

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

LC 53

In the Matter of

IDAHO POWER COMPANY

2011 Integrated Resource Plan.

ORDER

DISPOSITION: INTEGRATED RESOURCE PLAN ACKNOWLEDGED WITH  
CONDITIONS AND EXCEPTIONS

**I. INTRODUCTION**

Idaho Power Company (Idaho Power) seeks acknowledgment of its 2011 Integrated Resource Plan (IRP). The Company submitted the IRP to meet the requirement that all regulated energy utilities operating in Oregon engage in integrated resource planning.<sup>1</sup> We acknowledge the company's 2011 IRP with conditions and exceptions.

**II. BACKGROUND**

We require each regulated energy utility to prepare and file an IRP within two years after acknowledgment of a utility's last IRP. Substantively, we require that energy utilities: (1) evaluate resources on a consistent and comparable basis; (2) consider risk and uncertainty; (3) make the primary goal of the process selecting a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers; and (4) create an action plan that is consistent with the long-run public interest as expressed in Oregon and federal energy policies.<sup>2</sup>

We acknowledge a utility's IRP to the extent the plan satisfies our procedural and substantive requirements, and the plan is deemed reasonable at the time of acknowledgment. Acknowledgment does not constitute a determination of the prudence of any resource acquisitions or other expenditures made by the utility pursuant to the plan. As a legal matter, we must reserve judgment on all rate-making issues.<sup>3</sup> Nonetheless, we consider the integrated resource planning process to complement the rate-making process. In rate-making proceedings in which the reasonableness of resource acquisitions is considered, the Commission will give considerable weight to utility actions which are consistent with acknowledged IRP action plans. Utilities will also be

<sup>1</sup> See Order Nos. 89-507, 07-002, and 07-047.

<sup>2</sup> See Order No. 07-002.

<sup>3</sup> See Order No. 07-002 at 24.

expected to explain actions they take which may be inconsistent with Commission-acknowledged plans.

### III. PROCEDURAL HISTORY

Idaho Power filed its 2011 IRP on June 30, 2011. A prehearing conference was held July 29, 2011, and the schedule adopted. Petitions to intervene were granted on behalf of Renewable Northwest Project (RNP), Portland General Electric Company (PGE), the Oregon Department of Energy (ODOE), Move Idaho Power, and Stop Idaho Power. The Citizens' Utility Board of Oregon (CUB) intervened by right.

On September 20, 2011, Idaho Power presented its IRP to the Commission at a public meeting. A technical workshop was held for parties on September 20, 2011. Staff and intervenor initial comments were filed October 18, 2011. Company reply comments were filed November 8, 2011. Staff's final comments and a proposed order were filed December 6, 2011. Company and intervenor comments in reply to Staff's final comments were filed January 3, 2012. Staff's report and its final proposed order were filed on January 24, 2012. This matter was taken up for Commission action at a public meeting on February 14, 2012.

### IV. DISCUSSION

#### A. 2011 IRP Overview

Its 2011 IRP is Idaho Power's tenth resource plan filed to meet the requirements and guidelines established by this Commission and the Idaho Public Utilities Commission. In its filing Idaho Power assumed that, during the planning period (2011 through 2030), it will continue to be responsible for acquiring resources sufficient to serve all of its retail customers in its Oregon and Idaho service areas as a vertically integrated company. In developing its plan, Idaho Power worked with its IRP Advisory Council, which is comprised of major stakeholders representing the environmental community, major industrial customers, irrigation customers, state legislators, public utility commission representatives, and others. Following the filing of its final plan, Idaho Power presented the IRP at public meetings in various cities within its service area.

Idaho Power expects the number of customers in its service area to increase from about 492,000 in 2010 to over 650,000 by 2030. The IRP expected-case load forecast projects peak-hour load will grow 69 megawatts (MW) annually (1.8 percent), and average-system load will increase annually 29 average megawatts (aMW) (1.4 percent) over the 20-year term. In 2011, Idaho Power's demand response programs are expected to reduce peak-hour load by 330 MW. Two resources identified in the 2009 IRP are considered committed resources in the 2011 IRP: (1) the 300 MW Langley Gulch combined cycle combustion turbine that is expected to be available in the summer of 2012; and (2) a 49 MW upgrade of the Shoshone Falls Hydroelectric Project in 2015.

