BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 52

In the Matter of	)	
	)	REDACTED REPLY TO STAFF'S
In the Matter of PACIFICORP dba PACIFIC POWER 2011 Integrated Resource Plan	)	FINAL COMMENTS
	)	

I. Introduction

CUB continues to be concerned that without a unit-by-unit analysis of PacifiCorp's multibillion coal investment, it is impossible to determine whether the action items in this IRP should be acknowledged. While CUB believes Staff has in general done a very good job with its analysis of the IRP, CUB does not support kicking the coal analysis can down the road. If Oregon is unable to get PacifiCorp to provide a good, complete, transparent analysis today, when it is seeking acknowledgement of its action plan in the IRP, then it is unlikely the Company will conduct a good, complete, transparent analysis six months from now, when most of the IRP has been acknowledged and more costs have been sunk.

CUB's reply comments discuss two main topics. The first topic is PacifiCorp's updated coal utilization study; specifically, why, in CUB's opinion, the PacifiCorp study does not provide a reasonable basis upon which to evaluate PacifiCorp's coal investment, and why Staff's proposal to address the issues raised by the incomplete study in an IRP update is not an adequate remedy. The second topic encompasses a discussion of some of the non-coal-related issues that Staff raised in its final comments.

II. PacifiCorp's Coal Utilization Study Demonstrates That Now Is the Time to Do a Full and Complete Analysis of Coal Costs

PacifiCorp's Coal Utilization Study fails to provide the analysis that CUB and other parties were seeking. Instead of providing a complete unit-by-unit analysis that allows parties to review the entire clean air investment on each plant to determine whether that investment was least cost/least risk, the Company has provided an analysis that shows that if it continues to make investments for another three years, it will then be too late to reconsider those investments.

Separate from this study, CUB has had discussions with PacifiCorp about modeling BART flexibility at one of their coal units. While some progress has been made, it is not clear whether this will result in a reliable analysis of BART flexibility.

A. PacifiCorp's Coal Investment Is Growing and Is Already Significantly Larger than Assumed in CUB's Opening Comments

First, it is important to note that the expected cost of PacifiCorp's coal investments is growing. CUB's Opening Comments cited to Cathy Woolums' Congressional Testimony, which projected a total capital investment of $2.7 billion, with O&M and other costs raising the total cost to customers to $4.2 billion.[1]

However, based on the information in PacifiCorp's Coal Utilization Study, along with other information provided earlier, a more accurate projection for the capital

[1] LC 52, CUB Opening Comments, page 4.

investments now seems to be BEGIN CONFIDENTIAL $[redacted], which, when O&M costs are included, raises the total cost to $[redacted].

To arrive at this number, CUB added the following:[2]

Emission Control investment 2005-10: $1.2 billion

Emission Control investment 2011-22: $1.5 billion

Coal Study Additional Incremental SCR: $[redacted]

Coal Study CCR Subtitle D Proxy projects and CWA 316(b) investments: $[redacted]

It is mind-boggling that the Company is planning to invest nearly $[redacted] END CONFIDENTIAL in its coal fleet without demonstrating in an IRP that such a plan is reasonable. The IRP is the venue where resource investment choices are compared to determine which set of investments produces the least cost/least risk result for customers. It is possible that there is an alternative to investing this money in coal plants that provides lower costs and lower risks to both customers and shareholders. In its last IRP PGE was required to analyze alternatives to coal investments, and through that analysis it became clear that early retirement of the Boardman plant was the least cost/least risk approach. The Coal Utilization Study provided by PacifiCorp provides little help in determining if PacifiCorp's clean air investments are least cost/least risk.

B. What CUB Was Seeking in a Unit-by-Unit Coal Analysis

CUB's Opening Comments described what was necessary for an analysis of the coal investment:

> To determine whether the planned investments comply with the required least–cost, least-risk strategy, each unit must be looked at separately. The

[2] CUB Attachment 1 and phone call with PacifiCorp.

