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June 30, 2011

VIA ELECTRONIC AND U.S. MAIL

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

Re: Docket LC __ - Idaho Power Company's 2011 Integrated Resource Plan ("IRP")

Enclosed for filing are an original and ten copies of Idaho Power Company's Application for adoption of its 2011 Integrated Resource Plan. A CD with the electronic version of Attachment 1 is also enclosed.

Please contact this office with any questions.

Very truly yours,

A handwritten signature in cursive script that reads "Wendy McIndoo".

Wendy McIndoo
Office Manager

Enclosures

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC _____

IN THE MATTER OF IDAHO POWER
COMPANY'S 2011 INTEGRATED
RESOURCE PLAN ("IRP").

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APPLICATION

COMES NOW Idaho Power Company ("Idaho Power" or "Company"), and in accordance with the Public Utility Commission of Oregon's ("OPUC" or "Commission") Order Nos. 89-507 and 07-002, hereby requests that the Commission issue an order acknowledging the Company's 2011 Integrated Resource Plan ("IRP" or "Plan"). In support of this request, Idaho Power states as follows:

I. BACKGROUND

As required by OPUC Order Nos. 89-507¹ and 07-002 and Idaho Public Utilities Commission ("IPUC") Order No. 22299, the Company prepares and files an IRP with both the OPUC and the IPUC setting forth how Idaho Power intends to serve the future electric requirements of its customers. Idaho Power's 2011 IRP addresses its available supply-side and demand-side resource options, planning period load forecasts, potential resource portfolios, a risk analysis, and near-term and long-term action plans.

The complete 2011 IRP, which is Attachment No. 1 to this Application, consists of four separate documents: (1) the 2011 Integrated Resource Plan; (2) Appendix A – Sales and Load Forecast; (3) Appendix B – Demand-Side Management 2010 Annual Report; and (4) Appendix C – Technical Appendix. A copy of the complete 2011 IRP is enclosed as Attachment No. 1 and can also be found on the Company's website at

¹ Order No. 89-507 refers to "least cost planning," while IPUC Order No. 22299 refers to "integrated resource planning." These two terms are interchangeable.

1 www.idahopower.com. Interested persons may also request a printed copy of the 2011
2 IRP by contacting Mark Stokes at (208) 388-2483 or MStokes@idahopower.com.

3 Idaho Power has worked with stakeholders over the last year to develop the 2011
4 IRP. To incorporate stakeholder and public input, the Company worked with the
5 Integrated Resource Plan Advisory Council ("IRPAC"), comprised of members of the
6 environmental community, major industrial customers, agricultural interests, Idaho state
7 legislators, representatives of the OPUC and IPUC Staffs, representatives from the Idaho
8 Office of Energy Resources and the Northwest Power and Conservation Council, and
9 others. The IRPAC meetings were also open to the public and served as an open forum
10 for discussion related to the development of the IRP. The IRPAC and members of the
11 public that attended the meetings have made significant contributions to the Plan. A list of
12 the members of the Advisory Council is enclosed as Attachment No. 2. Idaho Power will
13 schedule public presentations regarding the 2011 IRP at community meetings throughout
14 its Idaho and Oregon service territories later this year once regulatory process schedules
15 are set.

16 Importantly, in Order No. 07-002, as modified by Order No. 07-047, the Commission
17 adopted guidelines to govern the IRP process. Attached as Attachment No. 3, Idaho
18 Power has listed those Commission guidelines as well as corresponding statements by
19 Idaho Power as to how the Company has prepared the 2011 IRP consistent with those
20 guidelines.

21 **II. IRP GOALS AND ASSUMPTIONS**

22 The primary goals of Idaho Power's 2011 IRP are to: (1) identify sufficient resources
23 to reliably serve the growing demand for energy within Idaho Power's service area
24 throughout the 20-year planning period; (2) ensure the selected resource portfolio
25 balances cost, risk, and environmental concerns; (3) give equal and balanced treatment to
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1 both supply-side resources and demand-side measures; and (4) involve the public in the
2 planning process in a meaningful way.

3 The 2011 IRP assumes that during the two 10-year planning periods (2011-2020 is
4 "Period One" and 2021-2030 is "Period Two") evaluated in the IRP, Idaho Power will
5 continue to be responsible for acquiring resources sufficient to serve all of its retail
6 customers in its Idaho and Oregon service territories and will continue to operate as a
7 vertically-integrated electric utility.

