

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

UM 1790

In the Matter of

PACIFICORP, dba PACIFIC POWER,  
2017-2021 Renewable Portfolio Standard  
Implementation Plan

COMMENTS OF SIERRA CLUB

Sierra Club respectfully submits comments on PacifiCorp’s July 15, 2016 Renewable Portfolio Implementation Plan (“RPIP”) for 2017-2021 as required by Oregon Public Utility Commission (“OPUC”) Order 16-158. This filing reflects, in part, the results of a recent request for proposals (“RFP”) issued by PacifiCorp (d.b.a. Pacific Power or Company) in April 2016 to acquire unbundled renewable energy credits (“RECs”), bundled RECs, and renewable resources, and provides insights on the process used by the Company to screen those resources and select competitive bids. These comments were prepared with technical assistance from Jeremy Fisher and Ariel Horowitz of Synapse Energy Economics.

These comments focus on two key areas of the Company’s RPIP filing: (a) the Company’s economic assessment of the appropriate level of resource bids to accept at this time, and (b) interactions between this filing and the Company’s assumptions about coal unit retirements. Overall, it appears the Company has improperly rejected significant physical renewable resources and RECs from appropriate consideration, opting instead for unusually risky behavior. It is Sierra Club’s opinion that the Company’s own analysis supports the acquisition of at least 189 megawatts (“MW”) of Oregon-allocated physical renewable capacity and 504 MW of Oregon-allocated RECs. In addition, Sierra Club is concerned that the Company’s subjective

mechanism for assessing the useful lives of its existing coal units has negative implications for this RPIP and the IRP process.

In preparation for these comments, Sierra Club and Synapse reviewed the Company's July 15, 2016 filing, materials from the July 26, 2016 public meeting, and information presented during the third public input meeting for the 2017 IRP process on August 25, 2016. As of this writing, the Commission has not granted Sierra Club's August 22, 2016 motion to intervene in order to sign the protective order in this proceeding. Therefore, Sierra Club was not afforded access to review the Company's confidential data in this docket.

**I. PacifiCorp inappropriately discarded its own analytical results, which support additional physical resource and REC purchases**

In OPUC Order 16-158, the Commission directed PacifiCorp to "provide a complete and thorough narrative describing its plan to satisfy the Renewable Portfolio Standard (RPS) requirements of SB 1547 from 2017 through 2040." In the third directive of this requirement, the Commission ordered that "PacifiCorp should provide a 'tipping-point' analysis that depicts when physical resource acquisition is more cost effective than buying unbundled RECs."

In response to the Commission's third directive, PacifiCorp conducted an analysis that compared the total system cost of acquiring various equivalent-cost bundles of RECs and physical resources against cases in which PacifiCorp acquired self-build resources on a "just in time" ("JIT") basis. PacifiCorp used this analytical structure in its RPIP as well as in its evaluation of bids received in response to its RFPs for RECs and physical resources. In the RPIP, the Company investigated the costs and benefits of a JIT strategy as compared to the near-term acquisition of RECs and physical resources with costs at or below three different theoretical

thresholds.<sup>1</sup> In conducting this analysis, the Company found that “near-term procurement can lower RPS compliance costs over the long-term” and that near-term procurement increases customer costs only if near-term resources are relatively expensive *and* “future resource costs experience relatively steep declines.”<sup>2</sup>

After receiving actual bids in response to its RFPs, the Company used this same analytical structure to assess whether it should acquire RECs and/or physical resources or wait until a future time to build resources on an as-needed basis based on the actual prices of received bids. The problem is PacifiCorp chose to preferentially wait until 2024 to acquire new resources rather than harness low cost resources today, despite the fact that this pathway was shown to be both higher cost and is demonstrably higher risk.

We understand PacifiCorp’s post-RFP analysis to be structured as follows:

- First, PacifiCorp screened the resources that had bid into the current RFP, and eliminated numerous resources. (Our concerns with the elimination of some resources in this category are discussed in the next section.)
- Second, the Company clustered resources on the basis of their equivalent REC cost on a dollar per megawatt hour (“\$/MWh”) basis, creating six bundles (“RFP-A” through “RFP-F”) of increasing cost.
- Third, the Company determined the level of later-term generic resource acquisitions it would need to meet its total future compliance needs by 2040 given acquisition of different RFP resource bundles. The Company also created a resource bundle that assumed no RFP resources were acquired.<sup>3</sup> This last cluster (or lack thereof) was meant to illustrate what would occur if the Company opted

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<sup>1</sup> July 15, 2016 Application, Table A-18, Appendix A, page 20.

<sup>2</sup> July 15, 2016 Application, Appendix A, page 20.

<sup>3</sup> July 26, 2016 REC RFP Presentation, page 23.

to build “just in time” as RECs were required, rather than utilize any of the bids received in the most recent RFP.

