

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: December 15th, 2016**

REGULAR _____ CONSENT _____ EFFECTIVE DATE _____ N/A _____

DATE: December 15, 2016

TO: Public Utility Commission

FROM: Michael Breish *MB*

THROUGH: *E* Jason Eisdorfer and John Crider *E for JC*

SUBJECT: PACIFICORP: (Docket No. UM 1790) Revised 2017-2021 Renewable Portfolio Standard Implementation Plan

STAFF RECOMMENDATION:

Staff recommends the Commission acknowledge PacifiCorp's (PacifiCorp or Company) Revised 2017 – 2021 Renewable Portfolio Implementation Plan (RPIP) as having met the reporting requirements found in OAR 860-083-0400 and ORS 468A.075 as well as the supplemental requirements found in Commission Order No. 16-158. Staff further recommends the following Conditions:

1. 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:
 - a. Demonstrate the forecasted benefit to ratepayers if the resource or resources do not immediately satisfy a system capacity or RPS need;
 - b. Explain the interaction the new resource or resources have with the most recently filed IRP or RPIP;
 - c. Calculate new incremental costs with the new resource or resources included across twenty years;
 - d. Respond to requests by the Commission regarding its new analysis arising out of the calculation set forth in 1(c) above; and
2. Participate in a stakeholder workshop to identify opportunities for revisions to the RPIP process and requirements.

DISCUSSION:

Issue

Whether PacifiCorp's Revised 2017 – 2021 RPIP meets the applicable RPS statutes, administrative rules, and Commission Order No 16-158 such that the Commission should acknowledge it with Staff's recommended Conditions.

Applicable Law

The RPIP serves two basic purposes: (1) it forecasts the utility's RPS compliance position and strategies, and (2) it sets forth the calculation of the utility's incremental cost of compliance with the RPS.

The RPS laws are codified at ORS 469A.005 through 469A.210. OAR 860-083-0400 is the Commission's rule addressing the RPIP. ORS 469A.075(1) and OAR 860-083-0400(1) require that each electric company subject to the RPS provide an a report at least once every two years that demonstrates its planned RPS compliance with the RPS standard over the ensuing five years.

Among the reporting details required by ORS 469A.075(2) and OAR 860-083-0400(2)(a-f), the RPIP must contain annual load forecasts, the renewable energy credits (RECs - which may include both bundled and unbundled RECs) required in order to comply with annual RPS targets, the estimated cost of meeting annual RPS targets, an account of qualifying electricity generators, and a detailed explanation of any material deviations from the electric company's most recent IRP's action plan or material changes from the conditions assumed in the most recent IRP.

In calculating costs of RPS compliance, the utility must determine the incremental costs, which is composed of bundled and unbundled REC costs as well as alternative compliance payments. If the incremental costs in any year exceed the limit of four percent established in ORS 469A.100, the utility is required to provide sufficient information that demonstrates how the RPIP appropriately balances risks and expected costs. See IRP guidelines 1.b and 1.c set forth in Commission Order No 07-047.¹ This requirement is also triggered if, among other reasons, the utility plans to use unbundled RECs or to sell any RECs included in the rates of retail customers.

¹ ORS 469A.100(1) states that utilities are not required to comply with the renewable portfolio standard during a compliance year if the incremental cost of compliance, the cost of unbundled renewable energy certificates and the cost of alternative compliance payments under ORS 469A.180 exceeds four percent of the utility's annual revenue requirement for the compliance year.

ORS 469A.075(2) and OAR 860-083-0400(2)(a-f) further require that the RPIP provide the Commission with the information necessary to determine whether, and how, the electric company will be in compliance with the RPS over the ensuing five years.

RPS compliance must be demonstrated through the retirement of RECs that are maintained through the WREGIS.² RECs may be either bundled with energy or exchanged separately (unbundled).³ One REC is issued per megawatt-hour of generation produced.⁴

RECs procured before March 31 of a given year may be used for the previous year's RPS compliance.⁵ RECs issued on or before March 8, 2016 have unlimited life. RECs generated or procured from resources with a commercial operation date (COD) between March 8, 2016 and December 31, 2022 have unlimited life; these RECs are commonly referred to as "golden RECs" (Golden RECs).⁶ RECs from generating resources with a COD on or before March 8, 2016 and issued after March 8, 2016 have only a five year-life. RECs generated after December 31, 2022 also have a five-year life.⁷

With limited exception, only 20 percent of an electric utility's RPS compliance obligation may be satisfied using unbundled RECs in any given compliance year.⁸ However, ORS 469A.145(3) provides that this limitation "does not apply to renewable energy certificates issued for electricity generated in Oregon by a qualifying facility under ORS 758.505 to 758.555." The distinction for unbundled RECs generated by qualifying facilities located in Oregon, which do not apply to the 20 percent limit in a compliance year, is important to note as demonstrated later in this report.

Discussion and Analysis

Background

This Staff memorandum analyzes the revised RPIP (Revised RPIP) that followed PacifiCorp's Original RPIP. During the course of Staff's and stakeholders' review of the Original RPIP, the Oregon legislature passed SB 1547, which, amongst many sweeping changes to existing energy law and regulation, increased Oregon's RPS to 50

² OAR 330-160-0020.

