

# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF IDAHO POWER  
COMPANY'S 2009 INTEGRATED  
RESOURCE PLAN (IRP)**

)  
) **CASE NO. IPC-E-09-33**  
)  
) **ORDER NO. 32042**

On December 28, 2009, Idaho Power Company (Idaho Power; Company) filed the Company's 2009 electric Integrated Resource Plan (IRP) with the Idaho Public Utilities Commission (Commission).<sup>1</sup> Idaho Power is a multi-jurisdictional utility and provides electric service to over 486,000 customers (year end 2008) in Idaho and Oregon.

## BACKGROUND

As required by Commission Order No. 22299 (Case No. U-1500-165), Idaho Power's filing is a biennial planning document that sets forth how the Company intends to serve the electric requirements of its customers.

Idaho Power's 2009 IRP addresses available supply-side and demand-side resource options, planning period, load forecast, potential resource portfolios, a risk analysis, and near-term and long-term action plans. The complete 2009 IRP consists of four separate documents: (1) the 2009 Integrated Resource Plan; (2) Appendix A – Sales and Load Forecast; (3) Appendix B – Demand-Side Management 2008 Annual Report; and (4) Appendix C – Technical Appendix.

## 2009 IRP – GOALS AND ASSUMPTIONS

Primary goals reflected in Idaho Power's 2009 IRP application are to (1) identify sufficient resources to reliably serve the demand for energy within Idaho Power's service area throughout the 20-year planning period; (2) ensure that the portfolio of selected resources reasonably balances cost, risk, and environmental concerns; (3) give equal and balanced treatment to both supply-side resources and demand-side measures; and (4) involve the public in the planning process in a meaningful way. In the 2009 IRP, the Company also explored

<sup>1</sup> The normal filing date for Idaho Power's biennial IRP would have been June 2008. However, in Order No. 30281, the Commission expressed a desire to receive the IRPs from each of its three jurisdictional electric utilities within a narrower time frame. In response to that, Idaho Power proposed that it file its next "full" IRP in June 2009. The Commission accepted that proposed schedule on May 23, 2007, in Order No. 30317. However, the desire to provide additional information on the proposed Boardman to Hemingway 500 kV transmission line (B2H) caused Idaho Power to request permission to file the 2009 IRP by year end 2009. The Commission granted Idaho Power's request for delay to year end on May 19, 2009, in Order No. 30815.

transmission alternatives and investigated and evaluated renewable resources that play a prominent role in the resource portfolio.

In the 2009 IRP, Idaho Power assumes that during two 10-year planning periods, 2010-2019 (Period One) and 2020-2029 (Period Two) it will continue to operate as a vertically-integrated electric utility while acquiring resources sufficient to serve all of its retail customers in its Idaho and Oregon service territories.

The number of customers in Idaho Power's service area is expected to increase from around 486,000 in 2008 to over 680,000 by the end of the planning period in 2029. As a result, Idaho Power's average load is expected to increase by 13 aMW (0.7%) annually and summertime peak-hour loads are expected to increase by 53 MW (1.5%) annually through 2020-2029. Idaho Power continues to use 70<sup>th</sup> percentile water conditions and 70<sup>th</sup> percentile average load for energy planning. For peak-hour capacity planning, Idaho Power uses 90<sup>th</sup> percentile water conditions and 95<sup>th</sup> percentile peak-hour load.

#### **2009 IRP – PREFERRED RESOURCE PORTFOLIO**

Idaho Power examined 10 resource portfolios and numerous permutations for each of the two 10-year periods as part of preparing the 2009 IRP. Following a risk analysis, Idaho Power selected Portfolio 1.4 (Boardman to Hemingway) as the preferred portfolio for Period One and Portfolio 2.4 (Wind and Peakers) for Period Two. Period One includes completion of the Langley Gulch CCCT (300 MW) in 2012, the Shoshone Falls Upgrade Project (49 MW) in 2015, and assumes completion of the Boardman to Hemingway (B2H) Transmission Project in 2015. Period Two represents a strategy of adding wind resources sufficient to provide energy and Renewable Energy Credits (RECs) along with simple-cycle natural gas plants to provide peaking capacity and operating reserves necessary to integrate wind generation. The additional wind (500 MW) in Period Two assumes completion of the Gateway West Transmission Project (100 MW) by 2022. The selected portfolio adds supply-side resources capable of providing 529 aMW of energy, 1,525 MW of capacity to peak-hour loads, and 425 MW of additional transmission capacity from the B2H line to the Pacific Northwest. The selected portfolio also includes new and expanded energy efficiency and demand-side management programs estimated to reduce average loads by 127 aMW and peak-hour loads by 438 MW by 2029.

Idaho Power believes that maintaining a diverse resource portfolio is the best way to mitigate risk given the amount of uncertainty in the planning process. As part of this strategy,

the 2009 IRP contains a qualitative discussion of the potential risk associated with carbon regulation, developing technologies, resource siting, and relying on market purchases. Although a market for renewable energy credits (RECs) has recently developed, the Company contends that there is uncertainty associated with the future market value of RECs and potential limitations on the quantity of RECs that may be purchased to meet state renewable portfolio standards (RPS) requirements or federal renewable electricity standards (RES).

