

ORDER NO. 99-279

ENTERED APR 16 1999

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

LC 22

In the Matter of the Investigation into Least- )  
Cost Planning for Resource Acquisitions by ) ORDER  
PACIFICORP. )

**DISPOSITION: LEAST-COST PLAN ACKNOWLEDGED**

On December 17, 1997, PacifiCorp, dba Pacific Power & Light Company (Pacific or the company) filed its fifth least-cost plan entitled Resource and Market Planning Program (RAMPP-5). This filing is in accordance with Public Utility Commission of Oregon (Commission) Order No. 89-507 that directed all energy utilities to prepare least-cost plans every two years.

Order No. 89-507 requires regulated utilities to involve the public in the planning process. Pacific held six public advisory group meetings to help formulate its program. The RAMPP-5 Advisory Group (RAG) consisted of 17 public and private groups. The RAG participants, who suggested changes or additions to input assumptions and submitted comments on the draft report, are listed on pages 31 and 32 of the report.

At the request of Commission Staff, Pacific filed a two-page supplement to RAMPP-5 on August 7, 1998, describing the status of the company's hydro relicensing efforts in the State of Oregon for the North Umpqua, Powerdale, and Klamath projects. At the March 16, 1999, Public Meeting, the Commission adopted the Staff recommendation to acknowledge RAMPP-5.

**PROVISIONS OF THE PLAN**

**Pacific's Least-Cost Plan**

The RAMPP-5 documents describe the assumptions, strategies and principles that Pacific evaluated in determining its most prudent course of action to provide electrical energy to the public over the next 20 years. While the RAMPP-5 analysis uses a 20-year planning horizon with an additional 20 years to account for end effects, the focus is on the next 10 years. The plan analyzed 31 different cases and

8 sweeps involving approximately 100 sensitivities. Each sweep included up to 16 sensitivities, whereby the company varied one factor in small increments to better understand how variation in that factor can affect planning issues. The sweeps included sensitivities of natural gas prices and wholesale electric market prices, load change, environmental adders, and several other issues.

The base case assumptions include annual load growth of 2.05 percent growth in winter peak demand, 2.29 percent growth in energy, and 2.27 percent growth in summer peak demand from 1998 until 2002. Pacific has explained that this is higher load growth than projected in the RAMPP-4 Update due to load growth in Utah. Pacific has included an assumption of a 10 percent loss of retail load to competition between 1998 and 2002. This assumption, according to Pacific, is partly a result of the California and Montana systems being deregulated and offered for sale. After adjusting for this loss, the retail load growth becomes 0.14 percent growth in winter peak demand, 0.37 percent growth in energy, and 0.36 percent growth in summer peak demand between 1998 and 2002. Pacific has also balanced the long-term wholesale sales and purchases by 2002 by adding short-term purchases. The short-term purchases could be used to serve any renewed long-term contracts. Without the extended or renewed long-term contracts, the reserve margin increases to 26.8 percent by 2002.

An assumption that gas prices increase in real terms at an annual rate of 2.5 percent until 2006 and 1 percent after that is included. In addition, various sensitivities were performed, including:

- The company tested a no DSM strategy and found that it would increase the 40-year total resource cost by 3.1 percent. The base case assumed a 15 percent reduction in DSM costs.
- Three cases evaluated the impact of an environmental adder of \$10/ton CO<sub>2</sub>, \$25/ton CO<sub>2</sub>, and \$40/ton CO<sub>2</sub>.
- Three cases evaluated the combined effect of varying environmental adders for CO<sub>2</sub>, NO<sub>x</sub>, and TSP (total suspended particulates).
- Ten cases examined the impact of different price increases for natural gas.
- Nine cases were used to investigate the impacts of customer load variations.
- Two cases were used to evaluate a 10 percent increase and a 10 percent decrease in transmission capacity.
- Individual cases were devoted to the evaluation of a 25% reduction in hydro utilization, wholesale short-term market prices constant at 1997 levels, lower gas resource availability, and a solar energy price curve.

