

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

LC 32

In the Matter of )  
 )  
IDAHO POWER COMPANY ) ORDER  
 )  
2002 Integrated Resource Plan. )

**DISPOSITION: PLAN ACKNOWLEDGED**

Idaho Power Company (IPCo) filed its 2002 Integrated Resource Plan (IRP or plan) on June 28, 2002. The plan is intended to meet the requirements of both the Public Utility Commission of Oregon (OPUC) Order No. 89-507 and the Idaho Public Utilities Commission (IPUC) Order No. 22299.<sup>1</sup>

In developing its 2002 IRP, IPCo held public meetings throughout its Oregon and Idaho service territory during the week of October 15, 2001. At these meetings IPCo discussed IRP planning issues, including water planning criteria for hydroelectric generation. In addition to soliciting comments at the public meetings, on October 24, 2001, IPCo sent a letter to interested parties requesting written comments.

Taking into consideration party comments, IPCo issued a draft IRP in May 2002. Following release of the draft IRP, a second set of public meetings was held and written comments were again solicited.

The final IRP was filed with the OPUC on June 28, 2002. In general, the IRP discusses the Company's decision to modify basic assumptions regarding water conditions and load forecast, estimates load growth, describes existing and planned resources, identifies and describes system transmission constraints, provides an overview of future resource options, and establishes that existing resources will be insufficient to meet expected peak energy requirements as early as 2003. The plan evaluates four resource acquisition strategies

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<sup>1</sup> The Oregon Order refers to Least Cost Planning, while the Idaho Order refers to Integrated Resource Planning. The terms are interchangeable.

and, based on evaluation results, establishes an Action Plan to meet expected peak and energy deficiencies.

The plan was docketed as LC 32. At the August 21, 2002, LC 32 prehearing conference the Administrative Law Judge (ALJ) adopted a schedule under which Staff's draft order would go to hearing or a public meeting in December 2002. On November 8, 2002, IPCo moved for a change in schedule. The Company indicated that several events, most importantly the loss of the Garnet Power Purchase Agreement (PPA), made it likely that the IPUC would not acknowledge the 2002 IRP until after January 1, 2003. Therefore, IPCo requested that the OPUC suspend the LC 32 schedule. The ALJ granted IPCo's request with the understanding that upon IPUC acknowledgement of the IRP, the Company would request a second LC 32 prehearing conference to schedule remaining events.<sup>2</sup>

In regard to the Garnet PPA, at the time IPCo filed its IRP, it assumed that beginning in June 2005 it would receive energy and capacity from the planned 273 MW Garnet Energy CCCT. This facility was to be located in Middleton, Idaho. During the fall of 2002 it became clear that, due to financing constraints, Garnet could not perform under the terms and conditions of the PPA. Therefore, the IPUC ordered IPCo to prepare a supplemental IRP report outlining potential alternatives to replace the energy and capacity that would have been received through the Garnet PPA. This supplemental IRP report (Garnet Report) was filed with the OPUC on November 25, 2002.<sup>3</sup> The report's general conclusions will be discussed in a later section of this Order.

IPCo filed a Request for a Second Prehearing Conference on March 6, 2003. The second prehearing conference was held on March 27, 2003, and the ALJ adopted a schedule under which Staff's draft order would be considered at hearing or the Commission's public meeting on June 3, 2003. Staff presented its analysis of IPCo's IRP to the Commission at the public meeting of June 3, 2003. Staff recommended that the Commission acknowledge the Plan, with specified ongoing reporting requirements. The Commission adopted Staff's recommendation.

### **OVERVIEW OF IPCo's INTEGRATED RESOURCE PLAN**

IPCo's filing consists of its 2002 Integrated Resource Plan and the following supporting materials: (1) Technical Appendix; (2) 2002 State and County Economic Forecast; and (3) Sales and Load Growth Forecast. In addition, the Company provided a copy of its 2002 Conservation Plan.

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<sup>2</sup> On February 11, 2003, the IPUC acknowledged IPCo's 2002 IRP (*see* Order No. 29189).

<sup>3</sup> The LC 32 ALJ issued a standard protective order covering confidential business information that is contained in the Garnet Report (*see* Order No. 02-803, issued November 14, 2002).

