidential and public versions of the 2023-2025 Plan attachments. In addition, confidential work papers associated with this filing have been sent via encrypted email. Confidential material in support of this filing is provided under Order No. 21-467.

PacifiCorp respectfully requests that all data requests in this docket be addressed to:

By email (preferred): datarequest@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah Street, Suite 2000
Portland, Oregon 97232

Please direct any informal questions concerning this filing to Cathie Allen, Regulatory Affairs Manager, at (503) 813-5934.

Sincerely,

Shelley McCoy
Director, Regulation

Enclosures

PacifiCorp
Oregon Renewable Portfolio Standard
Implementation Plan
2023 through 2025

In accordance with Oregon Revised Statute (ORS) 469A.075, Oregon Administrative Rule (OAR) 860-083-0400,[1] and Order No. 19-447 PacifiCorp, d/b/a Pacific Power (Company or PacifiCorp), respectfully submits its 2023 through 2025 Oregon Renewable Portfolio Implementation Plan (2023–2025 Plan) to the Public Utility Commission of Oregon (Commission).

Summary

This 2023–2025 Plan shows that PacifiCorp intends to meet Oregon Renewable Portfolio Standard (RPS) targets during compliance years 2023–2025 with a combination of bundled and unbundled renewable energy certificates (RECs) from existing Oregon-eligible renewable resources and resources under development that are anticipated to be Oregon RPS-eligible.

The 2023–2025 Plan was prepared with information consistent with PacifiCorp's 2021 Integrated Resource Plan (IRP), unless stated otherwise.[2] The Company's IRP process and its filed documentation are based on the best available information at the time the IRP was prepared. PacifiCorp's 2021 IRP Action Plan represents a road map for implementation of the preferred portfolio. Consistent with the 2021 IRP Action Plan and preferred portfolio, the 2023–2025 Plan includes new utility-owned or contracted wind resources added in the 2023 timeframe as well as new utility-owned or contracted solar resources in the 2024 timeframe. The current economic and regulatory environments are continually changing, and PacifiCorp may modify its plans as state and federal legislation and regulations evolve. Such changes may materially impact resource acquisitions and the timing of those acquisitions.

In the 2023–2025 Plan, the Company included renewable resources that have been acquired or are under contract and received Oregon Department of Energy (ODOE) certification to qualify as eligible for the Oregon RPS. The 2023–2025 Plan also includes resources anticipated to receive certification as eligible for the Oregon RPS under ORS 469A.025. The 2023–2025 Plan also assumes that all qualifying resources will be recertified with the ODOE to maintain eligibility through the 2023–2025 reporting period. As shown in the 2023–2025 Plan, the existing qualifying resources and resources under development will enable PacifiCorp to meet the 2023–2025 Oregon RPS targets. The 2023–2025 Plan currently assumes that PacifiCorp will use its bank of bundled RECs and that the Company will not purchase additional unbundled RECs to meet RPS targets in the 2023–2025 reporting period.

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[1]The Commission granted a waiver of OAR 860-083-0400 sections 2-5 on December 28, 2021, to allow time for the Commission, staff, and parties to address various RPS-related issues in AR 610 and AR 616. In its waiver, the Commission required parties to submit an RPIP for the next odd-numbered year and the subsequent two years (2021–2023).

[2] PacifiCorp's 2021 IRP was filed with the Commission on September 1, 2021, Docket No. LC 77.

Similar to PacifiCorp's 2021-2023 implementation plan[3] (the 2021-2023 Plan), the 2023–2025 Plan shows that for some of the eligible resources, the expected incremental costs are positive (costs higher than a proxy resource), while for other resources, the expected incremental costs are negative (costs less than a proxy resource). However, using the methodology established by Commission-adopted rules, the 2023–2025 Plan shows that the expected incremental costs do not trigger the four percent cost limit under ORS 469A.100.

Implementation Plan

For the 2023–2025 Plan, the Company anticipates complying with the applicable Oregon RPS using bundled and unbundled RECs.[4] The 2023–2025 Plan assumes that RECs with the shortest lives will be used first for RPS compliance before RECs with longer or unlimited lives. The Company does not plan to use any bundled RECs issued between January 1 through March 31 of the year following the compliance year or alternative compliance payments.

The format used in the 2023–2025 Plan is to state each requirement, followed by PacifiCorp's response to each of the stated subsections.

[3] PacifiCorp's 2021-2023 Plan was filed with the Commission on December 31, 2019, in Docket No. UM 2049.
[4] All of the unbundled RECs that the Company intends to use for compliance during this period were acquired as part of the Company's 2016 REC Request for Proposals (RFP). PacifiCorp continues to treat as unbundled RECs the portion of RECs purchased under the 2016 REC RFP where the energy from the resources is allocated to states other than Oregon.

ORS 469A.075(2)(a)
Annual targets for acquisition and use of qualifying electricity. The annual megawatt-hour target for compliance with the applicable renewable portfolio standard based on the forecast of electricity sales to its Oregon retail electricity customers.

Response:

Table 1 below provides the estimated annual megawatt-hour (MWh) target for compliance, based on PacifiCorp's 2021 IRP load forecast.

Table 1	**2023**	**2024**	**2025**
Applicable RPS Standard as % of Electricity Sold	20%	20%	27%
Estimated PacifiCorp Oregon RPS Target (MWh)	2,739,186	2,779,734	3,757,774

Table 2 below shows the generating facilities that have been certified by ODOE as eligible for the Oregon RPS program and resources that are under development and expected to be certified as eligible for the Oregon RPS program. The generating facilities, either owned by the Company or under contract, are expected to provide RECs for compliance with the Oregon RPS during the 2023–2025 reporting period.

Table 2 also lists the year the generating facilities became operational, or are expected to become operational, the energy source, and the state where each facility is located. **Confidential Attachment B** provides Oregon's allocation of actual and expected annual MWh output for each resource.

Table 2

Energy Source	Generating Facility	State	Commercial Operation Year
BIOGAS	Hill Air Force Base	UT	2005
BIOMASS	Roseburg Forest Products – Dillard*	OR	2019
GEOTHERMAL	Blundell II	UT	2007
WIND	Campbell Hill-Three Buttes (PPA)	WY	2009
	Cedar Springs Wind, LLC	WY	2020
	Cedar Springs Wind III, LLC	WY	2020
	Cedar Springs Transmission	WY	2020
	Combine Hills (PPA)	OR	2003
	Dunlap I	WY	2010
	Ekola Flats Wind	WY	2020
	Foote Creek I	WY	1999
	Glenrock	WY	2008
	Glenrock III	WY	2009
	Goodnoe Hills	WA	2008
	High Plains	WY	2009
	Latigo	WY	2016
	Leaning Juniper I	OR	2006
	Marengo	WA	2007
	Marengo II	WA	2008
	Meadow Creek – Five Pine*	ID	2012
	Meadow Creek – North Point*	ID	2012
	McFadden Ridge	WY	2009
	Mountain Wind Power (PPA)	WY	2008
	Mountain Wind Power II (PPA)	WY	2008
	Pioneer Wind	WY	2016
	Rock River I (PPA)	WY	2001
	Seven Mile Hill I	WY	2008
	Seven Mile Hill II	WY	2008
	TB Flats Wind I-II	WY	2021
	Top of the World (PPA)	WY	2010
	Wolverine Creek (PPA)	ID	2006
	2021 IRP Proxy Wind + Storage*	TBD	2024
HYDRO	Ashton	ID	1917
	Big Fork	MT	1929
	Clearwater 1	OR	1953
	Clearwater 2	OR	1953
	Copco 1	CA	1918
	Cutler	UT	1927
	Fish Creek	OR	1952
	Grace	ID	1908
	JC Boyle	OR	1958
	Lemolo 1	OR	1955
	Lemolo 2	OR	1956
	Oneida	ID	1915
	Pioneer	UT	1897
	Prospect 2	OR	1928
	Prospect 3	OR	1932
	Slide Creek	OR	1951
	Soda	ID	1924
	Soda Springs	OR	1952

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Table 2

Energy Source	Generating Facility	State	Commercial Operation Year
	Toketee	OR	1950
	Yale	WA	1953
SOLAR CAPACITY STANDARD	Black Cap	OR	2012
OREGON SOLAR INCENTIVE PROGRAM (OSIP)	Oregon Solar Incentive Program - Central Oregon (CO 1)	OR	2010
	Oregon Solar Incentive Program - Central Oregon (CO 2)	OR	2011
	Oregon Solar Incentive Program - Central Oregon (CO 3)	OR	2013
	Oregon Solar Incentive Program - Central Oregon (CO 4)	OR	2016
	Oregon Solar Incentive Program - Columbia River (CR 1)	OR	2011
	Oregon Solar Incentive Program - Columbia River (CR 2)	OR	2014
	Oregon Solar Incentive Program - Eastern Oregon (EO 1)	OR	2010
	Oregon Solar Incentive Program - Eastern Oregon (EO 2)	OR	2011
	Oregon Solar Incentive Program - Portland Oregon (PO 1)	OR	2010
	Oregon Solar Incentive Program - Portland Oregon (PO 2)	OR	2013
	Oregon Solar Incentive Program - Portland Oregon (PO 3)	OR	2016
	Oregon Solar Incentive Program - Southern Oregon (SO 1)	OR	2010
	Oregon Solar Incentive Program - Southern Oregon (SO 2)	OR	2011
	Oregon Solar Incentive Program - Southern Oregon (SO 3)	OR	2011
	Oregon Solar Incentive Program - Southern Oregon (SO 4)	OR	2012
	Oregon Solar Incentive Program - Southern Oregon (SO 5)	OR	2012
	Oregon Solar Incentive Program - Southern Oregon (SO 6)	OR	2013
	Oregon Solar Incentive Program - Southern Oregon (SO 7)	OR	2013
	Oregon Solar Incentive Program - Southern Oregon (SO 8)	OR	2013
	Oregon Solar Incentive Program - Southern Oregon (SO 9)	OR	2013
	Oregon Solar Incentive Program - Southern Oregon (SO 10)	OR	2014
	Oregon Solar Incentive Program - Southern Oregon (SO 11)	OR	2014
	Oregon Solar Incentive Program - Southern Oregon (SO 12)	OR	2015
	Oregon Solar Incentive Program - Southern Oregon (SO 13)	OR	2016
	Oregon Solar Incentive Program - Willamette Valley (WV 1)	OR	2010
	Oregon Solar Incentive Program - Willamette Valley (WV 2)	OR	2011
	Oregon Solar Incentive Program - Willamette Valley (WV 3)	OR	2012
	Oregon Solar Incentive Program - Willamette Valley (WV 4)	OR	2013
	Oregon Solar Incentive Program - Willamette Valley (WV 5)	OR	2013
	Oregon Solar Incentive Program - Willamette Valley (WV 6)	OR	2013
	Oregon Solar Incentive Program - Willamette Valley (WV 7)	OR	2014
	Oregon Solar Incentive Program - Willamette Valley (WV 8)	OR	2015
	Oregon Solar Incentive Program - Willamette Valley (WV 9)	OR	2015
	Oregon Solar Incentive Program - Willamette Valley (WV 10)	OR	2017
	Lakeview	OR	2012
	Lakeview II	OR	2013
	Oregon Solar Incentive Program - (Joseph Community) Wallowa County	OR	2011
	Powell Butte	OR	2014
	Crook County Solar	OR	2014
	Confederated Tribes of Warm Springs (CTWS)	OR	2014
	Solwatt	OR	2012
	Solwatt II	OR	2014
	Bourdet	OR	2014
	Bourdet II	OR	2016
	Keeton 1	OR	2016
	Keeton 2	OR	2016
	Hammerich 1	OR	2016
	Hammerich 2	OR	2016

