

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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In the Matter of PacifiCorp's 2013 Integrated Resource Plan	Docket No. 13-2035-01
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**COMMENTS OF WESTERN RESOURCE ADVOCATES**

September 9, 2013

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Western Resource Advocates (WRA) is an environmental organization dedicated to protecting the land, air, and water of the interior west. WRA seeks to accelerate the region's transition to renewable energy, energy efficiency, and other clean-energy technologies while safeguarding selected landscapes and their associated ecosystems. Meeting the emissions reductions identified by science as necessary to protect public health and avert climate disaster is central to our mission. WRA appreciates the opportunity to provide input to the Public Service Commission of Utah (Commission) regarding PacifiCorp's 2013 Integrated Resource Plan (IRP) and associated Action Plan.

**I. Summary and Recommendation**

This IRP focusses on the first ten years of a 20-year planning horizon. Over the ten year planning horizon, PacifiCorp identifies a resource need that grows from 824 MW in 2013 to 2,308 MW in 2022. The Company plans to meet this growing need with energy efficiency resources and short-run market purchases while expending its capital budgets on major transmission projects and for environmental upgrades to its existing coal fleet.

This resource acquisition plan is consistent with the business strategy developed in 2009 and continued through this planning cycle that limits capital expenditures to coal plant retrofits and major transmission projects. While this strategy may benefit Company shareholders, particularly in light of the energy balancing accounts PacifiCorp now has in place across states with jurisdiction to regulate the recovery of its costs, it is not clear that this strategy is in the best interest of PacifiCorp rate payer. The modeling of the twin risks facing PacifiCorp, future emissions cost and wholesale market and natural gas price forecasts, are insufficient.

WRA recommends:

(1) PacifiCorp view the President's directive to the EPA to complete carbon regulations for the electricity industry's existing power plants by no later than 2015 as a significantly changed circumstance and update its evaluation of the selective catalytic reduction systems for Bridger Units 3 and 4 using updated natural gas price and carbon price base case forecasts that begin no later than 2017. This updated analysis should be filed with the Commission by early November, so the Commission has the opportunity to review the updated information before PacifiCorp outlays significant capital in 2014, which is when the Company reports it will be making sharply escalating expenditures if it proceeds with the SCR projects.

(2) Prior to conducting the next IRP, PacifiCorp conduct a stochastic modeling workshop and allow public input and formal comment regarding its stochastic modeling.

(3) The Commission direct PacifiCorp to provide stochastic results in the next IRP cycle with sufficient time before filing to use the stochastic results to refine and improve upon a preferred portfolio with collaboration from public input participants.

## II. CO2 Price Forecasts and Coal Plant Retirement Analysis

The CO2 cost forecasts used for this IRP are inconsistent with earlier projections and do not account for the recent developments with respect to timing. WRA Attachment A provides a comparison of the levelized CO2 prices used in the past three planning cycles. The current medium levelized price is \$3.97. This compares with \$9.19 used as the medium in the 2011 IRP, and between \$19.25 and \$31.90 used for the 2008 IRP. The current “high” levelized price of \$10.74 is close to the medium used in the last IRP.

Significantly, these forecasts do not reflect the President’s intent to address climate before leaving office, which he signaled in both his State of the Union and Inaugural addresses. This intent was confirmed on June 25, 2013, three months after PacifiCorp filed this IRP, when the President directed the Environmental Protection Agency (EPA) to complete carbon pollution regulations for the electricity industry by no later than June 1, 2015 for existing plants, making implementation by 2017 likely.<sup>1</sup>

As can be seen in Attachment A, if implementation begins in 2017, the levelized forecast would exceed PacifiCorp’s currently estimated “high” scenario.

This analysis is critical to the Bridger SCR results which are highly sensitive to CO2 and to natural gas price forecasts which are continuing to trend downward. Because of the sensitivity of the results to these forecasts, we recommend the Company update the analysis it undertook to support its application to install SCR at Bridger with current information and file