³ OAR 330-160-0025.

⁴ OAR 330-160-0015(15).

⁵ OAR 860-083-0300(3)(b)(B); also note that SB 1547 established new requirements regarding REC generation and banking privileges for future compliance years.

⁶ March 8, 2016 is the effective date of SB 1547.

⁷ A REC generated from a resource with which the utility has a PPA has a varying lifetime depending on the length of that PPA. See Section 6 of SB 1547 for further details.

⁸ ORS 469A.145(1).

percent by 2040.⁹ Because of the passage of SB 1547 and other changes to the RPS, Staff filed a stipulated motion asking the Commission to acknowledge the Original RPIP with conditions and require the Company to file a revised RPIP by July 15, 2016. The Commission accepted Staff's stipulated motion and acknowledged PacifiCorp's Original RPIP, with conditions, in its Order No. 16-158.

Two events transpired contemporaneously with the review period of the Original RPIP. First, PacifiCorp filed its 2015 IRP Update on March 31, 2016 and second, PacifiCorp issued its request for proposals (RFPs) for physical renewable resources and RECs. These two filings introduced greater complexity and uncertainty into the Commission's request for a Revised RPIP due to the overlapping resource acquisition plans the Company presented within the 2015 IRP Update, the Original RPIP and eventually the Revised RPIP. Though the IRP and the RPIP have different regulatory functions at this point in time, they have a mutual, important purpose in informing the Commission about a utility's least-cost, least-risk plan to comply with the RPS.

After consideration, Staff decided to not become overly focused on the IRP Update and the 2016 RFP and instead restricted the scope of this report to the evaluation of the Revised RPIP. As later described, this approach curtails the relevancy of certain stakeholder comments. Where appropriate, Staff will discuss the 2016 RFPs, and IRP process, to the extent that they reveal problems with the RPIP process. Because the 2016 RFPs did not conclude until after the Revised RPIP was filed, Staff does not believe it would be reasonable to find fault with PacifiCorp for excluding the 2016 RFPs' results that were unknown at the time of filing the Revised RPIP.¹⁰

PacifiCorp's 2017 – 2021 RPS Implementation Plan

PacifiCorp plans to utilize "a combination of bundled RECs from existing Oregon-eligible renewable resources and resources under development that are anticipated to be Oregon RPS-eligible" to comply with the RPS over the next five years.¹¹ PacifiCorp notes that it did not anticipate results from the 2016 RFPs until September 2016, which *could* include "near-term procurement opportunities." Therefore, the resources identified in the Revised RPIP are not materially different from those proposed in the Original RPIP. Resource changes presented in the Revised RPIP derive from modifications to the Company's REC retirement strategy. SB 1547's elimination of the "first-in, first-out" requirement results in PacifiCorp forecasting RECs with the shortest lifespan being retired first.¹²

⁹ S.B. 1547, 78th Leg., Reg. Sess. (Or 2016).

¹⁰ *Ibid.*, Appendix A, at page 1.

¹¹ PacifiCorp's Revised 2017 – 2021 RPIP, at page 1, Docket No. UM 1790, July 15, 2016.

¹² *Ibid.*, at page 4.

Other notable results of PacifiCorp's Revised RPIP are that the Company does not intend to acquire unbundled RECs for purposes of RPS compliance over the five-year period at issue and that the Company does not meet or exceed the four percent incremental cost cap.¹³ These results are unchanged from PacifiCorp's Original RPIP.

In response to OAR 860-083-0400(5)(b), which requires the Company to explain use of unbundled RECs in a compliance year for reasons other than unexpected contingencies, PacifiCorp indicates that results of the 2016 RFPs might result in "acquiring bankable RECs early as a means to mitigate potentially higher cost long-term compliance alternatives," depending on the Company's analysis.¹⁴ Such an action would be in line with the least-cost, least-risk requirements of the Commission's IRP guidelines. For illustrative purposes, were the Company to acquire a sizable amount of unbundled RECs, two results would be immediate: the Company's RPS sufficiency period would extend and the order of RECs retired would be adjusted to maintain the Company's approach of prioritizing soon-to-expire RECs first.¹⁵

PacifiCorp also includes an updated "official forward price curve" (OFPC) from March 2016 in the Revised RPIP in addition to the original analysis conducted using the December 2015 OFPC. Over the five-year period, the Company's incremental costs for RPS compliance, as calculated according to existing rules, in each year is well below two percent of total annual revenue requirement.¹⁶ As such, it satisfies the statutory four-percent limit.

Table 1, shown below, provides the incremental cost data, the annual revenue requirement, and the percentage of total cost. Included in Table 1 is the scenario in which the Company maximizes use of unbundled RECs annually for RPS compliance. The Company uses a cost of \$0.73 per unbundled REC in this scenario.¹⁷

¹³ PacifiCorp used the remaining amount of unbundled RECs for 2015 RPS compliance purposes.

¹⁴ *Ibid.*, at page 17.

¹⁵ This example mirrors the actual results of the 2016 RFPs.

¹⁶ See OAR 860-083-0010(18) for the definition of "incremental cost of compliance."

¹⁷ This value derives from the 2014 Compliance Report in UM 1739 and the methodology prescribed in Commission Order No. 14-267.