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Table 2

Energy Source	Generating Facility	State	Commercial Operation Year
	Oregon Solar Incentive Program - Remaining Capacity	OR	2016-2020
SOLAR	Pavant Solar II LLC	UT	2016
	Pavant Solar, LLC	UT	2015
	Enterprise Solar, LLC	UT	2016
	Adams Solar Center, LLC	OR	2018
	Bear Creek Solar Center, LLC	OR	2018
	Bly Solar Center, LLC	OR	2018
	Elbe Solar Center, LLC	OR	2018
	Captain Jack Solar*	OR	2021
	Chiloquin Solar*	OR	2018
	Granite Mountain – East*	UT	2016
	Granite Mountain – West*	UT	2016
	Iron Springs Solar*	UT	2016
	Klamath Falls Solar 2 (Ewauna Solar)*	OR	2017
	Norwest Energy 9 (Pendleton)*	OR	2018
	Oregon Solar Land Holdings (OLSH) *	OR	2017
	OR Solar 2, LLC (Agate Bay Solar) *	OR	2020
	OR Solar 3, LLC (Turkey Hill Solar) *	OR	2017
	OR Solar 5, LLC (Merrill Solar) *	OR	2018
	OR Solar 6, LLC (Lakeview Solar) *	OR	2017
	OR Solar 8, LLC (Dairy Solar) *	OR	2018
	Orchard Wind Farm 1, LLC*	OR	2020
	Orchard Wind Farm 2, LLC*	OR	2020
	Orchard Wind Farm 3, LLC*	OR	2020
	Orchard Wind Farm 4, LLC*	OR	2020
	Sage Solar 1	WY	2019
	Sage Solar 2	WY	2019
	Sage Solar 3	WY	2019
	Sweetwater Solar	WY	2018
	Tumbleweed Solar*	OR	2017
	Woodline Solar*	OR	2017
	2021 IRP Proxy Solar + Storage*	TBD	2023

*Indicates resource has not been included in previous Oregon Implementation Plans. In some cases, PacifiCorp may only receive RECs for a portion of the term of the contract.

ORS 469A.075(2)(b)
The estimated cost of meeting the annual targets, including: The cost of transmission, firming, shaping and integrating qualifying electricity; The cost of alternative compliance payments and the cost of acquiring renewable energy certificates (RECs); A description of base case incremental cost calculations, using the cost of the RECs retired in a year; Reporting on the incremental cost of RECs generated in each year; and Sensitivities for the use of 20% unbundled RECs and different gas price scenarios.

Response:

Table 3 shows the forecast of the expected incremental costs, on an Oregon-allocated basis, for the qualifying electricity for generating facilities or contracts in service after June 6, 2007. Low impact hydroelectric facilities and qualifying generating facilities or contracts that went into service before June 6, 2007, are deemed to have zero incremental costs, in accordance with OAR 860-083-0100(1)(i).[5]

Using a March 31, 2021 official forward price curve (OFPC) that was used as a base case in the 2021 IRP, **Table 3** below lists the incremental costs for each qualifying resource. Qualifying resources with a positive expected incremental cost represent costs higher than a proxy resource and negative costs (within brackets) represent a benefit relative to a proxy resource. PacifiCorp also provides an additional scenario with the most current OFPC dated November 8, 2021. The cost of new resources that were not included in the 2021–2023 Plan filing are included in **Table 3** and marked with an asterisk.

Table 3

2023–2025 Summary
Oregon Allocated Nominal Levelized Incremental Costs ($000)
For Specific Qualifying Resources

2021 IRP Base Case – March 31, 2021 OFPC

Resource	2023	2024	2025
Blundell II	($494)	($489)	($489)
Campbell Hill-Three Buttes	$1,900	$1,883	$1,883

[5] OAR 860-083-0100(1)(h) states that "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 under ORS 469A.025(5)."

Table 3

2023–2025 Summary
Oregon Allocated Nominal Levelized Incremental Costs ($000)
For Specific Qualifying Resources

2021 IRP Base Case – March 31, 2021 OFPC

Resource	2023	2024	2025
Cedar Springs Wind I (PPA)	($4,216)	($4,176)	($4,176)
Cedar Springs Wind II (owned)	($6,465)	($6,404)	($6,404)
Cedar Springs Wind III (PPA)	($2,570)	($2,546)	($2,546)
Dunlap I	($1,060)	($1,050)	($1,050)
Ekola Flats Wind	($2,321)	($2,299)	($2,299)
Foote Creek I[6]	($1,207)	($1,196)	($1,196)
Glenrock	($4)	($4)	($4)
Glenrock III	$26	$25	$25
Goodnoe Hills	($437)	($433)	($433)
High Plains	$245	$242	$242
McFadden Ridge	($227)	($225)	($225)
Marengo	($1,536)	($1,536)	($1,536)
Marengo II	($189)	($188)	($188)
Mountain Wind Power	$327	$324	$324
Mountain Wind Power II	$954	$945	$945
Seven Mile Hill I	($1,250)	($1,238)	($1,238)
Seven Mile Hill II	($257)	($255)	($255)
TB Flats Wind I-II	($4,113)	($4,075)	($4,075)
Top of the World	$3,356	$3,324	$3,324
Pioneer Wind Park I QF	($335)	($332)	($332)
Latigo Wind Park QF	$842	$834	$834
Pavant II Solar QF	($651)	($651)	($651)

[6] Although this resource was operational before June 6, 2007, and therefore its incremental cost is deemed to be zero, the Company made significant investment in repowering this facility in 2019-2020 and provides an incremental cost calculation from the time of repowering, per OAR 860-083-0100 (4)(a).

Table 3

2023–2025 Summary
Oregon Allocated Nominal Levelized Incremental Costs ($000)
For Specific Qualifying Resources

2021 IRP Base Case – March 31, 2021 OFPC

Resource	2023	2024	2025
Black Cap Solar	$115	$115	$115
Adams Solar QF	$182	$180	$180
Bear Creek Solar QF	$183	$181	$181
Bly Solar QF	$148	$146	$146
Elbe Solar QF	$210	$208	$208
Enterprise Solar QF	($928)	($920)	($920)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Sage Solar 1 QF	($608)	($602)	($602)
Sage Solar 2 QF	($611)	($605)	($605)
Sage Solar 3 QF	($509)	($504)	($504)
Sweetwater Solar QF	($2,531)	($2,508)	($2,508)
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28

Table 4 summarizes the results of an additional gas price scenario using a more recent November 2021 Official Forward Price Curve.

Table 4

2023–2025 Summary
Oregon Allocated Nominal Levelized Incremental Costs ($000)
For Specific Qualifying Resources

Additional Scenario - November 2021 OFPC

Resource	2023	2024	2025
Blundell II	($498)	($493)	($493)
Campbell Hill-Three Buttes	$1,837	$1,819	$1,819
Cedar Springs Wind I (PPA)	($3,914)	($3,877)	($3,877)
Cedar Springs Wind II (owned)	($6,018)	($5,962)	($5,962)
Cedar Springs Wind III (PPA)	($2,375)	($2,353)	($2,353)
Dunlap I	($1,832)	($1,815)	($1,815)
Ekola Flats Wind	($1,832)	($1,815)	($1,815)
Glenrock	$100	$101	$101
Glenrock III	$67	$66	$66
Goodnoe Hills	($447)	($443)	($443)
High Plains	$358	$355	$355
McFadden Ridge	($195)	($193)	($193)
Marengo	($1,109)	($1,109)	($1,109)
Marengo II	($128)	($127)	($127)
Mountain Wind Power	$319	$316	$316
Mountain Wind Power II	$945	$936	$936
Seven Mile Hill I	($1,132)	($1,121)	($1,121)
Seven Mile Hill II	($234)	($232)	($232)
TB Flats Wind I-II	($3,113)	($3,084)	($3,084)
Top of the World	$3,225	$3,225	$3,225
Pioneer Wind Park I QF	($335)	($332)	($332)
Latigo Wind Park QF	$842	$834	$834
Pavant II Solar QF	($651)	($651)	($651)

Table 4

2023–2025 Summary
Oregon Allocated Nominal Levelized Incremental Costs ($000)
For Specific Qualifying Resources

Additional Scenario - November 2021 OFPC

Resource	2023	2024	2025
Black Cap Solar	$115	$115	$115
Adams Solar QF	$169	$168	$168
Bear Creek Solar QF	$171	$169	$169
Bly Solar QF	$138	$137	$137
Elbe Solar QF	$197	$196	$196
Enterprise Solar QF	($928)	($920)	($920)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Sage Solar 1	($595)	($590)	($590)
Sage Solar 2	($598)	($593)	($593)
Sage Solar 3	($499)	($494)	($494)
Sweetwater Solar	($2,491)	($2,467)	($2,467)
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28

Table 5 below lists the cost of acquiring unbundled RECs based on the weighted average cost of the Company's purchases through the 2016 REC RFP multiplied by the

total number of unbundled RECs expected to be used for compliance in a given year.[7] RECs with the shortest life are assumed to be used first.