IPCo has assumed that during the 2002 IRP's planning horizon (2002 through 2011) the Company will continue to be responsible for acquiring sufficient resources to serve all customers in its Idaho and Oregon service territories. The Company has also assumed that it will continue to operate as a vertically integrated electric utility. The IRP states IPCo's intent that neither the Company nor its customers should be harmed by resource decisions made in accordance with the plan. Given this, the 2002 IRP has two prime goals:

1. To maintain IPCo's ability to serve the increasing demand for electricity within its service territory.
2. To ensure that any resource acquired to serve the Company's service territory loads will be cost effective and low risk.

### **Load/Resource Balance**

*IRP Planning Criterion:* The energy crisis of 2001 was difficult for the Pacific Northwest region, including IPCo and its 400,000 customers. Reduced hydro generation due to poor water conditions and the unprecedented rise in wholesale market prices resulted in a huge increase in IPCo's cost of power. The Company's Idaho customers saw significant rate increases as the true up balances in the annual Power Cost Adjustment soared.<sup>4</sup> Given this recent experience, in the feedback from the mentioned IRP public meetings and filed written comments, a majority of respondents suggested that, as a means to avoid spot market price risk, IPCo should move from its traditional median water planning criterion to a more conservative water planning criterion.

Considering this customer feedback, IPCo determined that its 2002 IRP would emphasize a seventieth percentile planning criterion for assumed levels of stream flow. Under this criterion, hydro generation is based on stream flows that occur in seven out of 10 years on average. Therefore, compared to the median water criterion, the Company's exposure to short term market risk will be reduced. The tradeoff is that additional resources may need to be acquired.

IPCo has also determined that it will emphasize seventieth percentile load conditions in its 2002 IRP. This IRP planning assumption is based on the recognition that IPCo customer loads are highly dependent upon weather. The seventieth percentile load assumes a level of monthly loads that are not likely to be exceeded 70 percent of the time. This IRP planning assumption assists in identifying resource requirements that would result from higher loads due to adverse weather conditions.

*Load Forecast:* The basecase IRP load forecast assumes median weather (*i.e.*, fiftieth percentile load, meaning there is a 50 percent chance loads will be higher or lower

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<sup>4</sup> The Company's 17,000 Oregon customers saw less of a rate impact, as state law limited the rate increase to 6 percent.

than forecast). Median load in 2002 is 1714 aMW. IPCo's system load is growing at about 30 to 50 MW per year with a median load for 2011 forecast at 2097 aMW. To address weather uncertainty, the IRP also considered seventieth and ninetieth percentile load forecasts.

*Generation Resources:* To serve system load, the Company owns a combination of hydroelectric and thermal generation facilities. Under median water conditions, IPCo's hydroelectric generating plants provide approximately 54 percent of the total system energy output and are a primary source of load following capability.

IPCo operates 17 hydroelectric generating plants located on the Snake River and its tributaries. Under median water conditions, these facilities annually produce approximately 1,071 average megawatts of electricity. Nearly 70 percent of this hydroelectric generation is provided by the T.E. Roach complex, which consists of Brownlee, Oxbow, and Hells Canyon dams.

The majority of the Company's hydroelectric facilities, including the T.E. Roach complex, are currently seeking renewal of their Federal Energy Regulatory Commission (FERC) operating licenses. FERC operating licenses are issued for terms of 30 to 50 years. The license renewal process is very complex and requires a minimum of five years to complete. The Company expects the hydro relicensing process to continue through most of the IRP's 10 year planning horizon.

Under federal law, new hydro licenses are required to include measures for environmental protection, mitigation, and enhancement. These measures will influence the relicensed hydro plant's operations and costs. The Company states that its goal in relicensing is to maintain a low cost hydroelectric generation system while implementing measures designed to protect and enhance the river environment. The hydro relicensing process will place upward pressure on IPCo's current low rates. At this time, the extent of the negative rate impact is uncertain.

