

April 15, 2010

***VIA ELECTRONIC FILING  
AND HAND DELIVERY***

Public Service Commission of Utah  
Heber M. Wells Building, 4<sup>th</sup> Floor  
160 East 300 South  
Salt Lake City, UT 84114

Attention: Julie P. Orchard  
Commission Secretary

RE: Docket No. 09-2035-01  
In the Matter of the Acknowledgement of PacifiCorp's Integrated Resource Plan.

In its April 1, 2010 Order acknowledging the 2008 Integrated Resource Plan prepared by PacifiCorp (the "Company"), the Public Service Commission of Utah (the "Commission") directed the Company to file a geothermal resource study as described by the Utah Division of Public Utilities (the "DPU") within 60 days of the date of the acknowledgment order. The DPU's study description is as follows:

The Division recommends that the Company conduct a geothermal commercial potential study for geothermal energy using both Blundell technology and other alternative geothermal technologies. The study should evaluate greenfield projects in both PacifiCorp's east and west control areas. This study should be filed with the Commission for comments as soon it has been completed. Inasmuch as the Company does not currently have an estimate of the amount of economically developed geothermal resources in the states it serves, the Division recommends that the Company make this determination and include a description of all factors mentioned in the previously referred to in DPU data request 1.32e.<sup>1</sup>

The Company requests that the Commission grant a time extension for filing of the geothermal resource study to August 10, 2010. Staff of both the DPU and the Commission concur that a time

---

<sup>1</sup> *Division Report and Recommendations on 2008 IRP*, Docket, No. 09-2035-01, June 18, 2009, p. 30. PacifiCorp provided the following response to DPU data request number 1.32e:

The Company does not currently have an estimate of the amount of economically developable geothermal resources in the states it serves. The amount of economically developable resources is highly dependent on many factors including variability in geothermal resources, capital costs, available tax incentives, transmission access, overall project implementation schedules, and ultimately, customers' willingness to pay for energy from that type of resource. At this time, many of these factors are highly variable. In addition, one of the fundamental parameters of geothermal development is characterizing the type, quality, and conditions of a particular geothermal resource; this requires a significant investment in well drilling and testing in order to develop a reliable assessment. This detailed assessment work has not been completed at this time.

extension is appropriate given the Company's proposed study scope and need to retain a contractor to perform the study. The Company sets forth below its proposed geothermal study schedule and the rationale for why the time extension is needed.

#### Proposed Study and Public Process Schedule

The following table outlines the proposed geothermal resource study schedule assuming that an August 10, 2010, report filing extension is granted by the Commission. Exhibit A outlines the geothermal resource study, describing the preliminary study scope and summarizing key deliverable due dates. This study outline has been reviewed by DPU and Commission staff.

<b>Milestone</b>	<b>Target Due Date</b>	<b>Comments</b>
Procure a Contractor and Finalize the Study Scope	5/01/2010	The study scope may be adjusted based on bidder quotes to perform the work, meet the schedule deadlines, and conduct the work within a reasonable budget.
Draft Report Due	7/09/2010	
Draft Report Distribution for Public Comment	7/14/2010	Draft report distribution will be limited to stakeholders included in the Company's IRP participant list, as well as other stakeholders recommended by the Utah parties.
Public Comments Due	7/28/2010	
Final Report Due	8/10/2010	The Company will post the final report and associated public comments to its IRP Web site.
Start of Portfolio Modeling for the 2011 IRP	8/18/2010	Date is approximate, and depends on delivery of other model input data and finalization of modeling assumptions and approaches.

#### Background and Rationale for the Time Extension

Staff from the Company, DPU, and Commission participated in a conference call on April 7, 2010, to discuss the Commission's geothermal resource study requirement and 60-day filing window. (The 60-day window requires the Company to file the study no later than June 1, 2010.) As explained in the conference call, the Company does not have staff resources available to conduct the study internally, and must therefore retain a contractor to conduct it. Given the time needed to procure the contractor services, finalize the study scope, and implement the research project, the 60-day filing window is not sufficient for conducting a system-wide

Utah Public Service Commission

April 15, 2010

Page 3

resource assessment that meets the DPU's recommended objectives for the study. The Utah parties agreed that a time extension is reasonable, and concurred with the DPU's recommendation for the Company to file a letter with the Commission requesting a time extension to complete the study.

