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September 26, 2007

VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY

Oregon Public Utility Commission
550 Capitol Street NE, Suite 215
Salem, OR 97301-2551

Attention: Vikie Bailey-Goggins
Administrator, Regulatory Operations

Re: **Docket No. UM 1302 – Joint Utility Final Comments**
In the Matter of an Investigation Into the Treatment of CO_2 Risk in the Integrated Resource Planning (IRP) Process

Enclosed for electronic filing by PacifiCorp dba, Pacific Power, Idaho Power and Portland General Electric is an original and one (1) copy of the Joint Utility Final Comments on Proposed Guideline 8 Revisions in the above-captioned docket.

Informal questions on this matter may be directed to Joelle Steward at (503) 813-5542.

Sincerely,

Andrea L. Kelly
Vice President, Regulation

Enclosure
cc: Service List for UM 1302

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

UM 1302

In the Matter of: PUBLIC UTILITY COMMISSION OF OREGON Staff's Investigation Into the Treatment of CO_2 Risk in the Integrated Resource Plan (IRP) Process	Joint Utility Final Comments on Proposed Guideline 8 Revisions

PacifiCorp, dba Pacific Power ("Pacific Power"), Portland General Electric Company ("PGE") and Idaho Power Company ("Idaho Power") (collectively "the Utilities") hereby submit these final comments on the Oregon Public Utility Commission ("Commission") Staff's ("Staff") proposed revisions to Integrated Resource Plan ("IRP") Guideline 8: Environmental Costs ("Guideline 8").

Staff issued another draft of proposed revisions to Guideline 8 for comment by the parties on September 6, 2007. The parties subsequently submitted comments and additional edits to Staff's proposed revisions to Guideline 8 on September 13, 2007. The Utilities again appreciate the opportunity to provide these final comments and suggested edits to Guideline 8.

GENERAL COMMENTS

The Utilities generally support Staff's proposed IRP Guideline 8, and recommend changes to clarify requirements and streamline text. Many suggested changes by the Citizens' Utility Board of Oregon, Ecumenical Ministries of Oregon, NW Energy Coalition, and the Renewable Northwest Project (collectively the "Joint Parties") have been incorporated into the Utilities' proposed revisions to Guideline 8. However, the

Joint Parties have continued to propose additional requirements without the opportunity for discussion on the specifics and consideration of modeling complexity and the Utilities' respective schedule constraints, costs, and work force impacts. For example, the Joint Parties added a new subsection, "Upstream CO_2 Emissions." The proposed requirement to have the Utilities characterize upstream CO_2 emissions from fuel purchases and determine the impact on fuel prices was not identified as a substantive issue in this proceeding, and the Utilities strongly object to the Joint Parties' proposal. From a procedural perspective, this notion is very complex and not sufficiently addressed in the record. To fully understand this issue would require additional time; far more than the time remaining in this docket. Also, this new proposal suffers substantive deficiencies. First, the Utilities do not have direct control or access to necessary information to perform such an analysis, and currently lack the expertise to conduct "life cycle" CO_2 emissions analyses.

Second, the Joint Parties' comments advocate only for one particular aspect of upstream CO_2 emissions; those associated with the production of fuel. The Joint Parties posit the following: "It is quite likely that future CO_2 regulation will include regulation of fuel producing sectors, which will affect the price of fuel. It is therefore important that utilities provide an analysis of upstream emissions associated with fuel purchases in their portfolio analysis, and the effects of future CO_2 regulation on these upstream sectors and the price of fuel."[1] However, future CO_2 regulation may equally affect, either directly or indirectly, the price of other commodities relied upon for the production of electricity. It is not clear why these other aspects of an upstream or "life cycle" CO_2 emissions analysis

[1] "Comments on Staff Proposed Guidelines of CUB, EMO, NWEC & RNP", page 4.

are excluded. A lifecycle emissions concept usually encompasses an emissions analysis of the process for extracting fuel (e.g., natural gas or coal for a fossil power plant), the transportation of fuel to the power plant, as well as the fabrication of the generation facility (e.g., the wind turbine, photovoltaic cells, etc.) that produces the electric power and any associated fuel disposal processes. The analysis is further complicated by the fact that many of these same variables will change over time (changes to the fuel supplier, mine or well location, extraction technology, means of delivery, etc.). The Utilities oppose requiring such an analysis within the IRP process because of the controversy over these and other lifecycle analysis assumptions. Additionally, this lifecycle analysis presents a level of complexity that would be overly burdensome and costly to accommodate in the IRP process.

