

## **Attachment**

### **PacifiCorp 2011 Integrated Resource Plan, Docket UE-100514**

As an electric utility in Washington, Pacific Power & Light (PacifiCorp or Company) has a fundamental responsibility to manage the risks and opportunities associated with acquiring and providing electric energy and service on behalf of its customers. This responsibility is particularly important in an era of changing load growth and the lure of low spot market prices. The planning requirements specified in WAC 480-100-238 are intended to help each utility develop a strategic approach to navigate marketplace opportunities and risks based on that utility's unique attributes. PacifiCorp's 2011 Integrated Resource Plan (Plan) represents such a strategic approach. As such, it is consistent with the Utilities and Transportation Commission's (Commission) planning regulations.

#### **Resource Needs Assessment**

PacifiCorp presented its resource needs assessment clearly, with in-depth and well-supported descriptions. The one exception discussed below is the lack of a clear, concise assessment of the renewable portfolio standard (RPS) compliance requirements in Washington State.

The Plan calls for significant new resources over the next several years to offset load growth and the expiration of long-term purchase contracts. The Company's system-wide annual capacity deficit is 326 MW in 2011 and 3,852 MW by 2020. The Company's preferred portfolio calls for 1,190 MWs of firm market purchases and the acquisition of a 625 MW combined-cycle combustion turbine (CCCT) in the Utah territory in by 2014. The Plan concludes that strategic reliance on market purchases can reduce portfolio costs under current market projections. However, we caution the Company to have an active risk management program that is vigilant to changes in the actual market conditions from those projected in this Plan that may expose the Company to greater risk. It is the inherent obligation and responsibility of the utility to match active risk management with the long-term portfolio strategy to maintain reasonable levels of risk.

On a West Control Area basis, PacifiCorp is short 567 MW in 2012 and short only 879 MW in 2020. The difference in the rate of growth of capacity need between the East and West Control Areas (2.4 percent and 1.4 percent, respectively) suggests the possibility of a different approach to managing the resource gap in the West Control Area. We note also that the Washington service territory is only projected to grow at 0.8 percent annually. PacifiCorp's next IRP should include analysis of whether a different approach for meeting West Control Area capacity needs is possible, and the Company should quantify any cost differences between those approaches.

The Plan compares the lower forecasted peak loads used currently to each successive peak load forecast since the onset of the economic recession in the late 2008. The lower subsequent

forecasts can be the result of changes in the economic fundamentals used in the load projection. The Commission believes that the approach the Company takes in its resource strategies in the Action Plan is well-reasoned and reflects an appropriate range of future variables, or so-called regime shifts. In this analysis, the Company focuses on three variables that can substantially impact the resource mix: fundamentals-based shifts in natural gas prices, enactment of regulatory policies, and different load trajectories.

The Plan lacks a clear description of the Company's resource position on meeting RPS requirements. Although the Company includes in Chapter 8 (Modeling Results) a short section on risk mitigation associated with government compliance obligations, we believe the Company should highlight the section related to complying with Washington RPS obligations and explain its strategies in clear, easy-to-understand language. The graphs and analysis in this section describe the forecasted supply of the preferred portfolio and additional RECs in meeting future compliance obligations, but they need more context and explanation. In particular, the Commission's Policy Statement on acquisition of renewable resources states that the Energy Independence Act creates a renewable generation or unbundled REC requirement separate from but equal to capacity and energy resource needs traditionally included in an IRP.<sup>1</sup> Therefore, the Company should provide more analysis and explanation of how it intends to meet the RPS requirements in Washington just as it describes the depth of its length (or shortage) in meeting capacity and energy.

### **Resource Options**

The breadth of resources considered in the Plan is commendable, but the Company should consider in future Plans the addition of more localized resources, such as anaerobic digesters that may develop in Yakama, Grant, Benton and Franklin counties. Since the Company states that West Control Area resource options reflect its recent cost studies and project experience, we believe it should monitor opportunities to purchase the output of biodigesters in this part of its service territory. We encourage the Company to focus on anaerobic digester development in its service territory as tax benefits, low interest loans, other assistance and compliance with environmental regulation may cause more anaerobic digester generation development than predicted by the costs assumptions used in the Plan. Since the Company is under statutory obligation to purchase qualifying generation under the federal Public Utilities Regulatory Policy Act at avoided costs at the request of a qualifying generator, the Company will need to be prepared to operate its portfolio with those new resources in a least-cost manner should they develop.<sup>2</sup>

---

<sup>1</sup> Report and Policy Statement Concerning Acquisition of Renewable Resources by Investor-owned Utilities, Docket UE-100849, January 3, 2011.

<sup>2</sup> 16 U.S.C. § 824a-3(a); 18 C.F.R. Part 292.