Table 1: Incremental cost calculations for bundled and unbundled REC sensitivities

Base Case	2017	2018	2019	2020	2021
Total Incremental Cost without unbundled RECs (March 2016 OFPC) (\$000)	16,073	16,240	16,427	21,996	22,049
Total Incremental Cost without unbundled RECs (December 2015 OFPC) (\$000)	15,572	15,735	15,916	21,085	20,974
Total Incremental Cost with 20% unbundled RECs (December 2015 OFPC) (\$000)	12,738	12,870	13,018	17,247	17,156
Incremental cost difference for 20% unbundled compliance (\$000) ¹⁸	2,994	2,865	2,898	3,838	3,818
Incremental cost difference for 20% unbundled compliance (%)	19.2	18.2	18.2	18.2	18.2
Revenue Requirement (\$000s)	\$ 1,236,413	\$ 1,245,552	\$ 1,247,703	\$ 1,224,920	\$ 1,240,037
Percentage of Rev Requirement (w/o unbundled)	1.26%	1.26%	1.28%	1.69%	1.69%
Percentage of Rev Requirement (w/ 20% unbundled)	1.03%	1.03%	1.04%	1.39%	1.38%
Difference in Percentage	0.23%	0.23%	0.24%	0.30%	0.31%

Values derived from forecasts using the March 2016 OFPC are included primarily to demonstrate the impacts on incremental costs as downward pressure continues on forecasted natural gas prices and subsequently on power market prices.¹⁹ Though PacifiCorp's incremental costs are distant from the four percent incremental-cost limit, the four-month change in the OFPC illustrates how market forces may influence PacifiCorp's role in maintaining least-cost, least-risk RPS compliance.

PacifiCorp demonstrates from the data and explanations found in the Revised RPIP that the Company will successfully comply with the RPS annually in the years 2017 – 2021.

PacifiCorp's Plan to Comply with the RPS through 2040

Supplied in a separate confidential appendix to the Revised RPIP, PacifiCorp responds to the five queries the Commission imposed in its Order 16-158.²⁰ Doing so facilitates the review of PacifiCorp's prodigious effort in analyzing future RPS compliance

¹⁸ The incremental cost difference values are the difference between the respective values using the December 2015 OFPC.

¹⁹ PacifiCorp's 2015 IRP Update, pages 39 – 42, Docket No. LC 62, March 31, 2016.

²⁰ PacifiCorp's Revised 2017 – 2021 RPIP, Confidential Appendix A, Docket No. UM 1790, July 15, 2016.

scenarios. This report briefly summarizes the Company's responses, and the key conclusions, to each of the Commission's five questions.

Question 1: Differences between SB 838 and SB 1547, and the impacts on utility planning

PacifiCorp succinctly details the new RPS requirements as well as the restrictions on a REC's lifetime as a result of vintage date of both the REC and the associated generating resource. There are three key takeaways from PacifiCorp's response. First, PacifiCorp's initial RPS compliance shortfall moves forward only one year, from 2026 to 2025, which is a result of the slight increase in the RPS requirement for 2025, from 25 percent to 27 percent.

Second, without additional procurement through the 2040 horizon, PacifiCorp's forecasted renewable energy shortfall in 2040 will essentially double, from 3,236 GWh to 6,639 GWh, from the paradigm that existed prior to SB 1547's passage. Assuming renewable resources with a 35 percent capacity factor, this equates to an increase of 1,064 MW to 2,165 MW, a doubling that aligns with the doubling of the RPS REC requirement.²¹ With this forecast, PacifiCorp's RPS obligations are clear.

Third, the new law governing REC lifetimes and retirement [i.e. SB 1547, Section 7's elimination of the first-in, first-out provision from ORS 469A.140(2)] do not influence PacifiCorp's compliance position. The five-year lifetime imposed on certain RECs is negated by the Company's ability to retire RECs in any particular order. In fact, the Company states that "significant early procurement would be required before RECs would begin to expire." The Company provides an illustrative example to demonstrate that near-term compliance, which would result in RPS compliance beyond 2040, still would not result in RECs expiring before retirement.²² Essentially, new REC banking provisions have no significant role in PacifiCorp's current renewable resource acquisition strategies.

Question 2: Analysis of changes to REC life and banking provisions, and RPS compliance increase in 2030

In responding to this question, PacifiCorp expands on its response provided to the previous discussion, underscoring the minimal impact new REC provisions have on its resource procurement strategies. The Company provides another example that exemplifies the minimal impact SB 1547's new provisions for REC lifetimes, particularly the "Golden-REC" status, have on RPS compliance strategy. What is crucial however is

²¹ Ibid., pages 2-3.

²² Ibid., at page 3.