Idaho Power divided its 20-year planning period into two 10-year segments. In the first 10-year period, the company examined nine resource portfolios. Each portfolio was designed to substantially meet the energy and capacity deficits identified in the resource balance. For the second 10-year period, Idaho Power analyzed the preferred resource portfolio from the initial 10-year period coupled with each of the 10 portfolios considered for the second period.

In addition to those committed resources (Langley Gulch and the Shoshone Falls upgrade), the preferred resource portfolio includes 450 MW of market purchases beginning in 2016, with the completion of the Boardman to Hemingway transmission line. The total west-to-east transfer capacity reserved on Boardman to Hemingway by Idaho Power is expected to be 450 MW. For the second 10-year period the preferred portfolio adds a mixture of renewable resources along with natural gas-fired baseload and peaking resources.

## **B. Objections to Idaho Power's 2011 IRP**

Staff and other parties raised numerous issues and provided considerable commentary on certain aspects and elements of the original action items in Idaho Power's IRP Action Plan. We also expressed concerns with aspects of the plan at the public meeting held on February 14, 2011. Those issues, and our resolution of them, are as follows:

### **1. *Evaluation of Environmental Compliance Costs for Existing Coal-Fired Plants (Action Item 11)***

Idaho Power does not wholly own or operate any coal plants, but does have a significant ownership interest in three large plants (Boardman, North Valmy, and Jim Bridger). As reported by CUB, these plants provide 41 percent of Idaho Power's total generation. CUB points out that the owners of these three plants likely will face increasing costs to comply with clean air regulations in the coming years.

CUB and RNP are not satisfied with Idaho Power's analysis of the possible environmental compliance costs associated with ownership and operation of these plants. CUB suggests that Idaho Power be required to conduct a unit-by-unit evaluation of its clean air investment costs (similar to that conducted by PGE for its Boardman plant) before the IRP provisions relating to coal plant investment are considered for acknowledgement. CUB recommends that the Commission withhold acknowledgment of the IRP until Idaho Power completes a study of its coal investment compliance costs and the parties have had the opportunity to review and comment on the study. RNP also recommends that the Commission require Idaho Power to analyze the costs and risks of maintaining its coal plants (including carbon costs and environmental regulations) before the company commits to significant investments.

Idaho Power responds that because the amount of any environmental compliance costs is "highly speculative" at this time, any analysis of the costs would be highly speculative as

well. The company argues that the Commission should acknowledge its 2011 IRP, and require that Idaho Power conduct the environmental costs analysis in future IRP filings.

Staff shares CUB's and RNP's concerns about future environmental compliance costs, but agrees with Idaho Power that the company should provide the requested analysis in its 2011 IRP Update. Staff proposes an additional Action Item 11 to address this future requirement.

#### *Resolution*

As discussed at the public meeting, we share the concerns raised by CUB and RNP regarding Idaho Power's failure to perform a comprehensive study of the possible costs and consequences of environmental regulations associated with the company's partial ownership of three coal plants. Accordingly, we acknowledge Staff's proposed Action Item 11, but not any other IRP provision relating to new investments in coal plants until Idaho Power completes a study of its coal investment compliance costs and other parties have had the opportunity to comment on the study.

### **2. Boardman to Hemingway Transmission (Action Item 7)**

RNP supports acknowledgment of the Boardman to Hemingway (B2H) transmission project as the primary resource in Idaho Power's near-term portfolio. Staff recommends we acknowledge Action Item 7 requiring Idaho Power to continue to make progress on the B2H transmission project between now and the completion of the company's 2013 IRP. CUB notes, however, that closure of one or more coal plants would open up capacity on existing transmission lines and could cause changes to the design and location of new lines.

#### *Resolution*

We share CUB's concern that coal cost study results will have implications for Idaho Power's transmission line use and plans, but acknowledge Action Item 7 requiring the company to continue to make progress on the B2H transmission project as an uncommitted resource.

### **3. Conservation Voltage Reduction (Action Item 4)**

Staff notes the "promising beginnings" for conservation voltage reduction (CVR) measures reported by Idaho Power. Staff points out, however, that the Company shows no further CVR measures in either its IRP or its Appendix B on Demand-Side Management.

*Resolution*

We are convinced that there is an untapped CVR resource and that this resource is cost effective. We direct the addition of a CVR action item as follows:

Action Item 4 – Conservation Voltage Reduction – The next IRP filed by Idaho Power will include an assessment of the available cost-effective conservation voltage reduction (CVR) resource potential in its service area. The company will propose an action plan in its 2013 IRP related to this resource. The planned energy savings and reduced peak demand will be incorporated into Idaho Power’s load-resource balance forecasts.

