

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**LC 62**

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

**I. INTRODUCTION**

Pursuant to Administrative Law Judge Pines’ Prehearing Conference Memorandum, the Industrial Customers of Northwest Utilities (“ICNU”) submits the following comments regarding PacifiCorp’s (or the “Company”) 2015 Integrated Resource Plan (“IRP”). ICNU is submitting limited comments at this time, and will review the Opening Comments of other parties and PacifiCorp’s Reply Comments. ICNU may raise additional issues in its Final Comments and/or at the Oregon Public Utility Commission’s (“OPUC” or the “Commission”) special public meeting that will consider acknowledgement of PacifiCorp’s 2015 IRP on December 17, 2015.

PacifiCorp’s 2015 IRP needs to better address the needs of the Western Control Area (“WCA”) Customers. More specifically, as capacity additions in the 2015 IRP consist primarily of summer peak purchases, the Company seems not to have reasonably considered the provision of winter peaking capacity for the WCA (including Oregon). The Company’s failure to separately consider WCA or Oregon needs has resulted in an excessive 13% planning reserve margin. Moreover, the Company concluded in the 2015 IRP that a winter peaking resource may

be needed in the near-term to meet peak loads; yet, the Company failed to analyze the potential benefit of extending the Hermiston Purchase contract and the Bonneville Power Administration's ("BPA") Southeast Idaho Exchange contract in order to satisfy winter peaking needs. In sum, the Company's actions appear likely to result in significant and unnecessary cost burdens for Oregon customers.

Similarly, the Company's 2015 IRP fails to incorporate the benefits of the new North American Electric Reliability Corporation ("NERC") reliability standards into wind integration costs calculations. While it is commonly recognized that NERC's recent BAL-001-2 standard will help reduce operating reserve burdens, the Company's wind integration regime has become *more restrictive*. Oregon customers should expect considerable benefits through declining reserve requirements once reliability standards are properly accounted for by the Company.

## II. BACKGROUND

ICNU believes it is important to reemphasize the "long-standing view" of the Commission "that decisions made in IRP proceedings do not constitute ratemaking."<sup>1/</sup> Accordingly, any "[d]ecisions whether to allow a utility to recover from its customers the costs associated with new resources *may only be made* in a rate case proceeding."<sup>2/</sup>

The Company's 2013 IRP was partially acknowledged by the Commission in July 2014.<sup>3/</sup> In the 2013 IRP, the Commission clarified its "expectation that PacifiCorp will inform us of future investment decisions and request acknowledgment before the investment decision is

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<sup>1/</sup> Re PacifiCorp, Docket No. LC 57, Order No. 14-252 at 1 (July 8, 2014).

<sup>2/</sup> Id. (emphasis added).

made and substantially completed.”<sup>4/</sup> The Commission found “gaps in PacifiCorp’s analyses” on certain matters, as the Company “did not consider ... the most effective compliance options from a *state* or fleet perspective.”<sup>5/</sup> Similarly, the OPUC expressed “serious concerns about the adequacy of the analysis” on an eastern transmission line project whose primary beneficiaries, according to Staff, were customers in southwest Utah.<sup>6/</sup> The Commission concluded: “Oregon ratepayers should not be put at risk for ... lack of full consideration of lower cost alternatives.”<sup>7/</sup>

PacifiCorp filed its 2015 IRP in March 2015, after holding numerous meetings in a public participation process during 2014 and early 2015. ICNU participated in several of the public meetings and provided PacifiCorp with informal comments regarding the Company’s planning assumptions. In considering the Company’s 2015 IRP, the Commission’s findings in the 2013 IRP should not be ignored. As explained in the following Opening Comments, however, ICNU believes that the Company has not been mindful of the Commission’s firm insistence that thorough, least cost analyses on future investment decisions should be considered from an Oregon perspective.

### III. COMMENTS

#### 1. The Company’s Failure to Model and Study Winter Peaking Needs May Result in Significant and Unnecessary Costs

ICNU is concerned that the Company’s overall capacity expansion methodology makes an incorrect assumption that the winter peak in the Western Balancing Area will always

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<sup>3/</sup> Id.  
<sup>4/</sup> Id. at 3.  
<sup>5/</sup> Id. at 9 (emphasis added).  
<sup>6/</sup> Id. at 20.  
<sup>7/</sup> Id.

be satisfied, as long as capacity is available to meet the larger, summer peak driven by the Eastern Control Area loads. As a result of transmission limitations and the seasonality of many of the summer capacity resources included in the IRP, however, it is not accurate to assume that all summer peaking resources can be used to meet winter peak loads in the Northwest. The result of this incorrect planning methodology is that the Company has potentially been making incorrect and costly decisions to terminate resources that have been providing winter peaking capacity benefits to the Northwest. Accordingly, ICNU requests that the Commission acknowledge this inadequacy in the Company's planning methodology and that this inadequacy will be considered in evaluating the prudence of any future resources built to meet winter peaks in the Northwest.