Third, the Utilities obtain long-term fuel price forecasts from forecasting services such as Global Insight and PIRA Energy Group. The impact of CO_2 emissions will likely be incorporated in these price forecasts. However, the Utilities do not have control over how such impacts will be addressed in the forecasts, and what the resulting implications will be for the Utilities' own price forecasting and IRP modeling.

In sum, adopting the Joint Parties' proposal requiring a utility to "provide an analysis of upstream emissions associated with fuel purchases in [its] portfolio analysis, and the effects of future CO_2 regulation on these upstream sectors and the price of fuel" without providing detailed guidance on how to do so, will be burdensome, controversial, and heavily laden with caveats, and therefore unlikely to provide any meaningful value to the IRP process.

One remaining concern about the overall structure of the proposed Guideline 8 is that it may need to be reassessed in a short period of time, as it contains substantial detail on near-term analytical requirements needed during a period of considerable regulatory uncertainty. It stands out in this regard when compared to the other IRP guidelines. The Utilities hope that the Guideline 8 language or associated Commission comments in the Order will address the need to maintain guideline flexibility to enable parties, via the IRP public process and other channels, to adapt their IRPs to changing regulatory circumstances.

SUBSECTION RECOMMENDATIONS

For these final comments, the Utilities present recommended IRP Guideline 8 subsections, followed by discussion and appraisal of the latest proposed edits made by the Joint Parties and the Oregon Department of Energy ("ODOE"). The Utilities' latest proposed revisions are shown in a red-lined version of Staff's proposed Guideline 8 distributed on September 6, 2007, provided with these comments as Attachment A.

SCENARIOS

The Utilities recommend the following language for this subsection based on previous recommended edits and review of the Joint Parties and ODOE comments:

> SCENARIOS: The utility should construct a base-case scenario to reflect what it considers to be the most likely regulatory future for carbon dioxide (CO_2), nitrogen oxides, sulfur oxides, and mercury emissions. The utility also should develop scenarios ranging from present CO_2 regulations to the upper reaches of credible proposals by governing bodies. Each scenario should maintain logical consistency, to the extent practicable, between CO_2 regulatory futures and other key inputs including, but not limited to, expected interactive effects with fuel and electricity prices. Each scenario should include a time profile of CO_2 compliance costs. The utility should identify for each scenario the underlying source of the CO_2 compliance

> costs, i.e., taxes, a ban on certain types of resources, or CO_2 caps (with or without flexibility mechanisms such as trading or a safety valve). The utility should explain its rationale for choosing its base-case CO_2 regulatory future from among the other possible CO_2 regulatory futures. The utility should estimate the twenty-year (as a minimum) present value of revenue requirement (PVRR) for each of the studied portfolios. End-effect considerations should be incorporated in the portfolio analyses to allow for comparisons of portfolios containing resources with different economic lives. If material, sensitivity analyses on a range of reasonable regulatory futures for nitrogen oxides, sulfur oxides and mercury should be included as part of the portfolio analysis.

The key recommended changes to this subsection pertain to 1) the citation of a specific CO_2 cost value, 2) the insertion of scenario development methodology text taken from the PREFERRED PORTFOLIO subsection, and 3) modifications to terms for clarification and to maintain consistent meaning throughout Guideline 8. Except for the insertion of the text, "and the price elasticity of demand", the Utilities propose incorporating one change recommended by the Joint Parties, which is to add the rationale for selection of the base-case CO regulatory future.

While the identification of an upper-end CO_2 cost value ($100 per ton) is desired by the Commission, such a value may or may not be consistent with the formulations of CO_2 regulatory futures desired for CO_2 risk analysis in future IRPs. The Utilities believe that their proposed language, "The utility should also develop scenarios ranging from current CO_2 regulation to the upper reaches of credible proposals by governing bodies" adequately expresses the requirement for CO_2 regulatory strategy bookends, and therefore recommend that a specific value be removed from this subsection.

The Utilities oppose the Joint Parties' recommendation to include the language, "and the price elasticity of demand" at end of this subsection. Staff's latest Guideline 8 proposal does not preclude a utility from conducting such analysis. However, as with the

Joint Parties' proposal to include upstream CO_2 emission costs from fuel purchases, the parties have not had the opportunity to discuss the implications of this requirement in this docket. For example, compliance would appear to require the Utilities to derive a new load forecast for each CO_2 cost stream based on an assessment of rate impacts at the customer class level. For PacifiCorp, this assessment would need to be conducted for each state, since this is the level at which elasticity is measured. Additionally, given that the elasticity coefficients are estimates to begin with, trying to refine the load forecast to reflect price changes for each CO_2 cost stream might provide marginal value at best. Finally, there is the question of how to model WECC-wide price elasticity effects, since these would need to be accounted for in the Utilities' price forecasting models as well as the economic forecasts obtained from forecasting services.

