

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of)
PacifiCorp for Approval of a 2009) Docket No. 05-035-47
Request for Proposals for Flexible)
Resource)
_____)

**WESTERN RESOURCE ADVOCATES' REPLY COMMENTS ON
PACIFICORP'S DRAFT 2012 REQUEST FOR PROPOSALS**

Western Resource Advocates (WRA) requests that the Utah Public Service Commission (Commission) accept these reply comments on PacifiCorp's draft 2012 Request for Proposals for Baseload Resources (2012 RFP). We continue to have serious objections to the October 4, 2006 draft 2012 RFP. We recommend that the Commission condition its approval of PacifiCorp's draft 2012 RFP on the adoption of the recommendations in our August 16, 2006 comments as modified below. Alternatively, WRA recommends that the Commission reject the company's draft 2012 RFP.

I. SUMMARY AND OVERVIEW

On August 16, 2006, WRA filed comments with the Commission expressing its serious concerns about the scope and direction of the August 2, 2006 draft 2012 RFP. The Company's October 4, 2006 draft RFP does include some modest but important improvements over the August 2, 2006 draft, particularly in the modeling of CO2 risk sensitivities. Unfortunately, the October 4, 2006 still falls woefully short of addressing fundamental issues identified in our August 16, 2006 comments, notably the growing risks and impacts of global climate change. *See* WRA Comments, at pp.5-16. We do not believe the draft 2012 RFP meets the public interest standard of review under the Energy Resource Procurement Act, U.C.A. § 54-17-201(c)(ii). We

also believe the draft 2012 RFP does not adhere to the letter or the spirit of the MidAmerican acquisition commitments on integrated gasification combined cycle (IGCC) technology and other clean energy development issues in Docket No. 05-035-54. Below, WRA identifies our outstanding objections to the draft 2012 RFP, along with the page references to our August 16, 2006 Comments for more complete discussions of certain the issues.

II. WRA'S LIST OF ISSUES

A. 2013 Benchmark Option and Treatment of Front Office Transactions

The Company's selection of a 750 MW pulverized coal benchmark option for replacing front office transactions beginning in 2013 was not part of the Company's 2004 IRP or its 2004 IRP Update. The 2013 benchmark option for replacing front office transactions should be eliminated from this RFP. *See* WRA Comments, at pp.20-22 (August 16, 2006).

The Company has not demonstrated that a 750 MW baseload resource with an anticipated capacity factor approaching 90 percent is the appropriate benchmark option for replacing front office transactions, especially since Utah's demand growth is driven primarily by summer peaking needs. *Id.* at p.21. Without the 15 percent reserve margin included, PacifiCorp's projected capacity deficit is 98 MW in 2012 and 421 MW in 2014 on the east side of the system.¹ It is only once the 15 percent reserve margin is included that the capacity deficit increases to 1,268 in 2012 and 1,639 MW in 2014. Assuming a 15 percent reserve margin, the addition of a 750 MW supercritical pulverized coal unit in 2013 would still result in a capacity

¹ *See, generally*, Oregon Commission Staff's Opening Comments, Public Utility Commission of Oregon Docket No. UM 1208 (Sept. 19, 2006), *citing* PacifiCorp Response to Staff data Request Nos. 11b, 29.

deficit on the east side of 701 MW in 2013, but it would result in an *energy surplus* on the east side of the system of 1,036 annual average megawatts (MWa) in 2013 and 917 MWa in 2014.

The above analysis suggests that the company's selection of a supercritical pulverized coal unit in 2013 is more about being long on the energy markets than meeting capacity shortfalls. WRA in its August 16, 2006 comments discussed the significant cost and risk tradeoffs associated with replacing short-term purchases with long-lived assets. *See* WRA Comments, at p.20. But if this determined to be an appropriate policy, WRA continues to question why the Company is not proposing to replace some or all front office transactions *much sooner* than 2013 through aggressive investment in energy efficiency, renewable energy, and combined heat and power, which can be deployed much more quickly than coal. But instead of evaluating the appropriate mix of resources for replacing front office transactions, the Company jumped immediately to a pulverized coal benchmark option and it made this decision outside the IRP process. *Id.* at p.21.

WRA submits that over-building pulverized coal with the expectation of selling the surplus on the wholesale market is an incredibly short-sighted strategy given evolving regulatory conditions in the West. California, the largest electricity consumer in the West, has made adamantly clear their preference for low carbon emitting resources through the adoption of legislation enacting a cap and trade system for CO₂ (AB 32) and an emissions performance standard for California load-serving entities (SB 1368). It is reasonable to expect that California's climate policies will only get stricter over time. This declaration could have profound impacts for the Western electricity markets. On top of that, several states across the West, including Colorado, New Mexico, Nevada, Arizona, California and Washington, have

enacted or are considering enacting renewable portfolio standards, thereby potentially creating a *premium* value for renewable energy.