## Portfolio selection results

The Plan's preferred portfolio calls for the addition of 400-600 MWs of combined cycle combustion turbine (CCCT) capacity in each of the years 2014, 2016, and 2019. The 2014 and 2016 plants are modeled in the Utah service area. The Plan fails to clearly and explicitly state the location it models for the 2019 CCCT addition but its location can be deduced from comparing Figure 4.4 with Table ES.3. The Plan does not discuss how the CCCT resources called for in the Plan could be used to meet the capacity needs of the East and West Control Areas under different Gateway project scenarios.

Similarly, the uses and benefits to PacifiCorp ratepayers of the Wallula-to-McNary line are not clearly described in the Plan. In Chapter 10 (Transmission Expansion Action Plan), the Company briefly describes the several needs that this expansion is meant to satisfy. These include benefits related to reliability to meet current and expected demand in the Walla Walla area, to address energy constraints on the system, and to facilitate the transmission of variable generating resources to load centers. While we recognize that the Company is obligated to provide sufficient transmission capacity to interconnect such generators pursuant to FERC policies, the IRP should conduct a detailed and separate analysis on how this additional transmission capacity benefits native load customers, whether it is necessary to meet increased load in this service territory or to provide enhanced reliability.

On the question of confidential information, unlike the financial information relating to the interconnection and transmission service requests of third parties, the financial analysis of native load benefit is not required to be kept confidential by any regulatory body or contractual obligation. If there is a commercial need to keep such information confidential, it must still be part of the IRP analysis and preserved with the Company's record.

In discussing the Gateway transmission line options west of Hemingway, the Company discusses the dependence of the project economics on other regional transmission plans.<sup>3</sup> At a minimum, we encourage the Company to participate actively in the various regional and sub-regional transmission planning efforts currently underway that are relevant to Hemmingway to better inform its planning.

As to the Plan's evaluation of risk, the methodology for comparing case results with a graph of the stochastic cost versus upper-tail risk is a reasonable means of illustrating risk. However, it is and must be accompanied by a discussion of why the risk results for each case appear on the graph where they do.

The tail bar analysis of comparing portfolios can inform the choice between portfolios. However, it is less clear how it informs the choice of timing of resources within a given portfolio. The next Plan should contain more analysis and discussion of the timing of the

---

<sup>3</sup> PacifiCorp 2011 IRP, Page 288.

acquisition of the resources called for in the Company's preferred portfolio. For instance, the Plan could examine how lower load growth affects resource acquisition or risk-to-market exposure.

In Chapter 8, the portfolio selection results only include 5 MW of combined heat and power (CHP) biomass generations per year over the 20 year planning horizon, for a total of 104 MW. For the cost estimates of CHP, the Company relied on the Cadmus report completed in 2010. This estimate may be low because conditions assumed in the Cadmus report that drive the cost of CHP may change. The Company also states that it excluded state specific tax benefits from generation assets. Over the next two years, we encourage the Company to compare the assumptions that created the CHP cost estimates to conditions in the market to determine if more CHP generation may be available than projected by the portfolio selection model that used the 2010 cost assumptions.

In addition, we encourage the Company to explore in its next Plan the addition of an energy storage option in the Western Control Area. In general, since energy storage can provide benefits both on the generation and distribution sides, it could provide some benefits in mitigating some of the variability in wind and other renewable generation resources as they are integrated into the Company's distribution system. We note that the Company plans to proceed with an energy storage demonstration project in Utah as a demand-side resource in its Action Plan, and we encourage the Company to consider a similar option on the West Control Area as well.

The Company models upgrades to specific coal facilities to determine if an individual upgrade is cost-effective. The next IRP should examine on the basis of the coal plant life cycle the risk of stranded upgrade costs if the cost of the operation of the plant warrants an accelerated shutdown due to projected regulations from the federal EPA on coal-fired generation or other causes. While we do not wish to opine on the likelihood of such EPA regulations at this time, we believe such analysis of the costs of such upgrades is consistent with some of the trigger events outlined in its resource acquisition path in Chapter 9.

Through 2030, the Plan identifies Class Two demand-side management (DSM) energy efficiency as the single largest resource type to acquire, on an average capacity basis. We consider this encouraging. IRP plans should consider publicly available analysis and guide the Company in fulfilling its regulatory obligations. We encourage the Company to detail any differences in its DSM analysis method and the conservation methods of the Northwest Power and Conservation Counsel.

We appreciate the analysis the Company has undertaken in Chapter 9 using trigger events to inform the planning scenarios, and different possible outcomes, in both the near-term and the longer-term as it plans the acquisition of new resources. One of the fundamental purposes of the IRP is to describe possible future scenarios based on a range of assumptions and uncertainties in

areas such as natural gas and other fuel prices, potential changes in environmental regulations, and higher or lower load forecasts. The use of trigger events is a useful mechanism in describing such variables and uncertainties, and how they might affect the resource acquisition path of the Company. We encourage the Company to monitor closely these variables as it develops the next Plan, and update the trigger events in a dynamic way.

### **Conclusion**

The Commission acknowledges that PacifiCorp's 2011 Integrated Resource Plan complies with WAC 480-100-238.