The inadequacy of the Company's capacity planning is evident from the fact that the Company is only capable of importing a limited amount of capacity, primarily from Jim Bridger, into the Northwest. Because there is no unused long-term transmission capacity to deliver additional capacity between the two balancing areas—and the Company has no plan to build any—the amount of winter capacity that can be imported from the Eastern Balancing Area is already being fully utilized. Thus, the development of a new capacity resource in the Eastern Balancing Area for the purpose of meeting summer peaks will provide no additional capacity benefit that can be used to meet winter peaks in the Northwest. In addition, the capacity additions in the Company's 2015 IRP consists primarily of Front Office Transactions,<sup>8/</sup> which

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<sup>8/</sup> PacifiCorp 2015 IRP, Volume II, App. K at 204.

are designed solely for the purpose of meeting summer loads and, by their nature, provide no winter peaking capacity to the Northwest.

The winter peak in its capacity expansion model must be considered by the Company. This is particularly true as the summer peak is only approximately 1,100 MW larger than the winter peak. While, as a result of the large amount of market capacity currently available in the Northwest, ICNU does not believe it is necessary for the Company to construct any new capacity resources at this time, ICNU is concerned that the Company has made several recent decisions to terminate winter capacity resources, without fully analyzing the implications of those resources on the Company's winter peak. Specifically, ICNU is concerned that, as a result of this improper analysis, the Company may be required to build a new and costly winter peaking resource in the Northwest at some point in the not too distant future.

Two of the recent winter peaking resources that the Company has terminated are the Hermiston Purchase Contract and the BPA Southeast Idaho Exchange. The Hermiston Purchase Contract provided approximately 227 MW of Northwest winter peaking capacity.<sup>9/</sup> The BPA Southeast Idaho Exchange provided approximately 369 MW of Northwest winter peaking capacity.<sup>10/</sup> Collectively, these resources provided approximately 596 MW of winter peaking capacity, the equivalent of a large Combined Cycle Combustion Turbine ("CCCT"). Portland General Electric's 441 MW Carty Generating Station is expected to cost approximately

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<sup>9/</sup> PacifiCorp 2015 IRP, Volume I at 76.

<sup>10/</sup> Id.

\$488.3 million.<sup>11/</sup> Thus, building a CCCT to replace 596 MW of capacity could cost the Company's ratepayers an amount in excess of \$600 million.<sup>12/</sup>

With the very real possibility of such substantial cost, it is concerning that the Company made the decisions to terminate these two capacity contracts without consideration of whether they may defer or replace the need for future winter capacity in the Northwest. ICNU is hopeful that the Company will, in fact, be able to replace this large amount of lost winter capacity with market purchases; but, to the extent that the Company later determines that it must build a winter resource to fill this lost winter capacity, customers should not be responsible for costs that could have been avoided had the Company properly analyzed the winter peak when evaluating the capacity resources noted above.

Accordingly, ICNU respectfully requests that the Commission acknowledge this deficiency in the Company's capacity planning. To the extent that the Company at a later date proposes to build a winter peaking resource in the Northwest, this planning deficiency should be taken into consideration when evaluating the prudence of the new resource.

## **2. The Commission Should Require PacifiCorp to Properly Incorporate BAL-001-2 into its Wind Integration Calculations**

On April 16, 2015, the Federal Energy Regulatory Commission approved NERC standard BAL-001-2. This new standard replaces the former Control Performance Standard 2 ("CPS2") and permanently implements the Reliability Based Control ("RBC") Field Trial, a pilot program in the Western Interconnection that has allowed balancing authorities, including the

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<sup>11/</sup> Re Portland General Electric Company, Request for a General Rate Revision, Docket No. UE 294, PGE/300 at 12:5.

<sup>12/</sup> Calculated as follows: 596 MW / 441 MW \* \$488.3 Million = \$605.9 million.

Company, to waive compliance with CPS2 and adopt a more favorable regulation reserve standard. It was generally recognized that CPS2 did not account for the fact that the Area Control Error (“ACE”) between balancing authorities is often offsetting, and as a result, was causing balancing authorities to hold an unnecessarily high level of regulation reserves in order to maintain regional reliability. The new BAL-001-2 reliability formula, commonly referred to as Balancing Authority ACE Limit or “BAAL,”<sup>13/</sup> provides utilities with additional flexibility in how reserves are held, and is expected to reduce the overall regulation reserve burden relative to the CPS2 standard. In addition, BAL-001-2 provides balancing areas with the ability to join a regulation reserve sharing group and will produce additional opportunities for reserve savings.