Table 5

2023–2025 Summary
Oregon Allocated Incremental Costs ($000)
For Unbundled RECs

2021 IRP Base Case- March 2021 OFPC

Resource	2023	2024	2025
Enterprise Solar	$346	$343	$341
Pavant Solar	$346	$343	$341
Adams Solar	$346	$343	$341
Bear Creek Solar	$346	$343	$341
Bly Solar	$346	$343	$341
Elbe Solar	$346	$343	$341

Table 6 shows resources that are forecast to be used in future compliance years. PacifiCorp intends to provide incremental cost calculations for these resources in the compliance report for the compliance year for which they are used, and in subsequent implementation plans, in accordance with OAR 860-083-0100 (13)(b).

Table 6 – Resources Used In Future Compliance Years

Resource	Commercial Operation Year	Expected year of use for compliance	Expected Incremental Cost Calculation
Captain Jack Solar	2022	2022	2023 RPS Report
Chiloquin Solar	2018	2024	2025 RPS Report
Klamath Falls Solar 2 (Ewauna Solar)	2017	2024	2025 RPS Report
Meadow Creek - Five Pine	2012	2022	2023 RPS Report
Meadow Creek - North Point	2012	2022	2023 RPS Report
Norwest Energy 9 (Pendleton) (QF)	2018	2024	2025 RPS Report
Oregon Solar Land Holdings (OLSH)	2017	2024	2025 RPS Report
OR Solar 2, LLC (Agate Bay Solar)	2020	2024	2025 RPS Report

[7] Refer to PAC OR 2023–2025 Plan Total Compliance Cost Workpaper CONFIDENTIAL

Table 6 – Resources Used In Future Compliance Years			
Resource	**Commercial Operation Year**	**Expected year of use for compliance**	**Expected Incremental Cost Calculation**
OR Solar 3, LLC (Turkey Hill Solar)	2017	2024	2025 RPS Report
OR Solar 5, LLC (Merrill Solar)	2018	2024	2025 RPS Report
OR Solar 6, LLC (Lakeview Solar)	2017	2024	2025 RPS Report
OR Solar 8, LLC (Dairy Solar)	2018	2024	2025 RPS Report
Orchard Wind Farm 1, LLC	2020	2024	2025 RPS Report
Orchard Wind Farm 2, LLC	2020	2024	2025 RPS Report
Orchard Wind Farm 3, LLC	2020	2024	2025 RPS Report
Orchard Wind Farm 4, LLC	2020	2024	2025 RPS Report
Roseburg Dillard	2019	2021	2022 RPS Report
Skysol Solar	2023	2023	2024 RPS Report
Tumbleweed Solar	2017	2024	2025 RPS Report
Woodline Solar	2017	2024	2025 RPS Report

Confidential Attachment C provides an explanation of the key assumptions that PacifiCorp used to forecast the expected incremental costs of renewable resources during the 2023–2025 reporting period, consistent with OAR 860-083-0100 and Order No. 12-272 in docket UM 1570.

Confidential Attachment D provides additional detail of the forecast of the expected incremental cost calculation, consistent with the methodology in OAR 860-083-0100. The calculations are consistent with assumptions in the Company's 2021 IRP, as well as the additional sensitivity (Scenario 6) based on the November 2021 OFPC.

Resource and Compliance Strategy Changes Between This Plan and 2023 Renewable Portfolio Standard Implementation Plan
Major changes/new resources that have been acknowledged or proposed and how that could change their compliance strategy between now and the next scheduled RPIP in 2023.

Response:
PacifiCorp's 2021 IRP includes new utility-owned or contracted wind resources added in the 2023 timeframe as well as new utility-owned or contracted solar resources in the 2024 timeframe. However, PacifiCorp does not expect these additional resources to change the company's compliance strategy between now and the next scheduled RPIP filing in 2023.

OAR 860-083-0400(6)
An implementation plan must provide a detailed explanation of how the implementation plan complies, or does not comply, with any conditions specified in a Commission acknowledgement order on the previous implementation plan and any relevant conditions specified in the most recent acknowledgement order on an integrated resource plan filed or updated by the electric company.

Response:

In Order No. 14-267 in docket UM 1681, the Commission acknowledged PacifiCorp's 2015–2019 Plan with the following two conditions for the 2017–2021 Plan and subsequent Plans:

- Include a "non-confidential summary of RPS total incremental costs for each scenario analyzed…."[8]

Attachment E provides a summary of the RPS incremental costs by resource for each scenario analyzed in the 2023–2025 Plan.

- Include "in subsequent [implementation plans] a scenario that uses the base case price curve assumptions (medium gas and medium CO2 prices) similar that used in the other scenarios in the [implementation plan], with the assumption the Company maximizes the use of unbundled RECs for each year analyzed in the [implementation plan] and assuming an unbundled REC price equal to the weighted average price paid for unbundled RECs used for compliance in their last compliance filing."[9]

Table 7 below provides a sensitivity for the base case scenario (March 31, 2021 OFPC) that maximizes the use of unbundled RECs in each year of the 2023–2025 Plan. For this scenario, the Company assumed an unbundled REC price of $1.88 per REC, consistent with PacifiCorp's 2020 Compliance Report (compliance year 2019) filed in docket UM 2100, June 1, 2020.[10]

[8] *In the Matter of PacifiCorp, dba Pacific Power, Renewable Portfolio Standard Implementation Plan 2015–2019,* Docket No. UM 1681, Order 14-267 at Appendix A (July 22, 2014).
[9] *Id*.
[10] Refer to PAC OR 2023–2025 Plan Unbundled RECs Workpaper CONFIDENTIAL. PacifiCorp did not retire any unbundled RECs for compliance in compliance year 2020. Therefore, it includes here, a weighted average of the price paid for unbundled RECs retired in the 2019 compliance year.

As discussed above, PacifiCorp's REC retirement strategy is to retire shorter-lived RECs first followed by longer- or unlimited-lived RECs. This strategy is applied to both bundled and unbundled RECs. PacifiCorp may periodically issue solicitations for unbundled RECs to assess cost-effective compliance opportunities. However, given the existing REC bank, PacifiCorp has not sought to purchase additional unbundled RECs in the 2023–2025 Plan.

Table 7

	MWh		
	2023 Forecast	**2024 Forecast**	**2025 Forecast**
Oregon Renewable Portfolio Standard Requirement	2,739,186	2,779,734	3,757,774
Planned Compliance Method (MWh)			
Bundled RECs	2,191,349	2,223,787	3,006,219
Unbundled RECs	547,837	555,947	751,555
Forecasted Cost ($/MWh)			
Bundled REC (Average $/$MWh)	$ (12.97)	$ (10.20)	$ (6.26)
Unbundled REC (Average $/MWh)	$ 1.88	$ 1.88	$ 1.88
Total Forecasted Incremental Cost of Compliance	$ (27,395,445)	$ (21,645,417)	$ (17,397,139)
Bundled REC	$ (28,425,358)	$ (22,690,576)	$ (18,810,034)
Unbundled REC	$ 1,029.913	$ 1,045,159	$ 1,412,895

In Order No. 17-010 in docket UM 1790, the Commission acknowledged PacifiCorp's 2017–2021 Plan with the following conditions for the 2017–2021 Plan and subsequent Plans:

> PacifiCorp must comply with the following steps when it commences a resource procurement action, for the purpose of complying with the Renewable Portfolio Standards (RPS) law, that materially deviates from its most recently filed Integrated Resource Plan or RPIP:
>
> Calculate new incremental costs with the new resource or resources included over a time period acceptable to PacifiCorp and Staff; and
>
> Respond to requests by the Commission regarding its new analysis arising out of the calculation set forth above; and

Participate in a stakeholder workshop to identify opportunities for revisions to the RPIP process and requirements.[11]

PacifiCorp has not commenced a resource procurement action for the purpose of complying with the RPS that materially deviates from the 2019 IRP.

In Order No. 18-186 in docket UM 1914, the Commission acknowledged PacifiCorp's 2019–2023 Plan with no additional conditions.

In Order 20-136 in docket UM 2049, the Commission acknowledged PacifiCorp's 2021-2023 Plan with no additional conditions.

OAR 860-083-0400(7)
If there are funds in holding accounts under ORS 469A.180(4) and if the electric company has not filed a proposal for expending such funds for the purposes allowed under ORS 469A.180(5), the implementation plan must include the electric company's plans for expending or holding such funds. If the plan is to hold such funds, the plan should indicate under what conditions such funds should be expended.

Response:

The Company does not have any funds in holding accounts authorized in accordance with ORS 469A.180(4). Accordingly, this requirement is not applicable at this time.

[11] *In the Matter of PacifiCorp, dba Pacific Power, 2017-2021 Renewable Portfolio Standard Implementation Plan,* Docket UM 1790, Order 17-010 at 1 (Jan. 13, 2017).

OAR 860-083-0400(9)
(a) Each electric company must post on its website the public portion of its most recent implementation plan under this rule within 30 days after a Commission acknowledgement order has been issued, including any conditions specified by the Commission under ORS 469.075(3). (b) Each electric company must provide a copy of the public portions of the most recently filed implementation plan to any person upon request, until the Commission has issued an acknowledgement order on such plan.

Response:

The Company will post the 2023–2025 Plan on its website within 30 days after a Commission acknowledgement order is issued. The Company will provide the public portions of the 2023–2025 Plan to any persons upon request.