In regard to thermal resources, IPCo has ownership shares in the Bridger, Valmy, and Boardman coal fired plants. These facilities provide approximately 905 average megawatts of annual generation. The Company also operates the 90 MW Evander Andrews CT plant, located northwest of Mountain Home. This facility is operated as needed to support system load or in response to favorable market conditions. Lastly, the Company purchases 93 average megawatts of energy from 65 PURPA QF facilities.

*Transmission Constraints:* IPCo's transmission connections with regional utilities provide paths over which off system sales and purchases are made. The 2002 IRP indicates that transmission constraints have begun to limit the Company's options for purchasing power supplies to meet system needs. On the westside, constraints on the Brownlee East path limit the import of energy purchases from the Pacific Northwest.

Under the seventieth percentile load condition, the transmission deficiency is expected to be 180 MW in July of 2004.

The Borah West path, located in eastern Idaho, is fully utilized by existing term obligations. Therefore, acquiring additional power from new resources or purchases east of Borah West will require construction of new transmission facilities. IPCo is studying the potential for upgrading the Borah West path, but with cost estimates of up to \$700,000 per mile, the economics are uncertain.

*Planned Resources:* To partially address westside transmission constraints, IPCo is constructing a new 230kV transmission line along the Idaho Oregon Border. This Brownlee Oxbow Transmission Project will expand IPCo's ability to import power from the Northwest by approximately 100 MW. The project is expected to be completed by 2005.

As part of its 2000 IRP process, IPCo issued an RFP soliciting 250 MW of generation to meet system deficits beginning in 2004. The winning bidder was Garnet Energy LLC (a subsidiary of IdaCorp). The planned Garnet facility was a 273 MW CCCT plant to be located in Middleton, Idaho. IPCo entered an agreement with Garnet to purchase up to 250 MW of capacity and energy during summer and winter peak periods.

As mentioned, IPCo's 2002 IRP assumed that energy and capacity from the Garnet PPA would be available beginning June 2005. In late summer 2002, however, Garnet indicated to IPCo that it was having difficulty obtaining construction financing. In response to the impending loss of the Garnet PPA, the IPUC ordered IPCo to prepare a supplemental IRP report outlining potential alternatives to replace the energy and capacity.

The general results and conclusions of the Garnet Report will be discussed in a later section of this Order. Note that the System Balance section which follows discusses IRP results that were developed prior to the cancellation of the Garnet PPA. The loss of the Garnet energy and capacity adds to the projected deficits.

*System Balance:* The IRP's basecase (fiftieth percentile load and water conditions) scenario predicts that IPCo's service territory load will increase from 1,714 average megawatts in 2002 to 2,097 average megawatts in 2011. Scenario results indicate that system peak load deficiencies will occur beginning the summer of 2003. Winter peak deficits begin in 2004. Winter energy deficits begin in December 2006 and summer energy deficits begin in July 2008. These deficiencies increase throughout the planning horizon.

When below normal water and higher than expected load conditions are assumed (seventieth percentile), winter energy deficiencies occur in 2003 and summer energy deficiencies start in 2004. Summer and winter peak deficits begin in 2003 and increase to 610 MW and 314 MW in July and November 2011, respectively. Under the ninetieth percentile water assumption, the pattern is similar but the deficits are 40 to 60 MW greater.

*Resource Options:* Resource options identified in the IRP for meeting future system load requirements include market purchases, generation resources, transmission resources, targeted demand side management, and targeted conservation and pricing options.

### **Resource Strategies**

Four strategies for meeting forecast loads at the lowest expected cost were chosen for IRP final analysis and review:

1. A long term limited quantity market purchase strategy;
2. A combination of long term market purchases and a 64 MW upgrade of the existing Shoshone Falls hydro plant;
3. A combination of short term market purchases, the addition of a 200 MW peaking resource, and a 64 MW upgrade of the existing Shoshone Falls hydro plant;
4. A combination of long term limited quantity market purchases, the addition of a 100 MW peaking resource, and a 64 MW upgrade of the existing Shoshone Falls hydro plant.

Considering customer input that IPCo should reduce its reliance on market purchases, price risk, system reliability and other factors, the IRP analysis determined that Strategy 4 represented the best combination of expected costs and variance of costs (i.e., risk).