A comprehensive integration of elasticity-driven demand and electricity price impacts of CO_2 emission costs, if that is the Joint Parties' expectation, would be nearly impossible for the Utilities to implement and would add a significant burden to an increasingly complex IRP modeling and analysis process. Nevertheless, Staff's proposed language provides the latitude for each utility to incorporate some level of price elasticity analysis in their IRP if judged to provide significant value after accounting for the modeling and process-related impacts.

PREFERRED PORTFOLIO

The Utilities continue to recommend that the Preferred Portfolio subsection be deleted because the selection of a preferred portfolio is already addressed in the

Commission's new IRP guidelines 1b and 1c.[2] The Utilities also continue to propose moving the text regarding present value of revenue requirement ("PVRR") calculation, end effects, and sensitivity analysis for other pollutants to the SCENARIOS section.

ODOE proposed including the following text in this subsection: "The utility should make assumptions regarding the lifetimes of different types of resources that are consistent and reasonable among resources and with the CO_2 scenarios being considered, especially where the lifetimes extend beyond the time horizon for the PVRR."[3] The Utilities do not support inclusion of this language. Rather, the current proposed language by Staff regarding end effects, which the Utilities recommend be moved to the SCENARIOS subsection, is adequate and should be adopted.

TRIGGER POINT ANALYSIS AND ALTERNATIVE PORTFOLIOS

The Utilities recommend the following language for this subsection based on previous recommended edits and review of the Joint Parties and ODOE comments:

> TRIGGER POINT ANALYSIS AND ALTERNATE PORTFOLIOS: The utility should identify at least one CO_2 regulatory future, if there is one, within the range of CO_2 regulatory futures considered that would lead to, or "trigger," a set of resources that is substantially different from the preferred portfolio. The utility should develop an alternate portfolio for each of these trigger point CO_2 regulatory futures. The utility should then analyze the cost and risk performance of the alternate portfolio(s) to that of the preferred portfolio. For CO_2 regulatory future trigger points identified through the analyses, the utility should include an assessment that a CO_2 regulatory future will be mandated that is equally or more stringent. Additionally, the utility should evaluate the preferred portfolio under the base-case CO_2 regulatory future and at least one alternative CO_2 regulatory future.

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[2] "Joint Utility Initial Comments on Proposed Guideline 8 Revisions", September 13, 2007, page 2.

[3] ODOE Reply Comments, page 3

The Joint Parties recommended changing the term "alternative portfolio" to "alternate portfolio", and added the text "if there is one" to account for the possibility that an alternate CO_2 regulatory future may not exist that would lead to substantially different resources from the original preferred portfolio. The Utilities agree with these changes put forth by the Joint Parties and included them in these proposed revisions.

The Utilities recommend a compromise approach for preferred/trigger point portfolio analysis. Originally, the proposed approach was to analyze the preferred and each alternate (trigger point) portfolio under the various CO_2 regulatory future scenarios. This makes for a complex analytical and model management exercise that will be difficult to use for utility decision analysis. In lieu of this approach, a two-stage framework is now proposed that is more tractable. First, the Utilities would compare the preferred portfolio against the alternate trigger point portfolio(s). Second, the preferred portfolio would be modeled using the base-case as well as other CO_2 regulatory futures to determine the cost and risk impacts if an alternate CO_2 regulatory future comes to pass. These two separate analyses thus generate a smaller number of scenario studies, yet should provide a sufficient range of what-if studies for trigger point analysis. For example, under the previous approach, if a utility developed four CO_2 regulatory futures (in addition to the base-case) and three trigger point portfolios, 12 additional portfolio studies would be required to complete the analysis. With the proposed approach, there would be a maximum of seven additional portfolio studies required (the three trigger point portfolio studies and four alternate CO_2 regulatory future studies using the preferred portfolio).

Finally, the Joint Parties propose to include the following phrase at the end of this subsection: "The utility should examine the PVRR difference between its originally preferred and alternate portfolio(s) in light of the risk performance metrics from sensitivity analysis." In the interest of keeping the guideline appropriately streamlined, the Utilities propose that this language be removed; it is superfluous because the subsection already includes the words "analyze the cost and risk performance of the alternate portfolio(s) to that of the preferred portfolio." This language already indicates that PVRR and risk metrics will be used for portfolio comparisons, which is a requirement spelled out in IRP Guideline 1c. Additionally, the distinction between scenario analysis and sensitivity analysis is not made clear, and if these are meant to be synonymous in the context of this subsection, then there is no need to cite both terms.