OAR 860-083-0400(10)
Consistent with Commission orders for disclosure under OAR 860-038-0300, each electric company must provide information about the implementation plan to its customers by bill insert or other Commission-approved method. The information must be provided within 90 days of final action by the Commission on the plan or coordinated with the next available insert required under 860-038-0300. The information must include the URL address for the implementation plan posted under subsection (9)(a) of this rule.

Response:

In compliance with OAR 860-038-0300, the Company will provide information about the 2023–2025 Plan to its customers via bill inserts within 90 days of the final action by the Commission.

PacifiCorp
Renewable Portfolio Standard Oregon Implementation Plan 2023-2025

Confidential Attachment B

Bundled and Unbundled RECs
Expected Annual MWh Output
(Total Company and Oregon Share)

(Redacted Version)

PacifiCorp Oregon - 2023-2028 RPS Implementation Plan
Attachment B - Oregon's Renewable Energy Credit Share Per Allocation Factors (MWh)[1]

		State	COD[2]	WREGIS ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Forecast[3]	Forecast[3]	Forecast[3]	Forecast[3]	Forecast[3]
BIOGAS	Hill Air Force Base	UT	2005	W1263 / W1273	0	0	0	0	3,797	3,689	3,453	3,558	3,751	4,351	2,566	3,575	2,345	3,547					
	Total Biogas								**3,797**	**3,689**	**3,453**	**3,558**	**3,751**	**4,351**	**2,566**	**3,575**	**2,345**	**3,547**					
BIOMASS	Roseburg Forest Products - Dillard	OR	2019	W912	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Total Biomass																						
GEOTHERMAL	Blundell II	UT	2007	W230	2,526	18,822	22,876	19,786	21,937	21,213	18,870	19,455	18,113	17,433	17,320	12,948	0	7,789					
	Total Geothermal				**2,526**	**18,822**	**22,876**	**19,786**	**21,937**	**21,213**	**18,870**	**19,455**	**18,113**	**17,433**	**17,320**	**12,948**		**7,789**					
WIND	Campbell Hill-Three Buttes (PPA)	WY	2009	W1383	0	0	10,987	78,605	95,012	88,168	85,121	84,600	75,688	88,859	80,308	80,575	85,436	93,052					
	Cedar Springs Wind, LLC	WY	2020	W10953	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Cedar Springs Wind III, LLC	WY	2020	W10972	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Cedar Springs Transmission (BTA)	WY	2020	W11072	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Chevron Casper Wind Farm (PPA)	WY	2009	W1370	0	0	1,683	10,110	12,892	11,867	11,081	10,812	9,533	11,194	10,600	5,943	0	0					
	Combine Hills (PPA)	OR	2003	W189	117,181	114,458	104,572	104,663	118,643	108,721	102,419	107,568	91,036	116,764	93,507	113,680	85,522	120,232					
	Dunlap I	WY	2010	W1687	0	0	0	26,839	111,195	100,599	103,222	97,716	87,447	103,400	90,530	102,122	101,286	113,150					
	Ekola Flats Wind	WY	2021	W11488	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Foote Creek I	WY	1999	W201	15,666	18,091	14,242	14,650	16,656	13,251	13,469	15,558	12,586	17,365	15,425	16,392	16,963	13,351					
	Foote Creek II	WY	1999	W1363	0	0	0	0	0	0	0	763	1,327	1,449	1,400	1,547	711	0					
	Foote Creek III	WY	1999	W1141	0	0	0	0	0	0	0	8,336	16,083	20,215	17,074	19,200	10,153	0					
	Glenrock	WY	2008	W964	0	560	69,779	75,448	90,011	81,542	81,242	76,287	74,493	82,934	69,141	79,188	82,521	109,303					
	Glenrock III	WY	2009	W965	0	0	23,435	26,194	34,381	30,893	30,724	28,785	28,019	31,601	25,632	30,645	29,817	41,962					
	Goodnoe Hills	WA	2008	W536	232	54,050	65,244	55,620	63,226	57,344	57,269	55,304	48,072	59,591	49,462	60,072	15,164	88,697					
	High Plains	WY	2009	W1334	0	0	19,981	67,432	88,585	81,906	85,994	82,727	64,577	84,151	72,139	85,226	75,851	97,375					
	Latigo	WY	2016	W4909	0	0	0	0	0	0	0	0	0	21,709	39,859	40,569	43,580	44,369					
	Leaning Juniper I	OR	2006	W200	79,427	88,113	71,124	58,578	62,000	49,501	51,953	54,917	48,541	53,924	40,124	52,554	44,002	85,857					
	Marengo	WA	2007	W185	51,406	112,813	87,007	86,716	106,527	93,001	83,472	93,735	76,909	94,765	81,324	87,674	38,337	130,866					
	Marengo II	WA	2008	W772	0	22,114	43,504	43,359	51,329	46,038	38,962	44,589	35,485	45,343	39,525	42,854	24,049	57,444					
	McFadden Ridge	WY	2009	W1341	0	0	5,651	20,272	27,092	24,578	26,139	25,108	20,148	25,531	21,793	26,144	23,313	29,654					
	Meadow Creek - Five Pine	ID	2012	W3186	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Meadow Creek - North Point	ID	2012	W3185	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Mountain Wind Power (PPA)	WY	2008	W1022	0	21,888	35,272	39,153	49,250	44,474	42,065	48,893	36,164	42,820	42,465	41,382	40,343	46,530					
	Mountain Wind Power II (PPA)	WY	2008	W1023	0	16,401	55,752	52,948	63,599	59,065	57,418	65,199	47,122	56,225	55,904	57,083	54,231	59,629					
	Pioneer Wind	WY	2016	W5126	0	0	0	0	0	0	0	0	0	8,111	69,498	65,998	74,376	79,397					
	Rock River I (PPA)	WY	2001	W187	38,665	44,240	37,056	36,213	35,934	35,030	35,676	39,759	30,309	38,801	38,047	36,145	35,859	41,027					
	Seven Mile Hill I	WY	2008	W975	0	376	83,422	84,929	100,789	88,728	89,736	85,481	76,341	92,847	86,175	90,763	92,596	116,113					
	Seven Mile Hill II	WY	2008	W976	0	0	17,104	17,745	22,080	18,814	19,416	18,778	16,491	18,591	17,086	19,215	18,493	24,639					
	TB Flats Wind I	WY	2021	W12023	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	TB Flats Wind II	WY	2021	W12157	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Top of the World (PPA)	WY	2010	W1749	0	0	0	49,477	181,005	172,464	161,824	163,539	146,747	173,280	157,612	138,689	146,082	140,914					
	Wolverine Creek (PPA)	ID	2006	W188	40,868	47,992	42,262	42,485	52,451	46,266	38,811	46,892	36,785	46,527	44,360	44,656	43,139	50,318					
	2021 IRP Proxy Wind + Storage	TBD	2024	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Total Wind				**343,444**	**541,097**	**788,077**	**991,436**	**1,382,657**	**1,252,250**	**1,216,013**	**1,255,346**	**1,079,903**	**1,335,997**	**1,258,990**	**1,338,316**	**1,181,824**	**1,583,879**					
HYDRO	Ashton	ID	1917	W146	0	0	0	5,955	4,779	526	8,703	8,375	7,715	7,658	9,501	9,920	10,436	9,649					
	Big Fork	MT	1929	W179	199	324	332	353	382	362	317	336	288	332	233	285	302	310					
	Clearwater 1	OR	1953	W148	0	0	0	8,248	11,487	13,146	9,520	10,523	8,128	10,770	12,729	10,552	6,937	6,404					
	Clearwater 2	OR	1953	W149	0	0	0	7,783	14,875	14,042	9,924	11,454	8,274	12,091	17,453	9,623	9,428	6,027					
	Copco 1	CA	1918	W142	105	126	100	81	137	102	78	87	81	113	144	99	117	99					
	Cutler [4]	UT	1927	W151	136	628	1,004	13,221	41,743	13,421	8,363	10,533	9,328	17,351	38,043	18,513	23,811	17,426					
	Fish Creek	OR	1952	W153	0	0	0	9,820	12,189	11,105	3,973	6,157	2,044	9,274	10,903	3,845	5,504	5,644					
	Grace	ID	1914	W137	0	0	0	16,636	43,142	21,416	17,902	14,305	16,282	20,629	41,786	319	4,324	-					
	JC Boyle	OR	1958	W180	372	1,124	879	728	1,273	898	605	586	548	759	1,093	672	798	641					
	Lemolo 1 [4]	OR	1955	W157	3,446	4,281	3,581	29,188	44,405	43,184	31,220	35,939	31,804	35,682	45,082	32,538	30,129	22,469					
	Lemolo 2 [4]	OR	1956	W158	363	371	212	36,284	48,315	53,683	37,800	44,325	35,173	39,040	51,781	34,670	37,757	25,889					
	Oneida [4]	ID	1915	W160	803	746	699	7,464	20,418	8,549	7,144	5,534	7,430	10,609	24,257	16,131	13,496	13,543					
	Pioneer	UT	1897	W162	194	304	496	297	553	287	143	156	172	206	471	162	378	319					
	Prospect 2	OR	1928	W140	1,104	1,167	1,076	1,020	1,148	1,068	938	885	721	1,073	1,109	873	842	802					
	Prospect 3 [4]	OR	1932	W164	1,196	1,259	1,066	9,257	12,326	9,728	8,504	9,169	7,151	8,782	10,510	5,803	6,228	4,632					
	Slide Creek	OR	1951	W168	0	0	0	20,716	9,806	25,055	13,386	17,967	11,516	20,127	20,373	14,819	12,178	13,022					
	Soda	ID	1924	W170	0	0	0	3,658	9,283	5,192	4,089	3,871	3,869	4,833	8,781	7,821	5,469	932					
	Soda Springs	OR	1952	W171	0	0	0	13,598	18,743	13,105	11,537	13,796	8,824	16,261	15,564	11,494	10,027	10,208					
	Toketee	OR	1950	W173	0	0	0	49,510	69,665	68,399	49,366	57,754	47,363	61,967	65,779	50,833	12,875	8					
	Yale	WA	1953	W141	1,150	2,054	2,004	2,228	2,357	2,460	1,722	2,314	1,675	2,319	2,526	1,827	1,314	1,846					
	Total Hydro				**9,068**	**12,384**	**11,449**	**236,045**	**367,026**	**305,728**	**225,234**	**254,066**	**208,386**	**279,876**	**378,118**	**230,799**	**192,350**	**139,870**					
OREGON SOLAR IN	Oregon Solar Incentive Program - Central Oregon (CO 1)	OR	2010	W1686	0	0	0	11	209	403	409	399	340	342	332	354	329	348					
	Oregon Solar Incentive Program - Central Oregon (CO 2)	OR	2011	W2391	0	0	0	0	7	194	393	397	388	397	394	375	357	372					
	Oregon Solar Incentive Program - Central Oregon (CO 3)	OR	2013	W3671	0	0	0	0	0	0	22	230	356	365	351	375	340	358					
	Oregon Solar Incentive Program - Central Oregon (CO 4)	OR	2016	W5049	0	0	0	0	0	0	0	0	0	25	49	47	49	55					
	Oregon Solar Incentive Program - Columbia River (CR 1)	OR	2011	W1970	0	0	0	0	126	192	263	327	357	344	301	330	305	298					