> unit's efficiency, its coal costs, the known cost of any environmental clean-up, the year that the investment is expected to be made, the risk (and range) of additional environmental clean-up costs that are not firm, the deadline for operating the plant without making all of these additional investments, and the cost and risk associated with future carbon regulation all must be examined to determine whether an investment is prudent and least-cost, least-risk.
>
> The investment costs for each coal unit then need to be compared to the known alternative costs of closing each plant and replacing it with something that is cleaner and more efficient. In addition, to the degree that the clean air costs are associated with Regional Haze (BART) SIPs, the range of options that the Company has considered must also be disclosed, since BART contains a fair amount of flexibility tied to the lifetime of the plant. This flexibility allows for a utility to shorten the life of a plant rather than prolong it by adding additional clean air investments, as the total amount of pollution emitted from a plant is greatly reduced by early closure. As such, if a plant is closed early, the shorter life will mean that less pollution control investment is cost-effective and the utility can move towards finding a more efficient replacement resource.[3]

What CUB desires is pretty simple. Take a coal unit and detail all the costs that have been incurred and all costs that are expected to be incurred, and all costs that might be incurred in order to keep the plant running for its current projected life. Then look at which of these costs can be avoided by the early retirement or early phasing out of a coal plant. CUB believes that this analysis should include costs that have already been incurred but have not yet been reviewed in an Oregon proceeding, since the Company will have to show that those costs are prudently incurred in a future rate case.

At the IRP Public Meeting with the Commission, Commissioner Savage stated his desire for a complete analysis:

> Can I make an observation on this – my concern and I know it's going to be Commissioner Ackerman's – we just want to make sure that we have the most thorough analysis of this plant by plant and of the unit by unit analysis and we are looking at all the possible options out there, so that in terms of what the best decisions is – that's the main thing and on a

[3] CUB Opening Comments, page 7-8.

forward looking basis I hope that you are going to work with the parties to sort of figure out the best approach for doing that.[4]

C. PacifiCorp's Coal Analysis Is Not Helpful for Exploring Alternative Investments

PacifiCorp's Coal Study does not present a unit-by-unit analysis of all costs. It includes some additional costs, followed by claims that the computer model reviewed those costs and that the computer model rejected closing the plants. However, PacifiCorp also makes it clear that the computer was not allowed to explore closure options until 2015.

According to the confidential Coal Replacement Study:

BEGIN CONFIDENTIAL

[redacted].[5]

END CONFIDENTIAL

The problem with this can be seen when reviewing CUB Attachment 1, in which CUB asked the Company a handful of questions about the study. According to the answer to Question 3, while the study allows plants to be shut down in 2015, which is the first substantive compliance deadline, it assumes that all costs before 2015 are sunk costs that cannot be avoided, and they are treated as costs associated with the closure. But these are the costs that are incurred to ensure compliance with the 2015 compliance deadline. So the costs that are necessary to meet the 2015 deadline and allow the plant to keep operating are not avoidable if the Company closes the plant, but instead are added to the

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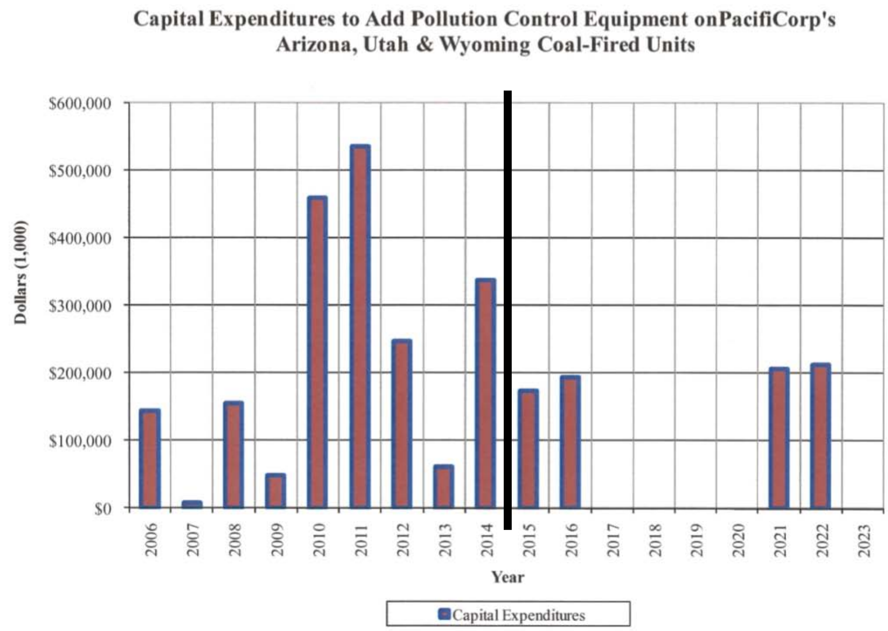
[4] PUC Public Meeting, PacifiCorp IRP, 8-19-11 at 6:21
[5] LC 52, PacifiCorp 2011 IRP Supplement, Coal Replacement Study, Confidential