To incorporate stakeholder and public input, the Company worked with the Integrated Resource Plan Advisory Council (IRPAC), comprised of members of the environmental community, major industrial customers, agricultural interests, Idaho state legislators, representatives of the Oregon and Idaho Commission Staffs, representatives of the Idaho Office of Energy Resources and the Idaho Governor's Office, and others, including representatives of groups opposed to the Company's proposed B2H transmission line project.

On January 22, 2010, the Commission issued a Notice of Filing in Case No. IPC-E-09-33 and established a comment deadline of April 15, 2010. Comments were filed by the Renewable Northwest Project (RNP), the Snake River Alliance, the Idaho Conservation League, Commission Staff and a number of the Company's customers. The comments can be summarized as follows:

***Renewable Northwest Project (RNP)***

RNP is a non-profit advocacy organization promoting solar, wind and geothermal resources. RNP states it participated extensively in the IRP Advisory Council (IRPAC) meetings and submitted comments to provide feedback to Idaho Power when the IRP was under development.

RNP commends the Company for developing a resource portfolio that allows for considerable curtailment of the Company's coal-fired generation (900 aMW in 2012 to 0 aMW in 2029) that accounts for the costs, risks and environmental concerns associated with future limits on greenhouse gas emissions. RNP tempers its praise with the acknowledgement that Idaho Power has stated that if the cost of carbon regulation is less than \$30/ton, it may be more economical for the Company to continue to operate its coal resources and opt for the 2-5 Limited Curtailment portfolio. RNP believes the 2-4 Wind and Peakers preferred portfolio is consistent

with Portland General Electric's plans to close the Boardman coal-fired plant in 2020 and is the best cost/risk portfolio for 2020-2029.

RNP supports the 1-3 Gas Peaker and Boardman to Hemingway (B2H) transmission line preferred portfolio for 2010-2019. RNP believes the Company's commitment to 150 MW of wind energy and 40 MW of geothermal energy coupled with a responsibly-sited B2H will foster the growth of new renewable energy resources in the Northwest serving Idaho Power customers.

Although supportive of the 1-3 and 2-4 preferred portfolios, RNP is concerned that the portfolios rely too heavily on natural gas-fired resources and expose the Company and its customers to associated fuel-price volatility. RNP urges Idaho Power to seek more resource diversity from solar, geothermal, biomass, low-impact hydro and cogeneration.

RNP concludes by addressing three public policy issues raised in the IRP:

1. Regarding renewable energy credits (RECs), RNP disagrees with the Company's proposal to sell its RECs. Rather, RNP recommends that the RECs be retired in preparation for compliance with a future federal renewable standard.
2. Regarding emissions offsets, RNP believes offsets that are real, verifiable and additional are worthy of exploration. RNP recommends that the Company be required to compare the risk, cost and environmental benefits of strategies that directly reduce emissions from its resource mix to the purchase of emission offsets or offset options.
3. Regarding the Company's proposal to commission a thorough solar feasibility study, RNP urges the Commission to initiate a stakeholder workshop to explore options for a solar pilot project.

#### ***Idaho Conservation League (ICL)***

ICL served on the IRP Advisory Council, attended all meetings and submitted detailed comments on several occasions. ICL submits comments in this case pertaining to Idaho Power's greenhouse gas reduction goals, energy efficiency and demand-side management programs, supply-side resources and public policy issues.

1. Greenhouse Gas (GHG) Emission Reduction. Approaching the portfolios from a position of being carbon constrained versus using a carbon adder when calculating operational costs, ICL contends, recognizes the end goal of carbon regulation regardless of form – to reduce carbon emissions. ICL is pleased that the Company has established goals to reduce its resource portfolio's average carbon emission intensity for the 2010-2013 time period to a level of 10-15%

below the Company's 2005 levels. Idaho Power's 2011 IRP, ICL contends, should include a more detailed plan on how the Company plans to reach its carbon reduction goals and curtail its coal operations. As part of the greenhouse gas reduction strategy, ICL recommends that the Company include the quantity of greenhouse gas emissions per average MWh associated with each portfolio.

Because of Portland General Electric's stated intention to close the Boardman coal plant down between 2014-2018, ICL contends that the Company in its 2011 IRP be required to explain its plan for a future without Boardman. ICL submits that continued development of energy efficiency measures is the least-cost, least-risk, and most environmentally responsible way to plan for this future.

2. Energy Efficiency and Demand-Side Management. Energy efficiency and demand-side management (DSM), ICL contends, remains the cheapest, cleanest, and fastest way to meet Idaho's energy needs. Increased savings from efficiency and DSM programs, ICL maintains, benefit all customer classes by reducing the need for new generation, distribution, and transmission.

The IRP, ICL notes, incorporates the findings of the Company's 2009 DSM potential study authored by Nexant. ICL notes that the IRP only refers to the "achievable" potential reductions, which are far less than "economic" potential identified in the study. According to Nexant, "economic" potential is the level of reductions that pass the total resource cost and utility cost test while "achievable" potential factors in predicted levels of program participation. ICL submits that Idaho Power, the Commission, and other interested parties should make every possible effort to achieve all the economic potential for energy efficiency in Idaho. ICL believes that the Commission should direct Idaho Power to redouble its efforts in the 2011 IRP to achieve the economic potential for DSM documented in the Nexant report.

3. Supply-Side Resources. ICL is pleased to see the Company's continued interest in acquiring geothermal energy. In light of the imminent closure of Boardman, the likelihood of a carbon-constrained future, and the impact of fish mitigation measures on hydropower resources, ICL believes that geothermal will be an increasingly important supply-side resource in the future.