8 The number of customers in Idaho Power's service area is expected to increase from
9 around 492,000 in 2010 to more than 650,000 by the end of the planning period in 2030.
10 Idaho Power's average load is expected to increase by 29 average megawatts ("aMW")
11 (1.4 percent) annually and summertime peak-hour loads are expected to increase by 69
12 megawatts ("MW") (1.8 percent) annually through 2030. Idaho Power continues to use
13 70th percentile water conditions and 70th percentile average load for energy planning. For
14 peak-hour capacity planning, Idaho Power uses 90th percentile water conditions and 95th
15 percentile peak-hour load.

16 **III. PREFERRED RESOURCE PORTFOLIO**

17 In preparing the IRP, Idaho Power examined nine resource portfolios and numerous
18 permutations for Period One and ten resource portfolios and numerous permutations for
19 Period Two. Following the risk analysis, Idaho Power selected Portfolio 1-3 Boardman to
20 Hemmingway ("B2H") as the preferred portfolio for Period One. The Company selected
21 Portfolio 2-6 Balanced 1 for Period Two. The combined preferred portfolio adds supply-
22 side resources capable of providing 1,252 MW of capacity to meet peak-hour loads, and is
23 expected to provide 531 aMW of annual average energy by the end of the planning period.
24 Existing and new demand-side management programs are estimated to reduce average
25 annual load by 233 aMW by 2030 and peak-hour loads by 351 MW by 2016.

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1 In addition, the IRP identifies an alternate portfolio (Portfolio 1-4 SCCT) for Period
2 One in the event the B2H project is significantly delayed or even canceled. In the
3 alternate portfolio, natural gas-fired simple-cycle combustion turbines ("SCCT") would be
4 used to meet capacity deficits. Specifically, the alternate portfolio calls for the addition of a
5 170 MW SCCT in 2015, which would necessitate the procurement process beginning as
6 early as 2012. Moreover, in the event Idaho Power implements the alternate portfolio in
7 Period One, it may reconsider its concerns about over-reliance on market purchases and
8 select an alternate portfolio in Period Two that relies on a regional transmission project.

9 The 2011 IRP presented by this Application provides the Company's estimate of
10 future loads and sets forth how the Company intends to serve the electrical requirements
11 of its native load customers over the next 20 years. While the proposed resource
12 portfolios represent current resource acquisition targets, it is important to note that the
13 actual resource portfolio may differ from the quantities and types of resources outlined in
14 the IRP depending on the changing needs of Idaho Power and its customers.

15 **IV. EXPANDED IRP ANALYSIS**

16 In Order No. 10-392, the Commission accepted the Company's 2009 IRP. In so
17 doing, the Commission required Idaho Power to do the following as part of its 2011 IRP:

- 18 (1) File the next resource plan no later than June 30, 2011;
- 19 (2) Treat the B2H project as an uncommitted resource and update its
20 project analysis, including progress towards securing equity partners, updated estimates
21 of construction costs, and quantitative estimates of third-party subscription on the B2H line
22 and future wheeling revenues, as well as provide third-party documentation in support of
23 construction cost estimates;
- 24 (3) Analyze coal curtailment and the costs associated with coal plant
25 retirement;

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1 (4) Develop significantly more portfolios for the second ten-year planning
2 period, including portfolios designed to evaluate the benefits of a combined-cycle
3 combustion turbine (“CCCT”) versus multiple SCCTs;

4 (5) Analyze any potential Environmental Protection Agency (“EPA”),
5 state, and other federal agency regulations associated with the air quality, fly ash, and
6 water that may affect the Company’s generation facilities;

7 (6) Provide a more robust justification for the Company’s load forecast for
8 the second ten-year planning period as well as provide additional analysis and a
9 description of the Company’s estimated price response related to future carbon regulation
10 for each customer class;

11 (7) Devote specific chapters in the IRP to explain the selection of the
12 Preferred Portfolio in greater detail and as compared to an alternative portfolio, including
13 an explanation of the relative performance of each portfolio within each of the modeled risk
14 measures and charts and matrices showing the relative ranking of each portfolio using
15 cost and risk metrics as well as an explanation of how each portfolio performed using the
16 qualitative measures the Company considered in the selection process; and

17 (8) Model the full range of possible futures for the Company’s updated
18 risk variables, including both a high and low future for each variable.