cost of closing the plant. This means that as the pollution control investment becomes more expensive, it makes the cost of closing the plant greater, but has no effect on the decision to close the plant.

In the Portland area, drivers have to get their cars certified by DEQ to get their registration renewed. Let's assume that I have an old car with an engine problem that will cost $1,000 to repair and is necessary for me to pass DEQ. I have to consider whether the future use of the car is worth the $1,000 investment in repairs and the $100 cost of DEQ and Registration. PacifiCorp's approach would have me spend the $1,000 on the repairs and then consider whether the future use of the car was worth the $100 cost of registration.

Consider the following chart that was included in CUB's Opening Comments. CUB added a new line this time to show where the Coal Utilization Study begins allowing costs to be avoided. Again the Company's reasoning is that 2015 is the first deadline, but by that first deadline most of the money has been spent. Just as importantly, the costs associated with meeting the 2015 deadline must fall on the left side of the line or the Company would not meet the deadline. If a plant is closed in 2015, some of the costs before 2015 could be avoided because some of those costs are associated with meeting the 2015 deadline. It would be imprudent and stupid[6] to spend tens of millions of dollars on pollution control in 2014 for a unit that will shut down in 2015, but that is the basic assumption built into this study.

[6] My daughter considers this to be the "S" word and it is rarely used in my house. Here, however, it is appropriate.



CUB asked PacifiCorp for a complete unit-by-unit analysis. Commissioner Savage made it clear in his comments at the Hearing that the Commission expected a thorough analysis that looked at all possible alternatives. The analysis that PacifiCorp provided, however, did not even allow for the possibility that a 2015 closure would avoid any pollution control costs incurred before 2015. The analysis provided is not complete, it is not thorough, and it does not consider alternatives that would reduce spending before 2015.

PacifiCorp's study demonstrates one thing and one thing only: that this IRP is Oregon's one chance to move away from an energy system that is reliant upon coal. If PacifiCorp is allowed to keep investing money in coal plants, without ever having to justify the entire cost, Oregon will lose its chance to reduce these projected costs. It appears that it is PacifiCorp's goal is to induce a situation whereby in 2015, PacifiCorp will have incurred so many costs that it will never make economic sense to close a coal plant.

D. CUB Does Not Support Kicking the Necessary Full and Complete Coal Utilization Analysis into an IRP Update

Because the opportunity to reduce coal plant costs is rapidly disappearing, CUB cannot support Staff's proposal to kick the necessary full and complete Coal Utilization Analysis into an IRP update several months down the road. PacifiCorp has all the unit-by-unit information it needs to explore the possible alternatives to its planned coal investments. And, based on past experience, there is no reason to believe that PacifiCorp will be any more forthcoming with information in 6 months then it is being today. In fact, after the Commission acknowledges the Action Plan in this IRP, PacifiCorp will have even less incentive to provide full, complete, and thorough information to any interested party.

CUB also believes that Staff gives too much credit to the Coal Utilization Study that was provided by PacifiCorp:

> In Staff's opinion, the Supplemental Coal Replacement Study sufficiently solidifies the basis of the IRP. In doing so there is now a basis for evaluation of whether the candidate resource portfolios satisfy the IRP goal to select a portfolio of resources with the best combination of cost and risk for the utility and ratepayers. Staff commends the Company for expanding the list of potential environmental regulations and for allowing for a wider range of potential replacement resource options in the coal plant replacement analysis.[7]

By assuming that investments that are made to comply with environmental deadlines cannot be avoided, and then allowing its model to shut down plants at those deadlines, PacifiCorp has not provided a useful basis for evaluating replacement resource

[7] LC 52 Staff Final Comments, page 9.

options. The analysis simply shows that it is uneconomic to invest in clean air controls and then replace the coal units. The analysis completely misses the heart of the issue, which should be to determine whether it is least cost/least risk to shut down coal plants earlier and rely on other resource options.