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<sup>1</sup> “On June 25, 2013, President Obama issued a memorandum directing the Environmental Protection Agency (EPA) to work expeditiously to complete carbon pollution standards for the power sector. For newly built power plants, the plan calls for EPA to issue a new proposal by September, 20, 2013, and to issue a final rule in a timely fashion after considering all public comments, as appropriate. For existing plants, the plan calls for EPA to issue proposed carbon pollution standards, regulations, or guidelines, as appropriate, for modified and existing power plants by no later than June 1, 2014 and issue final standards, regulations, or guidelines, as appropriate, by no later than June 1, 2015.” <http://epa.gov/carbonpollutionstandard/>

this information with the Commission no later than early November so the Commission has the opportunity to review the updated information before PacifiCorp outlays significant capital early in 2014. This is consistent with the Commission's June 26, 2013 *Order Denying Request for Review or Rehearing*, where it said at footnote 9:

As pointed out in the Order, the ultimate cost recovery of the Bridger SCR Projects is governed by Utah Code §54-17-403(2)(a), which allows the Commission to disallow some or all costs incurred in connection with an approved resource decision if the Commission finds that an energy utility's decision in implementing an approved resource decision are not prudent because of new information or changed circumstances that occur after the Commission approves such a decision. In other words, the Company has an ongoing responsibility to evaluate its decision based on most current information.

### **III. Stochastic Modeling and the Hedging Value of Renewable Resources**

The economic benefits of renewable resources with low to zero variable cost arise from their ability to hedge against the more volatile costs of fuel and wholesale market prices and is a benefit in any of the situations in which PacifiCorp fuel and power prices are higher than forecast or when PacifiCorp has to either generate additional power or buy additional power. PacifiCorp must generate or buy when hydro generation is below expected levels, thermal outages are higher than expected, days are hotter than expected, or loads grow faster than expected.

Beginning with the 2011 IRP, PacifiCorp changed the way it models the stochastic risk of loads and thermal generation which have measures of the risk of adding fossil fuel generation and underestimating load growth, and thereby for the hedging value of renewable resources. We addressed these changes in our comments regarding the 2011 IRP:

The primary risk analyzed with stochastic modeling is market and fuel price risk. This risk occurs when actual prices are higher than expected, actual resource need is higher than expected, or some combination of both. For PacifiCorp, resource need can be higher than expected if load forecasts underestimate growth, summer weather is hotter than expected, existing plants undergo unexpected outages, or

hydro production is less than expected. In any of these situations, PacifiCorp will have to run its existing resources harder—burn more fuel—or purchase more power on the market. If fuel and market prices are higher than forecast when need is greater, the combination of an unexpected need with high prices can result in actual expenditures significantly exceeding forecasts at the time resource planning was undertaken. The purpose of stochastic modeling is to estimate this risk. For this IRP cycle, PacifiCorp limited this risk by removing long-run load variability, reducing short-run load variability, and not modeling unexpected outages at its existing thermal facilities. PacifiCorp does not identify changes in any other modeling parameters for this planning cycle.

### *Load Variation*

This IRP represents a significant departure from how PacifiCorp previously evaluated the risk that loads will differ from forecasts. Without consulting with public participants, PacifiCorp removed the long-run load variability parameter from the modeling. Public participants became aware of the change upon reviewing the draft document. Given the significant effect this change has had on the modeling results, and given the Utah Commission’s concern expressed in past orders regarding PacifiCorp modeling of load growth risk, PacifiCorp’s apparent unwillingness to consult with public participants on this issue is surprising. In addition, PacifiCorp re-estimated the short-run load parameters using 3 years of data rather than 4. The short-run parameters appear lower on average than the previous short-run load parameters. As a result, load deviations from a base forecast will be smaller than they have been in the past, reducing the measure of risk.

### *Forced Outages*

Unexpected forced outages at PacifiCorp’s existing thermal plants were not modeled as a potential risk.<sup>2</sup> PacifiCorp states, “for existing thermal units, planned maintenance schedules are used.” The associated footnote states “stochastic simulation of existing thermal unit availability is undesirable because it introduces cost variability unassociated with the evaluation of new resources, which confounds comparative portfolio analysis.”<sup>3</sup> WRA believes this statement warrants public vetting. It appears to WRA that planning for an integrated system requires understanding the underlying risk of the existing system to appropriately add resources that can help mitigate that risk.

Given that the Company did not discuss these significant changes to its risk modeling with IRP participants as part of the 2013 IRP public input process, despite the Commission’s directive to be responsive to participant comments, we recommend the Company be required to

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<sup>2</sup> The decision to cease modeling forced outages at existing units was made in a previous IRP cycle. WRA does not know whether the decision was made with public input.