The results from the sensitivities run in RAMPP-5 were consistent with results from sensitivities run in RAMPP-3 and RAMPP-4. The continuing conclusions are as follows:

- The least-cost supply-side resource choice continues to be gas-fired plants (It was coal-fired in RAMPP-3 and gas-fired in RAMPP-4 and in the RAMPP-4 Update.);
- Modest amounts of DSM are cost effective relative to plant operating costs and market prices;
- Renewables are not cost effective compared to gas-fired resources;
- Expanding transmission capacity is not a cost-effective choice at this time;
- Load growth does not lead to higher prices for customers;
- Higher natural gas prices do not lead to higher prices for retail customers as long as wholesale electricity prices increase along with the natural gas prices. The revenue from continued wholesale sales at the higher prices offsets the increased cost of natural gas;
- Environmental adders would result in significantly higher prices for customers (real levelized customer prices would be 30 percent higher at a \$40/ton adder for CO<sub>2</sub>). In the extreme case (\$40/ton CO<sub>2</sub>, \$4,000/ton NO<sub>x</sub>, and \$5,000/ton TSP), 600 MW of geothermal and 63 MW of wind generation are added between 2000 and 2002. In this extreme case, the reserve margin increases to 56.7 percent by 2002 as coal-fired generation is placed on standby and cleaner generation and increased DSM are installed.

The most important conclusion in the RAMPP-5 report is that Pacific does not need to make any resource decisions other than DSM to serve retail load for 4 years or more. Near-term resource actions to serve retail load are confined to DSM and off-system purchases. Pacific has assumed that expiring wholesale contracts are served by someone else for this study. As such, the Pacific long-term wholesale load is shown as decreasing from 2,593 MW in 1998 to 1,845 MW in 2002 for the summer peak in the RAMPP-5 base case. However, Pacific has included the short-term purchases necessary to serve the long-term sales in the RAMPP-5 base case. Without the extension of the long-term sales contracts, the reserve margin increases to 26.8 percent in 2002. Pacific has determined that purchased power will be available based on WSCC information that indicates the region's reserve margin will not get as low as 15 percent until around 2004-2006.

The RAMPP-5 load forecast is higher than the RAMPP-4 Update forecast. The adjustment to account for the projected loss of load, including the California and Montana loads, results in a loss of 10 percent of the total Pacific load. The overall result is a lower forecasted retail load responsibility for Pacific after 2000.

The specifics of the RAMPP-5 Action Plan for the next two years are outlined below:

- DSM -- Achieve 9 - 13.5 MWa of installed cost-effective savings in 1998 and an additional 9 - 13.5 MWa of installed cost-effective savings in 1999.
- DSM -- Continue to support and work with other parties in the development of public funding mechanisms and alternative implementation strategies for DSM and renewable resources.
- Existing System -- Continue to make cost-effective improvements to the existing generation, transmission, and distribution systems.
- Other Opportunities -- Pursue cost-effective resource acquisition opportunities that meet the future needs of the company. (These resources could initially be used to serve extended wholesale contracts if there are any.)

### **Comments of Parties**

In a letter dated March 4, 1998, Staff requested comments from the parties on the RAMPP-5 report. No one submitted comments.

## **OPINION**

### **Jurisdiction**

Pacific is a public utility in Oregon, as defined by ORS 757.005, that provides electric service to the public.

On April 20, 1989, pursuant to its authority under ORS 756.515, the Commission issued Order No. 89-507 in Docket UM 180 adopting least-cost planning for all energy utilities in Oregon.

### **Requirements for Least-Cost Planning Under Order 89-507**

Order No. 89-507 established procedural and substantive requirements for least-cost planning and provides for the Commission's acknowledgment of plans that meet the requirements of the order.

*Procedural Requirements.* The least-cost planning process requires involvement of the Commission and the public prior to making resource decisions, rather than involving them after the fact. (Order No. 89-507 at 3.)

During the planning process, Pacific held six all-day meetings with its technical advisory group consisting of representatives from public agencies and private groups. Seventeen parties participated in the review process. Pacific also distributed a draft of its report for comment before submitting its final plan to the Commission.

*Substantive Requirements.* The substantive requirements were also set forth in the order as follows:

1. All resources must be evaluated on a consistent and comparable basis.
2. Uncertainty must be considered.
3. The primary goal must be least cost to the utility and its ratepayers consistent with the long-run public interest.
4. The plan must be consistent with the energy policy of the state of Oregon as expressed in ORS 469.010.

