# McDowell & Rackner PC

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February 16, 2007

#### **VIA ELECTRONIC FILING**

PUC Filing Center Public Utility Commission of Oregon PO Box 2148 Salem, OR 97308-2148

Re: Docket No. LC 41

Enclosed for filing is an original and 15 copies of Idaho Power Company's Integrated Resource Plan Supplement. A copy of this filing has been served on all parties to this proceeding as indicated on the attached certificate of service.

Very truly yours

Lisa F. Rackner

Enclosures cc: Service List 1

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#### **CERTIFICATE OF SERVICE**

2	I hereby certify that I served a true a	ind correct copy of the foregoing document in
3	3 Docket LC 41 on the following named person(s) on the date indicated below by email at his	
4 or her last-known address(es) indicated below.		
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DATED: February 16, 2007. 11

Lisa F. Rackner

#### Of Attorneys for Idaho Power Company

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## INTEGRATED RESOURCE PLAN SUPPLEMENT

# FOR THE OREGON PUBLIC UTILITY COMMISSION

Idaho Power Company ("Idaho Power" or the "Company") herewith supplements its previously filed 2006 Integrated Resource Plan ("2006 IRP") in conformance with Oregon PUC Order 07-002 in Case No. UM 1056.<sup>\*</sup> Idaho Power is confident that its 2006 IRP largely meets the intent and the guidelines outlined in Order 07-002. The Company recognizes that the Order identifies enhancements to the resource planning process. As a result, portions of the Idaho Power Company resource planning process will receive additional attention in the 2008 and subsequent biennial resource plans. The following supplement addresses the general topics discussed in Order 07-002 and briefly describes how the Company's 2006 IRP comports with those guidelines. References to guidelines in this supplement are to the Guidelines established in Order 07-002.

#### The Planning Process

Consistent with Guideline 3 set forth in Order 07-002, Idaho Power presently files an Integrated Resource Plan with the Oregon PUC every two years (Oregon PUC Order 89-507). Idaho Power operates in both Idaho and Oregon and the Company develops an integrated resource plan considering all customers regardless of state jurisdiction as required in Guideline 10.

Idaho Power recently completed its 2006 Integrated Resource Plan and filed the resource plan with the Idaho and Oregon public utility commissions in October 2006. The Company has already begun the preliminary work on the 2008 IRP and work on that plan will begin in earnest in June 2007. Idaho Power intends for its resource plans to be consistent with the long-run public interest as expressed in state and federal energy policies as required in Guideline 1.

As set forth in Guideline 2, Idaho Power solicits public involvement in the planning process by convening a public forum. For the 2004 and 2006 plans, Idaho Power assembled an Integrated Resource Plan Advisory Council ("IRPAC") composed of customer representatives, representatives from both the Idaho and Oregon utility commission staffs, and representatives from special interest groups. A roster of the IRPAC members is provided in the Technical Appendix of both the 2004 and 2006 IRPs. The IRPAC meetings are facilitated by an outside consultant hired by Idaho Power.

In addition to the IRPAC, the Company commonly holds a series of public meetings regarding the resource plan. Four such public meetings were held in late 2006. One of

<sup>\*</sup> The full text of the order is available at: http://apps.puc.state.or.us/orders/2007ords/07-002.pdf

those public meetings was held in Ontario, Oregon. Idaho Power has scheduled a public presentation of the 2006 IRP before the Oregon PUC on February 27, 2007.

Idaho Power also conducts less formal public IRP presentations for local organizations and professional societies when requested. The Company expects to be well into the preparation of the 2008 IRP on the one-year anniversary date of plan acknowledgement by the Oregon PUC and Idaho Power will welcome the opportunity for another public presentation detailing progress on the 2008 IRP before the Oregon PUC at that time.

## **Forecast Statistics**

With regard to Guidelines 1 and 4, Idaho Power begins the technical resource planning process with the customer and load forecasts. The load forecasts are based on a statistical review of historical weather records. The Company selects 70<sup>th</sup> percentile weather and hydrological conditions as the planning criteria for both the load forecast and the hydro forecast. The 70<sup>th</sup> percentile means that Idaho Power expects the system load to be less than the forecast in seven years out of ten. For the hydro conditions, the 70<sup>th</sup> percentile planning criteria means that the Company expects that stream flows will meet or exceed the planning criteria seven years out of ten.