PacifiCorp Oregon - 2023-2028 RPS Implementation Plan
Attachment B - Oregon's Renewable Energy Credit Share Per Allocation Factors (MWh)[1]

		State	COD[2]	WREGIS ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Forecast[3]	Forecast[3]	Forecast[3]	Forecast[3]	Forecast[3]
	Oregon Solar Incentive Program - Columbia River (CR 2)	OR	2014	W4436	0	0	0	0	0	0	0	0	41	14	13	12	13	14					
	Oregon Solar Incentive Program - Eastern Oregon (EO 1)	OR	2010	W1737	0	0	0	0	0	0	0	0	351	304	284	289	283	286					
	Oregon Solar Incentive Program - Eastern Oregon (EO 2)	OR	2011	W2611	0	0	0	0	0	116	200	298	378	364	384	384	356	388					
	Oregon Solar Incentive Program - Portland Oregon (PO 1)	OR	2010	W1738	0	0	0	2	81	189	299	310	311	278	298	323	275	280					
	Oregon Solar Incentive Program - Portland Oregon (PO 2)	OR	2013	W3672	0	0	0	0	0	0	17	111	220	251	269	298	245	239					
	Oregon Solar Incentive Program - Portland Oregon (PO 3)	OR	2016	W4910	0	0	0	0	0	0	0	0	0	97	115	111	108	110					
	Oregon Solar Incentive Program - Southern Oregon (SO 1)	OR	2010	W1806	0	0	0	3	362	419	453	437	513	409	420	408	463	441					
	Oregon Solar Incentive Program - Southern Oregon (SO 2)	OR	2011	W2240	0	0	0	0	161	420	573	508	515	472	445	513	501	440					
	Oregon Solar Incentive Program - Southern Oregon (SO 3)	OR	2011	W2392	0	0	0	0	35	453	537	484	482	451	472	458	429	425					
	Oregon Solar Incentive Program - Southern Oregon (SO 4)	OR	2012	W2690	0	0	0	0	0	316	467	450	427	403	395	423	415	409					
	Oregon Solar Incentive Program - Southern Oregon (SO 5)	OR	2012	W3207	0	0	0	0	0	8	438	436	405	403	425	431	381	386					
	Oregon Solar Incentive Program - Southern Oregon (SO 6)	OR	2013	W3516	0	0	0	0	0	0	302	412	417	422	385	398	416	399					
	Oregon Solar Incentive Program - Southern Oregon (SO 7)	OR	2013	W3554	0	0	0	0	0	0	182	408	399	380	382	380	386	396					
	Oregon Solar Incentive Program - Southern Oregon (SO 8)	OR	2013	W3673	0	0	0	0	0	0	8	375	386	394	413	366	373	369					
	Oregon Solar Incentive Program - Southern Oregon (SO 9)	OR	2013	W4084	0	0	0	0	0	0	0	275	338	406	345	379	409	301					
	Oregon Solar Incentive Program - Southern Oregon (SO 10)	OR	2014	W4187	0	0	0	0	0	0	0	152	446	415	400	431	419	416					
	Oregon Solar Incentive Program - Southern Oregon (SO 11)	OR	2014	W4485	0	0	0	0	0	0	0	1	363	314	139	329	370	241					
	Oregon Solar Incentive Program - Southern Oregon (SO 12)	OR	2015	W4576	0	0	0	0	0	0	0	0	146	356	425	515	499	504					
	Oregon Solar Incentive Program - Southern Oregon (SO 13)	OR	2016	W5521	0	0	0	0	0	0	0	0	0	4	12	15	15	16					
	Oregon Solar Incentive Program - Willamette Valley (WV 1	OR	2010	W1739	0	0	0	6	253	280	314	308	313	300	315	318	301	293					
	Oregon Solar Incentive Program - Willamette Valley (WV 2	OR	2011	W2326	0	0	0	0	14	202	380	395	391	427	391	355	372	369					
	Oregon Solar Incentive Program - Willamette Valley (WV 3	OR	2012	W3208	0	0	0	0	0	25	333	329	326	327	307	302	273	317					
	Oregon Solar Incentive Program - Willamette Valley (WV 4	OR	2013	W3396	0	0	0	0	0	0	367	313	243	323	306	308	269	213					
	Oregon Solar Incentive Program - Willamette Valley (WV 5	OR	2013	W3410	0	0	0	0	0	0	256	323	328	356	348	320	312	297					
	Oregon Solar Incentive Program - Willamette Valley (WV 6	OR	2013	W3673	0	0	0	0	0	0	44	348	340	326	337	341	342	337					
	Oregon Solar Incentive Program - Willamette Valley (WV 7	OR	2014	W4085	0	0	0	0	0	0	0	118	323	340	393	357	334	328					
	Oregon Solar Incentive Program - Willamette Valley (WV 8	OR	2015	W4643	0	0	0	0	0	0	0	0	37	331	308	306	324	314					
	Oregon Solar Incentive Program - Willamette Valley (WV 9	OR	2015	W4858	0	0	0	0	0	0	0	0	0	260	299	300	311	294					
	Oregon Solar Incentive Program - Willamette Valley (WV 1	OR	2017	W5541	0	0	0	0	0	0	0	0	0	0	46	44	43	39					
	Lakeview	OR	2012	W3468	0	0	0	0	0	0	248	596	699	660	593	679	678	568					
	Lakeview II	OR	2013	W3960	0	0	0	0	0	0	0	839	898	910	863	880	930	920					
	Oregon Solar Incentive Program - (Joseph Community) Wall	OR	2011	W2448	0	0	0	0	44	666	746	740	667	685	669	614	594	518					
	Powell Butte	OR	2014	W4274	0	0	0	0	0	0	0	123	288	302	297	307	282	305					
	Crook County Solar	OR	2013	W3847	0	0	0	0	0	0	244	973	870	933	874	915	814	895					
	Confederated Tribes of Warm Springs (CTWS)	OR	2014	W4105	0	0	0	0	0	0	0	292	309	330	295	325	312	280					
	Solwatt	OR	2012	W2968	0	0	0	0	0	257	484	521	509	506	511	300	280	306					
	Solwatt II	OR	2014	W4273	0	0	0	0	0	0	0	110	294	304	282	541	522	550					
	Bourdet	OR	2014	W4486	0	0	0	0	0	0	0	0	95	135	116	165	135	156					
	Bourdet II	OR	2016	W4998	0	0	0	0	0	0	0	0	0	86	62	161	133	174					
	Keeton 1	OR	2016	W5420	0	0	0	0	0	0	0	0	0	0	159	209	200	189					
	Keeton 2	OR	2016	W5421	0	0	0	0	0	0	0	0	0	0	181	171	167	157					
	Hammerich 1	OR	2016	W5418	0	0	0	0	0	0	0	0	0	0	175	200	196	197					
	Hammerich 2	OR	2016	W5419	0	0	0	0	0	0	0	0	0	0	169	193	201	205					
	Oregon Solar Incentive Program - Remaining Capacity	OR	2016-2020	W4910	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Total Oregon Solar Incentive							**22**	**1,292**	**4,140**	**7,979**	**12,338**	**14,509**	**15,451**	**15,744**	**16,555**	**16,062**	**15,714**					
SOLAR	Adams Solar Center, LLC [6]	OR	2018	W7039	0	0	0	0	0	0	0	0	0	0	0	696	5,466	6,192					
	Bear Creek Solar Center, LLC [6]	OR	2018	W7047	0	0	0	0	0	0	0	0	0	0	0	801	5,966	6,527					
	Bly Solar Center, LLC [6]	OR	2018	W7046	0	0	0	0	0	0	0	0	0	0	0	152	4,748	5,579					
	Elbe Solar Center, LLC [6]	OR	2018	W7044	0	0	0	0	0	0	0	0	0	0	0	769	5,460	6,223					
	Enterprise Solar, LLC [6]	UT	2016	W4938	0	0	0	0	0	0	0	0	0	22,516	57,800	58,722	57,916	63,759					
	Pavant Solar, LLC [6]	UT	2015	W4619	0	0	0	0	0	0	0	0	0	3,718	30,412	31,704	29,202	32,382					
	Captain Jack Solar	OR	2021	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Chiloquin Solar	OR	2018	W6979	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Granite Mountain - East	UT	2016	W4942	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Granite Mountain - West	UT	2016	W4943	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Iron Springs Solar	UT	2016	W4944	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Klamath Falls Solar 2 (Ewauna Solar)	OR	2017	W5761	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Norwest Energy 9 (Pendleton)	OR	2018	W7351	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Oregon Solar Land Holdings (OLSH)	OR	2017	W5370	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	OR Solar 2, LLC (Agate Bay Solar)	OR	2020	W10967	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	OR Solar 3, LLC (Turkey Hill Solar)	OR	2017	W6982	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	OR Solar 5, LLC (Merrill Solar)	OR	2018	W6983	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	OR Solar 6, LLC (Lakeview Solar)	OR	2017	W6984	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	OR Solar 8, LLC (Dairy Solar)	OR	2018	W6986	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Orchard Wind Farm 1, LLC	OR	2020	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Orchard Wind Farm 2, LLC	OR	2020	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Orchard Wind Farm 3, LLC	OR	2020	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Orchard Wind Farm 4, LLC	OR	2020	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Pavant Solar II LLC	UT	2016	W5057	0	0	0	0	0	0	0	0	0	2,265	30,715	31,680	30,291	33,764					