ICL is also pleased to see the Company's interest in pursuing combined heat and power (CHP) projects. CHP, ICL contends, has the potential to provide cost-effective, reliable,

and clean power to Idaho Power customers. ICL is excited to see the results of the project between Idaho Power, the Idaho Office of Energy Resources, and Amalgamated Sugar.

The 2009 IRP explains that peak demand continues to outpace average demand throughout the planning horizon. ICL is dismayed that the Company continues to focus on gas-fired peaker plants to meet this growth. Solar generation, ICL contends, matches Idaho Power's low profile and the price continues to decline rapidly. ICL urges the Commission to support investments in solar power as opposed to natural gas.

#### 4. Public Policy Issues.

a. New Large Loads. ICL believes the Commission should direct Idaho Power to plan for new large loads in the 2011 IRP. In doing so, the 2011 IRP, ICL contends, should consider using efficiency and demand-side investments to free up existing capacity. ICL also encourages the Company and the Commission to consider policies that encourage a high ratio of jobs created per MWh consumed.

b. Renewable Energy Acquisition and Renewable Energy Certificates (RECs). ICL supports the Company's renewable energy credit management plan submitted on December 30, 2009, in response to Commission Order No. 30818. Under this plan Idaho Power will continue to acquire RECs, but sell them and return the income to ratepayers through the PCA.

c. Emission Offsets. ICL believes that the Company should reduce GHG emissions directly from the electric generation serving its customers. It should not purchase offsets as a means of meeting required GHG emission reductions. ICL believes that the Company should focus investments on measurable, verifiable, and durable carbon reductions.

d. Solar Pilot Project. ICL strongly encourages Idaho Power to develop a solar pilot project. The Company, ICL contends, has much to gain from solar energy because its availability coincides with Idaho Power's peak demand. ICL finds the idea of allowing customers to purchase shares in a solar pilot project to be a novel approach worthy of additional investigation.

#### ***Snake River Alliance***

The Snake River Alliance (Alliance) advocates for renewable energy resources in Idaho, expanded conservation and demand-side programs and development of local, state, regional and national initiatives to advance sustainable energy policies. The Alliance commends Idaho Power for making the extraordinary decision to interrupt the IRP development process to

review its sales and load forecast and other issues to reflect economic and demand changes flowing from the current recession. The Alliance recognizes the Company's continued raising of the bar on energy efficiency and conservation achievements. The Alliance expresses concerns about the Plan's treatment of greenhouse gas emissions and the Company's coal resources. The Alliance remains hopeful that a successful bidder in the Company's wind RFP will be identified and that the 150 MW of wind will come online in 2012 as planned. Acknowledging that the Company's current wind portfolio does little to meet peak demand, the Alliance states that it agrees with the conventional wisdom that a geographically diverse wind portfolio and integration improvements would help mitigate the resource's capacity and energy variability. As Idaho Power's projected use of wind resources theoretically approaches 600 MW (IRP at p. 18), it will become increasingly important, the Alliance contends, to continue advances in wind forecasting and other integration technologies. The Alliance is particularly pleased to note the Company's interest in exploring such wind integration tools as the ACE Diversity Interchange in collaboration with other regional balancing authorities.

The Alliance appreciates the Company's initial efforts to analyze various solar technologies and costs. Solar is a resource available during the Company's summer peak days and is a resource that very well tracks the Company's system load curve (IRP p. 65). The Alliance encourages the Company to update its Black & Veatch study on the feasibility of developing solar resources in southern Idaho as part of its 2011 IRP to reflect changes in solar technologies and costs.

The Alliance notes that central to Idaho Power's planning for its proposed 300-mile Boardman to Hemingway (B2H) 500 kV transmission line is third-party interest in subscribing to the project (IRP p. 115). Should that interest fail to materialize, the Company states that it will consider delaying construction of B2H and replacing that resource mostly with substantial amounts (340 MW) of gas-fired generation on top of the 300 MW from Langley Gulch, replacing preferred portfolio 1-4 (Boardman to Hemingway) with alternate portfolio 1-2 (Gas Peakers). In a prior IRP, the Alliance notes the Commission raised the issue of the rising amount of natural gas in Idaho Power's resource portfolio. The Alliance has similar concerns, given uncertainties with natural gas availability and prices during this IRP planning period, and recommends the Commission revisit the natural gas issue in its review of the Company's IRP.

### Public Policy Issues

During preparation of the IRP, the Alliance notes that the issue of asset ownership drew diverse comments on whether the Company should own its own supply-side resources (as with its coal plants and Langley Gulch), rely on power purchase agreements, or a blend of the two. The Alliance believes a mix of Company-owned and merchant generation is appropriate from a risk perspective. While Company-owned resources bring advantages such as the ability to include them in rates and rate of return, the Alliance contends that the Company has a tendency (inadvertent or otherwise) to own only fossil-fuel resources and rely on power purchase agreements or PURPA contracts for renewables.

The issue of renewable energy credits, the Alliance contends, is also one that it hopes Idaho's utilities and the Commission will be able resolve with more certainty. The Alliance agrees with the Company that retention of RECs will be important should the Company need them to comply with a federal renewable portfolio standard and supports the Company's application to the Commission for permission to retire RECs from its geothermal and Elkhorn Valley wind Power Purchase Agreements. That being said, the Alliance believes Idaho Power's proposed REC management program filed in Case No. IPC-E-08-24 on January 4, 2010, is reasonable and should assist the Company in complying with anticipated federal renewable standards.