REC bank management flexibility, which is enhanced by the elimination of the first-in, first-out requirement.²³

In the first model of the example, PacifiCorp acquires 792 MW of wind operating at a 35 percent capacity factor in 2018 and the Golden REC rule applies (as stated in footnote 23, thus enabling certain RECs to be banked indefinitely). RPS obligations are met through 2040 in this example and PacifiCorp states that “the oldest RECs surrendered in any compliance year under this scenario **are two years older than the vintage year**” (emphasis added).²⁴ The second model of this example is exactly the same except for the indefinite-life banking provision. In other words, all RECs procured are subject to a five-year lifetime. PacifiCorp remarks that the only impact of whether a REC is “golden” or not is on how the REC bank is ultimately managed. This condition of SB 1547 is underscored by PacifiCorp’s conclusion that “the oldest RECs surrendered in this scenario **are four years older than the vintage year**” (emphasis added).²⁵ With proper REC accounting, PacifiCorp states that a resource’s ability to generate indefinite-life RECs is not materially significant in a given acquisition strategy.

Question 3: Analysis of timing of renewable resource acquisitions and physical need

In order to determine the trade-off between: (1) acquiring near-term resources, thereby deferring long-term resource procurement and (2) delaying acquisition until longer-term resources should be acquired to align with system physical need, PacifiCorp conducted an extensive, comprehensive intertemporal RPS compliance analysis. At the core of this analysis is the determination of which RPS compliance scenario will result in lower costs for ratepayers: acquiring risk-mitigating resources early at the expense of cheaper resources in the future versus near-term resource acquisition that ultimately reduces costs in the long run.

The foundation of the intertemporal analysis is the benchmark, composed of three “just-in-time” (JIT) scenarios that assume progressively lower future costs for wind and solar resources.²⁶ JIT Scenario 1 (JIT-1) uses 2018 values and rates consistent with the 2015 IRP Update, while Scenarios JIT-2 and JIT-3 consist of data found in a recent report published by the International Renewable Energy Agency (IRENA). Whereas Scenario JIT-3 predicts the full cost decreases for wind and solar resources forecasted by the IRENA report, Scenario JIT-2 predicts that only half those decreases will occur by the

²³ As stated earlier, Golden REC refers to the REC that is created pursuant to SB 1547, Section 7(3). The term means that RECs issued under certain timeframes or circumstances have an indefinite life for the purpose of complying with the RPS. See also footnotes 5 and 6, *supra*, and accompanying discussion in text of memorandum.

²⁴ *Ibid.* at page 3.

²⁵ *Ibid.*, at page 4.

²⁶ *Ibid.*, at page 5.

same period. PacifiCorp also establishes procurement timeframes for qualifying resources in high-potential areas that minimize incremental transmission.²⁷

In order to assess the benefit or cost of near-term resource acquisition, PacifiCorp first determined the overall “present-value revenue requirement” (PVRR) for renewable compliance through 2040 for each JIT Scenario. With the benchmark resources determined and costs calculated, PacifiCorp then created a list of near-term qualifying resources, both physical and bundled RECs, which PacifiCorp could model within each JIT Scenario to determine the trade-off between near-term purchases or delays.²⁸ Varying amounts of resource acquisition were demarcated at three net nominal levelized cost intervals in the form of \$X/MWh. The resulting analysis produced three PVRR values per JIT Scenario that represents the varying costs of acquiring the corresponding amount of near-term renewable resources. The PVRR differentials between each of the JIT Scenarios and the respective levels of near-term resource acquisition are presented in Table 2:

Table 2: Differential PVRR Cost/(Benefit) of Near-Term Procurement (\$ Million)²⁹

	JIT-1 Scenario	JIT-2 Scenario	JIT-3 Scenario
Low cutoff scenario	(\$331)	(\$373)	(\$105)
Medium cutoff scenario	(\$402)	(\$442)	(\$112)
High cutoff scenario	(\$686)	(\$411)	\$106

Table 2 demonstrates that as future costs drop, the benefits from near-term resource acquisition decreases. If future costs are relatively high, as reflected in JIT-1, customers stand to benefit greatly from high levels of near-term acquisition.

Assuming the cost and resource volume assumptions found in the analysis occur, PacifiCorp’s analysis finds that near-term resource procurement *can* lower RPS compliance costs over the 2040 planning period. PacifiCorp states that “competitively priced near-term procurement opportunities that can defer the need for future renewable resources until the 2028-2030 timeframe are most likely to yield customer benefits.”³⁰ Doing so avoids incremental transmission costs because new renewable resources would utilize transmission infrastructure used by retiring coal plants.

²⁷ See tables A-3 and A-4 on pages 6 – 7 of the Revised RPIP for the full range of assumptions.

²⁸ “These data are reasonably consistent with offers submitted into PacifiCorp’s 2016 [RFPs].” Revised RPIP, at page 10.

²⁹ “Cutoffs” represent the cost demarcations that PacifiCorp assigns in its confidential analysis.

³⁰ PacifiCorp’s Revised 2017 – 2021 RPIP, Confidential Appendix A, at page 20, Docket No. UM 1790, July 15, 2016.

Finally, PacifiCorp notes that unbundled RECs can have a significant role in complying with the RPS in any year. Because unbundled RECs receive the same lifetime provisions under SB 1547 if conditions are met, PacifiCorp can acquire unbundled Golden RECs that can complement RPS compliance through 2040. PacifiCorp provides two examples that demonstrate unbundled RECs, infinite life or not, can defer RPS compliance shortfall until 2030 without acquiring any physical incremental qualifying resources.

Question 4: Analysis of impact of key market assumptions on RPS compliance.