One key advantage to using the 70<sup>th</sup> percentile load value is that the percentile calculations are nonparametric, that is, no specific statistical distribution is assumed for the underlying probability distribution of the weather or hydrological data. Idaho Power considers the nonparametric method to be an analytical advantage in that the results of a stochastic analysis are already captured in the historical probability distributions. Idaho Power Company performs a boundary analysis on the load forecast by including the 50<sup>th</sup> percentile weather and the 90<sup>th</sup> percentile weather in the load forecast and in the hydro forecast.

Idaho Power performs the same type of weather data analysis for the peak load forecast using the 50<sup>th</sup>, 90<sup>th</sup>, and 95<sup>th</sup> percentile values. The expected case and the 70<sup>th</sup> percentile load forecast values for average load and peak load are presented by customer class and by month for the entire 20-year planning horizon in the Technical Appendix of the 2006 IRP.

In addition, Idaho Power includes upper and lower boundaries on the actual load forecast growth rate. The upper and lower boundaries are based on a statistical examination of the historical record and are also nonparametric. The 70<sup>th</sup> percentile load forecast is adjusted by the load growth values to generate upper and lower boundaries on the overall load forecast growth rate.

At the present time, Idaho Power does not have any customers served by alternative electricity suppliers and Idaho Power has no direct access loads. Guideline 9 is not expected to apply to Idaho Power during the 2006 IRP 20-year planning period.

### **Resource Portfolios**

Idaho Power compares the sales and load forecast values with the existing generation portfolio to calculate the monthly system surpluses and deficits. The monthly system surplus and deficit values for the peak-hour and for average energy are presented in the Technical Appendix to the 2006 IRP. The monthly peak-hour system deficit values are compared to the available Northwest to Idaho transmission capacity to calculate the actual deficits used to develop the resource plan. The peak-hour transmission deficit values are also contained in the Technical Appendix to the 2006 IRP.

Consistent with Guidelines 1 and 12, Idaho Power considers a wide variety of resource types when developing the resource portfolio to meet the needs identified by the system and transmission deficits. Besides the larger categories of supply-side, demand-side, and transmission resources, Idaho Power considers distributed generation, combined heat and power, renewable and advanced resource technologies. Idaho Power includes the transmission costs associated with each resource when analyzing the resource portfolios. Transmission costs include both the high-voltage system necessary to deliver the energy to the load and the transportation costs associated with delivering the fuel to the generation plant as required in Guideline 5.

Idaho Power used present value calculations to rank the various resource portfolios in the 2006 IRP. Idaho Power considers the present value calculations to be essentially the same as the present value of the revenue requirement identified in the Guideline 1.

The 2006 preferred resource portfolio includes geothermal, wind, combined heat and power, customer peak reduction and energy efficiency programs, transmission system upgrades, traditional coal-fired generation, advanced coal-fired generation, and advanced nuclear at the Idaho National Laboratory as directed by the recent Energy Policy Act. The Company relies on US Department of Energy calculations, industry publications, and the work of outside consultants to calculate the costs of each resource included in the portfolios. The resource costs are also included in the 2006 IRP Technical Appendix.

Each resource portfolio developed by Idaho Power must meet the monthly peak-hour and monthly energy deficits identified in the transmission analysis with an acceptable precision level as required in Guideline 4. The transmission deficit analysis includes a random variable to capture unplanned generation outages at Idaho Power's thermal generating units, similar to the approach used in a loss of load probability analysis as set out in Guideline 11.

The Company continues to plan to meets its past WECC planning reserve requirement of 330 MW based on Idaho Power's single largest contingency. In addition to the Company's current approach for capacity planning which is based on 90<sup>th</sup> percentile water conditions and 95<sup>th</sup> percentile peak hour load conditions, the 2006 IRP includes a more traditional evaluation of the planning reserves for the finalist portfolio based on 50<sup>th</sup> percentile load and 50<sup>th</sup> percentile water conditions. Results of the planning reserve analysis are included in the Technical Appendix to the 2006 IRP.