The Alliance also supports Idaho Power's consideration of a solar pilot project and urges the Company to involve its diverse stakeholders in determining the nature of such a project.

### Greenhouse Gas Emissions and Carbon Reductions

On May 21, 2009, the Alliance notes that IDACORP shareholders asked the Company to develop a strategy to reduce its greenhouse gas emissions. On September 17, 2009, the Company filed a Form 8-K with the U.S. Securities and Exchange Commission outlining its intent to comply with the spirit of the shareholders' resolution and its goal to reduce its resource portfolio's average CO<sub>2</sub> emission intensity for the 2010-2013 time period to a level of 10-15% below the Company's 2005 CO<sub>2</sub> emission intensity of 1,194 pounds CO<sub>2</sub>/MWh. The issue of when and how the Company attains these carbon reductions, the Alliance contends, is an important one, both from risk-avoidance given the inevitable federal carbon constraints and also for Idaho Power bill-payers who would bear the cost of higher rates when the carbon costs



associated with coal plants are imposed. The Alliance is concerned that the Company's IRP sends mixed signals about Idaho Power's plans to reduce its carbon emissions – citing that the IRP appears to set a “tipping point” that will influence the Company's decision on dispatching from its coal resources: “The results of the analysis indicate at an allowance price of less than \$30, the no-coal curtailment scenario is a lower cost option. If the cost of carbon allowance exceeds \$30, the coal curtailment scenario becomes the lowest cost option.” (IRP p. 117.) Furthermore, the IRP states: “Alternative compliance options implemented as part of any future carbon regulation may allow the continued operation of Idaho Power's coal resources.” The Alliance is concerned that the level of Idaho Power's commitment to reducing its carbon emissions will be based in large part on the price the federal government eventually places on those emissions, and that could pose financial and environmental risks to the Company, its shareholders, and its customers.

The implication that the Company might forego the 2-4 Wind and Peakers portfolio for the second 10 years of this IRP and revert back to its most heavily polluting generation thermal resources absent adequate federal carbon prices, the Alliance contends, is troubling. The Alliance is also concerned about the assertion by the Company that its resource selection in the first 10 years is almost immune from federal carbon legislation (IRP p. 116). The Alliance would hope that given Idaho Power's pledge to begin reducing its carbon emissions intensity by 2013 (primarily through changes in the existing hydro system, water leases, and cloud-seeding), it will continue to consider how the need to begin ramping down those emissions fits with Idaho Power's dispatch decisions.

The Alliance would have preferred to see in this IRP a quantification of carbon emission reductions attached to the portfolios that were analyzed. The Alliance raises the issue of meeting future load growth and the expected coal curtailment in part because those issues were thoroughly analyzed in the Northwest Power and Conservation Council's new Sixth Power Plan. That plan envisions that the Northwest can meet 85% of its new load through energy efficiency and conservation, with most of the remainder being met through wind and in some cases with new gas turbines. The Alliance is concerned that the Company's preferred portfolio at best stabilizes carbon emissions rather than begins to reduce them.

The IRP's conflicting approach to the coal and carbon issue, the Alliance contends, is evident in its lack of an articulated position on the Boardman coal plant in Oregon. Given the

environmental challenges at Boardman, the Alliance believes Idaho Power's best interest would be served by conducting detailed modeling of the various scenarios surrounding the operation of Boardman when Idaho Power conducts its next IRP. The Alliance notes that environmental representatives on the 2009 IRPAC urged the Company to take a more definitive approach to its plans regarding Boardman. Not doing so, the Alliance believes that the IRP represents a missed opportunity for the Company to meet its carbon-reduction pledge to its shareholders.

#### Demand-Side Management

The Alliance applauds the Company's progress in expanding its DSM programs. The Alliance cites recommendation E2 in the 2007 Idaho Energy Plan which states that "The Idaho PUC should establish annual targets for conservation achievement based on estimates of cost-effective conservation in the service territories of Idaho's investor-owned utilities." The committee states that the Commission could establish these targets in a formal evidentiary proceeding or, alternatively could work with the Power Council to adapt its estimates of cost-effective conservation in the Pacific Northwest region for use by Idaho utilities.

While the Alliance applauds the Company for requesting the latest increase in the energy efficiency tariff rider to 4.75% and the Commission for approving it, the Alliance remains concerned that the rider funds may be inadequate to capture all cost-effective DSM identified by the Company and its energy efficiency advisory group. The Alliance questions whether some cost-effective energy efficiency may not be captured if adequate funds do not exist in the rider account.

Regarding the appliance standard assessment (IRP pp. 43-44), the Alliance notes that Idaho Power references the 2007 Quantec study on appliance energy efficiency standards. The Alliance expresses concern that there is a very real potential that less-efficient equipment that cannot be sold in neighboring states will be sold to Idaho residents. Unfortunately, the Alliance notes that the IRP suggests no solutions as to how this threat can be addressed.