PORTFOLIO CO_2 RISK ADAPTABILITY

The Utilities recommend the following language for this subsection based on previous recommended edits and review of the Joint Parties' and ODOE comments:

> PORTFOLIO CO_2 RISK ADAPTABILITY: The utility should assess the cost and risks of adapting the preferred portfolio to an alternate portfolio if the utility must change course unexpectedly due to a major change in the CO_2 compliance requirements. The utility should describe the timing and magnitude of new CO_2 requirements that would elicit such a divergence in course, and provide its assessment of such a CO_2 regulatory shift taking place.

The Utilities agree that a qualitative analysis of portfolio CO_2 risk adaptability is a useful resource planning exercise, and therefore propose retaining the first two sentences intact along with incorporating the Joint Parties' replacement of the phase "indicated portfolio modifications" with "such a divergence in course" at the end of the second

sentence. However, the Utilities do not support a requirement to conduct portfolio studies to quantify such "risk adaptability" as specified by the Joint Parties' proposed language: "The utility should compare the cost and risks of the resulting, divergent portfolio with those of a portfolio that is optimized to be more adaptable in the event of such a change in the CO_2 compliance requirements. Comparative factors such as lead times for site acquisition, engineering, and construction should be incorporated in the characterization of the divergent and the adaptable portfolios."

The foundation of the Joint Parties' proposed analysis is a set of narrowly crafted assumptions that presuppose a hypothetical event (or events) with no basis to assign a probability of occurrence, as well as the definition of alternative ratemaking outcomes with their associated probabilities of occurrence. Without the assignments of probabilities, such analysis would provide no value to support changing the preferred portfolio in a specific way. Additionally, the Utilities would have already factored in multiple CO_2 regulatory futures in the selection of the preferred portfolio, so quantitative risk adaptability analysis would provide negligible incremental benefits as a decision tool. As with the Joint Parties' requirement to factor in demand elasticity, it would add a significant burden to an increasingly complex modeling and analysis process.

Finally, the application of risk adaptability analysis only to CO_2 regulatory futures ignores other potential event risks that are equally or more consequential (for example, the availability and cost trend of carbon sequestration and nuclear technologies, or a sudden, persistent increase in natural gas costs). A thorough and balanced risk adaptability analysis should consider the full range of potential risks, not just those attributable to potential CO_2 regulations.

OREGON COMPLIANCE PORTFOLIO

The Utilities recommend the following language for this subsection:

> OREGON COMPLIANCE PORTFOLIO: If neither the original preferred portfolio nor an alternate portfolio would be consistent with Oregon energy policies applicable to the electricity sector (including state goals for greenhouse gas emissions reductions for that sector), the utility should construct a portfolio that achieves that consistency and perform the same analysis as for the alternate portfolio(s).

The Utilities continue to recommend adding the phrase "applicable to the electricity sector" within the first sentence and before the parentheses. As stated in the Utilities' previous comments[4], this clarification is necessary because the Oregon goals for reducing greenhouse gas emissions as adopted within House Bill 3543 (2007) are economy-wide goals and do not specify what the electricity sector's share of the economy-wide emissions goals should be. The Utilities propose incorporating the other edits proposed by the Joint Parties.

CONCLUSION

The Utilities respectfully request that the revisions described above be incorporated into Staff's proposed revised IRP Guideline 8: Environmental Costs.

[4] "Joint Utility Initial Comments on Proposed Guideline 8 Revisions", September 13, 2007, page 3.

DATED this 26th day of September, 2007.

Respectfully submitted,

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DATED this 26th day of September, 2007.

Respectfully submitted,

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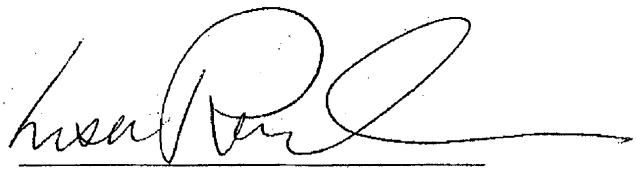