PacifiCorp chose to analyze two variables that could materially impact its RPS compliance strategies: changes in wholesale energy prices and customer load growth. To model impacts of wholesale market price changes, the Company created a ten-percent increase sensitivity and a ten-percent decrease sensitivity and modeled the JIT near-term resource acquisition level Scenarios against them. The analysis indicated that lower wholesale market prices provide higher benefits to customers when near-term resource procurement is considered.

The Company chose a 0.5 percent increase and 0.5 percent reduction in the compounded annual retail sale growth rate. Lower load results in a subsequently lower RPS compliance requirement and vice-versa. Analysis indicates that a higher retail sale growth rate results in an RPS compliance shortfall of 2025, the same year compared to the base forecast but with a RPS deficit 611 GWh higher. By 2040, the Company is short approximately 280 MW of renewable resource capacity at a 35 percent capacity factor compare to the base case. The lower retail sale growth analysis pushes the RPS compliance year shortfall back to 2026, one year later than the base forecast and results in 250 MW of less renewable resource capacity needed in 2040 at a 35 percent capacity factor.

Question 5: Provision of methodologies and assumptions in RPIP analysis.

PacifiCorp states that it has explained its methodology and assumptions throughout its responses to Staff's queries. Staff agrees.

Stakeholder Comments

Renewable Northwest and Oregon Solar Energy Industries Association (RNW/OSEIA) filed joint comments, as did the Renewable Energy Coalition and Community Renewable Energy Association (REC/CREA). Additionally, Sierra Club, Northwest Energy Coalition (NVEC), Small Business Utility Advocates (SBUA) and Industrial Customers of Northwest Utilities (ICNU) filed comments. Their comments, along with Staff's, are summarized below by general topic. PacifiCorp's reply comments, when they exist, are included.

Bundled vs. Unbundled Compliance

RNW/OSEIA, REC/CREA and NWECA agree that a REC-based compliance strategy, one that includes the acquisition of both bundled and unbundled RECs, is more risky than a physical resource strategy. These parties also largely agree that the unbundled REC market is too uncertain and volatile to support unbundled RECs as a sustained RPS compliance strategy.³¹ Additionally, RNW/OSEIA assert that:

several factors are expected to put upward pressure on the REC market in the next few years, including increasing RPS targets in the West, increasing customer participation in voluntary renewable energy programs Clean Power Plan implementation and other potential carbon policies.³²

Due to the resulting benefits to customers in the form of reduced risk and lower costs, RNW/OSEIA instead support a RPS compliance strategy that relies primarily on physical renewable resources. RNW/OSEIA and REC/CREA emphasize how features of SB 1547 like Golden RECs are enhanced by the recently extended federal production tax credit (PTC) and investment tax credit (ITC). These parties assert that by investing heavily in near-term physical resources, PacifiCorp could capture benefits from these temporary incentives and pass them on to ratepayers.

PacifiCorp responds to these comments regarding a REC-based RPS compliance strategy by noting that the decision to acquire RECs was a result of a comprehensive and robust RFP process that produced a least-cost, least-risk result in the form of bundled and unbundled REC purchases that place the Company in RPS compliance through 2028.³³ The Company further states that physical resource procurement was not precluded and limits exist on the use of unbundled RECs for compliance purposes.³⁴

2017 – 2021 RPS Implementation and Compliance

Opinions vary greatly across stakeholders regarding the contents of the five-year analysis. RNW/OSEIA, though “generally satisfied with the form of PacifiCorp’s RPIP analysis,” ultimately take a neutral position on Commission acknowledgement because of the “disconnect between the content of the RPIP and the Company’s procurement

³¹ Staff notes that nowhere in the RPIP does PacifiCorp indicate unbundled RECs are receiving preferential treatment in RPS compliance strategy. Rather, these commenters concerns regarding unbundled RECs are largely a product of the results of PacifiCorp’s 2016 RFPs, which resulted in some level of procurement of unbundled RECs.

³² RNW/OSEIA Joint Comments, at page 3, Docket No. UM 1790, September 9, 2016.

³³ PacifiCorp’s Reply Comments, at page 8, Docket No. UM 1790, October 28, 2016.

³⁴ Ibid.

efforts...³⁵ These parties claim that PacifiCorp's contemporaneous 2016 RFPs and the under-development upcoming IRP create doubt about the Company's Revised RPIP.

NWEC shares RNW/OSEIA's concerns and also adds that cost projections for solar and wind resources need to be reexamined because sources alternative to the IRENA report, such as the Northwest Power and Conservation Council's (NWPCC) seventh plan and NREL material, suggest that costs are likely to further decrease.

SBUA is concerned about the transparency of all associated costs with RECs, in particular the transmission costs. SBUA states that because PacifiCorp's service territory covers dispersed parts of Oregon, these small, nonresidential customers may be overly burdened from PacifiCorp's costs allocated to other states.