**4. Demand Response (Action Item 3)**

In this IRP cycle Idaho Power switched from an “all cost-effective DSM” approach to “need-based” approach. Based on its analysis comparing the costs of energy saved from demand response to the cost of owning and operating a simple cycle combustion turbine (SCCT), Idaho Power derived an optimal amount of demand response for its system. Staff believes that the Company should pursue all cost-effective demand response through existing programs and consider new programs as applicable. Staff believes Idaho Power should pursue the maximum amount of demand response that (1) is less costly on a kW basis than a supply-side resource, and (2) up to the company’s system capacity deficit amount.

*Resolution*

Staff proposed no change to this IRP action item. We accept Staff’s proposal that during the preparation of its 2013 IRP, Idaho Power will convene a meeting of its IRP Advisory Council to address demand response, where Staff intends to work with the parties to develop a demand response approach in the best interest of ratepayers.

**5. Energy Efficiency (Action Items 1 and 2)**

Staff recommends acknowledgment of Idaho Power’s Action Items 1 and 2, and recommends the Company continue to pursue all cost-effective demand side management as the lowest cost resource for customers.

*Resolution*

We agree with Staff that Idaho Power should continue to pursue all cost-effective demand side management. No revision to these action items is required.

**6. *Alternative Portfolio (Action Items 8 and 9)***

RNP urges the Commission to consider alternatives to acknowledging Idaho Power's alternative resource portfolio (which is comprised solely of SCCT plants). RNP recommends the Commission give demand side management and solar photovoltaic resources time to ripen. Staff recommends the Commission not acknowledge the alternative portfolio, because there are existing mechanisms in the IRP process to deal with unforeseen circumstances.

*Resolution*

We agree with Staff that there are existing mechanisms in the IRP process to address unforeseen circumstances and do not find a need to acknowledge an alternative resource portfolio. We clarify, however, that the non-acknowledgment of the Alternative Portfolio Action Items 8 and 9 is not due to a flaw or failure in the IRP.

**7. *Long Term Action Items (Action Item 12)***

In its Action Plan, Idaho Power included action items for the 2021 through 2030 time period. Because the IRP Guidelines focus on actions over the next two to four years, Staff recommends that these long-term action items not be acknowledged as part of this IRP.

*Resolution*

We agree with Staff that the desired focus in the IRP is on actions over the next two to four years. We decline to acknowledge the long-term action items contained in Action Item 12.

**8. *Load Forecast***

Staff is concerned that Idaho Power's assumptions of average energy growth and peak-hour load growth are too high. Staff's concerns are based on the lingering economic conditions, plus shifts occurring in the demand/supply balance, conservation, and environmental regulation.

*Resolution*

We agree with Staff that the 2011 IRP Update and the 2013 IRP need to be based on an updated load forecast that reflects current conditions. We concur that it is appropriate to include an allowance for new large loads in the load forecast only if there is a signed energy service agreement, and the load forecast is based on specific supporting documentation.

## 9 *Risk Analysis*

Staff is troubled by aspects of Idaho Power's stochastic risk analyses, as contrasted with the more conventional approaches used by other Oregon utilities. With the approach used by Idaho Power, an adverse combination of two or more unfavorable risk factors will never be "sampled," because only one risk factor is allowed to depart from its base value for any one "draw." Staff also recommends the company include hydro generation variability as a risk factor for its next IRP cycle, in light of Idaho Power's significant reliance on hydroelectric generation.

### *Resolution*

We adopt Staff's recommendation that the 2013 IRP risk analysis should include hydroelectric generation variability. We agree with Staff's goal of working toward collaborative improvement of Idaho Power's stochastic risk analysis. At least one of the 2013 IRP meetings of the IRP Advisory Committee should focus on this subject.

## 10. *Wind Integration Study*

RNP noted that Idaho Power is conducting a wind integration study internally. It encouraged the company to look for ways to lower its costs of wind integration, to seek independent technical review of its study, and to provide stakeholders the chance to provide meaningful feedback.

### *Resolution*

We agree that Idaho Power should seek independent technical review of its wind integration study and allow stakeholders the opportunity to provide feedback before the study results are incorporated into the company's next IRP. Accordingly, we direct Idaho Power to form a wind integration study technical review committee that is fully engaged in the process. We also direct Idaho Power to establish a schedule for workshops, providing full opportunity for stakeholder involvement.