In addition, it is unclear how any item in the Action Plan can be acknowledged without a full understanding of what should happen with the Company's coal units. These units are the base of PacifiCorp's generation. Even changing investments plans in a single unit can affect where transmission is needed, what additional resources are needed, and when those resources are needed. Only after determining the least cost/least risk plan for the coal units can parties determine what additional investments need to be made.

E. CUB's Recommendation with Regard to Coal Replacement

CUB respectfully recommends that the Commission find that this IRP cannot be acknowledged without a full and complete analysis of PacifiCorp's planned clean air investments in PacifiCorp's coal plants. CUB further recommends that the Commission find that a technical workshop is needed so that Staff and all other parties can meet with the Company and identify the parameters of what must be contained in PacifiCorp's revised Coal Utilization Study in order for that study to be a reasonable coal study upon which to base review of its current IRP. CUB also recommends that the Commission then require PacifiCorp to complete the new study, meeting all the parameters identified and agreed upon by the parties, in an expedited manner and that a schedule be established for review of that study by the parties and by the Commission.

III. Non-Coal Related Issues

Notwithstanding what CUB said about Staff's analysis of the PacifiCorp Coal Utilization Study with specific regard to coal, Staff did engage in great deal of good analysis and consideration related to non-coal issues, and that analysis should not be ignored.

A. Geothermal

PacifiCorp identifies geothermal as a cost effective resource, but developing it is problematic because of the dry hole risk. CUB believes that the Company should be directed to more aggressively pursue geothermal energy through contracts with independent power producers. Ideally, an independent power producer will prevent customers from taking the dry hole risk. Instead, the dry hole risk would be monetized in the independent power producer's cost of capital and rate of return.

While CUB views Staff's suggestion that geothermal be explicitly included in future all-source RFPs as an improvement from geothermal being implicitly included, this may not be enough to encourage geothermal bids. CUB believes that geothermal is primarily competing against wind as an RPS resource, rather than natural gas combustion turbines. Geothermal developers may be less likely to bid into a RFP that is built around natural gas combustion turbines competing against a self-build natural gas combustion turbine. While CUB recognizes that single-source RFPs are not preferred, a geothermal RFP might provide useful information about the cost and availability of geothermal resources and about the cost and value associated with the dry hole risk.

B. Energy Storage

CUB supports Staff's proposal to further define the analysis that PacifiCorp will be providing on energy storage.[8]

C. Intermediate/Base-load Thermal Supply-Side Resources

CUB strongly supports the Staff recommendation to delay moving forward with a 2016 baseload resource and instead attempt first to rely on DSM and market purchases. CUB's Opening Comments cited to the fact that PacifiCorp's rates have increased by 59% since its acquisition by MEHC, primarily due to the level of capital investment by the utility.[9] There is a tremendous need to control this capital investment. Prioritizing investments and avoiding investments that are not necessary would be helpful in solving the Company's increasing affordability problem. While PacifiCorp may take the position that its customers can afford to invest billions in transmission, coal plants, new thermal resources, and wind, CUB questions the ability of customers to afford this investment regime. Thus, CUB strongly supports delaying moving forward with a 2016 baseload resource. CUB also recommends that we first attempt to rely on DSM and market purchases.

It is within the context of needing to control capital investments, needing to prioritize investments, and needing to avoid investments that are not necessary that CUB considers this Staff recommendation as a very significant step in the right direction. When a utility cannot set the priorities necessary to keep its product affordable, there is a need for regulators to step in and identify appropriate investment priorities for the utility. CUB agrees with Staff that, in the context of all the investments in this IRP, moving

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[8] LC 52, Staff Final Comments, page 3.
[9] LC 53, CUB Opening Comments, page 1.

forward with a 2016 baseload resource is a priority that can and should be delayed. However, this recommendation includes assumptions about coal investments that have yet to be demonstrated through a full and complete analysis of available coal replacement options by PacifiCorp. While CUB agrees that, under the assumptions of the IRP, the 2015 gas plant is unnecessary, that perspective could change if any coal units were to be slated for retirement. The bottom line is that any and all decisions in this IRP require a full and complete analysis (a plant-by-plant and unit-by-unit analysis) by PacifiCorp of its coal fleet and the least cost/least risk alternatives to that fleet.