REC/CREA identify concerns similar to RNW/OSEIA: the absence of current, related information from the 2016 RFPs and the ongoing IRP process. However, REC/CREA add additional reservations, including the absence of "the long-term benefits of early procurement, the significant policy changes related to SB 1547, and the Company's stated desire to continue to 'test the market' and acquire renewables in the near future," all of which result in the recommendation that the Commission not acknowledge PacifiCorp's Revised RPIP.³⁶

Highlighting public statements PacifiCorp made regarding near-term acquisitions to the Commission and the State legislature, as well as statements made regarding ongoing issuances of renewable physical resource and REC RFPs, REC/CREA, noting the resulting disconnect between these public statements and the results of the Revised RPIP, assert that:

This disconnect should give the Commission pause, because the credibility of the regulatory process is diminished when the Company's IRPs and RPIPs show no short or long-term need for renewable resources yet are directly contradicted by PacifiCorp's aggressive efforts to obtain new generation.³⁷

As a result of these inconsistent positions of the Company, REC/CREA argue that the Commission should abstain from acknowledging any element of the Revised RPIP "that could provide even tacit support for the idea that regulatory resource plans can diverge so radically from the utility's actual resource procurement decisions and plans."³⁸

³⁵ RNW/OSEIA Joint Comments, at page 1 – 2 , Docket No. UM 1790, September 9, 2016.

³⁶ REC/CREA comments, at pages 1 – 2, Docket No. UM 1790, September 9, 2016.

³⁷ Ibid., at page 4.

³⁸ Ibid., at page 6.

ICNU argues that PacifiCorp should be using a more flexible firming resource, such as a reciprocating engine or more flexible simple cycle combustion turbine (SCCT), rather than a “bare-bones frame” SCCT. ICNU cites to evidence, including previous Commission orders, regional construction of flexible firming resources, and the NWPPCC’s Seventh Power plan’s discussion of flexible resources used to integrate variable generation, to support its position that PacifiCorp needs to update its firming resource.

In response to ICNU’s firming resource recommendation, PacifiCorp refers to Commission Order No. 14-034. This Order contains a stakeholder-agreed methodology that addresses the characteristics of the firming SCCT in dispute. PacifiCorp contends that ICNU’s stated “firming costs” might be characterized as “shaping costs,” an aspect of incremental costs that would need to be addressed elsewhere. The Company believes that deviation from the existing firming resource is premature at this time.

Incremental Costs

ICNU continues to recommend that utilities calculate incremental cost on *delivered* qualifying power (i.e. RECs *generated*), not power associated with RECs *retired* in any given compliance year. ICNU contends that the existing incremental cost methodology that relies on RECs retired is not capturing the actual costs borne to ratepayers and is contravening applicable Oregon statute. ICNU cites the newly existent Golden RECs as an illustrative example of its point: Golden RECs could be generated in 2019 and not be retired until a decade (or two) later. ICNU argues that this creates a disconnect between actual operations of the grid, the associated concurrent costs and the eventual regulatory compliance.³⁹

RNW/OSEIA, REC/CREA and NWEAC are all encouraged by the results of PacifiCorp’s incremental cost calculations in the Revised RPIP due to their distance from the four percent cost cap and the transparent, detailed nature of the calculations. RNW/OSEIA and NWEAC tamp down their endorsement of the Revised RPIP with a note of apprehension arising from their asserted mismatch between the Revised RPIP and the results of the 2016 RFPs.

As discussed in UM 1754 and UM 1782, PacifiCorp calculated the incremental costs of RPS compliance in accordance with existing administrative rules – the Company cannot unilaterally calculate the values in the way ICNU requests. PacifiCorp supports revisiting the incremental cost methodology in a future rulemaking.⁴⁰

³⁹ For further analysis and information, see ICNU’s comments in UM 1755 and UM 1783.

⁴⁰ PacifiCorp’s Reply Comments, at page 7, Docket No. UM 1790, October 28, 2016.

RPIP Process

All stakeholders agree that revisions to the RPIP process are needed in light of changing legal, regulatory and market dynamics. Recommendations from the stakeholders include: (1) tying the RPIP analysis to utility events, such as an issued RFP or acknowledged IRP, (2) expanding the RPIP analysis and process to include longer planning periods, and (3) exploring ways to integrate aspects of the RPIP into the existing IRP framework.

Given the current biannual filing timeframe for RPIPs, a utility's forecasted RPS implementation costs, informed by its most recent IRP, could quickly become irrelevant if an opportunity arises to acquire a timely physical or REC-based resource. ICNU highlights the troubling scenario in which a utility proceeds with such a situation and ultimately exceeds the four percent cost cap before a cost-cap analysis could be conducted in the ensuing, future RPIP. These considerations, along with PacifiCorp's statements regarding future RFPs to test the market for physical resources and RECs, underscore the importance of updating the RPIP process.

PacifiCorp indicates support for improving the RPIP process, such as better aligning the RPIP with the IRP. However, the Company believes that recalculating incremental costs as a result of early action or deviations from the previously filed RPIP is not an appropriate solution. This is because the annual RPS compliance reports require utilities to calculate new incremental costs if material differences exist from the implementation plan.⁴¹

Staff Comments

In addition to considering PacifiCorp's responses to the five questions set forth in Order 16-158, Staff asked four additional clarifying questions regarding the impacts of the 2016 RFPs, REC management strategies, scenario analysis and hydro variability. PacifiCorp sufficiently responded to Staff's questions in its reply comments.