Due to the size and timing of resource construction, some of the portfolios may have periods of market energy sales. Market sales and market purchases are included in the price calculations for each proposed resource portfolio. Summaries of the proposed portfolios including market purchases and sales are included in the 2006 IRP Technical Appendix.

## **Risk Analysis**

As set forth in Guideline 1, Idaho Power conducts a thorough risk analysis as part of the resource planning process. The Company uses scenario analysis to assess the risks of the different resource portfolios and ranks each portfolio according to the risk calculations. Idaho Power endeavors to identify a worst-case situation as part of the scenario analysis which is why carbon taxes were analyzed at as much as \$50 per ton and why high interest rates and high natural gas prices were considered in the scenario analysis.

Idaho Power considers both quantitative risks and qualitative risk when evaluating the resource portfolios. The qualitative risks are discussed in the IRPAC meetings and values are assigned to certain variables such as the carbon taxes or interest rates to assess the risk. Certain political and regulatory risks are qualitatively discussed in the IRP but no actual quantitative assessments are performed.

The environmental costs of each resource type are carefully considered in the resource plan as required in Guideline 8. Idaho Power included  $CO_2$ ,  $NO_x$ , and mercury as part of the environmental analysis. Carbon dioxide costs were the most significant factor and Idaho Power Company evaluated  $CO_2$  adders between \$0 and \$50 per ton in the portfolio analysis. The equipment costs to reduce  $SO_2$  emissions are included in the facility cost estimates for the thermal generation resources in the 2006 IRP.

Idaho Power uses its after-tax weighted average cost of capital as the discount rate in the resource plan risk and financial calculations. The Company strives for consistent use of one discount rate through the resource plan financial calculations as well as in financial analyses conducted elsewhere in the Company.

The portfolio analysis is one part of the risk mitigation strategy at Idaho Power. Idaho Power has created a Risk Management Committee ("RMC") that meets monthly to review the Company's physical energy positions. In addition to the RMC, the risk management process includes periodic meetings with the Customer Advisory Group ("CAG") which consists of representatives of major customer groups and the Idaho PUC Staff. The CAG provides input on risk limits and policy matters. Financial hedging is an ongoing topic at the RMC and CAG meetings and financial hedging of the carbon risk was extensively covered in the 2006 IRP IRPAC meetings. Some IRPAC members questioned whether Idaho Power should acquire carbon offsets today as insurance against future carbon regulation. Acquiring carbon offsets as a financial hedge is discussed in the Public Policy section of the 2006 IRP.

The two-year IRP filing schedule is another hedge against risk in the Company's planning process. The preferred resource portfolio is revisited within two years in the following biennial resource plan and the Company's preferred portfolio is adjusted, as needed, to account for technology, political, and market changes. Resource planning is an ongoing process at Idaho Power Company and the Company believes the frequent filing schedule affords Idaho Power the flexibility to deal with changing market and political conditions.

### **Energy Conservation**

Energy conservation and demand-side management programs are a major component of the Idaho Power preferred resource portfolio and satisfy Guidelines 6 and 7. Idaho Power periodically conducts general reviews of the demand-side potential in the service territory. The general surveys are used to identify potential programs and each potential program is further analyzed to estimate the potential program impacts. Idaho Power last conducted a general service-territory review of demand-side potential and filed the results in December 2004 as a supplement to the 2004 Integrated Resource Plan. The results of the survey were instrumental in identifying the demand-side measures included in the 2006 IRP.

#### **Resource Ownership**

Regarding Guideline 13, Idaho Power noted its preference to own resources in the Public Policy section of the 2006 Integrated Resource Plan. Idaho Power recognizes that it may be prudent in the case of advanced technologies to spread the risk among a set of regional partners. There may be situations involving the tax code and other financial complexities where Idaho Power prefers to contract for the energy from a facility using a power purchase agreement.

#### Summary

As supplemented by this filing, Idaho Power is confident that its 2006 IRP substantially complies with the specifications outlined in Order 07-002. The Company intends to further develop the elements expressed in the Order in future resource plans and has already begun preliminary work on its 2008 Integrated Resource Plan. Resource planning is a continuous process at Idaho Power and the Company appreciates the opportunities to work with the public and the Oregon and Idaho utility commissions when developing the resource plans.