During the conference call, Commission staff also reiterated the need for the Company to re-evaluate geothermal resource cost characterization and resource portfolio modeling with the goal of better aligning IRP portfolio development results with the Company's resource acquisition decisions in light of capital and other geothermal development risks. The Company concurred with this objective, and needs to account for this aspect of geothermal resource analysis in the study schedule.

Informal inquiries regarding this correspondence may be directed to Dave Taylor, manager of Utah regulatory affairs, at (801) 220-2923.

Sincerely,

Jeffrey K. Larsen  
Vice President, Regulation

cc: DPU

**Exhibit A:  
Geothermal Resource Assessment Study for PacifiCorp's System**

Preliminary Scope of Work

1. The Contractor shall define what constitutes a commercially viable geothermal opportunity. The study effort shall be based on the existing geothermal resource characterization studies, literature searches, information readily available from geothermal developers, state geologic surveys, Contractor's experience and current cost and performance databases. In establishing the economic viability of a resource, each resource shall be evaluated and summarized considering the following criteria:

- Geothermal resource characteristics (quality, temperature, geothermal fluid chemistry, stability and longevity)
- Level of geothermal resource assessment characterization work that has been completed to date, including:
  - Surface indications of high temperature at depth demonstrated
  - Geophysical surveys completed
  - Exploratory drilling completed
  - Well field production and injection wells completed
- Applicable power generation technology
- Site location and property ownership (federal, state, private, wilderness study area, military)
- Distance to the bulk power transmission system
- Water availability
- Schedule (Time) required to: 1) complete a geothermal resource assessment of sufficient quality for a prudent owner/developer to invest, 2) permit, engineer, procure, construct and commission the power generation facilities
- Estimated range of cost of energy given range of capital and O&M costs (Owner will provide financial factors to develop energy prices)
- Permitting factors: such as wilderness areas, endangered species and archeological factors.
- Property ownership factors (federal, state, tribal, private)

2. Based on Known Geothermal Resource Areas (KGRAs), prepare a report that outlines the expected range of costs (development, capital and operating) for utility-scale (10 MW and greater) geothermal power generation facilities that could be economically developed in PacifiCorp's service territory. The potential geothermal resources will be evaluated based on the level of geothermal resource characterization and development, range of total potential MW capability (low, expected, high) that could be reasonably be expected from the resource, well field characteristics, likely technology to be applied, permitting difficulty, probable development schedule, and the range of total potential generation capability. The study should focus on standard recognized commercially-proven technologies. Enhanced geothermal systems (EGS) should not be considered in the evaluation. Temperature differences should be based on current industry standards. Capital cost estimates shall include geothermal resource development, well

field, gathering system and generation facilities. A separate estimate of transmission costs should be prepared. Capital costs should assume engineer-procure-construct (EPC) contractor risk premium, overheads and interest during construction. For the purposes of the study, federal, state, and local economic incentives should not be included.

3. Provide a map of the company's service area identifying KGRAs.

4. Based on known and publicly available information, provide estimates of the level of investment necessary to characterize a potential geothermal resource to the point a prudent developer or financial institution would be willing to construct a utility scale geothermal resource (10 MW and greater). Provide a summary of the risks, utility risk management best practices, and issues associated with geothermal development.

5. The Contractor will be available for ad hoc consultation as PacifiCorp implements the study findings for the IRP and other resource planning efforts, and addresses public stakeholder comments as part of the IRP public process.

#### Schedule

The draft report shall be submitted for review on July 9, 2010. The draft report shall be subject to Utah Division of Public Utilities and public comment from July 14 to July 28. A final report shall be issued by August 10, 2010. Ad hoc consultation to be provided until October 1, 2010, or as agreed to based on the IRP public process schedule.

It is assumed the selected contractor can begin the study work by May 1, 2010 provided the study work can be bid and awarded by that date.