Sierra Club's Comments

Staff addresses Sierra Club's comments separately as the organization focuses on only two topics that are distinct from those of the other parties: (1) the economic assessment that determines which resource bids to accept and (2) the Company's assumptions about coal unit retirements that affect the results of the analysis. Sierra Club begins its critique of the economic analysis framework that is present in the RPIP and the RFPs, but quickly transitioned to its disagreement about the results of the RFPs. Essentially,

⁴¹ PacifiCorp's Reply comments, at page 8, Docket No. UM 1790, October 28, 2016.

Sierra Club asserts that PacifiCorp contradicts its own analysis, which shows customer benefits with high levels of near-term resource acquisition, by electing to “wait until 2024 to acquire new resources”, in part because of the range of possible future costs as well as the incremental transmission variable.⁴²

Second, Sierra Club finds that PacifiCorp’s fixed coal retirement dates preclude full economic analysis because they are irrespective of the coal units own economic viability. In other words, Sierra Club asserts that the Company should have included existing resources in addition to market purchases and new physical resources in its analysis. Failing to do so prevents the analysis from revealing whether new renewable resources could displace current coal units based on total system cost rather than relying on the variable of incremental transmission cost. For both of these issues, Sierra Club finds that PacifiCorp’s reliance upon Scenario JIT-3’s “high cutoff scenario” sensitivity to justify the Company’s delaying near-term procurement to be detrimental to a least-cost, least-risk resource strategy.

PacifiCorp responds to Sierra Club’s concerns by noting that most of its issues are better suited for the IRP process and, further, that “Sierra Club’s arguments have no merit, misunderstand the results of PacifiCorp’s recent RFP process, and are inappropriately raised in this forum.”⁴³ PacifiCorp reiterates that its Revised RPIP was filed prior to the conclusion of the 2016 RFP and does “not reflect actual RFP bid data.”⁴⁴ Furthermore, PacifiCorp finds Sierra Club’s statement regarding the Company’s election to wait until 2024 to acquire new renewable resources as “simply not true” because the Company “has clearly indicated that it will continue to monitor the market to assess the optimal time for additional acquisitions for RPS compliance.”⁴⁵

In response to Sierra Club’s arguments against PacifiCorp’s coal unit modeling, the Company discusses its Open Access Transmission Tariff (OATT), which would require the Company to secure incremental network transmission rights in addition to the costs of building the necessary transmission to integrate new resources. PacifiCorp states “aligning resource procurement with assumed coal unit retirement dates provides an opportunity to avoid these network upgrade costs.”⁴⁶

Staff’s Analysis

As stated earlier, Staff focused its analysis on the actual Revised RPIP’s two major components: the five year plan and the five questions about long-term RPS compliance.

⁴² Sierra Club’s Comments, at page 3, Docket No. UM 1790, September 9, 2016.

⁴³ PacifiCorp’s Reply Comments, at page 4, Docket No. UM 1790, October 28, 2016.

⁴⁴ Ibid., at page 5.

⁴⁵ Ibid.

⁴⁶ Ibid.

Issues related to the Company's ongoing IRP process and 2016 RFP are valid, but mostly lie outside of the scope of this proceeding. However Staff recognizes that fully excluding the results of the 2016 RFPs would ignore the present-day realities as well as those that influenced the modeling found in the Revised RPIP. Staff therefore includes the outcome of the 2016 RFPs where appropriate.

As to matters arising from the 2016 RFPs and Revised RPIP occurring contemporaneously, Staff notes that, after PacifiCorp stipulated to filing a new RPIP, the Commission acknowledged that "the parties recognize and acknowledge that the July 2016 filing date will not allow PacifiCorp an opportunity to include the results of its recently-issued [RFPs] when its new RPIP is filed in July 2016."⁴⁷ Therefore, it would not be reasonable for Staff to penalize the Company for differences between the Revised RPIP and the 2016 RFPs.

With that being said, Staff finds that the first task of the analysis required by Order 16-158, a quantitative analysis that meets the RPIP requirements while also incorporating any changes as a result of SB 1547, has been successfully satisfied by the Company. PacifiCorp demonstrated that SB 1547 substantively did not change the Company's five-year RPS compliance strategy. The only changes were to REC bank management and incremental costs as a result of new gas price forecasts. Given the near-decade distance from a position of noncompliance with the RPS, PacifiCorp was, and still is, in a comfortable position to draw down its REC bank.

In addition to analyzing the impacts of SB 1547 on the five-year plan, PacifiCorp has successfully demonstrated that it will not exceed the four percent cost cap nor does it plan to rely on unbundled RECs, alternative compliance payments or future-year RECs for compliance purposes, events that would all require additional explanation. Under current Commission rules, and given the information that was known at the time of filing, Staff finds that PacifiCorp has complied with the requirements of the RPIP.