B. Evaluation of IGCC as a Resource Alternative for Meeting the 2012 Resource Need in accordance with Commitment U15(a).

In accordance with Commitment U15(a), the Company did conduct informative IGCC technical studies and workshops on IGCC, and it has introduced those presentations as exhibits in this case. WRA has reviewed these studies and, with the recent adjustments to operation and maintenance costs that were presented to the IGCC working group, agrees that their cost estimates are generally within the reasonable range of similar studies. However, the Company has yet to explain how it intends to present the results of those IGCC technical studies as a “resource alternative to inform the *resource selection* and RFP process” under consideration in this docket. *See id.* at pp.18-19 (emphasis added).

WRA submits that it is not enough simply to file the IGCC technical studies in this docket. Commitment U15(a) requires that information to be integrated as a “resource alternative” into the company’s evaluation of the utility benchmark options and competitive bids to meet the 2012 resource need and into its “selection” of the winning projects. In addition, pursuant to Commitment U15(a), that information must also be integrated with an analysis of bridging options to identify the potential opportunity cost, if any, associated with developing an IGCC unit rather than a pulverized unit to meet the 2012 resource needs. Absent this information, it will not be possible for stakeholders and the Commission to reach their own informed independent conclusions as to whether the Company’s choice for meeting the 2012 resource need is in the public interest, as is required by Commitment U15(a) and the Energy Resource Procurement Act.

Information presented in at the IGCC technical conference suggests that the opportunity cost for developing IGCC from a construction lead-time standpoint could be minimal. The company projected that an IGCC unit would take *6 months less* to construct than a supercritical pulverized coal unit.² Further, because we believe it is reasonable to expect an IGCC unit to face reduced risk of delay due to permitting and multi-state approval relative to pulverized coal, an IGCC may actually enjoy a timing advantage over pulverized coal, which could potentially offset a significant part of the incremental cost differential between pulverized coal and IGCC. This is in addition to the option value of IGCC in addressing carbon emissions (i.e. the ability to capture and store CO₂ relatively economically), and other advantages of IGCC in reducing other short-term and long-term impacts, including reduced water use, reduced and more cost-effective mercury emissions reductions, reductions in conventional pollutants and reduced levels and toxicity of solid waste streams.

C. Analysis of Bridging Options for Meeting the projected 2012 Resource Need

The Company has not presented sufficient analysis of demand-side management (DSM), renewable energy, short-term purchases, and combined heat and power (CHP) alternatives for bridging any time and resource gaps until IGCC can be deployed for meeting the 2012 resource need as required by Commitment U15(a). *Id.* at pp.19-20. In its October 4, 2006 draft RFP, the company did shorten the minimum contract length to five years, which is significant. WRA still recommends that the Company actively seek bridging options of less than five years, either as part of this process or outside of it. In addition, the Company should present a strategy for

² See PowerPoint entitled, "Request for Proposals Technical Conference: Utah Docket No. 05-035-47," p.16.

soliciting short-term and medium-term transactions that can come on-line prior to 2012, but which may help defer investment in the 2012-2014 timeframe.

The RFP should explicitly state that the Company's focus is on soliciting bids for bridging options to defer long-term resource commitments in carbon-intensive and inflexible baseload options, in order to allow fuller consideration of IGCC and until greater certainty can be obtained on climate change regulations. *Id.* at p.15. The RFP should include a description of the Company's plan and timeline for soliciting bridge options and explain how it intends to integrate that information into the load and resource balance, the lockdown of the benchmark options, the economic modeling analysis, and the selection of resources.

D. Selection of Two 2012 Benchmark Options

The draft RFP's possible selection of two pulverized coal benchmarks for 2012 was never evaluated in the Company's 2004 IRP or its 2004 IRP Update. Rather, the 2004 IRP Update treats the Company's participation in IPP3 as an alternative to its participation in Hunter 4. *See id.* at pp.17-18. The draft RFP's departure from the IRP should therefore be rejected.