The Company’s 2014 Wind Integration Study (“2014 WIS”) is structured based on meeting the CPS2 requirement and does not reflect any reserve savings expected with BAL-001-2. Consequently, the Company is almost certainly overstating the cost of integrating renewable resources. ICNU requests that the Commission require the Company to perform a new wind integration study that properly reflects the reserve savings achievable under the BAAL standard.

The 2014 WIS continues to estimate reserves based on the structure of CPS2. For example, the 2014 WIS continues to use an “L<sub>10</sub>” term and continues to measure regulation reserves over ten minute periods. These conventions, however, are only applicable on the outdated CPS2 requirement, as the new BAAL standard does not contain an L<sub>10</sub> term and provides a 30-minute window for the deployment of reserves.

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<sup>13/</sup> NERC Standard BAL-001-2 at 8. Available at: <http://www.nerc.com/files/BAL-001-2.pdf>.

Under CPS2, the Company is required to maintain ACE within a specified threshold called “L<sub>10</sub>” in greater than 90% of measurement periods.<sup>14/</sup> The Company previously considered the CPS2 measurement to be the equivalent of the exceedance interval used to calculate reserves in its wind integration studies. For example, in the 2010 Wind Integration Study, the Company justified the use of a 97% exceedance interval measurement, stating “average CPS2 performance for PacifiCorp’s East and West Balancing Authority Areas over the period 2004 to 2009 was just below 97%. As the goal of this Study is to incorporate wind integration in PacifiCorp’s current operations, the CPS2 performance of 97% was emphasized in these calculations.”<sup>15/</sup>

In the 2014 WIS, however, the Company has used a higher exceedance interval of 99.7%, despite the fact that actual CPS2 performance has declined in recent years. As a result of its participation in the RBC Field Trial, the Company has been operating at a CPS2 level that is much lower than the minimum 90% threshold prescribed under the old standard. In contrast to the 97% performance over the period 2004 to 2009, CPS2 performance over the period 2012 through 2014 has declined to 61.7% for the Western Balancing Area and 65.2% for the Eastern Balancing Area. This is detailed in Table 1 below.

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<sup>14/</sup>

Id.

<sup>15/</sup>

PacifiCorp, 2010 Wind Integration Study at 19. Available at: [http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Integrated\\_Resource\\_Plan/Wind\\_Integration/PacifiCorp\\_2010WindIntegrationStudy\\_090110.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/Wind_Integration/PacifiCorp_2010WindIntegrationStudy_090110.pdf).



**TABLE 1<sup>16/</sup>**  
Actual CPS2 Measurements for Calendar Years 2012 through 2014  
(Average of Monthly)

	2012	2013	2014	Average
West	62.0%	63.9%	59.2%	61.7%
East	75.6%	64.4%	55.6%	65.2%

In the 2012 Wind Integration Study, the Technical Review Committee (“TRC”) criticized the Company for not appropriately accounting for the reserve savings associated with the RBC Field Trial and BAAL, stating as follows:

On page 12 there is discussion regarding the percentage exceedence [sic] that is used for the reserve calculation. In a footnote, PacifiCorp says that they have not been operating to CPS2 since March 2010 because it is participating in the Balancing Area ACE Limit (BAAL or RBC, Reliability Based Control) field trial. While they insist that the reserve exceedence [sic] should be 99.7%, their effective CPS2 performance during RBC is probably closer to 65-70% [...] PacifiCorp has not persuasively justified the 99.7-L<sub>10</sub> tolerance level. The entire analysis consisting of millions of calculations and hundreds of megabytes of spreadsheets rests upon this one assumption. Deciding this single input strongly influences the final answer. There is no path from the actual reliability requirements to the input assumption used, nor is there even an intuitive guideline. In this respect, the 2010 wind integration study was superior because the tolerance target used was loosely driven by CPS2.<sup>17/</sup>

The Company, in proposing to continue to use the CPS2 structure to calculate reserves in the 2014 WIS, makes only a passing reference to this TRC concern. Moreover, the

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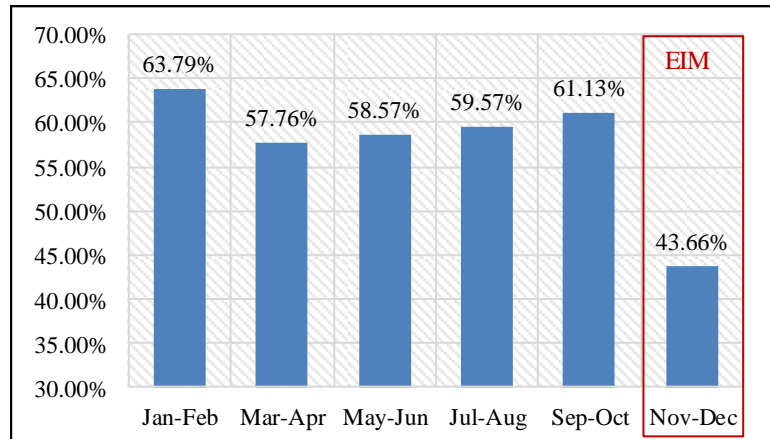
<sup>16/</sup> Re PacifiCorp, Docket No. UE 296, ICNU/100 at 25, Table 3.