<sup>3</sup> PacifiCorp, 2011 Integrated Resource Plan, Volume 1, March 31, 2011, p. 183

conduct a stochastic modeling workshop wherein these issues can be fully vetted. We recommend the workshop be conducted prior to the initiation of the next biennial cycle.

#### **IV. The 2013 Action Plan Reflects an Outdated Business Strategy**

The identification of the 2013 Preferred Portfolio and Action Plan is a continuation of the resource planning and acquisition strategy developed by PacifiCorp in 2009 as part of its 2010 business planning process - submitted to the Commission as the update to the 2008 IRP in March of 2010.<sup>4</sup> A main outcome of this planning process was PacifiCorp's determination that it could not "maintain a capital structure that is optimal for both customers and the Company."<sup>5</sup> Consequently, PacifiCorp reduced planned expenditures for renewables and clean energy while maintaining capital budgets for transmission and retrofits of existing coal plants. The revised plan cut roughly \$3.5 billion in the early years of the plan from the budget previously established in the 2008 IRP.<sup>6</sup>

PacifiCorp explained its reasoning:

Preparation of the 2010 business plan occurred against the back-drop of economic recession and lower load growth; a tight credit market; the continuing need for large capital expenditures to support load growth, system reliability, emission controls and other regulatory mandates; and ongoing uncertainty regarding government policies on climate change and clean energy. As a consequence, PacifiCorp reexamined the need and timing for capital investments and, where appropriate and feasible, the business plan eliminates or defers resource investments.

Against this backdrop, allocating capital for transmission expansion is a precondition for maintaining transmission system reliability, supporting future load obligations, and accessing new and existing resource areas. PacifiCorp also assumed that making investments in environmental controls for sulfur oxides

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<sup>4</sup> PacifiCorp, *2008 Update Integrated Resource Plan*, March 31, 2010.

<sup>5</sup> *Ibid.*, p. 9.

<sup>6</sup> As compared to the 2008 IRP, its Update, the 2010 Business Plan eliminated 482 MW of wind, 121 MW of Class 1 and 2 DSM, 46 MW of distributed standby generation, 43 MW of CHP, and 35 MW of geothermal.

(SOx) and nitrous oxides (NOx) was needed unless the emission control requirements are modified.<sup>7</sup>

The identification of renewable resources as beneficial to customers only to later be removed in the business planning process continued with the 2011 IRP and its Update (the 2012 Business Plan).<sup>8</sup> Despite significant business planning constraints limiting the identification of renewable resources and their hedging value in the development of the 2011 Preferred Portfolio, (including the significant reductions in the levelized CO2 forecasts shown in Attachment A and the stochastic modeling discussed above), the 2011 Preferred Portfolio included substantially more renewable capacity additions than was consistent with strategic business planning.<sup>9</sup> During the 2012 business planning cycle, these additions were again removed.<sup>10</sup>

## **V. Conclusion and Recommendation**

The current Preferred Portfolio and Action Plan are consistent with PacifiCorp's business strategy; however, they do not reflect the current planning environment and are not in best interest of customers.

WRA recommends:

(1) PacifiCorp view the President's directive to the EPA to complete carbon regulations for the electricity industry by 2015 as a circumstance that warrants re-evaluation of the selective catalytic reduction systems for Bridger Units 3 and 4, using updated natural gas price and carbon price forecasts that begin in 2017. This updated analysis should be filed with the Commission by

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<sup>7</sup> 2008 Update IRP, March 31, 2010, p. 4.

<sup>8</sup> PacifiCorp, *2011 Integrated Resource Plan Update*, March 30, 2012.

<sup>9</sup> See comments in Docket No. 11-2035-01.

<sup>10</sup> Renewable capacity additions were curtailed by 580 MW and gas-fired capacity additions by 87 MW. The use of short-term market purchases increased, particularly in the latter half of the ten-year planning period.

early November, so the Commission has the opportunity to review the updated information before PacifiCorp significant 2014 expenditures.

(2) Prior to conducting the next IRP, PacifiCorp conduct a stochastic modeling workshop and allow for public input and formal comment regarding its stochastic modeling.

(3) The Commission direct PacifiCorp to provide stochastic results in the next IRP cycle with sufficient time before filing to use the stochastic results to refine and improve upon a preferred portfolio, with collaboration from public participants.

Dated this 9<sup>th</sup> day of September 2013.

Respectfully submitted,

  
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