19 With regard to number one above, the filing of this Application meets the requested
20 due date for the 2011 IRP. For number two, the IRP contains the required detail related to
21 the B2H project beginning on page 51. In addition, details on the updated cost estimate
22 for the B2H project are contained in Appendix C - Technical Appendix. For number three,
23 the cost of coal plant retirement is discussed on page 31. In response to number four, for
24 both Period One and Period Two, portfolios were developed that provide a comparison of
25 the cost differentials between CCCT and SCCT technologies. The results of this
26 comparison are contained throughout Chapter 9, “Modeling Analysis and Results.” For

1 number five, an analysis of EPA, federal, and state environmental rules associated with
2 the Company's generation starts on page 19. Responding to number six, an explanation
3 of the Company's load forecast methodology is presented in Chapter 6 and further details
4 are presented in Appendix A - Sales and Load Forecast. In regard to number seven, a
5 detailed explanation of the selection of the preferred and alternate portfolios can be found
6 in Chapter 9, "Modeling Analysis and Results." Lastly, for number eight, details regarding
7 the risk variables analyzed in the 2011 IRP can be found in Chapter 9, "Modeling Analysis
8 and Results."

9 **V. SERVICE OF PROCESS**

10 In accordance with OAR 860-013-0070, Idaho Power waives service by means other
11 than electronic mail. Consistent with that waiver, Idaho Power requests that the following
12 people receive notices and communications in respect to this application:

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|----|--|--|
| 13 | Lisa Rackner | Christa Beary |
| 14 | McDowell Rackner & Gibson PC | Legal Administrative Assistant |
| 15 | 419 SW Eleventh Avenue, Suite 400 | Idaho Power Company |
| 16 | Portland, Oregon 97205 | P.O. Box 70 |
| 17 | lisa@mcd-law.com | Boise, Idaho 83707 |
| 18 | | cbeary@idahopower.com |
| 19 | Mark Stokes | |
| 20 | Manager, Power Supply Planning | |
| 21 | Idaho Power Company | |
| 22 | P.O. Box 70 | |
| 23 | Boise, Idaho 83707 | |
| 24 | mstokes@idahopower.com | |

25 **VI. REQUEST FOR ACCEPTANCE**

26 Idaho Power respectfully requests that the Commission issue an Order
acknowledging the Company's 2011 IRP and finding that the 2011 IRP meets both the
procedural and substantive requirements of Order Nos. 89-507 and 07-002.

1 DATED this 30th day of June 2011.

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MCDOWELL RACKNER & GIBSON PC



Lisa F. Rackner

IDAHO POWER COMPANY

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1221 West Idaho Street
P.O. Box 70
Boise, Idaho 83707

Attorneys for Idaho Power Company

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

IDAHO POWER COMPANY

Attachment No. 1 to Application

2011 IRP

**This document is being filed separately
due to its voluminous size**

June 30, 2011

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

IDAHO POWER COMPANY

Attachment No. 2 to Application

Advisory Council Roster

June 30, 2011

IRP ADVISORY COUNCIL ROSTER

Idaho Power has involved representatives of the public in the IRP planning process since the early 1990s. This public forum has come to be known as the IRP Advisory Council (IRPAC). The IRPAC generally meets monthly during the development of the IRP and the meetings are open to the public. Members of the council include political, environmental, and customer representatives, as well as representatives of other public-interest groups.

As part of preparing the 2011 IRP, Idaho Power hosted a field trip covering wind, hydro, and natural gas resources, two portfolio-design workshops, and nine monthly IRPAC meetings. The IRPAC meetings served as an open forum for discussions related to the development of the IRP and the IRPAC members and the public have made significant contributions to this plan.

Idaho Power believes working with members of the IRPAC and the public is very rewarding and the IRP is better because of the public involvement. Idaho Power and the members of the IRPAC recognize that outside perspective is valuable, but also recognize that final decisions on the IRP are made by Idaho Power.