- Fourth, the Company analyzed the cost of each resource acquisition strategy (acquire RFP resources at different cost thresholds, or acquire no RFP resources), assuming its RECs would be optimally utilized. The Company’s analysis includes three different scenarios, labeled as 1 through 3, which represent different assumptions regarding the cost of future renewable resources, where “JIT-1” represented costs consistent with the 2015 IRP Update and “JIT-3” represented costs as derived from a third-party database. Thus, the “JIT-1, RFP-A” scenario is the scenario in which renewable energy costs are assumed to follow the same trajectory as assumed in the 2015 IRP Update and the Company is assumed to acquire only the lowest cost bundle of RFP resources.
- Finally, the Company compared the cost of acquiring each bundle of RFP resources to the cost of the JIT-only bundle under these three different cost trajectories, as well as several additional sensitivities.

The point of this analysis appears to be to assess the optimal combination of near-term REC acquisitions, near-term physical resource acquisitions, and later-term physical resource acquisitions under different trajectories of future resource costs. The ultimate result of this assessment hinges on the reasonableness of PacifiCorp’s assumptions regarding the range of possible future costs of renewable resources, and which of the three cost trajectories is most reasonable. In effect, this assessment judges known resources, with known prices and which are known to be available for contract today, against hypothetical future resources based on the Company’s assumption about the trajectory of renewable energy costs in the future.

In every case where future renewable energy costs are consistent with the 2015 IRP Update, the Company's assessment indicates that it should pursue the largest cluster of resources and RECs – RFP F. This cluster would entail the acquisition of 388 MW of physical resources and 504 MW of RECs (the total equivalent capacity of every REC offer on the Company's shortlist). The Company also analyzed a far lower cost for hypothetical future renewable energy (JIT-3) than used in the 2015 IRP Update – 15% less expensive in the case of solar resources. Even according to this case, however, PacifiCorp's analysis indicates that they should accept 189 MW of physical resources and all 504 MW of RECs (RFP-D).

Of the analyses discussed in the July 25<sup>th</sup> presentation, **every scenario but one indicates that the Company should procure both substantial physical resources and RECs.**<sup>4</sup> The Company's July 15<sup>th</sup> application affirms this general finding, stating that “when future costs are relatively high (i.e. under Scenario JIT-1), near-term procurement opportunities... yield customer benefits,” and even “with steeper cost reduction assumptions for future renewable resources (i.e. under JIT-3), near-term procurement can continue to provide customer benefits.”<sup>5</sup>

Yet rather than rely on the results of the analysis provided in the July 15<sup>th</sup> application, or the base analyses discussed in the July 26<sup>th</sup> presentation, PacifiCorp has instead decided to follow the outcome of a scenario which was not presented in the July 15<sup>th</sup> application – an additional “resource sensitivity” (JIT-3a) which “assumes steep cost declines for future renewable resource opportunities *with sufficient transmission*.”<sup>6</sup> The question of the availability of transmission is a significant one, as discussed below. Using this extreme and previously

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<sup>4</sup> July 26, 2016 REC RFP Presentation, pages 28-30.

<sup>5</sup> July 15, 2016 Application, Appendix A, page 19. Specific REC price thresholds are confidential, but if assumed to be consistent with the July 26, 2016 presentation, would indicate the volumes of renewable resources stated in these comments.

<sup>6</sup> July 26, 2016 REC RFP Presentation, page 32; emphasis added.

unpresented scenario, PacifiCorp justifies a minimal RFP acquisition – only 243 MW of RECs (less than half of those available), and no physical resources.

PacifiCorp has cherry-picked the results of this RFP process by assessing the bids against a scenario in which renewables are assumed to be inexpensive and transmission is assumed to be readily available. Under most circumstances, Sierra Club would applaud the Company’s interest in examining a scenario with low cost renewable resources. However, PacifiCorp has never previously conducted resource planning, in its IRP scenarios or otherwise, with the assumption of steep renewable cost declines or “sufficient transmission.” In effect, relying solely on the results of one single scenario that is most optimistic about future costs and resource availabilities serves only to minimize the Company’s acquisition of available RFP resources. By rejecting the other low cost RFP-based resources, PacifiCorp chooses to proceed in a mechanism that is not least-cost (according to its base assumptions and sensitivities) and is relatively high risk – banking on the fact that renewable resource costs will fall on a steep trajectory.

To our knowledge, there is no other circumstance to date in which PacifiCorp has been willing to test substantially lower renewable resource costs, much less to place a bet (with real financial implications for ratepayers) that renewable costs will start low and fall faster. Had the Company included such an assessment in the 2015 IRP framework, it would almost certainly have resulted in a substantially different IRP. We believe that it is unlikely that PacifiCorp would be willing to use its “steep cost declines” assumption as the basis for its 2017 IRP, and thus the Company is left with a highly selective process biased against the selection of low cost RFP resources when they are otherwise available.

