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October 15, 2015

Via Electronic Filing

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

Re: In the Matter of PACIFICORP's 2015 Integrated Resource Plan
Docket No. LC 62

Dear Filing Center:

Enclosed for filing in the above-referenced docket, please find the Final Comments of the Industrial Customers of Northwest Utilities.

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 62

In the Matter of)	
)	
PACIFICORP, dba PACIFIC POWER)	FINAL COMMENTS OF THE
)	INDUSTRIAL CUSTOMERS OF
2015 Integrated Resource Plan.)	NORTHWEST UTILITIES
_____)	

I. INTRODUCTION

The Industrial Customers of Northwest Utilities (“ICNU”) submits these Final Comments regarding the 2015 Integrated Resource Plan (“IRP”) of PacifiCorp (the “Company”). These Final Comments respond to the Reply Comments of the Company filed on September 24, 2015.

In summary, because the action plan outlined in the IRP does not contain any significant resource or investment decisions of immediate import, ICNU is not providing any comment on the five specific action items proposed by the Company. Notwithstanding, ICNU has identified several material deficiencies in the Company’s overall planning process that should be addressed in subsequent IRPs and which may impact the Commission’s decisions in future ratemaking proceedings. While ICNU may discuss additional issues at the December 17, 2015 special public meeting of the Oregon Public Utility Commission (the “Commission”), ICNU respectfully requests that the Commission recognize, at a minimum, the following deficiencies in the Company’s resource planning process:

1. PacifiCorp is considerably overstating the cost to integrate renewable resources through the use of a 99.7% prediction interval and an integration study methodology

still based on the outdated Control Performance Standard 2 (“CPS2”) reliability standard;

2. The Company’s planning reserve margin methodology is improper because it is not reflective of reliability at the time of system peak; and
3. The Company has not properly analyzed the extension of the Hermiston Purchase and Southeast Idaho Exchange.

II. COMMENTS

1. The Company is Overstating the Cost to Integrate Renewable Resources

ICNU continues to be concerned that the Company’s wind integration study is overstating the cost of integrating renewable resources. The Company’s Reply Comments make several statements indicating that it based the wind integration study on the new North American Electric Reliability Corporation standard BAL-001-2.^{1/} A review of the mechanics of the Company’s 2015 Wind Integration Study, however, demonstrates that those statements are not accurate and that the 2015 Wind Integration Study continues to be based on the outdated, CPS2 reliability standard—notwithstanding the fact that the Company has not integrated renewable resources into that standard since 2010.

Under CPS2, the Company was required to maintain Area Control Error (“ACE”) within a specified threshold called “L₁₀” in greater than 90% of 10-minute measurement periods.^{2/} Under the new BAL-001-2 reliability standard, reliability is measured over rolling 30-minute periods and is based on Balancing Authority ACE Limits (“BAAL”).^{3/} The Company, however, continues to calculate reserves based on “differences, or deviations, between actual

^{1/} Reply Comments of PacifiCorp at 40:16-42:4.

^{2/} NERC Standard BAL-001-01a, available at: http://www.nerc.com/files/BAL-001-0_1a.pdf.

^{3/} NERC Standard BAL-001-2, available at <http://www.nerc.com/files/BAL-001-2.pdf>.

wind generation and load values in each 10-minute interval,^{4/} not the rolling 30-minute intervals required under BAL-001-2. Similarly, the Company also continues to use “the L₁₀ ... for the bandwidth in both directions of the ACE.”^{5/} Yet, there is no mention of an L₁₀ threshold in BAL-001-2, as the L₁₀ threshold was a construct of CPS2.