#### Peak Demand

The Alliance remains concerned about the rate of Idaho Power's growth in peak demand compared to the projected growth in energy. To a degree, it is the peak demand, it contends, that will set the table for future supply-side resource acquisitions at considerable cost to customers. The Alliance views the rate of peak-hour load increases relative to average system load increases as not sustainable. The Alliance agrees with those who have argued in support of

efforts to flatten the Company's peaking periods through more aggressive demand response programs. The Alliance expresses support for the Company's dispatchable irrigation demand response program and residential air conditioner cycling program but expresses disappointment that the Company's proposed commercial air conditioner cycling program was not approved.

#### Renewables

The Alliance credits the Company for a thorough discussion of its renewable options in the coming years and encourages the Company to closely examine the possibility of enhanced geothermal technologies as they begin to unfold. The Alliance is pleased to see the Company giving serious consideration to a solar pilot project and is pleased to see the Company continuing to address its wind integration issues through exploring such ideas as the ACE Diversity Interchange and intra-hour scheduling to reduce wind's variability and enhance its role as a more reliable renewable resource.

#### Distributed Generation

To the extent Idaho Power can rely on a limited amount of dispatchable customer-owned generators during periods of extreme peak demands or other exigencies serving load, the Alliance believes that this idea appears worthy of exploration (IRP p. 38). The Alliance has concerns about air quality issues stemming from anything but a rare and limited deployment of such diesel generators, particularly since a peak load that triggers deployment of the diesel generators may well occur during summer periods when the Treasure Valley's air quality is poor and borders on non-attainment status. The IRP notes that Industrial Customers of Idaho Power believe a distributed generation program of this nature could reach 80 MW. The idea of dispatching 80 MW of diesel generation, the Alliance contends, seems potentially problematic. The Alliance would be far more comfortable with Idaho Power's projected initial size of 15 MW until such time as this concept can be more fully analyzed.

The Alliance appreciates the Company's attention to the potential demands from electrifying our transportation fleet and encourages the Company to explore the implications (including the benefits, such as storage) of the coming wave of plug-in and other hybrid vehicles (IRP p. 105).

The Alliance believes that the Company's 2009 IRP is the product of the Company's willingness to involve myriad stakeholders, and also to re-evaluate future sales and load growth estimates in light of the current recession. More than ever, the Company's decision to divide the

planning period into 10-year portfolios, the Alliance contends, is prudent given the uncertain near-term landscape on such matters as federal climate and tax legislation; changing technologies for solar, wind, and other renewable resources; fuel prices; and the future of region-wide transmission projects. The preferred portfolio identified for the 2010-2019 planning period, the Alliance contends, seems reasonable in light of the current economic realities and the appropriate emphasis on expanding the Company's energy efficiency and conservation initiatives.

### ***Commission Staff***

Staff believes the Company has performed extensive analyses, given equivalent consideration of supply- and demand-side resources, and provided acceptable opportunities for public input, resulting in an integrated resource plan representative of the Commission's directives. Staff recommends that the Commission acknowledge the Company's 2009 IRP.

The 2009 IRP, Staff states, is the first filing of the Company that bifurcates the planning period into two distinct 10-year segments. The Company contends that this approach "prevents near-term resource decisions from being influenced by the availability of resources that are dependent on technological advancements in the second 10 years." IRP, p. 3.

2009 also marks the first time in a number of years, Staff notes, that an upgrade of the Shoshone Falls hydroelectric facility is not identified as a committed resource, reflecting the uncertainty surrounding provisions in the FERC relicensing amendment. Two of the portfolios reviewed include the Boardman to Hemingway (B2H) transmission project, currently slated for completion in 2015. Completion of B2H would provide Idaho Power with nearly 850 MW of additional import capacity from the Pacific Northwest. B2H is not considered a committed resource as permitting delays, specifically regarding siting through eastern Oregon, have pushed back the completion date from its original online target. Inclusion of the B2H transmission line in the Company's portfolios permits continued assessment of B2H as a cost-effective endeavor in the near-term.

### **Load Forecast**

The 2009 IRP was prepared during a time filled with great uncertainty. In Order No. 30815, the Commission approved an extension to the Company's IRP filing date, citing the benefits of incorporating the most current sales and load forecasts into the final document. Instead of relying on a forecast created in the summer of 2008, the final IRP was based on a more recent mid-2009 forecast.

Since the filing of the 2006 IRP, the State of Idaho has seen a near tripling of its unemployment rate to over 9% in late 2009, and stagnant to negative growth in labor force participation. For the years 2008 and 2009, real personal income dropped for Idahoans. Also, residential customer growth, as measured by new housing starts, is a fraction of 2005 levels, while regional housing vacancies have climbed precipitously in the same timeframe. As a result, Idaho Power witnessed an overall decrease in sales in 2009, a phenomenon that has not occurred in some time.

The 2009 IRP projects a growth in annual average energy of 0.6% throughout the planning period, compared to an annual growth rate of 1.5% used in the 2006 IRP. This difference results in a decrease of over 400 average megawatts (aMW) between the two IRPs for the year 2025, the last comparable year. The peak-hour forecast in the 2009 IRP is nearly 30% lower than that of the 2006 IRP for comparable years. As a result, Idaho Power's average load is expected to increase by 13 aMW annually and summertime peak-hour loads are expected to increase by 53 MW (or at a 1.5% annual growth rate) annually through 2020-2029. Staff notes that for the first time, Idaho Power foresees consumers responding to expected price increases by reducing average usage over the planning horizon. Offsetting a portion of the decline is the addition of large industrial loads, notably the Hoku Materials facility in Pocatello. Idaho Power estimates Hoku will require 74 aMW of energy each year and add 82 MW to peak demand by 2012.