Customer Representatives

Agricultural RepresentativeSid Erwin
Boise State University.....John Gardner
Heinz Frozen FoodsSteve Munn
INL.....Tom Moriarty
Micron.....Michael Bick
Simplot.....Don Sturtevant

Public Interest Representatives

Boise Metro Chamber of CommerceBill Connors
Idaho Conservation LeagueBen Otto
Idaho Department of Commerce.....Lane Packwood
Idaho Office of Energy ResourcesJohn Chatburn
Idaho State House of Representatives.....Representative Elaine Smith
Idaho State Senate.....Senator Russ Fulcher
Northwest Power and Conservation Council.....Jim Yost/Shirley Lindstrom
Oil/Gas Industry Advisor.....David Hawk
Snake River AllianceKen Miller
Water Issues AdvisorVince Alberdi

Regulatory Commission Representatives

Idaho Public Utilities CommissionRick Sterling
Public Utility Commission of OregonErik Colville

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

IDAHO POWER COMPANY

Attachment No. 3 to Application

Oregon IRP Guidelines

June 30, 2011

Oregon Order 07-047 Guideline	2011 Integrated Resource Plan
<p>Guideline 1: Substantive Requirements</p> <p><i>a. All resources must be evaluated on a consistent and comparable basis.</i></p> <ul style="list-style-type: none"> • <i>All known resources for meeting the utility’s load should be considered, including supply-side options which focus on the generation, purchase and transmission of power – or gas purchases, transportation, and storage – and demand side options which focus on conservation and demand response.</i> • <i>Utilities should compare different resource fuel types, technologies, lead times, in-service dates, durations and locations in portfolio risk modeling.</i> • <i>Consistent assumptions and methods should be used for evaluation of all resources.</i> • <i>The after-tax marginal weighted-average cost of capital (WACC) should be used to discount all future resource costs.</i> <p><i>b. Risk and uncertainty must be considered.</i></p> <ul style="list-style-type: none"> • <i>At a minimum, utilities should address the following sources of risk and uncertainty:</i> <ol style="list-style-type: none"> 1. <i>Electric utilities: load requirements, hydroelectric generation, plant forced outages, fuel prices, electricity prices, and costs to comply with any regulation of greenhouse gas emissions.</i> 2. <i>Natural gas utilities: demand (peak, swing and baseload), commodity supply and price, transportation availability and price, and costs to comply with any regulation of</i> 	<p>a-1) Supply-side and transmission resources for meeting the utility’s load are discussed in Chapter 5, SUPPLY-SIDE RESOURCES, beginning on page 43. Demand-side options for meeting the utility’s load are discussed in Chapter 4, DEMAND-SIDE RESOURCES, section <i>Energy Efficiency Program Portfolio Analysis</i>, beginning on page 38.</p> <p>a-2) Different resource portfolio results are compared in Chapter 9, MODELING ANALYSIS AND RESULTS, section <i>Expected Case Portfolio Analysis Results</i>, beginning on page 96.</p> <p>a-3) The consistent modeling method for evaluating all resources using AURORA is explained in Chapter 9, MODELING ANALYSIS AND RESULTS, on page 93.</p> <p>a-4) The WACC rate used to discount all future resource costs is stated in Chapter 9, MODELING ANALYSIS AND RESULTS, in Table 9.1, <i>Financial Assumptions</i>, on page 94.</p> <p>b-1) Electric utility risk and uncertainty factors are considered in Chapter 9, MODELING ANALYSIS AND RESULTS, section <i>Quantitative Risk Analysis</i>, beginning on page 99. Each of these factors may either increase or decrease electricity prices from the expected case. <i>Carbon Risk</i> (greenhouse gas emissions), <i>Natural Gas Price Risk</i> and <i>Risk Due to Load Variability</i> are analyzed on pages 99, 100 and 102 for years 2011-2020, and on pages 104, 105 and 106 for years 2021-2030, respectively. Hydroelectric generation forecast scenarios are discussed in Chapter 6, PLANNING PERIOD FORECASTS, section <i>Hydroelectric Resources</i>, beginning on page 65. Plant-forced outages for coal plants are discussed in Chapter 6, PLANNING PERIOD FORECASTS, section <i>Coal Resources</i>, beginning on page 67.</p>

greenhouse gas emissions.

- *Utilities should identify in their plans any additional sources of risk and uncertainty.*

c. The primary goal must be the selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers.