(Order No. 89-507 at 7.)

*Evaluating Resources on a Consistent and Comparable Basis.* Pacific used the same interest rate to discount all resource costs over the entire study horizon to a base year. In this respect, Pacific considered supply-side and demand-side resources on a comparable and consistent basis. DSM activity is continued because some DSM appears to be cost effective and because ramp-up constraints required beginning programs now to have a sufficient amount of DSM in place when needed.

*Uncertainty.* The company's plan adequately evaluates the effects of uncertainty by testing 31 possible futures based on varying assumptions. Pacific formulated an action plan representative of the most likely future conditions. The company focused on the first 10 years of the 20-year planning horizon with end effects measured for an additional 20 years.

*Primary Goal Must be Least-Cost.* The model used by Pacific minimizes the present value of incremental resource costs. The results are then used by the company's financial model to calculate total resource cost (incremental plus fixed) and its average levelized mills/kWh, and total utility cost and its average levelized mills/kWh. The model uses a 20-year planning horizon but includes an additional 20 years to recognize the financial benefits of investments made in the last few years of the planning period.

*Consistency with the Energy Policy of the State of Oregon.* Oregon's overall energy policy is stated in ORS 469.010. The policy largely relates to the development of sustainable energy resources. DSM targets for 1998 and 1999 will result in energy savings. The plan also commits the company to cost-effective improvements in

the existing system that will enhance generation efficiency. Pacific is also completing its Foote Creek, Wyoming, wind project.

### **EFFECT OF THE PLAN ON FUTURE RATEMAKING ACTIONS**

Order No. 89-507 sets forth the Commission's role in reviewing and acknowledging a utility's least-cost plan:

The establishment of least-cost planning in Oregon is not intended to alter the basic roles of the Commission and the utility in the regulatory process. The Commission does not intend to usurp the role of utility decision-maker. Utility management will retain full responsibility for making decisions and for accepting the consequences of the decisions. Thus, the utilities will retain their autonomy while having the benefit of the information and opinion contributed by the public and the Commission.

Plans submitted by utilities will be reviewed by the Commission for adherence to the principles enunciated in this order and any supplemental orders. If further work on a plan is needed, the Commission will return it to the utility with comments. This process should eventually lead to acknowledgment of the plan.

Acknowledgment of a plan means only that the plan seems reasonable to the Commission at the time the acknowledgment is given. As is noted elsewhere in this order, favorable rate-making treatment is not guaranteed by acknowledgment of a plan.

(Order No. 89-507 at 6 and 11.)

This order does not constitute a determination on the ratemaking treatment of any resource acquisition or other expenditures undertaken pursuant to Pacific's RAMPP-5 report. As a legal matter, the Commission must reserve judgment on all ratemaking issues. Notwithstanding these legal requirements, we consider the least-cost planning process to complement the ratemaking process. In ratemaking proceedings in which the reasonableness of resource acquisitions is considered, the Commission will give considerable weight to utility actions which are consistent with acknowledged least-cost plans. Utilities will be expected to explain actions they take which are inconsistent with acknowledged least-cost plans or which the Commission has not acknowledged. Utilities will also be expected to pursue unanticipated least-cost opportunities beneficial to ratepayers which arise after Commission acknowledgment or, alternatively, explain why such opportunities were not pursued.

CONCLUSIONS

- 1. Pacific is a public utility subject to the jurisdiction of the Commission.
- 2. Pacific's RAMPP-5 report and Action Plan reasonably adhere to the principles of least-cost planning set forth in Order No. 89-507, and should be acknowledged.

ORDER

IT IS ORDERED that the fifth Resource and Market Planning Program report (RAMPP-5) and accompanying Action Plan dated December 1997, filed by PacifiCorp, is acknowledged.

Made, entered, and effective APR 16 1999

*Ron Eachus*

**Ron Eachus**  
Chairman

*Roger Hamilton*

**Roger Hamilton**  
Commissioner



*Joan H. Smith*

**Joan H. Smith**  
Commissioner

A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements of OAR 860-014-0095. A copy of any such request must also be served on each party to the proceeding as provided by OAR 860-013-0070. A party may appeal this order to a court pursuant to ORS 756.580.