## 11. *Solar Photovoltaic Analysis*

RNP encourages Idaho Power to evaluate the performance of solar photovoltaic projects as a class, not simply as single projects. The geographic distribution of the projects could have a significant effect of smoothing the short-term variability of single projects.

### *Resolution*

We agree with RNP that Idaho Power should evaluate the performance of the solar photovoltaic projects as a class, as consistent with the goals of the pilot program.

## 12. *Adherence of Plan to Integrated Resource Planning Guidelines*

Intervenors and Staff agree that Idaho Power's 2011 IRP filing did not comply with IRP Guidelines 1(c) and 4(g),<sup>4</sup> because the company failed to provide a comprehensive evaluation of the compliance of its existing coal fired generation resources with new, draft, and anticipated environmental regulations. Without that evaluation, it was not possible to determine whether any of the candidate resource portfolios met the specified standard.

In response to that deficiency, in its September 20, 2011 IRP presentation to the Commission, Idaho Power presented a "very high-level" evaluation of a range of costs that could potentially result if certain environmental regulations were implemented. According to the company, the existing coal-fired resources would still be less expensive than replacement natural gas generation resources, even if the company were required to spend the estimated amounts to comply with the potential federal environmental regulations.

Staff also noted that Idaho Power did not comply with IRP Guidelines 4(a) and 4(n), because the company did not explain how the utility met each substantive and procedural requirement, nor provide a concise listing of action items for all resources and resource related activities.

### *Resolution*

We note Idaho Power's high-level presentation about environmental compliance costs, and expect more detailed information to be provided in the company's coal study. We agree with Staff that future Idaho Power IRPs should include: (1) an explanation of how the utility met each substantive and procedural requirement, and (2) a concise listing of action items for all resources and resource related activities, with each action item numbered.

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<sup>4</sup> IRP Guideline 1(c) prescribes the primary goal of the IRP to be the selection of a portfolio of resources with the best combination of cost and risk for the utility and its customers. IRP Guideline 4(g) requires the utility to identify key assumptions about the future, including future environmental compliance costs.

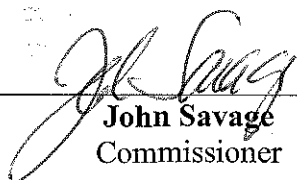



**IV. ORDER**

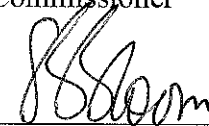
IT IS ORDERED that the 2011 Integrated Resource Plan filed by Idaho Power Company is acknowledged with conditions and exceptions contained in this order, with the action items and recommendations summarized in Appendix A .

This order memorializes the decision of the Public Utility Commission of Oregon made and effective at a public meeting held on February 14, 2012.

Dated this 21 day of May, 2012, at Salem, Oregon.

  
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**John Savage**  
Commissioner

  
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**Susan K. Ackerman**  
Commissioner

  
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**Stephen M. Bloom**  
Commissioner



Appendix A  
Adopted Action Items and Recommendations for Future IRPs  
Idaho Power 2011 Integrated Resource Plan (IRP)

Action Items:

Near-Term Action Plan (2011-2020)

Demand-Side Resource Action Items

Action Item 1 - Current Portfolio Energy Efficiency - In 2015, the forecast reduction for 2011–2015 programs will be 69 aMW; by the year 2020, the reduction across all customer classes increases to 133 aMW. By the end of the IRP planning horizon in 2030, 191 aMW of reduction is forecast to come from the current energy efficiency portfolio, with 80 percent of that reduction coming from programs serving commercial and industrial customers.

Action Item 2 - New Portfolio Energy Efficiency - In 2015, the new and expanded energy efficiency programs will reduce average loads by 13 aMW; in 2020, average loads will be reduced by 25 aMW. The full 20-year capacity of the program additions and changes is 42 aMW of average demand reduction.

Action Item 3 - Demand Response - The levels of demand response determined for the 2011 IRP analysis is 330 MW for summer 2011, 310 MW in 2012 when the Langley Gulch plant comes on line, and 315 MW in 2013 and 2014. In 2015, the demand response level used in the IRP analysis is 321 MW and then 351 MW from 2016 through the end of the planning period.

Action Item 4 – Conservation Voltage Reduction - The next IRP filed by Idaho Power will include an assessment of the available cost-effective conservation voltage reduction (CVR) resource potential in its service area. The Company will propose an action item in its 2013 IRP related to this resource. The planned energy savings and reduced peak demand will be incorporated into Idaho Power's load-resource balance forecasts.