PacifiCorp Oregon - 2023-2028 RPS Implementation Plan
Attachment B - Oregon's Renewable Energy Credit Share Per Allocation Factors (MWh)[1]

		State	COD[2]	WREGIS ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
					Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Actual[3]	Forecast[3]	Forecast[3]	Forecast[3]	Forecast[3]	Forecast[3]
	Sage Solar 1	WY	2019	W8800	0	0	0	0	0	0	0	0	0	0	0	0	309	14,004					
	Sage Solar 2	WY	2019	W8808	0	0	0	0	0	0	0	0	0	0	0	0	564	13,879					
	Sage Solar 3	WY	2019	W8811	0	0	0	0	0	0	0	0	0	0	0	0	598	12,425					
	Skysol Solar	OR	2023	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Sweetwater Solar	WY	2018	W7365	0	0	0	0	0	0	0	0	0	0	0	0	47,771	48,293					
	Tumbleweed Solar	OR	2017	W6981	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Woodline Solar	OR	2017	W5845	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	2021 IRP Proxy Solar + Storage	TBD	2024	TBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Total Solar													**28,499**	**118,927**	**124,524**	**188,292**	**243,027**					
SOLAR CAPACITY S	Black Cap [5]	OR	2012	W3104	0	0	0	0	0	1,924	9,398	9,024	9,200	8,042	7,932	8,226	6,578	7,104					
	Total Utility Solar									**1,924**	**9,398**	**9,024**	**9,200**	**8,042**	**7,932**	**8,226**	**6,578**	**7,104**					
Total					**355,038**	**572,302**	**822,402**	**1,247,289**	**1,776,709**	**1,588,944**	**1,480,947**	**1,553,787**	**1,333,862**	**1,689,649**	**1,799,597**	**1,734,943**	**1,587,451**	**2,000,930**	**3,242,457**	**3,326,167**	**3,638,942**	**4,435,456**	**7,236,236**
Oregon's Share Based on SG Allocation Factors[3]					**27.44%**	**28.19%**	**27.49%**	**26.20%**	**26.41%**	**25.93%**	**25.20%**	**25.51%**	**25.47%**	**25.57%**	**25.77%**	**26.06%**	**26.32%**	**27.14%**					

(1) Includes resources under development that are anticipated to receive certification by ODOE for the Oregon RPS as eligible under ORS 469A.025.
(2) COD means commercial operation date (year). For Oregon Solar Incentive Program Blocks, COD represents the first year in which capacity was added to the block/the block was established.
(3) Oregon share forecast and actual generation based on SG allocation factors.
(4) Includes contributions from incremental hydro
(5) Black Cap is eligible for 2x multiplier under ORS 757.375. Values here include multiplier.
(6) Resources treated as bundled up to Oregon's SG allocation, and unbundled up to its CAGW allocation.
(7) Does not include Energy Trust of Oregon (ETO)-funded projects.

Compliance Purchases Oregon RPS (MWh)	Transaction Date		Fuel	State	WREGIS ID	Commercial Operation Date	Price	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1/25/13																															
			Biogas	ID																												
			Wind	OR																												
			Biogas	OR																												
			Biogas	OR																												
			Wind	WA																												
	1/25/13																															
			Wind	CA																												
			Wind	CA																												
	2/6/13																															
			Wind	WA																												
			Wind	WA																												
			Hydroelectri	WA																												
			Hydroelectri	WA																												
			Hydroelectri	WA																												
			Hydroelectri	WA																												
	2/11/13																															
			Wind	OR																												
	2/6/13																															
			Wind	OR																												
			Wind	WY																												
			Wind	OR																												
			Wind	WA																												
	1/31/13																															
			Biogas	OR																												
	2/4/13																															
			Wind	WA																												
			Wind	WA																												
	2/4/13																															
			Wind	WA																												
			Wind	WA																												
	6/28/13																															
			Wind	NM																												
			Wind	OR																												
	2/28/13																															
			Wind	WA																												
	7/9/13																															
			Wind	WA																												
			Wind	WA																												
	8/28/13																															
			Wind	OR																												
	11/5/13																															
			Wind	OR																												
			Wind	WA																												
	8/10/16																															
			Wind	CO																												
			Wind	CO																												
	8/18/16		Solar	UT																												
	8/18/16		Solar	UT																												
	9/2/16		Solar	OR																												
	9/2/16		Solar	OR																												
	9/2/16		Solar	OR																												
	9/2/16		Solar	OR																												
Total																																

(1) Resources treated as bundled up to Oregon's SG allocation, and unbundled up to its CAGW allocation.

PacifiCorp
Renewable Portfolio Standard Oregon Implementation Plan 2023-2025

Confidential Attachment C

Preliminary Key Assumptions
Incremental Cost Calculation

(Redacted Version)

THIS ATTACHMENT IS CONFIDENTIAL IN ITS ENTIRETY AND IS PROVIDED UNDER SEPARATE COVER

PacifiCorp
Renewable Portfolio Standard Oregon Implementation Plan 2023-2025

Confidential Attachment D

Incremental Cost Analysis

(Redacted Version)

PacifiCorp Oregon 2023-2025 RPS Implementation Plan, Incremental Cost Calculation
2023 - 2025 Summary: RPS incremental costs

Scenario 1: March 31, 2021 OFPC IRP BASE Fuel Curve

	SYSTEM														
Resource	Levelized Cost of Qualifying Resource ($000)	Levelized Cost of Firming SCCT ($000)	Levelized Total Cost of Qualifying Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($/MWh)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)
Adams Solar QF									182.09			180.39			180.39
Bear Creek Solar QF									182.56			180.85			180.85
Black Cap Solar									114.85			114.85			114.85
Blundell II									-493.90			-489.27			-489.27
Bly Solar QF									147.52			146.14			146.14
Campbell Hill-Three Buttes									1900.36			1882.56			1882.56
Cedar Springs I									-4215.64			-4176.15			-4176.15
Cedar Springs II									-6465.03			-6404.48			-6404.48
Cedar Springs III									-2569.71			-2545.64			-2545.64
Dunlap I									-1059.87			-1049.94			-1049.94
Ekola Flats									-2320.55			-2298.81			-2298.81
Elbe Solar QF									209.86			207.89			207.89
Enterprise Solar QF									-928.27			-919.57			-919.57
Foote Creek									-1207.13			-1195.82			-1195.82
Glenrock									-4.39			-4.35			-4.35
Glenrock III									25.69			25.45			25.45
Goodnoe Hills									-436.96			-432.86			-432.86
High Plains									244.57			242.28			242.28
Latigo Wind Park QF									841.99			834.10			834.10
Marengo									-1536.34			-1536.34			-1536.34
Marengo II									-189.41			-187.63			-187.63
McFadden Ridge									-227.49			-225.36			-225.36
Mountain Wind Power									326.80			323.74			323.74
Mountain Wind Power II									954.30			945.36			945.36
OSIP_2010									131.39			131.39			131.39
OSIP_2011									1270.20			1270.20			1270.20
OSIP_2012									816.76			816.76			816.76
OSIP_2013									968.19			968.19			968.19
OSIP_2014									622.70			622.70			622.70
OSIP_2015									234.28			234.28			234.28
OSIP_2016									109.15			109.15			109.15
OSIP_2017									28.49			28.49			28.49
Pavant II Solar QF									-651.05			-651.05			-651.05
Pavant Solar QF									-2706.34			-2706.34			-2706.34
Pioneer Wind Park I QF									-334.75			-331.62			-331.62
Sage Solar I									-607.83			-602.13			-602.13
Sage Solar II									-610.52			-604.80			-604.80
Sage Solar III									-509.20			-504.43			-504.43
Seven Mile Hill I									-1249.56			-1237.85			-1237.85
Seven Mile Hill II									-257.24			-254.83			-254.83
Sweetwater									-2531.47			-2507.76			-2507.76
TB Flats									-4113.40			-4074.87			-4074.87
Top of the World									3355.54			3324.11			3324.11

Scenario 2: 2021 IRP OFPC Scenario High Gas High CO2 Fuel Curve

	SYSTEM																
Resource	Levelized Cost of Qualifying Resource ($000)	Levelized Cost of Firming SCCT ($000)	Levelized Total Cost of Qualifying Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($/MWh)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)		
Adams Solar QF																	
Bear Creek Solar QF																	
Black Cap Solar																	
Blundell II																	
Bly Solar QF																	
Campbell Hill-Three Buttes																	
Cedar Springs I																	
Cedar Springs II																	
Cedar Springs III																	
Dunlap I																	
Ekola Flats																	
Elbe Solar QF																	
Enterprise Solar QF																	
Foote Creek																	
Glenrock																	
Glenrock III																	
Goodnoe Hills																	
High Plains																	
Latigo Wind Park QF																	
Marengo																	
Marengo II																	
McFadden Ridge																	
Mountain Wind Power																	
Mountain Wind Power II																	
OSIP_2010																	
OSIP_2011																	
OSIP_2012																	
OSIP_2013																	
OSIP_2014																	
OSIP_2015																	
OSIP_2016																	
OSIP_2017																	
Pavant II Solar QF																	
Pavant Solar QF																	
Pioneer Wind Park I QF																	
Sage Solar I																	
Sage Solar II																	
Sage Solar III																	
Seven Mile Hill I																	
Seven Mile Hill II																	
Sweetwater																	
TB Flats																	
Top of the World																	