Idaho Power's load forecasts also include savings from existing energy efficiency programs. Given the recent increased commitment to energy efficiency by the Company and favorable cost-benefit ratios due to rising costs of alternative resources, Staff believes the decrement to load attributed to these programs may factor into the reduced forecasted growth rates, especially for the industrial and irrigation classes.

Staff supports the conservative planning criteria Idaho Power has utilized in its previous three IRPs, as it reflects a concerted effort to balance reasonable expectations of the future while planning for less than ideal load and generation scenarios.

The Company forecasts a significant increase in industrial load for 2011 and 2012, presumably reflecting the additional needs of the Hoku Materials facility and an expected rebound in the regional economy. Beyond that, industrial load is projected to grow at rates well below 1% a year. The addition of large customers, Staff contends, is difficult to predict, and

unforeseen industrial relocation into Idaho Power's service territory could burden a system that is already constrained. Another scenario would be that the Company simply could not immediately serve the new load, causing lost opportunities to both Idaho Power and the Idaho economy in general. Staff does not propose a specific methodology for capturing the potential uneven additions of large load, but recommends the Company continue to investigate the impacts this may have in future IRPs.

#### Planning Environment

Aside from the current economic conditions, Idaho Power has taken into consideration the continuing realization that resource options will be constrained by imminent environmental regulations and climate change policies. Previously, Idaho Power has included a carbon adder, or carbon tax, as a cost of production in an effort to quantify the impact of regulation on fossil-fuel based generation. While the 2009 IRP does not provide an analysis of a carbon tax, the portfolios were designed with a cap-and-trade system to curb GHG emissions in mind. Staff believes that this is an appropriate methodological change in the current political environment, and supports the Company's adjustment in its portfolio analysis. Staff does not agree with the Company's planning assumption that all generation from its coal-fired facilities will cease by the end of the planning period. Staff assumes instead that the market for pollution control devices and advances in carbon capture and sequestration technology will allow continued fossil-fuel use, albeit at reduced levels.

Beyond the potential for legislation at the federal level, Staff acknowledges that Idaho Power must also plan around regional issues. The State of Idaho, Staff notes, has no laws governing greenhouse gas emissions or renewable portfolio standards. The 2007 Idaho Energy Plan, adopted by the Idaho Legislature, provided recommendations for maintaining access to reliable, low-cost energy in a sustainable, economically sound manner. Notably in the Energy Plan was the emphasis on cost-effective energy efficiency and renewable resources to meet the needs of Idaho consumers.

The State of Oregon accounts for nearly 5% of the Company's system load. Oregon, Staff notes, has been quite proactive in regard to climate change legislation. Staff does not believe, however, that the IRP planning environment is hampered or constrained by the Oregon requirements.

One recent development that Staff notes will affect future resource planning concerns of the Company is its share of the Boardman coal-fired facility. Portland General Electric Company has submitted a proposal to the Oregon Department of Environmental Quality to cease operations of the plant by 2020. Should the plan be approved, Idaho Power would lose its 60 MW share of baseload generating capacity from the Boardman plant.

#### Energy Efficiency and Demand-Side Management

In determining the load-resource balance, Idaho Power conducted an analysis of potential cost-effective energy efficiency and demand-side management (DSM) programs to be implemented during the planning horizon. The Company utilized an updated DSM potential study performed by Nexant, Inc. to determine the potential savings associated with new and expanded offerings. The Nexant study was originally prepared in 2007, and was updated in 2009, to facilitate utilizing the results in the IRP. The study demonstrated that there are significant opportunities for energy and peak savings in virtually all customer segments in Idaho Power's service territory.

Idaho Power also contracted with Quantec, LLC, to conduct a study of potential savings associated with implementing more stringent appliance efficiency standards in Idaho. The Quantec study demonstrated that Idaho Power can cost-effectively acquire 127 aMW of energy efficiency savings by 2029 through the adoption of several building code and appliance standards. For this to manifest, Staff contends that it is imperative that the Company work closely with a number of agencies at the state level to gain the necessary support.

Beyond the energy efficiency savings, Staff notes that Idaho Power has included a considerable expansion of its three demand response programs (the A/C Cool Credit, Irrigation Peak Rewards, and FlexPeak Management programs) in the 2009 IRP. In total, the three programs are expected to provide 367 MW of peak reduction by 2012. Coupled with the savings associated with the energy efficiency programs, Idaho Power projects it can reduce peak generation needs by over 400 MW by the end of the planning period. Staff believes that if the cost of new generation increases at the rate witnessed in recent years, expansion of DSM programs will continue to be a cost-effective means to meet the future demands of Idaho Power customers.