### **The Two Year Action Plan**

From the results of its IRP analysis, the Company proposed a two year action plan that consists of the following specific items:

1. Make seasonal market purchases of 100 aMW in the months of June, July, November, and December throughout the 10 year planning period;
2. Integrate economically feasible demand side measures to help address short duration periods of peak system load;
3. Solicit proposals and initiate the siting and permitting of approximately 100 MW of a utility owned and operated peaking resource to be available in 2005;

4. Under the Garnet Power Purchase Agreement, purchase up to 250 MW of capacity and associated energy for use during the periods of peak need beginning June 1, 2005 (as discussed, this option is no longer viable);
5. To increase the import capabilities from the Pacific Northwest, proceed with the Brownlee to Oxbow transmission line project. The project will add 100 MW of transmission capacity and is expected to be in service by 2005;
6. Proceed with the Shoshone Falls hydro project upgrade. The upgrade will increase generating capacity from 12.5 MW to 64 MW and is expected to be complete in 2007.

Additionally, IPCo notes that to support the needs of customers desiring green energy, the Company has identified two near term actions:

1. IPCo anticipates participating in several educational and demonstration energy projects with a focus on green energy;
2. The Company intends to dedicate up to \$50,000 to explore the feasibility of constructing a pilot anaerobic digester project located within IPCo's service territory.

Lastly, since the June 28, 2002, filing of its IRP, the Company, with a funding method approved by the IPUC, has established an Energy Efficiency Advisory Group (EEAG) to evaluate demand reduction and energy conservation programs. Energy efficiency improvements and/or load shaping opportunities that the EEAG identifies will be evaluated and, where economically viable, implemented. In the near term, programs to reduce summer peak demand from air conditioning and irrigation loads are a priority concern.

### **Garnet Report**

As mentioned, the Garnet Report identifies potential alternatives to replace the energy and capacity that would have been received through the Garnet PPA. This supplemental IRP report was filed with the OPUC on November 25, 2002. The portion of the report that identifies and analyzes options the Company is actively pursuing is confidential (*see* Order No. 02-803).

In the report, IPCo states it has investigated a number of potential alternatives to replace the Garnet PPA. The alternatives include acquiring firm transmission rights and firm wholesale purchases, energy exchanges, adding or acquiring the output of generation resources located within the Company's service territory, and integration of demand side measures where cost effective.

IPCo contends that it will be able to replace the seasonal energy and capacity purchases specified in the Garnet PPA with a combination of resources. These include intermediate term wholesale purchase contracts and energy exchange contracts. The Company believes these are the lowest cost options at this time.

Given today's market and environment, IPCo indicates that building generation resources is not the least cost option. Nevertheless, given its system transmission constraints, IPCo contends that the need for additional generation and construction of new transmission lines is inevitable.

In the near term, the Company states it will attempt to acquire available firm transmission rights and negotiate firm exchange and wholesale power purchase agreements. IPCo contends it is optimistic it can obtain sufficient Garnet replacement capacity and energy at prices that are equal to or less than the prices in the Garnet PPA.

If these purchases can be secured at expected price levels, then IPCo believes it can defer new generation and transmission facilities for a period of time. If, however, energy exchanges and wholesale purchases cannot be secured at favorable prices in the near term, the Company contends it will need to immediately pursue acquisition and development of additional internal generation.

## PARTY COMMENTS

### Commission Staff

On October 24, 2001, IPCo sent a letter to interested parties requesting written comments regarding the planning criteria for the Company's forthcoming 2002 Integrated Resource Plan (IRP). The letter indicated that historically, IPCo's planning process had assumed median water conditions. In recent years, however, poor water conditions, combined with a volatile wholesale electric marketplace, have negatively impacted IPCo's financial situation. To reduce its future financial exposure, IPCo, as part of its 2002 IRP, stated that it was considering adopting a more conservative planning criteria.

In a November 2, 2001, reply letter, OPUC Staff stated that it supports the concept of IPCo's 2002 IRP evaluating the Company's load/resource balance under a range of precipitation assumptions that move incrementally toward critical water conditions. Staff offered several observations regarding what factors the IRP planning analysis should consider. Further, Staff indicated that in any movement to a more conservative planning criteria than median water conditions, maintenance of system reliability should be a more significant concern than minimization of rate variance.