Scenario 3: 2021 IRP OFPC Scenario Med Gas Med CO2 Fuel Curve

	SYSTEM																	
Resource	Levelized Cost of Qualifying Resource ($000)	Levelized Cost of Firming SCCT ($000)	Levelized Total Cost of Qualifying Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($/MWh)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)
Adams Solar QF															
Bear Creek Solar QF															
Black Cap Solar															
Blundell II															
Bly Solar QF															
Campbell Hill-Three Buttes															
Cedar Springs I															
Cedar Springs II															
Cedar Springs III															
Dunlap I															
Ekola Flats															
Elbe Solar QF															
Enterprise Solar QF															
Foote Creek															
Glenrock															
Glenrock III															
Goodnoe Hills															
High Plains															
Latigo Wind Park QF															
Marengo															
Marengo II															
McFadden Ridge															
Mountain Wind Power															
Mountain Wind Power II															
OSIP_2010															
OSIP_2011															
OSIP_2012															
OSIP_2013															
OSIP_2014															
OSIP_2015															
OSIP_2016															
OSIP_2017															
Pavant II Solar QF															
Pavant Solar QF															
Pioneer Wind Park I QF															
Sage Solar I															
Sage Solar II															
Sage Solar III															
Seven Mile Hill I															
Seven Mile Hill II															
Sweetwater															
TB Flats															
Top of the World															

Scenario 4: 2021 IRP OFPC Scenario Low Gas No CO2 Fuel Curve

	SYSTEM															
Resource	Levelized Cost of Qualifying Resource ($000)	Levelized Cost of Firming SCCT ($000)	Levelized Total Cost of Qualifying Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($/MWh)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)
Adams Solar QF															
Bear Creek Solar QF															
Black Cap Solar															
Blundell II															
Bly Solar QF															
Campbell Hill-Three Buttes															
Cedar Springs I															
Cedar Springs II															
Cedar Springs III															
Dunlap I															
Ekola Flats															
Elbe Solar QF															
Enterprise Solar QF															
Foote Creek															
Glenrock															
Glenrock III															
Goodnoe Hills															
High Plains															
Latigo Wind Park QF															
Marengo															
Marengo II															
McFadden Ridge															
Mountain Wind Power															
Mountain Wind Power II															
OSIP_2010															
OSIP_2011															
OSIP_2012															
OSIP_2013															
OSIP_2014															
OSIP_2015															
OSIP_2016															
OSIP_2017															
Pavant II Solar QF															
Pavant Solar QF															
Pioneer Wind Park I QF															
Sage Solar I															
Sage Solar II															
Sage Solar III															
Seven Mile Hill I															
Seven Mile Hill II															
Sweetwater															
TB Flats															
Top of the World															

Scenario 5: 2021 IRP OFPC Scenario Med Gas SC CO2 Fuel Curve

	SYSTEM																
Resource	Levelized Cost of Qualifying Resource ($000)	Levelized Cost of Firming SCCT ($000)	Levelized Total Cost of Qualifying Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($/MWh)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)		
Adams Solar QF																	
Bear Creek Solar QF																	
Black Cap Solar																	
Blundell II																	
Bly Solar QF																	
Campbell Hill-Three Buttes																	
Cedar Springs I																	
Cedar Springs II																	
Cedar Springs III																	
Dunlap I																	
Ekola Flats																	
Elbe Solar QF																	
Enterprise Solar QF																	
Foote Creek																	
Glenrock																	
Glenrock III																	
Goodnoe Hills																	
High Plains																	
Latigo Wind Park QF																	
Marengo																	
Marengo II																	
McFadden Ridge																	
Mountain Wind Power																	
Mountain Wind Power II																	
OSIP_2010																	
OSIP_2011																	
OSIP_2012																	
OSIP_2013																	
OSIP_2014																	
OSIP_2015																	
OSIP_2016																	
OSIP_2017																	
Pavant II Solar QF																	
Pavant Solar QF																	
Pioneer Wind Park I QF																	
Sage Solar I																	
Sage Solar II																	
Sage Solar III																	
Seven Mile Hill I																	
Seven Mile Hill II																	
Sweetwater																	
TB Flats																	
Top of the World																	

Scenario 6: November 8, 2021 OFPC Fuel Curve

	SYSTEM																
Resource	Levelized Cost of Qualifying Resource ($000)	Levelized Cost of Firming SCCT ($000)	Levelized Total Cost of Qualifying Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($/MWh)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)	Levelized Cost of Resource ($000)	Levelized Cost of CCCT Proxy ($000)	Levelized Incremental Cost ($000)
Adams Solar QF									169.38			167.79			167.79
Bear Creek Solar QF									170.73			169.13			169.13
Black Cap Solar									114.85			114.85			114.85
Blundell II									-497.64			-492.98			-492.98
Bly Solar QF									138.15			136.85			136.85
Campbell Hill-Three Buttes									1836.53			1819.33			1819.33
Cedar Springs I									-3913.87			-3877.21			-3877.21
Cedar Springs II									-6018.48			-5962.11			-5962.11
Cedar Springs III									-2375.16			-2352.91			-2352.91
Dunlap I									-911.21			-902.68			-902.68
Ekola Flats									-1832.24			-1815.07			-1815.07
Elbe Solar QF									197.42			195.58			195.58
Enterprise Solar QF									-928.27			-919.57			-919.57
Foote Creek									-1083.53			-1073.38			-1073.38
Glenrock									100.94			100.00			100.00
Glenrock III									66.62			66.00			66.00
Goodnoe Hills									-447.49			-443.29			-443.29
High Plains									358.32			354.96			354.96
Latigo Wind Park QF									841.99			834.10			834.10
Marengo									-1109.04			-1109.04			-1109.04
Marengo II									-128.18			-126.98			-126.98
McFadden Ridge									-195.14			-193.31			-193.31
Mountain Wind Power									319.49			316.49			316.49
Mountain Wind Power II									944.57			935.72			935.72
OSIP_2010									131.39			131.39			131.39
OSIP_2011									1270.20			1270.20			1270.20
OSIP_2012									816.76			816.76			816.76
OSIP_2013									968.19			968.19			968.19
OSIP_2014									622.70			622.70			622.70
OSIP_2015									234.28			234.28			234.28
OSIP_2016									109.15			109.15			109.15
OSIP_2017									28.49			28.49			28.49
Pavant II Solar QF									-651.05			-651.05			-651.05
Pavant Solar QF									-2706.34			-2706.34			-2706.34
Pioneer Wind Park I QF									-334.75			-331.62			-331.62
Sage Solar I									-595.46			-589.88			-589.88
Sage Solar II									-598.15			-592.54			-592.54
Sage Solar III									-498.93			-494.26			-494.26
Seven Mile Hill I									-1131.71			-1121.11			-1121.11
Seven Mile Hill II									-234.33			-232.14			-232.14
Sweetwater									-2490.55			-2467.22			-2467.22
TB Flats									-3113.10			-3083.94			-3083.94
Top of the World									3255.25			3224.76			3224.76

PacifiCorp
Renewable Portfolio Standard Oregon Implementation Plan 2023-2025

Attachment E

Scenarios 1-6

Summary of Incremental Cost by Resource

PacifiCorp - Oregon 2023-2025 RPS Implementation Plan
Attachment E - Summary of RPS Incremental Costs by Resource

	2023	2024	2025
Scenario 1: March 31, 2021 OFPC IRP BASE Fuel Curve			
Resource	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**
Adams Solar QF	$182	$180	$180
Bear Creek Solar QF	$183	$181	$181
Black Cap Solar	$115	$115	$115
Blundell II	($494)	($489)	($489)
Bly Solar QF	$148	$146	$146
Campbell Hill-Three Buttes	$1,900	$1,883	$1,883
Cedar Springs I	($4,216)	($4,176)	($4,176)
Cedar Springs II	($6,465)	($6,404)	($6,404)
Cedar Springs III	($2,570)	($2,546)	($2,546)
Dunlap I	($1,060)	($1,050)	($1,050)
Ekola Flats	($2,321)	($2,299)	($2,299)
Elbe Solar QF	$210	$208	$208
Enterprise Solar QF	($928)	($920)	($920)
Foote Creek	($1,207)	($1,196)	($1,196)
Glenrock	($4)	($4)	($4)
Glenrock III	$26	$25	$25
Goodnoe Hills	($437)	($433)	($433)
High Plains	$245	$242	$242
Latigo Wind Park QF	$842	$834	$834
Marengo	($1,536)	($1,536)	($1,536)
Marengo II	($189)	($188)	($188)
McFadden Ridge	($227)	($225)	($225)
Mountain Wind Power	$327	$324	$324
Mountain Wind Power II	$954	$945	$945
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28
Pavant II Solar QF	($651)	($651)	($651)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Pioneer Wind Park I QF	($335)	($332)	($332)
Sage Solar I	($608)	($602)	($602)
Sage Solar II	($611)	($605)	($605)
Sage Solar III	($509)	($504)	($504)
Seven Mile Hill I	($1,250)	($1,238)	($1,238)
Seven Mile Hill II	($257)	($255)	($255)
Sweetwater	($2,531)	($2,508)	($2,508)
TB Flats	($4,113)	($4,075)	($4,075)
Top of the World	$3,356	$3,324	$3,324