We recommend that the Commission order the Company to pursue, at a minimum, RFPs consistent with the RFP-D cohort of bids – i.e. 189 MW of physical resources and all 504 MW of

RECs. In the alternative, the Company should maintain consistency with the assumptions limiting its procurement by modeling the “steep cost declines for future renewables” as the basis of the 2017 IRP.

## **II. PacifiCorp inappropriately rejected bids on the basis of transmission currently constrained by non-economic coal plants**

One of PacifiCorp’s justifications for pursuing the lesser RFP-B cohort of RECs, rather than the more extensive RFP-D set of physical resources and RECs as indicated by its own analysis, is that this minimal bid amount “provides sufficient volume to defer PacifiCorp’s initial shortfall to 2028, which coincides with the *assumed retirement date of the Dave Johnston coal unit* in eastern Wyoming.”<sup>7</sup> In multiple other places through this filing, PacifiCorp ties its ability to acquire low cost renewable resources to its assumed coal unit retirement dates. For example, in the application, the Company discloses that low cost proxy resources are not available because of transmission constraints due to existing coal units:

Much of the cost of [the JIT-1 renewable resource portfolio] is driven by the high cost [renewable] resources needed in 2025 and 2026 – before lower cost renewables can be procured without incremental transmission costs *after assumed coal unit retirement dates*.<sup>8</sup>

While this is a difficult sentence to parse, its meaning is consistent with the Company’s recent planning processes for coal unit retirements considering the current 2028 retirement date for Dave Johnston. PacifiCorp has chosen, on an *a priori* basis, a date for the retirement of its coal units that has nothing to do with the economic viability of the units. This assumption

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<sup>7</sup> July 26, 2016 REC RFP Presentation, page 32; emphasis added.

<sup>8</sup> July 15, 2016 Application, Appendix A, page 7; emphasis added.

convolutes and contorts the Company's assessment in this RPIP by failing to allow low cost renewable energy to compete against the Company's existing coal units. The Company asserts that the availability of transmission is a barrier to the near-term acquisition of otherwise cost-effective renewable resources but fails to consider any means of addressing these constraints. The Company's treatment of its coal unit retirement schedule as fixed within the context of their RPIP and RFP analyses implicitly assumes that a retirement schedule that would ease these transmission constraints cannot possibly be lower-cost than its plans, despite the fact that PacifiCorp's own analysis finds benefits of near-term resource acquisition to generally be in the hundreds of millions of dollars.

Sierra Club commented extensively in the 2015 IRP proceeding (LC 62) on the Company's use of a mechanism of long-term planning in which retirement dates for coal units were locked in, irrespective of the economics of these units. In the 2015 IRP process, the Company tested several different "regional haze alternative" scenarios, none of which tested the economic efficiency of retaining individual coal units. Instead, the scenarios tested negotiation positions, affecting cohorts of units at once, that the Company might choose to take with EPA to meet regional haze requirements with minimum near-term retirements. This process was problematic at the time because it obscured the real economic viability of individual units, as we showed in our detailed modeling re-assessment of the 2015 IRP. In short, the Company's 2015 IRP method prevented the model from testing whether coal units were more or less economic than alternatives, including renewable energy.

In this RPIP, it is apparent that the Company's assumed cost of renewable energy in scenario JIT-3 is so low that it could reasonably displace existing coal units. Table A-7 of the Company's application indicates that Utah solar projects have a net benefit of \$12.68/MWh in



2030 relative to the system, and have a benefit of \$24.68/MWh by 2040. Considering that many of PacifiCorp's coal units are already on or near an economic margin from an objective perspective, the Company's decision to acquire new physical resources should be assessed not only against market purchases and new resources, but also existing resources. Instead, the Company *restricts* new economic renewable resources from competing in the RFP. The Company's logic is that existing coal plants utilize the existing transmission, and new renewable resources would need to build incremental transmission to become viable. This logic, which burdens new renewable resources only with the costs of incremental transmission, is deeply flawed. From a resource planning perspective, PacifiCorp's existing coal units are not entitled to the use of PacifiCorp's transmission. Rather, like any other element of the Company's resource portfolio, they must demonstrate that they provide net benefits to the system in comparison to other options. The Company should have assessed whether lower cost renewable resources could have cost-effectively displaced existing coal units, utilizing existing transmission lines at a lower total system cost than maintaining those units.

Performing such an analysis is simple in the Company's long-term planning model framework. System Optimizer, the Company's planning model, is readily able to assess the tradeoff between existing and new resources. The model can be used to assess whether the renewable energy resources are lower cost than coal resources, and if so, by how much. This method was employed by PacifiCorp in the 2013 IRP, but abandoned in the 2015 IRP and IRP Update.

### **III. Recommendation**

We recommend that the Commission order the Company to re-assess the RFP bids assuming that existing coal could be displaced by renewables if those resources provide overall