## Portfolio Design and Selection

Idaho Power examined nine resource portfolios and numerous permutations as part of preparing the 2009 IRP. The initial portfolios for the first 10-year planning horizon are summarized below:

Year	1-1 Solar		1-2 Gas Peaker		1-3 Gas Peaker & B2H <sup>1</sup>		1-4 B2H	
	Resource	MW	Resource	MW	Resource	MW	Resource	MW
2012	Wind*	150	Wind*	150	Wind*	150	Wind*	150
	CCCT (Langley Gulch)*	300	CCCT (Langley Gulch)*	300	CCCT (Langley Gulch)*	300	CCCT (Langley Gulch)*	300
	Geothermal*	20	Geothermal*	20	Geothermal*	20	Geothermal*	20
2015	Shoshone Falls	49	Shoshone Falls	49	Shoshone Falls	49	Shoshone Falls	49
	SCCT (Large Aero)	200	SCCT (Frame Peaker)	170	B2H	250	B2H	250
2016	Geothermal*	20	Geothermal*	20	Geothermal*	20	Geothermal*	20
2017	Solar PT w/St	100	SCCT (Frame Peaker)	170	SCCT (Large Aero)	100	B2H	175
2019	Solar PT w/St	100			SCCT (Large Aero)	100		

<sup>1</sup> B2H-Boardman to Hemingway

\*Committed Resource

Staff notes that the B2H resource can be considered a proxy for the market purchases (as well as the Company's investment participation), namely from the Pacific Northwest. Idaho Power continues to use the AURORA model to forecast market prices, along with portfolio cost estimates. Staff is concerned that the prices used for market purchases may be understated in light of potential carbon legislation. Purchases from the Northwest traditionally have been tied to natural gas generation, the resource that tends to be on the margin during peak periods. These facilities would not be immune to carbon legislation (both federally and regionally), and the market price would undoubtedly reflect the additional cost associated with fossil fuel-based generation. If the Company's price assumptions do not reflect this, Staff believes cost of market purchases, and transmission-related investment in general, may be understated in the IRP.

Following a risk analysis, Idaho Power selected Portfolio 1-4 (Boardman to Hemingway) as the preferred portfolio for the first 10-year planning period. Based on that decision, Idaho Power created a second set of portfolios for the 2020-2029 timeframe. The portfolios are shown below:



Year	2-1 Nuclear/Green		2-2 Gateway West		2-3 IGCC		2-4 Wind & Peakers		2-5 Limited Curtailment	
	Resource	MW	Resource	MW	Resource	MW	Resource	MW	Resource	MW
2020	Solar PT w/St	100					SCCT (Large Aero)	100		
2021	Wind	100	Wind	100					Wind	100
2022	Solar PT w/St	100	Gateway West	200	Solar PT w/St	100	Wind	100	SCCT (Large Aero)	100
2023	Nuclear	270								
2024	Geothermal	52			IGCC w/Seq.	600	SCCT (Large Aero)	200		
2025	Solar PT w/St	100	Gateway West	200			Gateway West	100		
2026			Wind	100			SCCT (Large Aero)	200	SCCT (Large Aero)	100
2027	Geothermal	52	Gateway West	400	Solar PT w/St	100	Wind	400	Wind	200
									SCCT (Large Aero)	100
2028	Nuclear	400	Gateway West	600	SCCT (Large Aero)	400	SCCT (Large Aero)	400		
2029	Gateway West	250			Solar PT w/St	100	SCCT (Large Aero)	500		

Staff believes that the Company's decision to separate the planning periods has facilitated the exploration of technologies previously considered immature or cost-prohibitive, such as concentrated solar generation and nuclear. It remains to be seen whether federal legislation will change the cost dynamics of large-scale green generation, either through additional production and/or investment tax credits or accelerating the reduction in costs of production, and Staff is uncertain to what extent the Company's analysis took this into account. Also of note, Staff states that all but Portfolio 2-5 assumed generation from the Company's coal plants would be curtailed to zero by the end of the planning period. Staff considers eliminating current coal resources from the Company portfolio as planning to a worst-case scenario.

#### Preferred Portfolio and Action Plan

After rigorous scrutiny, the Company opted for Portfolio 1-4 (Boardman to Hemingway) for the first 10-year planning period and Portfolio 2-4 (Wind and Peakers) for the last 10 years of the planning horizon as the preferred strategies. Period One includes completion of the Langley Gulch CCCT (300 MW) in 2012, the Shoshone Falls Upgrade Project (49 MW) in 2015, and assumes completion of the Boardman to Hemingway (B2H) transmission project in 2015.

Idaho Power further analyzed the impact of limited third-party interest in the B2H transmission line and limited coal curtailment through the use of alternative portfolios. Should the Company be unable to partner on the B2H line (or its share of the investment exceeds the next best alternative), the Company's most likely preferred strategy would be Portfolio 1-2 (Gas Peakers), which involves an additional 340 MW of simple-cycle combustion turbine (SCCT)

peakers in addition to the Langley Gulch plant. Staff notes that Idaho Power's involvement on the much-talked-about Gateway West project may also be contingent on completion of the B2H line.

In the near-term, Idaho Power has effectively pursued the actions supported by its preferred portfolio. The Company issued a Request for Proposal (RFP) for 150 MW of wind generation in May 2009, and is finalizing its agreements with the selected developer. The Commission granted the Company a CPCN for Langley Gulch Power Plant in September 2009. In accordance with the Action Plans in its 2004 and 2006 IRPs, Idaho Power issued two geothermal RFPs in 2006 and 2008. A contract to purchase the output from the 13 MW first phase of the Raft River project has been signed and the project has been generating since mid-2008. An agreement to purchase 22 MW of generation from the Neal Hot Springs project in Oregon has been submitted for Commission approval. Given the speculative nature of finding feasible new sites for geothermal production, the Company believes it is best to negotiate contracts once sites are proven rather than pursue new projects through the traditional RFP process. The Company is currently waiting on FERC to approve an amended application that may dictate whether the Shoshone Falls Upgrade is feasible.