- *The planning horizon for analyzing resource choices should be at least 20 years and account for end effects. Utilities should consider all costs with a reasonable likelihood of being included in rates over the long term, which extends beyond the planning horizon and the life of the resource.*
- *Utilities should use present value of revenue requirement (PVRR) as the key cost metric. The plan should include analysis of current and estimated future costs for all longlived resources such as power plants, gas storage facilities, and pipelines, as well as all short-lived resources such as gas supply and short-term power purchases.*
- *To address risk, the plan should include, at a minimum:*
 1. *Two measures of PVRR risk: one that measures the variability of costs and one that measures the severity of bad outcomes.*
 2. *Discussion of the proposed use and impact on costs and risks of physical and financial hedging.*
- *The utility should explain in its plan how its resource*

b-2) Additional sources of risk and uncertainty are identified in the following:

- 1) Qualitative Risk Analysis is discussed in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Qualitative Risk Analysis*, on page 99.
- 2) Stochastic analysis is discussed in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Stochastic Analysis*, beginning on page 107.
- 3) Tipping point analyses for market risk, third-party subscription risk (Boardman to Hemingway), and cost of solar resources versus market purchases are analyzed in Chapter 9 MODELING ANALYSIS AND RESULTS, beginning in section *Tipping Point Analysis-Market Risk*, on page 113, *Tipping Point Analysis-Boardman to Hemingway* on page 114, and *Tipping Point Analysis-Cost of Solar Resources versus Market Purchases* on page 115.

c-1) The IRP methodology and its' subsequent planning horizon of 20 years are discussed in Chapter 1, SUMMARY, section *IRP Methodology*, on page 3.

c-2) Idaho Power uses the company's internal P-Worth model to calculate the PVRR for the capital component of the various portfolios. AURORA is used to model the variable (operating) component of the various portfolios. All costs are then discounted using the company's WACC. The summary of the expected NPV total portfolio costs are found in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Expected Case Portfolio Analysis Results*, beginning on page 96.

c-1.) Measures of the variability of costs are considered in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Quantitative Risk Analysis*, beginning on page 99. Measures of the severity of bad outcomes are considered in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Stochastic Analysis*, beginning on page 107.

<p><i>choices appropriately balance cost and risk.</i></p> <p><i>d. The plan must be consistent with the long-run public interest as expressed in Oregon and federal energy policies.</i></p>	<p>c-2.) The risks of physical and financial hedging are referenced in Idaho Power’s <i>Energy Risk Management Policy and Standards</i> discussed in Chapter 1, SUMMARY, in the last paragraph of section <i>Introduction</i>, on page 2. Idaho Power explains how its resource choices appropriately balance cost and risk in Chapter 8, PLANNING CRITERIA AND PORTFOLIO SELECTION, section <i>Portfolio Design and Selection</i> beginning on page 89.</p> <p>d-1) The plan is consistent with long-run public interests and public policies are discussed in Chapter 2, POLITICAL, REGULATORY, AND OPERATIONAL ISSUES, beginning on page 13 as well as in Chapter 1, SUMMARY, section <i>Public Policy Issues</i>, beginning on page 8.</p>
<p>Guideline 2: Procedural Requirements.</p> <p><i>a. The public, which includes other utilities, should be allowed significant involvement in the preparation of the IRP. Involvement includes opportunities to contribute information and ideas, as well as to receive information. Parties must have an opportunity to make relevant inquiries of the utility formulating the plan. Disputes about whether information requests are relevant or unreasonably burdensome, or whether a utility is being properly responsive, may be submitted to the Commission for resolution.</i></p> <p><i>b. While confidential information must be protected, the utility should make public, in its plan, any non-confidential information that is relevant to its resource evaluation and action plan. Confidential information may be protected through use of a protective order, through aggregation or shielding of data, or through any other mechanism approved by the Commission.</i></p>	<p>As set forth in Guideline 2, part a., Idaho Power Company solicits public involvement in the planning process. The Company convenes a public forum as part of the resource planning process. For the 2004, 2006, 2009 and 2011 plans, Idaho Power assembled an Integrated Resource Plan Advisory Council (IRP Advisory Council, or 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 the 2004, 2006, 2009 and 2011 IRPs. The IRP Advisory Council meetings are open to the public, on a limited basis, due to space constraints. IRP Advisory Council meetings are attended by members of the public and Idaho Power has involved the public participants in the Council’s discussions. These meetings allow parties to make relevant inquiries of Idaho Power’s formulation of the plan.</p> <p>As set forth in Guideline 2, part b., Idaho Power makes public in its plan, extensive information relevant to its resource evaluation and action</p>