However, a combination of events, such as the 2016 RFPs, SB 1547 and the federal tax credit extension, reveal the limits of the existing RPIP process. First, as stakeholders point out, the requirement that a utility file its RPIP biannually may no longer be the appropriate timeframe. Two years, plus the six months allowed for Commission review, for an RPIP filing creates a regulatory blind spot during which utilities could feasibly acquire qualifying renewable resources that were not forecasted in a previous IRP or RPIP. With the growing role of "economic need" in utility resource planning, coupled with the doubling of the RPS by 2040, a significant amount of capacity could be bid, reviewed, accepted and partly constructed before the Commission would be able to

⁴⁷ Commission Order No. 16-158, Appendix A, at page 1, Docket No. UM 1754, April 22, 2016.

determine if such a resource acquisition remained under the statutory four percent cost cap.⁴⁸

Such planning-asynchronous resource acquisitions were previously rare, but SB 1547's opportunity for Golden RECs over the next decade, coupled with unpredictable market dynamics, invite the possibility of unplanned renewable resource procurement. In the case of PacifiCorp, this possibility is even more likely as the Company has indicated that it will continue to test the market by regularly issuing resource and REC RFPs. Due to this new paradigm, changes to the RPIP process are in order to ensure the statutory safeguards regarding RPS compliance are effectively enforced. CREA/REC's comments regarding the impacts to the credibility of the regulatory process due to contradiction in a utility's regulatory filings and actual efforts regarding procurement resonate strongly with Staff. It is for these reasons, and others, that Staff will commence a rulemaking proceeding in the near future to revisit the existing RPS rules.

Until structural changes to the RPIP process can be implemented in the aforementioned potential upcoming RPS rulemaking, Staff recommends the Commission require PacifiCorp to take the following steps when it commences a resource procurement action for the purpose of complying with the RPS that materially deviates from its most recently filed RPIP or IRP:

- a. Demonstrate the forecasted benefit to ratepayers if the resource or resources do not immediately satisfy a system capacity or RPS need;
- b. Explain the interaction the new resource or resources have with the most recently filed IRP or RPIP;
- c. Calculate new incremental costs with the new resource or resources included across twenty years;
- d. Respond to requests by the Commission regarding its new analysis arising out of the calculation set forth in 1(c) above; and

In its Reply Comments, the Company opposes new incremental cost calculations as a result of an RFP or acknowledged IRP. It argues that doing so would be redundant because existing rules require the recalculation of incremental costs. In response, Staff believes the existing rules inadequately account for RPS compliance strategies that involve Golden RECs and the reality that a utility will issue multiple RFPs to gauge qualifying bids. Staff's recommendations seek to temporarily remedy this new reality and ensure that the Commission can execute existing statutory mandates.

⁴⁸ "Economic need" does not represent a system capacity "need" established in IRPs nor does it reflect the additional value a qualifying facility is afforded in avoided cost rates during an insufficiency period. Rather, it captures a "time-limited resource" that is only seen in exemptions to the Commission's bidding guidelines.

Thus, it is not in serious dispute that additional changes to the RPIP process are needed as all stakeholders across both utilities' respective RPIP and RPS compliance reporting processes have identified. However, Staff believes this docket is not the appropriate venue for the Commission to determine these changes. Rather, such changes should be considered in the upcoming RPS rulemaking.

Staff believes a RPIP process workshop prior to the RPS rulemaking will enable stakeholders to begin identifying the deficiencies and concerns of the existing RPIP rules. Therefore, Staff recommends the Commission direct the utility to participate in a workshop in order to facilitate the upcoming rulemaking.

Regarding the second task of the Commission's Order 16-158, a comprehensive narrative detailing the Company's strategies and resulting impacts of complying with the RPS until 2040, Staff finds PacifiCorp's included analyses and discussion to be well-executed, properly documented, transparent, and overall very helpful. Staff commends the Company on the effort conducted in order to produce the analysis presented confidential Appendix A.

Staff agrees with PacifiCorp's conclusion that near-term resource acquisitions can defer the RPS incompliance, thereby yielding optimal customer benefits gained through the alignment of renewable resource procurement with coal unit retirement and avoiding incremental transmission.⁴⁹ The results of the 2016 RFPs comport with this position and the acquisition of bankable RECs proved to be the least-cost, least-risk action for ratepayers.

Conclusion

Staff concludes that PacifiCorp has met the requirements of OAR 860-083-0400 and ORS 468A.075 as well as the supplemental requirements found in Commission Order No. 16-158. Staff recommends the Commission acknowledge PacifiCorp's Revised 2017 – 2021 RPIP. Additionally, Staff recommends that the Commission require the following as conditions of acknowledgement:

1. PacifiCorp must comply with the following steps when it commences a resource procurement action for the purpose of complying with the RPS that materially deviates from its most recently filed IRP or RPIP:

⁴⁹ PacifiCorp's Revised 2017 – 2021 RPIP, Confidential Appendix A, at page 20, Docket No. UM 1790, July 15, 2016.

- a. Demonstrate the forecasted benefit to ratepayers if the resource or resources do not immediately satisfy a system capacity or RPS need;
 - b. Explain the interaction the new resource or resources have with the most recently filed IRP or RPIP;
 - c. Calculate new incremental costs with the new resource or resources included across twenty years;
 - d. Respond to requests by the Commission regarding its new analysis arising out of the calculation set forth in 1(c) above; and
2. Participate in a stakeholder workshop to identify opportunities for revisions to the RPIP process and requirements.

PROPOSED COMMISSION MOTION:

Acknowledge PacifiCorp's Revised 2017 – 2021 Renewable Portfolio Standard Implementation plan with Staff's conditions set forth in the "Staff Recommendation" section of Staff's memorandum.