D. Energy Efficiency/DSM

CUB supports Staff's position that the Company should acquire additional DSM from outside of Oregon:

> However, Staff, along with NWEC and CUB, believed that the Company is underestimating the amount and speed of energy efficiency that can be achieved in states other than Oregon, and as a result supply side resources are being chosen which customers will pay more for and be subject to greater risks.[10]

Not only does PacifiCorp's failure to look for additional DSM outside of Oregon cause Oregon customers to pay for higher cost supply-side resources, it also penalizes Oregon customers in relationship to other states. DSM investments reduce the need to build supply-side resources, but DSM and supply-side resources are not treated the same for purposes of cost allocation. DSM is paid for by the customers of the state the resource is located in, while supply-side resources are funded by customers in all six PacifiCorp states. This means that Oregon's aggressive energy efficiency programs push up costs in Oregon and relieve customers in all 6 states of the burden of additional supply-side

[10] LC 52, Draft Order, page 7.

resources. Other states, however, fund less DSM investment, increasing the need for additional supply-side resources, which in turn increases rates to Oregon customers. CUB also supports Staff's position that the Company should acquire additional Conservation Voltage Reduction (CVR) efficiency throughout its territory.[11] CVR is seen as a cost-effective way to increase efficiency of the system and reduce power costs:

> In May of 2011, the Company completed a detailed economic study of 19 of its circuits in Yakima and Walla Walla.[9] Based on an extrapolation of this study, Staff projects achievable cost-effective CVR savings for the PacifiCorp system of at least 64 MW (coincident peak) and 37 aMW (generation). While these amounts of capacity and energy are small, the dollar value of the savings is large. PacifiCorp's consultant estimated a present value of savings of $2.5 million for 15 of the 19 circuits studied. Extrapolated to all of PacifiCorp, this represents a present value of $180 million. Even if this actual savings are only half this estimate, CVR belongs in PacifiCorp's preferred portfolio.[12]

Staff is not proposing that the Company acquire CVR without respect to its costs, but that where this is a cost-effective resource, it should be acquired. This seems like a sensible approach to CUB, as it could reduce the Company's costs.

IV. Conclusion

While CUB's analysis finds that the Staff Final Comments contain useful analyses of non-coal related issues, CUB's analysis also finds that the Staff Final Comments related to coal issues fail to analyze the fatal flaws that the PacifiCorp coal study contains. CUB, therefore, respectfully recommends that the Commission find that this IRP cannot be acknowledged without a full and complete analysis of PacifiCorp's planned clean air investments in PacifiCorp's coal plants. CUB further recommends that the Commission find that a technical workshop is needed so that Staff and all other

[11] LC 52 Staff Final Comments, page 6.
[12] LC 52, Draft Order page 19.

parties can meet together and identify the parameters of what must be contained in PacifiCorp's revised Coal Utilization Study in order for that study to be a reasonable coal study upon which to base review of PacifiCorp's current IRP. CUB also recommends that the Commission then require PacifiCorp to complete the new study, meeting all the parameters identified and agreed upon by the parties, in an expedited manner, and that a schedule be established for review of that study by the parties and by the Commission.

Respectfully submitted,

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Executive Director
Citizens' Utility Board of Oregon

November 3, 2011

LC 52 – CERTIFICATE OF SERVICE

I hereby certify that, on this 3rd day of November, 2011, I served the foregoing **CITIZENS' UTILITY BOARD OF OREGON'S REPLY TO STAFF'S FINAL COMMENTS** in docket LC 52 upon each party listed in the LC 52 Service List by email and, where paper service is not waived, by U.S. mail, postage prepaid, and upon the Commission by email and by sending one original and one copy by U.S. mail, postage prepaid, to the Commission's Salem offices.

(W denotes waiver of paper service)

(C denotes service of Confidential material authorized)

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