<p><i>c. The utility must provide a draft IRP for public review and comment prior to filing a final plan with the Commission.</i></p>	<p>plan. This information is found throughout the <i>2011 Integrated Resource Plan</i>, the <i>2011 Sales and Load Forecast</i> and in the <i>2011 Technical Appendix</i>.</p> <p>As set forth in Guideline 2, part c., Idaho Power provided a draft 2011 IRP for public review on Friday, June 3, 2011, via a PDF attachment to members of the IRPAC and public attendees of the 2011 IRP IRPAC meetings. The draft is also posted on Idaho Power's website www.idahopower.com/AboutUs/PlanningForFuture/irp/2011/. The final IRPAC meeting soliciting comment of the plan was held on June 13, 2011. June 16, 2011, was the deadline for getting IRPAC and public comments back on the draft plan.</p>
<p>Guideline 3: Plan Filing, Review, and Updates.</p> <p><i>a. A utility must file an IRP within two years of its previous IRP acknowledgment order. If the utility does not intend to take any significant resource action for at least two years after its next IRP is due, the utility may request an extension of its filing date from the Commission.</i></p> <p><i>b. The utility must present the results of its filed plan to the Commission at a public meeting prior to the deadline for written public comment.</i></p> <p><i>c. Commission staff and parties should complete their comments and recommendations within six months of IRP filing.</i></p> <p><i>d. The Commission will consider comments and recommendations on a utility's plan at a public meeting before issuing an order on acknowledgment. The Commission may provide the utility an opportunity to revise the plan before issuing an acknowledgment</i></p>	<p>a. The Oregon PUC acknowledged Idaho Power's <i>2009 Integrated Resource Plan</i> on October 11, 2010, in Order 10-392. Idaho Power plans to file the <i>2011 Integrated Resource Plan</i> on June 30, 2011.</p> <p>b. Idaho Power will schedule a public meeting at the Oregon Commission after the 2011 IRP has been filed.</p> <p>c. No action needed.</p> <p>d. No action needed unless the Commission provides Idaho Power an opportunity to revise the plan.</p> <p>e. No action needed.</p> <p>f. Idaho Power will not be submitting an update to the 2009 IRP since the filing on the 2011 IRP will be before the one-year anniversary of the Commission's acknowledgement of the 2009 IRP.</p> <p>g. No action needed.</p>

order.

e. The Commission may provide direction to a utility regarding any additional analyses or actions that the utility should undertake in its next IRP.

f. Each utility must submit an annual update on its most recently acknowledged plan. The update is due on or before the acknowledgment order anniversary date. Once a utility anticipates a significant deviation from its acknowledged IRP, it must file an update with the Commission, unless the utility is within six months of filing its next IRP. The utility must summarize the update at a Commission public meeting. The utility may request acknowledgment of changes in proposed actions identified in an update.

g. Unless the utility requests acknowledgement of changes in proposed actions, the annual update is an informational filing that:

- Describes what actions the utility has taken to implement the plan;*
- Provides an assessment of what has changed since the acknowledgment order that affects the action plan, including changes in such factors as load, expiration of resource contracts, supply-side and demand-side resource acquisitions, resource costs, and transmission availability; and*
- Justifies any deviations from the acknowledged action plan.*

Guideline 4: Plan Components.

At a minimum, the plan must include the following elements:

a. Idaho Power anticipates delivering this table in an informal

a. An explanation of how the utility met each of the substantive and procedural requirements;

b. Analysis of high and low load growth scenarios in addition to stochastic load risk analysis with an explanation of major assumptions;

c. For electric utilities, a determination of the levels of peaking capacity and energy capability expected for each year of the plan, given existing resources; identification of capacity and energy needed to bridge the gap between expected loads and resources; modeling of all existing transmission rights, as well as future transmission additions associated with the resource portfolios tested;

d. For natural gas utilities, a determination of the peaking, swing and base-load gas supply and associated transportation and storage expected for each year of the plan, given existing resources; and identification of gas supplies (peak, swing and base-load), transportation and storage needed to bridge the gap between expected loads and resources;

e. Identification and estimated costs of all supply-side and demand-side resource options, taking into account anticipated advances in technology;

f. Analysis of measures the utility intends to take to provide reliable service, including cost-risk tradeoffs;

g. Identification of key assumptions about the future(e.g., fuel prices and environmental compliance costs) and alternative scenarios considered;

letter to the Oregon PUC staff.