<sup>17/</sup> 2012 Wind Integration Study TRC, PacifiCorp 2012 Wind Integration Study Technical Memo at pages 7-8. Available at:  
[http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Integrated\\_Resource\\_Plan/Wind\\_Integration/2012WIS/Pacificorp\\_2012WIS\\_TRC-Technical-Memo\\_5-10-13.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/Wind_Integration/2012WIS/Pacificorp_2012WIS_TRC-Technical-Memo_5-10-13.pdf).

Company did not perform any concrete analysis as recommended by the 2012 Wind Integration Study TRC to demonstrate that a 99.7% exceedance interval is consistent with the Company’s actual or forecast reliability performance. In fact, the Company has presented no basis to explain why the use of 99.7% is any more accurate than any other value.

In addition, there is further evidence that the Company’s participation in the Energy Imbalance Market (“EIM”) has added further flexibility surrounding how the Company holds reserves. Figure 1, below, details the Company’s CPS2 performance calculation over 2014, including November 2014 and December 2014, when the EIM began operations.

**FIGURE 1<sup>18/</sup>**  
Bi-Monthly Average CPS2 Performance  
Calendar Year 2014



As can be noted from Figure 1, there was a material reduction to the CPS2 measurements in the period of November 2014 and December 2014, corresponding to the Company’s entrance into the EIM. This is an indication that the Company has been able to relax

<sup>18/</sup> Docket No. UE 296, ICNU/100 at 28, Figure 2.

the level of reserves being held, while maintaining a high degree of system reliability, due to its participation in the EIM.

Based on the foregoing information, ICNU believes that PacifiCorp's wind integration study, based on the equivalent of 99.7% CPS2 performance, severely overstates the cost of wind integration on its system, and that the Company should be required to prepare a new wind integration study that properly accounts for the BAAL reliability standard. At a minimum, Company should be required to calculate wind integration costs based on a level of reserves that is equal to or less than the amount necessary under the lower bound of CPS2 requirement, or 90% exceedance.

**3. The Commission Should Require the Company to Re-Evaluate its Planning Reserve Margin**

In addition to the issues outlined above, ICNU is also concerned about PacifiCorp's reserve margin calculations. In the previous IRPs, parties have raised technical and policy concerns regarding the Company's use of a 13% planning reserve margin. In this 2015 IRP, the Company has proposed to continue to use the same 13% planning reserve margin that was used in the last two IRPs.<sup>19/</sup> As a result of the Company's participation in the EIM, the Northwest Power Pool reserve sharing group, the BAL-001-2 reliability standard, and other factors, the planning reserve requirements associated with meeting the Company's peak loads should be declining relative to the prior IRPs. ICNU is concerned that these costly regional efforts to reduce the Company's need for planning reserves have yielded little to no recognized benefit to customers with respect to overall capacity planning obligations.

From a technical perspective, ICNU is specifically concerned that the reserve margin calculations, which are applied only to the single peak load hour, are based on stochastic energy-not-served calculations performed for every hour of the year.<sup>20/</sup> An event leading to energy-not-served can occur in any hour of the year, not just in the summer peak hour, and as such the studies performed on that metric are not necessarily representative of the reserve margin requirements that are applicable to meeting the single hour of system peak.

In this current 2015 IRP, the Company does not plan to build a new thermal resource until 2028, and plans to meet its loads with conservation, market purchases, coal plant conversions, and small amounts of utility and distributed solar generation. Thus, although ICNU is not requesting immediate action on the planning reserve margins in this proceeding, the issue of the Company's planning reserve margins should be addressed once it has a more direct impact on the Company's planned resource acquisitions.

#### **IV. CONCLUSION**

The Company's 2015 IRP does not fully and appropriately consider the needs of Western Control Area customers, resulting in excessive planning reserve margin costs and creating the likely prospect of significant, avoidable winter peak resource costs for Oregon customers in the future. PacifiCorp should also correct its wind integration cost calculations due to the Company's failure to incorporate new reliability standard benefits in the planning analysis.

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<sup>19/</sup> PacifiCorp 2015 IRP, Volume II, App. I at 143.

<sup>20/</sup> Id. at 135 (Expected Unserved Energy is measured "over the course of a given year").

Dated this 27th day of August, 2015.

Respectfully submitted,

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