As detailed in ICNU’s Opening Comments, based on a review of the Company’s actual CPS2 performance scores over recent years, it is clear that the adoption of the reliability based control standard BAL-001-2 has allowed the Company to reduce its effective CPS2 performance.^{6/} Because the Company is still modeling wind integration costs based on a 99.7% predictive interval, however, it is almost certainly overstating the costs of integrating wind pursuant to BAL-001-2. Accordingly, ICNU continues to support the notion that, based on historical CPS2 performance reporting, the use of a 99.7% predictive interval in the wind integration study is excessive and is not consistent with the Company’s actual reliability performance. In order to better model the implications of BAL-001-2 and BAAL, ICNU continues to support modeling wind integration costs using a 90% predictive interval (and even a 95% predictive interval would be an improvement), consistent with several other regional reserve studies.

For example, Idaho Power Company calculates reserves based on a 90% predictive interval.^{7/} As another example, the recent studies performed by Energy and Environmental Economics, Inc. (“E3”) to evaluate the participation of Puget Sound Energy

^{4/} 2015 IRP, Volume II, Appendix H – Wind Integration at 106.

^{5/} Id. at 105.

^{6/} Opening Comments of ICNU at 6-11.

^{7/} Idaho Power Company, *Wind Integration Study Report* at page 23 (Feb. 2013), available at: <https://www.idahopower.com/pdfs/AboutUs/PlanningForFuture/irp/2013/windIntegrationStudy.pdf>

(“PSE”) and Arizona Public Service Company (“APS”) in the Energy Imbalance Market used a 95% predictive interval. Both the PSE E3 Study and the APS E3 study contain the identical statement that: “Each BA’s flexibility reserves requirement for each month and hour are calculated using a 95% confidence interval (CI), where the 2.5th and 97.5th percentiles determine the flexibility down and up requirements, respectively.”^{8/}

Accordingly, ICNU recommends that the Commission recognize that the use of a 99.7% predictive interval in measuring wind integration costs is not supported and is not consistent with industry practice.

2. The Company’s Planning Reserve Margin Calculation is Flawed

The Company agrees that its planning reserve margin is calculated based on the probability of a loss of load in all hours of the year—not the probability of loss of load in the hour of system peak.^{9/} The Company also does not dispute the fact that the planning reserve margin is applied only to the hour of system peak to determine what resources are the most cost effective form of capacity for meeting the planning reserve margin.^{10/} Because resources added to meet the summer peak may provide little (or no) capacity benefit in other hours of the year, however, the planning reserve margin calculation based on all hours of the year is likely overstating the need for summer peaking capacity by a considerable margin.

For example, loss of load probability may be occurring during the springtime when several resources are scheduled to be on a planned outage at the same time. Yet, the

^{8/} PSE E3 Study at 36 (Sept. 2014), available at: http://pse.com/aboutpse/EnergySupply/Documents/PSE-ISO_EIM_Report_wb.pdf; APS E3 Study at 31-32 (Apr. 2015), available at: <http://www.caiso.com/Documents/ArizonaPublicService-ISO-EnergyImbalanceMarketEconomicAssessment.pdf>. Note that the studies likely misused the term “confidence interval,” as the description appears to refer to a “predictive interval.”

^{9/} Reply Comments of PacifiCorp at 39:19-40:3.

^{10/} *Id.* at 42:5-44:3.

addition of a new FOT in the third quarter to meet the summer peak will have no impact on the loss of load probability in the springtime. In fact, it may not be appropriate to address loss of load probability caused by overlapping planned outage schedules through an increase in peak capacity, as that loss of load probability may be best addressed by modifying an outage schedule or selecting a capacity resource with more flexibility.

Similarly, loss of load probability may be occurring during the winter peak timeframe, driven by loads in the Northwest. Nevertheless, as a result of the physical transfer limitations discussed below, it may be impossible to use a summer peaking resource built in the East to reduce the loss of load probability associated with the winter peak in the Northwest. Thus, it does not make sense to apply a planning reserve margin based on loss of load probability in the winter peak to the capacity that must be acquired to meet the summer peak. Doing so will not reduce the loss of load probability in the winter peak and will result in unnecessary summer capacity purchases.

