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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of PacifiCorp's 2011 Integrated Resource Plan	**DOCKET NO. 11-2035-01 Comments of Southwest Energy Efficiency Project**

The Southwest Energy Efficiency Project (SWEEP) appreciates the opportunity to provide the following comments and recommendations on PacifiCorp's 2011 Integrated Resource Plan Update (dated March 30, 2012), in particular regarding the consideration and evaluation of combined heat and power (CHP).

SWEEP supports PacifiCorp's intent to ensure adequate and reliable electricity supply at a reasonable cost and in a manner consistent with the long-term public interest. SWEEP is a public interest organization dedicated to advancing energy efficiency in six southwestern states. SWEEP works on state energy legislation, analysis of energy efficiency opportunities and potential, utility and state energy efficiency programs, building energy codes and appliance standards, and voluntary partnerships with the private sector to advance energy efficiency.

The Revised Action Plan, under Renewables/Distributed Generation: Combined Heat and Power, only includes Biomass CHP. We strongly recommend better inclusion and pursuit of CHP fueled by other sources in addition to biomass, including natural gas, whether these CHP systems are owned and operated by PacifiCorp, the customer, or a third party.

In the Revised Action Plan, the footnote to Biomass CHP says "CHP resource opportunities will be evaluated as part of resource planning efforts to be conducted during 2012." We would like to request the following:

1. The opportunity to give input on that evaluation's methodology and assumptions, and the opportunity to review a draft of the findings before they are finalized.
2. The assurance that bottoming cycle CHP (also known as waste heat to power) will be included in that evaluation (see below).
3. The inclusion of a discussion of obstacles to CHP project implementation and how they could be addressed by PacifiCorp to make CHP project implementation easier, thus increasing the amount of achievable CHP potential.

In regards to the second point, the 2011 Cadmus study for PacifiCorp, "Assessment of Long-Term, System-Wide Potential for Demand-Side and Other Supplemental Resources" included estimates of CHP achievable technical potential but appears to have left off an entire category of CHP resources, those known as bottoming cycle CHP, or alternately as waste-heat-to-power.[1] These systems convert excess, otherwise-wasted thermal energy or pressure from industrial processes or pipeline compressor stations into electricity. Similar to traditional topping-cycle CHP, these systems straddle the line between supply-side and demand-side resources. They also straddle the line between non-renewable and renewable electricity: in Utah

[1] The 2011 Cadmus study for PacifiCorp, "Assessment of Long-Term, System-Wide Potential for Demand-Side and Other Supplemental Resources" defines and explains CHP on page 95 as follows:

> "CHP units generate electricity and utilize waste heat for space or water heating requirements. They can be used in buildings that have a fairly coincident thermal and electric load, or buildings where combustible biomass or biogas is produced. CHP units have been traditionally installed in hospitals, schools, and manufacturing facilities, but they can be used across nearly all segments with an average annual energy load greater than about 30 kW. CHP is broadly divided into subcategories based on the fuel used. Non-renewable CHP runs on natural gas, while renewable CHP runs on a biologically derived fuel (biomass or biogas).

electricity from waste gas or waste heat is eligible for meeting the renewable portfolio goal.[2]

This is a potentially significant resource, and one that can provide a proven, efficient, non-intermittent, and cost-effective contribution to PacifiCorp's IRP.

Thank you for consideration of these comments.

[2] Utah Code, Title 10, Chapter 19, Section 102. http://le.utah.gov/~code/TITLE10/htm/10_19_010200.htm