E. Evaluation of Carbon Regulatory Risk

The October 4, 2006 draft 2012 RFP does state that the Company intends to use a range of CO2 values in its evaluation of bids, as is done in the IRP process. This is a significant improvement. However, WRA still believes the use of an \$8 per ton CO2 adder escalating only at inflation is too low as a base case assumption. *Id.* at pp.12-13. WRA also disagrees with the Utah Association of Energy Users (UAE) that the phase-in of the CO2 adders should be

postponed until 2015. Numerous media articles over the past year attest to the growing awareness of the issue of climate change from all sides of the political spectrum.³

Furthermore, WRA seeks clarification on how the range of CO₂ values will be used to reflect the option value of IGCC to capture and store its CO₂ emissions. The use of a constant CO₂ price will only reflect the reduced CO₂ emissions associated with the heat rate differential between coal combustion technologies and not the advantages one technology or plant location may have over another to capture and sequester carbon economically. WRA recommends that the Company also identify the price point and timing at which it would make economic sense to capture and store CO₂ from a generating unit rather than continue to acquire emissions offsets. This type of analysis was performed for generic resource options in the 2004 IRP.

WRA continues to insist, however, that the use of CO₂ adders are a necessary but not sufficient method for capturing the value to the system of resource options that can actually reduce CO₂ as opposed to relying on CO₂ offsets. In the 2006 IRP, the company has stated it intends to hard-wire the models to restrict the level of front office transactions that can be accepted. The company has also indicated it intends to use the 2006 IRP modeling framework to evaluate bids received in response to the 2012 RFP. By artificially restricting front office transactions in this fashion, the Company is effectively recognizing a premium value on physical assets as a hedge against market price risk when compared to market purchases. WRA submits that resources that provide a physical hedge against future CO₂ price risk should likewise be

³ See, e.g., “Believers Preach Gospel of Green,” Patrick Goldstein, Los Angeles Times, Oct. 10, 2006 ed. (discussing the growing interest within the Christian evangelical movement of climate change); “The Heat is On,” The Economist, Sept. 7, 2006 ed. (calling for America to lead the way on climate change policy).

valued at a premium. They provide superior long-term value to ratepayers over those that have limited flexibility for capturing and storing CO₂ in the future.

WRA views the development of new pulverized coal as analogous to a natural gas plant tolling agreement for ratepayers in terms of their exposure to potentially volatile and escalating future CO₂ costs for the 40 to 60 year lives of the facilities. Utah ratepayers are already at significant risk of CO₂ emissions costs due to the heavy reliance on pulverized coal for the existing resource fleet. Instead of exacerbating that risk through the addition of more pulverized coal to the system, a more effective long-term strategy should be to seek greater diversity in resources and technology options including the deployment of IGCC. WRA submits that developing pulverized coal as a means for protecting ratepayers from short-term market price volatility simply substitutes one short-term risk for a potentially even greater long-term risk. This asymmetry in risks may be obscured through the use of discount rates in production cost modeling, but it is potentially an enormous legacy for future generations. In accordance with the Energy Resource Procurement Act's directive to consider "long-term impacts," WRA submits that it is well within the Commission's purview to consider such issues of intergenerational equity when evaluating the Company's proposals.

F. Allocation of CO₂ Regulatory Risk

WRA supports UAE's recommendation for greater flexibility in the allocation of CO₂ regulatory risks. WRA submits that project developers and utilities are in a better position to manage CO₂ regulatory risk than electricity ratepayers. The RFP should not unnecessarily foreclose innovative arrangements for managing that risk. WRA points to PacifiCorp's power purchase contract for 100 MW of capacity with Deseret G&T in which the seller assumed the

CO2 risk as evidence that greater flexibility on this issue can lead to enhanced value for ratepayers.

G. Option Value of IGCC:

The draft RFP fails to capture the option value of IGCC technology which, if properly designed and sited, is able to capture and store its carbon emissions. *Id.* at 13-14. As WRA documented in its August 16, 2006 Comments, IGCC is projected to cost considerably less than pulverized coal once the costs of carbon capture and storage are included. *See* WRA Comments, Attachment 3.

The draft RFP should be revised to include, as an evaluation criteria, whether projects will be designed to be carbon capture ready and whether the facilities will be sited with ready access to sequestration opportunities. *Id.* at pp.14-15. As part of this disclosure, the bidder (and utility for its benchmarks options) should disclose the project design elements that have been included for the separation and capture of carbon emissions, along with the projected costs of additional design elements that would be required for carbon separation and capture. In addition, the bidder (or utility for its benchmark option) should explain how its plant siting decision takes into consideration the potential transportation and storage of carbon and the location and physical characteristics of any underground formations for that storage. Finally, the bidder (or utility for its benchmark option) should identify any anticipated revenue streams associated with that storage, such as access to enhanced oil recovery operations. These are all factors which are within the project developer's control when siting and designing the project. A developer's failure to have taken these factors into account draws into serious question the long-term viability of the project.