Because the Company does not have any near-term resources in its action plan, ICNU does not believe it necessary to fully evaluate the flaws associated with the Company's reserve margin calculations at this time. Nonetheless, ICNU believes the Commission should require the Company to refine its reserve margin calculations in the Company's next IRP, especially as consideration of the addition of any new resources may then be a factor.

3. The Company Has Not Considered the Winter Peak in its Recent Planning Decisions

The Company acknowledges that its System Optimizer capacity expansion model does not develop a least-cost plan for meeting the winter peak in the Northwest.^{11/} Rather, the model selects new capacity resources only if they are capable of meeting the larger, summer peak on the eastern side of the Company’s system.^{12/} The Company also does not dispute that, as a result of transmission limitations, the addition of new capacity in the East may have little to no incremental capacity benefit to loads located in the Northwest. This is because the Company currently has only approximately 1,600 MW of transmission that can be used to import capacity from the East—including from Jim Bridger—into the Northwest.^{13/} Absent an increase to those transmission rights, the Company cannot import any additional energy into the Northwest to serve loads at the time of winter peak.

The Company’s Reply Comments, in response to Staff’s similar concerns, suggest an assumption that any future winter peaking capacity shortfall in the Northwest can be met with additional winter FOTs from the Mid-Columbia or other regional market.^{14/} The Company implies that reliance upon these FOTs over the twenty-year planning horizon is the least-cost, least-risk method for meeting the capacity needs of customers located in the Northwest.^{15/}

^{11/} Id. at 22:21-23:17.

^{12/} 2015 IRP, Volume I, Chapter 1 – Executive Summary at 8 (referencing the capacity position during the coincident peak load hour of the year). See id., Chapter 5 – Resource Needs Assessment at 62 (stating “PacifiCorp is a summer-peaking utility”).

^{13/} See Re PacifiCorp’s 2013 Electric IRP, Wash. Utils. & Tranp. Comm’n Docket UE-120416, IRP Acknowledgment Letter, Att. at 5 (Nov. 25, 2013) (recognizing, in acknowledging the Company’s 2013 IRP, that “there is no unused long-term transmission capacity to deliver peak generation capacity between the two control areas and no plans by the Company to build any in the next 10 years”).

^{14/} Reply Comments of PacifiCorp at 23:2-6.

^{15/} Id.

ICNU supports the Company's assumption that market capacity is the least-cost, least-risk method for meeting winter loads in the Northwest in the foreseeable future. ICNU is still concerned, however, by the fact that the Company did not validate this assumption when it made the recent decisions to terminate the Hermiston Purchase Agreement and Bonneville Power Administration ("BPA") Southeast Idaho Exchange. Specifically, it may have been economic to extend these contracts, if doing so would have avoided the need to build a new winter peaking resource in the Northwest.

In response to ICNU's concerns, the Company stated that it "has not even contemplated" a winter peaking resource, and therefore, should not be responsible for the inadequate planning practices noted by ICNU.^{16/} The Company makes statements such as "[t]he determination of whether resources are needed in any location on the Company's system can only be based on the then-current information, including resource needs, resource availability, and market conditions."^{17/} But, the physical limitations of the Company's system, which restrict the Company's ability to use summer peaking capacity located in the East to serve winter peaking loads in the Northwest, are currently known. Thus, to the extent it is later determined that the methodology used to evaluate the Hermiston Purchase Agreement and BPA Southeast Idaho Exchange did not properly reflect those physical limitations, then that would be an indication of improper planning.

IV. CONCLUSION

ICNU appreciates the opportunity to provide these Final Comments on the Company's 2015 IRP. In conclusion, ICNU does not believe it necessary to provide comments

^{16/} Id. at 40:4-15.

^{17/} Id. at 40:10-12

on the specific action items outlined in the Company's IRP. ICNU has identified three deficiencies in the Company's planning, however, that should be recognized and noted by the Commission in this proceeding, with potential consideration to follow in future ratemaking determinations.

Dated this 15th day of October, 2015.

Respectfully submitted,

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