- b. Idaho Power revises the sales and load forecast each year and Idaho Power included the most recent sales and load forecast assumptions in Chapter 6, PLANNING PERIOD FORECASTS, section *Load Forecast*, beginning on page 57. High- and low-load growth scenarios are discussed in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Quantitative Risk Analysis*, on page 99 for years 2011-2020 and on page 107 for years 2011-2020. Stochastic load risk analysis is discussed in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Risk Variables*, beginning on page 108.
- c. Peaking capacity and energy capability for each year of the plan are discussed in Chapter 8, PLANNING CRITERIA AND PORTFOLIO SELECTION, section *Load and Resource Balance*, beginning on page 85. Idaho Power uses AURORA in the modeling of all existing transmission rights as discussed in Chapter 9, MODELING ANALYSIS AND RESULTS, in the first three paragraphs on page 93. Future transmission additions associated with the resource portfolios tested are discussed in Chapter 7, TRANSMISSION PLANNING, section *Transmission Assumptions in the IRP Portfolios*, beginning on page 83.
- d. Not applicable.
- e. Supply-side resources and their levelized costs and technologies are covered in Chapter 5, SUPPLY-SIDE RESOURCES, beginning on page 43. Demand-side resources and their levelized costs and technologies are covered in Chapter 4, DEMAND-SIDE MANAGEMENT, beginning on page 37.
- f. Resource reliability is covered in Chapter 9, MODELING

- h. Construction of a representative set of resource portfolios to test various operating characteristics, resource types, fuels and sources, technologies, lead times, in-service dates, durations and general locations – system-wide or delivered to a specific portion of the system;*
- i. Evaluation of the performance of the candidate portfolios over the range of identified risks and uncertainties;*
- j. Results of testing and rank ordering of the portfolios by cost and risk metric, and interpretation of those results;*
- k. Analysis of the uncertainties associated with each portfolio evaluated;*
- l. Selection of a portfolio that represents the best combination of cost and risk for the utility and its customers;*
- m. Identification and explanation of any inconsistencies of the selected portfolio with any state and federal energy policies that may affect a utility's plan and any barriers to implementation; and*
- n. An action plan with resource activities the utility intends to undertake over the next two to four years to acquire the identified resources, regardless of whether the activity was acknowledged in a previous IRP, with the key attributes of each resource specified as in portfolio testing.*

ANALYSIS AND RESULTS, section *Loss of Load Expectation*, on page 119.

- g. Fuel price forecasts are discussed in Chapter 6, PLANNING PERIOD FORECASTS, section *Coal Resources* (coal price forecast), page 67, section *Natural Gas Price Forecast*, beginning on page 69. Environmental compliance costs are discussed in Chapter 6, PLANNING PERIOD FORECASTS, section *Emissions Adders for Fossil Fuel-Based Resources* on page 72. Alternative scenarios are considered in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Quantitative Risk Analysis*, beginning on page 99.
- h. Construction of resource portfolios is discussed in Chapter 8, PLANNING CRITERIA AND PORTFOLIO SELECTION, section *Portfolio Design and Selection*, beginning on page 89.
- i. The portfolios are evaluated against various risks in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Quantitative Risk Analysis*, beginning on page 99.
- j. The portfolios are evaluated and ranked in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Stochastic Analysis Results and Portfolio Selection (2011-2020)*, on page 109, and in section *Stochastic Analysis Results and Portfolio Selection (2021-2030)*, on page 111.
- k. The uncertainties associated with each portfolio are evaluated in Chapter 9, MODELING ANALYSIS AND RESULTS, section *Quantitative Risk Analysis*, beginning on page 99.