In preparation of its final 2002 IRP, the Company provided Staff with a draft IRP on May 28, 2002. Staff reviewed the draft plan and provided written comments to IPCo on June 14, 2002. In its comments, Staff supported IPCo's decision to emphasize the seventieth percentile water conditions and seventieth percentile load conditions for resource planning. Staff also requested an expanded discussion of the Company's efforts to employ cost effective distributed generation resources. Lastly, Staff asked to be informed of the status of IPUC action on the Company's proposed conservation rider for its Idaho service territory.

On September 27, 2002, Staff provided written comments on the final IRP. Staff stated its key concern was the potential unavailability of the Garnet generation and the additional peak load deficits that the loss of the Garnet PPA would create for the years 2005 and beyond. Staff indicated that its understanding was that the forthcoming Garnet Report would identify resource options to replace the Garnet loss. Staff stated it would review the Garnet Report and then, in discussion with IPCo, make a recommendation on the best way to proceed with the LC 32 docket. As discussed, the parties decided to request that the LC 32 proceeding be suspended until the IPUC accepted and acknowledged the 2002 IRP.

At the Commission's June 3, 2003, public meeting, Staff recommended the acknowledgment of IPCo's 2002 IRP and the supplemental Garnet Report, with the following reporting requirements:

1. The Company should make periodic reports to OPUC Staff regarding the status of its efforts to acquire Garnet PPA replacement power.
2. The Company should keep OPUC Staff updated on an ongoing basis of its efforts to integrate demand side measures, including distributed resources, as a means to partially address load requirements during periods of peak system demand.

#### **Public Comment**

No written comments were received from the public.

#### **OPINION**

#### **Jurisdiction**

IPCo is a public utility in Oregon, as defined by ORS 757.005, which provides electric service to or for 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 No. 89-507**

Order No. 89-507 establishes 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:* At a minimum, the least cost planning process must involve the Commission and public prior to making resource decisions rather than after the fact. See Order No. 89-507 at 3.

*Substantive Requirements:* The substantive requirements were set forth in Order No. 89-507 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.

Based on its review, Staff determined that IPCo's 2002 IRP adheres to the Commission's least cost planning principles. The plan examined the Company's future resource needs, investigated resource options, and, recognizing industry and market uncertainty, developed a strategy to meet expected system peak and energy deficiencies in a manner that balances costs and risks.

### **Commission Findings**

Staff recommends acknowledgment of IPCo's 2002 IRP, with reporting requirements. The requirements are that the Company make periodic reports regarding its efforts to: (1) obtain Garnet PPA replacement power; and (2) to implement economically viable demand side measures. We understand that IPCo concurs with the Staff's reporting requirements. The Commission agrees that IPCo should report on an ongoing basis to the OPUC regarding the status of its efforts to acquire resources, including demand side resources, to meet expected energy and capacity deficiencies. We expect that IPCo's 2004 IRP will detail its accomplishments in this area. We further expect that the 2004 IRP will

evaluate future supply side and demand side resource alternatives on a consistent and comparable basis.

### **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, as follows:

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 ratemaking 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 acquisitions or other expenditures undertaken pursuant to IPCo's 2002 IRP. 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 also be expected to explain actions they take which may be inconsistent with Commission acknowledged plans.

### **Conclusion**

IPCo's 2002 IRP is acknowledged with the recommendations adopted in this Order. The plan meets both the procedural and substantive requirements of Order No. 89-507. Achievement of the objectives in the Company's Two Year Action Plan, including the actions

discussed in the Garnet Report, will contribute meaningfully toward the development of future integrated least cost planning efforts and acquisition of least cost resources.

**ORDER**

IT IS ORDERED that the 2002 Integrated Resource Plan filed by Idaho Power Company on June 28, 2002, and the supplemental Garnet Report filed on November 25, 2002, are acknowledged in accordance with the terms of this order and Order No. 89-507.

Made, entered and effective JUL 03 2003

BY THE COMMISSION:



Becky L. Beier  
**Becky L. Beier**  
Commission Secretary

A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A party may appeal this order to a court pursuant to ORS 756.580.