Idaho Power contends that maintaining a diverse resource portfolio is the best way to mitigate risk given the amount of uncertainty in the planning process. Staff believes that the 2009 IRP contains sufficient quantitative and qualitative analyses of the potential risk associated with carbon regulation, developing technologies, resource siting, and relying on market purchases. Based on its analysis, Staff believes that Idaho Power's 2009 IRP satisfies the expectations and requirements of Commission Order Nos. 25260 and 22299.

### **DISCUSSION**

The Commission has reviewed and considered Idaho Power's 2009 electric Integrated Resource Plan filing in Case No. IPC-E-09-33 and the related appendices. We have also considered the comments and recommendations of the Renewable Northwest Project (RNP), the Snake River Alliance, the Idaho Conservation League, Commission Staff and Company customers. We find that the Company's IRP contains the necessary information and is in the appropriate format as directed by Order No. 22299. We further find that public hearings are not necessary.

Many of the commenting parties recommend that the Company be directed to perform studies or engage in actions in regard to the development of its 2011 IRP. We encourage those parties to participate (some already do) in the Company's IRP process and to provide input and offer suggestions as the Plan is being developed. We note that some issues are the subject of separate case dockets, e.g., Renewable Energy Credits (RECs). Where issues can be handled separately and with more focus, we will do so.

Many suggestions have been proposed. The Company takes its resource planning seriously and we trust that it will regard all comments and suggestions with thoughtful consideration. We note the following suggestions as meriting specific comment:

- It is recommended that Idaho Power be required to compare the risk, cost and environmental benefits of strategies that directly reduce emissions from its resource mix to the purchase of emission offsets or offset options. We believe the Company already does risk analysis for generation resources. We expect the Company to monitor the developments occurring on the national level and to account for their impact in its resource planning. Idaho Power presents a portfolio that calls for a significant curtailment of its coal-fired generation.
- It is recommended that Idaho Power in its 2011 IRP include a more detailed discussion on how it plans to reach its carbon reduction goals and curtail its coal operations. As part of the Company's greenhouse gas (GHG) reduction strategy, it is recommended that the Company include the quantity of GHG emissions per average megawatt hour (MWh) associated with each portfolio. We encourage Idaho Power to follow these suggestions and will look forward to the information being included in the Company's next IRP and update. Portland General Electric has announced its intention to close the Boardman coal-fired power plant. Idaho Power has a 10% interest in the plant (64 MW). We look forward also to the Company's explanation and plan for a future without the Boardman coal plant.
- It is asserted that continued development of energy efficiency measures is the least-cost, least-risk, and most environmentally responsible way to plan for the Company's energy future and needs. It is recommended that the Company redouble its efforts to realize the achievable potential for savings from efficiency and DSM programs documented in the Nexant report. Not all efficiency and DSM measures can be acquired cost-effectively. In addition to economic barriers there are also non-economic barriers. An identification of barriers would be helpful in explaining and understanding the Company's efforts and strategy to close the gap

between economic potential and achievable potential. At the end of the day all efficiency and DSM measures come at a price and somebody must pay that price. Idaho Power utilizes an energy efficiency tariff rider to fund efficiency and DSM measures. It has been suggested that the level of the surcharge may be inadequate to capture all cost-effective DSM. The issue of what is a fair, just and reasonable charge, however, is never black or white. For a regulator, there are considerations of equity and timing, and affordability. It is a pocketbook issue for many of this state's unemployed and economically-challenged.

- Solar power has been identified as a resource that should be pursued by the Company. The recently announced Boise City solar project, we find, will provide Idaho Power that opportunity to assess the merits of such a resource.

- It is observed that the Company with its recent selection of Langley Gulch continues on a path of increased reliance on natural gas in its resource portfolio. We expect the Company in its 2011 Plan to address the risks to the Company and its customers associated with the reliance on such an economically volatile commodity.

#### **ACCEPTANCE OF FILING**

Based on our review, we accept for filing in Case No. IPC-E-09-33 Idaho Power Company's filed 2009 electric Integrated Resource Plan. Our acceptance of the Company's 2009 IRP should not be interpreted as an endorsement of any particular element of the Plan, nor does it constitute approval of any resource acquisition or proposed action contained in the Plan.

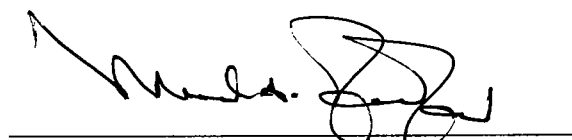
#### **ORDER**

In consideration of the foregoing and as more particularly described and qualified above, IT IS HEREBY ORDERED that Idaho Power Company's 2009 Integrated Resource Plan is accepted for filing.

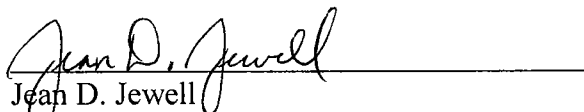
DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 30<sup>th</sup>  
day of July 2010.

  
JIM D. KEMPTON, PRESIDENT

  
MARSHA H. SMITH, COMMISSIONER

  
MACK A. REDFORD, COMMISSIONER

ATTEST:

  
Jean D. Jewell  
Commission Secretary

bls/O:IPC-E-09-33\_sw2