	2019	2020	2021
Scenario 2: 2021 IRP OFPC Scenario High Gas High CO2 Fuel Curve			
Resource	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**
Adams Solar QF	$158	$156	$156
Bear Creek Solar QF	$157	$156	$156
Black Cap Solar	$115	$115	$115
Blundell II	($537)	($532)	($532)
Bly Solar QF	$126	$125	$125
Campbell Hill-Three Buttes	$1,737	$1,721	$1,721
Cedar Springs I	($5,720)	($5,666)	($5,666)
Cedar Springs II	($7,990)	($7,915)	($7,915)
Cedar Springs III	($3,539)	($3,506)	($3,506)
Dunlap I	($1,537)	($1,523)	($1,523)
Ekola Flats	($3,988)	($3,951)	($3,951)
Elbe Solar QF	$186	$184	$184
Enterprise Solar QF	($928)	($920)	($920)
Foote Creek	($1,571)	($1,556)	($1,556)
Glenrock	($356)	($352)	($352)
Glenrock III	($110)	($109)	($109)
Goodnoe Hills	($590)	($584)	($584)
High Plains	($130)	($129)	($129)
Latigo Wind Park QF	$842	$834	$834
Marengo	($3,020)	($3,020)	($3,020)
Marengo II	($395)	($391)	($391)
McFadden Ridge	($335)	($332)	($332)
Mountain Wind Power	$236	$234	$234
Mountain Wind Power II	$833	$825	$825
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28
Pavant II Solar QF	($651)	($651)	($651)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Pioneer Wind Park I QF	($335)	($332)	($332)
Sage Solar I	($688)	($682)	($682)
Sage Solar II	($691)	($685)	($685)
Sage Solar III	($576)	($571)	($571)
Seven Mile Hill I	($1,646)	($1,631)	($1,631)
Seven Mile Hill II	($335)	($331)	($331)
Sweetwater	($2,812)	($2,786)	($2,786)
TB Flats	($7,529)	($7,459)	($7,459)
Top of the World	$3,014	$2,986	$2,986

	2019	2020	2021
Scenario 3: 2021 IRP OFPC Scenario Med Gas Med CO2 Fuel Curve			
Resource	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**
Adams Solar QF	$179	$178	$178
Bear Creek Solar QF	$180	$178	$178
Black Cap Solar	$115	$115	$115
Blundell II	($497)	($492)	($492)
Bly Solar QF	$145	$144	$144
Campbell Hill-Three Buttes	$1,888	$1,870	$1,870
Cedar Springs I	($4,289)	($4,248)	($4,248)
Cedar Springs II	($6,523)	($6,462)	($6,462)
Cedar Springs III	($2,617)	($2,592)	($2,592)
Dunlap I	($1,074)	($1,064)	($1,064)
Ekola Flats	($2,384)	($2,362)	($2,362)
Elbe Solar QF	$207	$205	$205
Enterprise Solar QF	($928)	($920)	($920)
Foote Creek	($1,220)	($1,209)	($1,209)
Glenrock	($15)	($15)	($15)
Glenrock III	$22	$21	$21
Goodnoe Hills	($447)	($442)	($442)
High Plains	$233	$231	$231
Latigo Wind Park QF	$842	$834	$834
Marengo	($1,584)	($1,584)	($1,584)
Marengo II	($196)	($194)	($194)
McFadden Ridge	($231)	($229)	($229)
Mountain Wind Power	$321	$318	$318
Mountain Wind Power II	$947	$938	$938
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28
Pavant II Solar QF	($651)	($651)	($651)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Pioneer Wind Park I QF	($335)	($332)	($332)
Sage Solar I	($612)	($606)	($606)
Sage Solar II	($615)	($609)	($609)
Sage Solar III	($513)	($508)	($508)
Seven Mile Hill I	($1,262)	($1,250)	($1,250)
Seven Mile Hill II	($260)	($257)	($257)
Sweetwater	($2,547)	($2,523)	($2,523)
TB Flats	($4,244)	($4,204)	($4,204)
Top of the World	$3,331	$3,300	$3,300

Scenario 4: 2021 IRP OFPC Scenario Low Gas No CO2 Fuel Curve	2019	2020	2021
Resource	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($000)
Adams Solar QF	$210	$208	$208
Bear Creek Solar QF	$212	$210	$210
Black Cap Solar	$115	$115	$115
Blundell II	($437)	($433)	($433)
Bly Solar QF	$173	$172	$172
Campbell Hill-Three Buttes	$2,087	$2,067	$2,067
Cedar Springs I	($2,463)	($2,440)	($2,440)
Cedar Springs II	($4,733)	($4,689)	($4,689)
Cedar Springs III	($1,440)	($1,427)	($1,427)
Dunlap I	($530)	($526)	($526)
Ekola Flats	($427)	($423)	($423)
Elbe Solar QF	$238	$236	$236
Enterprise Solar QF	($928)	($920)	($920)
Foote Creek	($792)	($785)	($785)
Glenrock	$386	$383	$383
Glenrock III	$177	$175	$175
Goodnoe Hills	($238)	($236)	($236)
High Plains	$661	$655	$655
Latigo Wind Park QF	$842	$834	$834
Marengo	$125	$125	$125
Marengo II	$40	$40	$40
McFadden Ridge	($109)	($108)	($108)
Mountain Wind Power	$444	$440	$440
Mountain Wind Power II	$1,110	$1,100	$1,100
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28
Pavant II Solar QF	($651)	($651)	($651)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Pioneer Wind Park I QF	($335)	($332)	($332)
Sage Solar I	($513)	($508)	($508)
Sage Solar II	($515)	($510)	($510)
Sage Solar III	($430)	($426)	($426)
Seven Mile Hill I	($809)	($801)	($801)
Seven Mile Hill II	($171)	($170)	($170)
Sweetwater	($2,200)	($2,179)	($2,179)
TB Flats	($234)	($231)	($231)
Top of the World	$3,764	$3,729	$3,729

	2019	2020	2021
Scenario 5: 2021 IRP OFPC Scenario Med Gas SC CO2 Fuel Curve			
Resource	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**	**Levelized Incremental Cost ($000)**
Adams Solar QF	$186	$184	$184
Bear Creek Solar QF	$187	$185	$185
Black Cap Solar	$115	$115	$115
Blundell II	($510)	($505)	($505)
Bly Solar QF	$151	$149	$149
Campbell Hill-Three Buttes	$1,876	$1,859	$1,859
Cedar Springs I	($5,187)	($5,138)	($5,138)
Cedar Springs II	($7,644)	($7,573)	($7,573)
Cedar Springs III	($3,196)	($3,166)	($3,166)
Dunlap I	($1,393)	($1,380)	($1,380)
Ekola Flats	($3,609)	($3,575)	($3,575)
Elbe Solar QF	$215	$213	$213
Enterprise Solar QF	($928)	($920)	($920)
Foote Creek	($1,480)	($1,466)	($1,466)
Glenrock	($244)	($242)	($242)
Glenrock III	($68)	($67)	($67)
Goodnoe Hills	($493)	($489)	($489)
High Plains	($15)	($15)	($15)
Latigo Wind Park QF	$842	$834	$834
Marengo	($2,570)	($2,570)	($2,570)
Marengo II	($334)	($331)	($331)
McFadden Ridge	($301)	($298)	($298)
Mountain Wind Power	$297	$294	$294
Mountain Wind Power II	$915	$906	$906
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28
Pavant II Solar QF	($651)	($651)	($651)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Pioneer Wind Park I QF	($335)	($332)	($332)
Sage Solar I	($649)	($643)	($643)
Sage Solar II	($650)	($644)	($644)
Sage Solar III	($541)	($536)	($536)
Seven Mile Hill I	($1,521)	($1,506)	($1,506)
Seven Mile Hill II	($310)	($307)	($307)
Sweetwater	($2,631)	($2,606)	($2,606)
TB Flats	($6,754)	($6,691)	($6,691)
Top of the World	$3,286	$3,255	$3,255

Scenario 6: November 8, 2021 OFPC Fuel Curve	2019	2020	2021
Resource	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($000)	Levelized Incremental Cost ($000)
Adams Solar QF	$169	$168	$168
Bear Creek Solar QF	$171	$169	$169
Black Cap Solar	$115	$115	$115
Blundell II	($498)	($493)	($493)
Bly Solar QF	$138	$137	$137
Campbell Hill-Three Buttes	$1,837	$1,819	$1,819
Cedar Springs I	($3,914)	($3,877)	($3,877)
Cedar Springs II	($6,018)	($5,962)	($5,962)
Cedar Springs III	($2,375)	($2,353)	($2,353)
Dunlap I	($911)	($903)	($903)
Ekola Flats	($1,832)	($1,815)	($1,815)
Elbe Solar QF	$197	$196	$196
Enterprise Solar QF	($928)	($920)	($920)
Foote Creek	($1,084)	($1,073)	($1,073)
Glenrock	$101	$100	$100
Glenrock III	$67	$66	$66
Goodnoe Hills	($447)	($443)	($443)
High Plains	$358	$355	$355
Latigo Wind Park QF	$842	$834	$834
Marengo	($1,109)	($1,109)	($1,109)
Marengo II	($128)	($127)	($127)
McFadden Ridge	($195)	($193)	($193)
Mountain Wind Power	$319	$316	$316
Mountain Wind Power II	$945	$936	$936
OSIP_2010	$131	$131	$131
OSIP_2011	$1,270	$1,270	$1,270
OSIP_2012	$817	$817	$817
OSIP_2013	$968	$968	$968
OSIP_2014	$623	$623	$623
OSIP_2015	$234	$234	$234
OSIP_2016	$109	$109	$109
OSIP_2017	$28	$28	$28
Pavant II Solar QF	($651)	($651)	($651)
Pavant Solar QF	($2,706)	($2,706)	($2,706)
Pioneer Wind Park I QF	($335)	($332)	($332)
Sage Solar I	($595)	($590)	($590)
Sage Solar II	($598)	($593)	($593)
Sage Solar III	($499)	($494)	($494)
Seven Mile Hill I	($1,132)	($1,121)	($1,121)
Seven Mile Hill II	($234)	($232)	($232)
Sweetwater	($2,491)	($2,467)	($2,467)
TB Flats	($3,113)	($3,084)	($3,084)
Top of the World	$3,255	$3,225	$3,225

CERTIFICATE OF SERVICE

I certify that I served a true and correct copy of **PacifiCorp's Renewable Portfolio Standard Implementation Plan 2023-2025** on the parties listed below via electronic mail delivery in compliance with OAR 860-001-0180. Parties qualified to receive confidential information in this docket will receive the confidential documents via overnight delivery.

Service List
UM 2049

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Dated this 27th day of December, 2021.

Mary Penfield
Adviser, Regulation