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ATTACHMENT A

a. SCENARIOS: The utility should construct a base-case scenario to reflect what it considers to be the most likely regulatory ~~compliance~~ future for carbon dioxide (CO_2), nitrogen oxides, sulfur oxides, and mercury emissions. The utility also should develop ~~a broad array of compliance~~ scenarios ranging from ~~the~~ present CO_2 regulations ~~regulatory cost~~ to the upper reaches of credible proposals by governing bodies ~~(*i.e.*, at least $100 per ton, as levelized in 2005 dollars)~~. Each scenario should maintain logical consistency, to the extent practicable, between CO_2 regulatory costs and other key inputs including, but not limited to, expected interactive effects with fuel and electricity prices. Each scenario should include a time profile of CO_2 compliance costs. The utility should identify for each scenario the underlying sources of the CO_2 compliance costs; i.e., ~~whether it envisions those costs to be in the form of~~ taxes, a ban on certain types of resources, or CO_2 caps (with or without flexibility mechanisms such as trading or a safety valve). The utility should explain its rationale for choosing its base-case CO_2 regulatory future from among the other possible CO_2 regulatory futures. The utility should estimate the twenty-year (as a minimum) present value of revenue requirement (PVRR) for each of the studied portfolios. End-effect considerations should be incorporated in the portfolio analyses to allow for comparisons of portfolios containing resources with different economic lives. If material, sensitivity analyses on a range of reasonable regulatory futures for nitrogen oxides, sulfur oxides and mercury should be included as part of the portfolio analysis.

~~b. PREFERRED PORTFOLIO: The utility should identify, among reasonable alternatives, the portfolio that it prefers in recognition of both its base-case scenario, the broad range of potential regulatory compliance scenarios described above, other analyses conducted during the course of the integrated resource planning cycle, and management discretion. The utility should estimate the twenty-year (as a minimum) present value of revenue requirement (PVRR) for each of the studied portfolios for several illustrative regulatory compliance futures within the range of scenarios. End-effect considerations should be incorporated in the analyses to allow for comparisons of portfolios containing resources with different economic lives. In addition, and if material, sensitivity analyses on a range of reasonably possible regulatory futures for nitrogen oxides, sulfur oxides, and mercury should be included to further substantiate the preferred portfolio selection.~~

b~~e~~. TRIGGER POINT ANALYSIS AND ALTERNATE ~~ALTERNATIVE~~ PORTFOLIOS: The utility should identify at least one ~~set of~~ CO_2 regulatory future ~~compliance costs, if~~ there is one, ~~within the range of alternative regulatory scenarios considered~~ that would lead to, or "trigger," a set of resources that is substantially different from the preferred portfolio. The utility should ~~fully~~ develop an alternate ~~alternative~~ portfolio ~~optimized~~ for each of these trigger point CO_2 regulatory futures. The utility should then analyze ~~scenarios and compare the portfolio's expected~~ the cost and risk performance ~~to that of the initially preferred portfolio under the base-case conditions and under each of the CO_2 compliance scenarios~~ of the alternate portfolio(s) to that of the preferred portfolio. For ~~each of~~ CO_2 regulatory future trigger points identified through the analyses, the utility should include an assessment that a CO_2 regulatory future will be mandated that is equally or more stringent. Additionally, the utility should evaluate the preferred portfolio under the base-case CO_2 regulatory future and at least one alternative CO_2 regulatory future.

cd. PORTFOLIO CO_2 RISK ADAPTABILITY: The utility should assess the cost and risks of adapting the preferred portfolio to an alternate portfolio ~~a scenario (or scenarios)~~ if ~~where~~ the utility must change course unexpectedly due to a major change in the CO_2 compliance requirements. The utility should describe the timing and magnitude of new CO_2 requirements that would elicit such a divergence in course, and provide its assessment of such a CO_2 regulatory shift taking place. ~~The utility should describe the timing and magnitude of new CO_2 requirements that would elicit the indicated portfolio modifications. The utility should compare the cost and risks of the adapted preferred portfolio with those of an optimized alternative portfolio designed to be more adaptable in the event of such a change in the CO_2 compliance requirements. Comparative factors such as lead times for site acquisition, engineering, and construction should be incorporated in the characterization of the alternative portfolio. The utility should provide its assessment of such a CO_2 regulatory shift taking place.~~

de. OREGON COMPLIANCE PORTFOLIO: If neither ~~none of~~ the original preferred portfolio nor an alternate ~~alternative~~ portfolios would be ~~is~~ consistent with Oregon energy policies applicable to the electricity sector (including state goals for reducing greenhouse gas emissions reductions for that sector), the utility should construct a ~~an optimized~~ portfolio that achieves that consistency and perform the same analysis as for the alternate portfolio(s). ~~, present the cost and risk parameters, and compare them to those of the preferred and alternative portfolios.~~

CERTIFICATE OF SERVICE

I hereby certify that on this 26th day of September, 2007, I caused to be served, via E-Mail and First Class Mail Delivery (to those parties who have not waived paper service) a true and correct copy of the Joint Utility Final Comments on Proposed Guideline 8 Revisions of PacifiCorp dba Pacific Power, Idaho Power and Portland General Electric in Docket No. UM 1302

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