

November 19, 2013

***VIA ELECTRONIC FILING***

***AND OVERNIGHT DELIVERY***

Washington Utilities and Transportation Commission

1300 S. Evergreen Park Drive SW

P.O. Box 47250

Olympia, WA 98504-7250

Attn: Steven V. King

Executive Director and Secretary

**Re: Docket No. UE-120416—2013 Integrated Resource Plan**

Dear Mr. King:

PacifiCorp d/b/a Pacific Power & Light Company (PacifiCorp or Company) presented its 2013 Integrated Resource Plan (2013 IRP) at the Open Meeting of the Washington Utilities and Transportation Commission (Commission) on October 3, 2013. At the Open Meeting, the Commission requested additional information about energy efficiency by state, the Company’s research into anaerobic digester biogas systems, the Company’s position on Smart Grid, and energy storage. PacifiCorp submits this letter in response to the Commission’s request.

1. **Energy Efficiency by State**

Through the first ten years of the planning period, the preferred portfolio in PacifiCorp’s 2013 IRP is primarily comprised of firm market purchases and energy efficiency resources. By 2022, two-thirds of projected load growth is met with incremental energy efficiency resources. The table below shows energy efficiency as a percentage of load growth through 2022 by state.

|  |  |
| --- | --- |
| **STATE** | **2022** |
| California | 141% |
| Idaho | 41% |
| Oregon | 73% |
| Utah | 46% |
| Washington | 100% |
| Wyoming | 24% |
| **Total System—Cumulative** | **67%** |

**B. Anaerobic Digester Biogas Systems**

During the portfolio development process in the 2013 IRP, PacifiCorp allowed for the selection of combined heat and power (CHP) resources. This class of resources includes both industrial biomass systems and anaerobic digester biogas systems. The levelized cost and resource potential assumptions used for these resource alternatives were developed by Cadmus Group, Inc., an independent consulting firm. These data are summarized in a technical memorandum provided as Attachment A.

The 2013 IRP preferred portfolio includes 0.2 MW and 0.16 MW each year of anaerobic digester biogas systems in Utah and Wyoming, respectively, beginning in 2013.

**C. Smart Grid**

In accordance with WAC 480-100-505, PacifiCorp submits a smart grid report to the Commission every even numbered year. Along with other smart-grid-related information, the smart grid report summarizes the results of a smart grid financial model that includes costs and benefits that would be realized for a six-state comprehensive PacifiCorp smart grid deployment. The analysis includes smart-grid-related technologies that PacifiCorp believes will benefit customers and increase system efficiencies. Though the analysis currently shows a non-positive business case for a six-state smart grid deployment, PacifiCorp does review smart grid niche projects and has moved forward on projects if there is a viable business case or business reason to do so. PacifiCorp last submitted its smart grid report to the Commission in 2012 and will file an updated report September 1, 2014. The 2014 report will include information on the progress of any smart grid technologies scheduled for implementation as stated in previously filed reports and any new smart grid projects PacifiCorp has undertaken. PacifiCorp is required to submit a smart grid report to four (Oregon, Utah, Washington, and Wyoming) of the six state commissions in PacifiCorp’s service territory.

**D. Energy Storage**

For its 2013 IRP, PacifiCorp modeled storage as available supply-side resources. The types of storage resources include pumped storage, sodium-sulfur battery, compressed air energy storage, and fly wheel. The characteristics and costs of the resources were developed by HDR Engineering, Inc., an independent consulting firm. The HDR Engineering report is provided as Attachment B.

Each type of storage resource has a range of costs that depend on its respective development requirements, including factors such as topography, geology, environmental limitations, construction requirements, and level of maintenance needed for continued operation. Tables 6.1 and 6.3 in the 2013 IRP, Volume I, summarize the information for the different types of energy storage resources modeled in the 2013 IRP. The portfolios developed in the 2013 IRP process do not include energy storage resources because these resources were not selected among the least cost resources available.

Informal inquiries may be directed to Gary Tawwater, Manager, Regulatory Affairs, at (503) 813-6805.

Sincerely,

William R. Griffith

Vice President, Regulation

Enclosure