Supply-Side Resource Action Items (Preferred Portfolio)

Action Item 5 - Solar - Issue a request for proposal (RFP) before the end of 2011 to design and construct a 500-kW–1-MW solar PV resource to be located in Idaho Power's service area. Evaluate proposals by mid-2012, and if a successful bidder is identified, file a request with the IPUC for a CPCN. If approved, have the facility on line as early as the end of 2012.

This solar resource will satisfy the State of Oregon's Solar PV Pilot Program requirement to build a 500-kilovolt (kV) solar PV project. Continue working with the OPUC to determine if this facility would have to be built in Oregon, which may impact the structure of the RFP.

Action Item 6 - Power Purchase Agreements - Complete 83 MW in market purchase from the east side of Idaho Power's system. The purchase is necessary to cover a summer peak-hour deficit in 2015 that exists before the Boardman to Hemingway line becomes available in 2016.

Action Item 7 - Transmission – Continue to make progress on the Boardman to Hemingway transmission project between now and the completion of the 2013 IRP, and plan to begin work on permitting and initial designs shortly after the completion of the 2013 IRP.

As the Company proceeds with the B2H project, its project assumptions (for example, construction cost estimates, equity partnership estimates, third-party subscription estimates, and wheeling revenues) will be updated and analyzed in the 2013 IRP.

#### Supply-Side Resource Action Items (Alternative Portfolio)

~~Action Item 8 - Solar - as described for preferred portfolio Action Item 5.~~

~~Action Item 9 - Simple Cycle Combustion Turbine - 170 MW in 2015, 170 MW in 2017, and 94 MW in 2019. If the Boardman to Hemingway transmission project is delayed, begin the acquisition process for the 2015 SCCT as early as 2012.~~

#### Other Action Items

Action Item 10 - Renewable Energy Certificate Management - As detailed in the REC Management Plan, continue selling RECs in the near term until they are needed to meet a federal RES.

Action Item 11 - Evaluation of Environmental Compliance Costs for Existing Coal-fired Plants

In its next IRP Update, Idaho Power will include an Evaluation of Environmental Compliance Costs for Existing Coal-fired Plants. The Evaluation will investigate whether there is flexibility in the emerging environmental regulations that would allow the Company to avoid early compliance costs by offering to shut down individual units prior to the end of their useful lives. The Company will also conduct further plant specific analysis to determine whether this tradeoff would be in the ratepayers' interest.

~~Long-Term Action Plan (2021-2030)~~

~~Action Item 12—Long-Term Action Items—as outlined in IRP Table 10.2~~

Recommendations for future Idaho Power IRPs:

1. During preparation of the 2013 IRP, there be an Integrated Resource Plan Advisory Council (IRPAC) meeting specifically focused on demand response. Staff will participate in that meeting, and work with the Company and parties to develop a demand response approach that is in the best interest of ratepayers.
2. Base the 2011 IRP Update and the 2013 IRP on an updated load forecast that, as accurately as possible, reflects current conditions.
3. Related to the new large load issue, include an allowance for new large loads in the load forecast only if there is a signed energy service agreement. Further, include an allowance for new large loads in the load and resource balance, but the new large load must be based on specific supporting documentation.
4. Toward the goal of working collaboratively to improve of the stochastic risk analysis, at least one 2013 IRP IRPAC meeting should be set aside to focus on this subject. Further, the 2013 IRP risk analysis should include hydroelectric generation variability. In the risk analysis focused IRPAC meeting, the Company should vet its approach to including hydroelectric generation variability in the 2013 IRP risk analysis.
5. Form a wind integration study technical review committee as soon as possible. The committee is recommended to be fully engaged to review and offer suggestions for improvement of the Company's proposals for analytical methods and data used in the study. In addition, establish as soon as possible, a schedule for workshops providing full opportunity for stakeholder involvement and progress reviews. Finally, in the Company's next wind integration study look for ways in which diversity and flexible balancing resources could lower its cost of integrating intermittent resources.
6. Include in future IRPs an explanation of how the utility met each substantive and procedural requirement, as required by Guideline 4(a).
7. Include in future IRPs an action plan with resource activities the utility intends to undertake over the next two to four years to acquire the identified resources, as required by IRP Guideline 4(n).
8. Include in future IRPs a concise listing of action items for all resources and resource related activities, with each action item numbered.