H. Impacts on Water Use and Availability:

The RFP does not adequately address the impacts on electricity generation on water use and availability. Consistent with UCA § 54-17-201(2)(c)(ii)(C) and (D) concerning Commission consideration of risks and impacts, the RFP should be revised to make explicit that facility location and choice of water cooling technology will be used as evaluation criteria for bid and benchmark evaluation. *Id.* at p.16. In addition to demonstrating adequate water rights as part of the due diligence phase, a bidder should be required to identify how its proposed project would affect projected trends in water use and availability within the basin where the project is located. In addition, a bidder should explain its choice of water cooling technology, identify incremental improvements in water efficiency that can be made, and prove a cost analysis for such incremental improvements, and tradeoffs with other factors like fuel use and air emissions. *See* WRA Comments at p.16. The same requirements should apply to the Company's benchmark options.

I. Integration of DSM Market Potential Study, Renewable Energy Study, and Transmission Study Result, and the Recommendations of the IGCC Working Group and Global Warming Working Group into the RFP process.

WRA seeks clarification on how the results of the DSM market potential study and the re-evaluation of the 1400 MW renewable energy target will be integrated into the RFP's load and resource balance and modeling of baseload resources in the 2012 RFP. In addition, WRA requests clarification as to how the recommendations of the IGCC Working Group and the Global Warming Working Group will influence, if at all, the Company's selection of benchmark options and its evaluation of resource alternatives as part of this 2012 RFP.

J. Immediately begin work on a FEED study.

WRA recommends that PacifiCorp begin work immediately on a front-end engineering and design (FEED) study for one or more IGCC units. The March 3, 2006 Amendment to Stipulation in Docket No. 05-035-54 states at paragraph 16 that the “parties agree to support recovery, over a reasonable period, of prudent costs incurred with the IGCC studies in Commitment U16, consistent with Utah law and regulatory practice.” In the IGCC technical conference, the Company projected the construction lead time for IGCC is shorter than that for a supercritical pulverized coal unit by approximately 6 months. However, if the Company waits until after the resource approval process is completed to begin the FEED studies, then IGCC is potentially placed at an artificial timing disadvantage relative to pulverized coal. This type of sequencing of the RFP process and the FEED study builds unnecessary regulatory lag into the system and risks creating a perpetual self-fulfilling prophecy that IGCC can not be developed quickly enough to meet projected resource deficits.

K. Joint ownership arrangements for IGCC including the over-the-fence sales of syngas.

The RFP should also allow for bidders to propose the development of syngas units for the sale of syngas to PacifiCorp, with PacifiCorp owning the balance of plant. This type of proposal should extend to the company’s brownfield coal development sites at Intermountain, Jim Bridger and Hunter, as well as at existing sites for natural gas units. Because the bidder would retain a

greater degree of operational control of the syngas unit, it may be willing to provide better performance guarantees than if it were to hand over operational control of the unit to the utility.⁴

L. Commission's Role in seeking consensus among the states.

WRA recommends that the Commission play an active role in seeking consensus among the state jurisdictions on IGCC. While it may not be realistic to expect full consensus among all stakeholders, it may turn out to be less elusive than consensus among the states on the development of a pulverized coal unit. One forum for doing this may be through the IGCC Working Group. To PacifiCorp's credit, at the last IGCC Working Group meeting, the company did request state regulatory commission perspectives on IGCC development. Quite frankly, we were disappointed that the Utah Commission staff and the other state commission staff did not utilize this opportunity to explore potential areas of agreement and disagreement among the states on IGCC development. WRA understands that some of this reluctance may be attributable to *ex parte* and other similar concerns about pre-judging the outcome of issues that may be presented in the future. But now, the company's benchmark options for the 2012-2013 are squarely before the Commission. WRA encourages the Commission to utilize its considerable discretion and responsibility under the Energy Resource Procurement Act to safeguard the public interest, especially by scrutinizing PacifiCorp's decision not to propose IGCC for its 2012 resource need and its choice of a 750 MW supercritical pulverized coal unit to displace front office transactions beginning in 2013. WRA respectfully submits that the stakes are too high in terms of the growing risk of global climate change and the prospects for the

⁴ Further, because there is no sale of electricity, WRA speculates that such an arrangement could have potential accounting advantages from the standpoint of inferred debt relative to straight power purchase agreements. WRA has not independently verified this.

break-up of the PacifiCorp system for the Commission to take a passive or overly deferential role on this issue.

III. CONCLUSION

Wherefore, WRA requests that the Commission direct PacifiCorp to revise its draft 2012 RFP consistent with our August 16, 2006 comments and our recommendations above.

Alternatively, WRA requests that the Commission reject PacifiCorp's draft 2012 RFP.

Respectfully submitted,

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