	<ul style="list-style-type: none"> i. The selection reasoning for the preferred resource portfolio (2011-2020) is identified in Chapter 9, MODELING ANALYSIS AND RESULTS, section <i>Stochastic Analysis Results and Portfolio Selection (2011-2020)</i>, beginning on page 109. The selection reasoning for the preferred resource portfolio (2021-2030) is identified in Chapter 9, MODELING ANALYSIS AND RESULTS, section <i>Stochastic Analysis Results and Portfolio Selection (2021-2030)</i>, beginning on page 111. m. No inconsistencies were identified. n. An annual near-term action plan is described in Chapter 1, SUMMARY, section <i>Near-Term Action Plan</i>, beginning on page 7.
<p>Guideline 5: Transmission. <i>Portfolio analysis should include costs to the utility for the fuel transportation and electric transmission required for each resource being considered. In addition, utilities should consider fuel transportation and electric transmission facilities as resource options, taking into account their value for making additional purchases and sales, accessing less costly resources in remote locations, acquiring alternative fuel supplies, and improving reliability.</i></p>	<p>The transmission required for each resource being considered is described in Chapter 7, TRANSMISSION PLANNING, section <i>Transmission Assumptions in the IRP Portfolios</i>, on pages 83-84. Portfolios 1-3 B2H, 2-8 PNW Transmission, and 2-9 E/S Transmission contain transmission facilities as resource options and are described in Chapter 8, PLANNING CRITERIA AND PORTFOLIO SELECTION, section <i>Portfolio Design and Selection</i>, beginning on page 89.</p>
<p>Guideline 6: Conservation. <i>a. Each utility should ensure that a conservation potential study is conducted periodically for its entire service territory.</i> <i>b. To the extent that a utility controls the level of funding for conservation programs in its service territory, the utility should include in its action plan all best cost/risk portfolio conservation</i></p>	<ul style="list-style-type: none"> a. Idaho Power periodically studies conservation potential and a summary of the company's conservation (demand-side management) philosophy is described in Chapter 4, DEMAND-SIDE RESOURCES, on page 37. b. Cost-effectiveness of energy efficiency programs are detailed in Chapter 4, DEMAND-SIDE RESOURCES, section <i>Energy Efficiency Program Portfolio Analysis</i> on pages 38-39.

<p><i>resources for meeting projected resource needs, specifying annual savings targets.</i></p> <p><i>c. To the extent that an outside party administers conservation programs in a utility's service territory at a level of funding that is beyond the utility's control, the utility should:</i></p> <ul style="list-style-type: none"> • <i>Determine the amount of conservation resources in the best cost/risk portfolio without regard to any limits on funding of conservation programs; and</i> • <i>Identify the preferred portfolio and action plan consistent with the outside party's projection of conservation acquisition.</i> 	<p>c. As described in Chapter 4, DEMAND-SIDE RESOURCES, second paragraph of page 37, due to the indirect nature of savings from regional market transformation activities, Idaho Power's outside party administrator (NEEA) impacts are not accounted for in the 2011 IRP.</p>
<p>Guideline 7: Demand Response. <i>Plans should evaluate demand response resources, including voluntary rate programs, on par with other options for meeting energy, capacity, and transmission needs (for electric utilities) or gas supply and transportation needs (for natural gas utilities).</i></p>	<p>Demand response resources are detailed in Chapter 4, DEMAND-SIDE RESOURCES, section <i>Demand Response Resources</i> on pages 41-42.</p>
<p>Guideline 8: Environmental Costs. <i>Utilities should include, in their base-case analyses, the regulatory compliance costs they expect for carbon dioxide (CO₂), nitrogen oxides, sulfur oxides, and mercury emissions. Utilities should analyze the range of potential CO₂ regulatory costs in Order No. 93-695, from zero to \$40 (1990\$). In addition, utilities should perform sensitivity analysis on a range of reasonably possible cost adders for nitrogen oxides, sulfur oxides, and mercury, if applicable.</i></p>	<p>Idaho Power discusses the regulatory compliance costs expected for carbon dioxide (CO₂), nitrogen oxides, sulfur oxides, and mercury emissions in Chapter 6, PLANNING PERIOD FORECASTS, section <i>Emission Adder for Fossil Fuel-Based Resources</i> on page 72. The costs are shown in the TECHNICAL APPENDIX on page 165.</p> <p>Idaho Power performed a base-case and three sensitivity scenarios for the compliance cost of carbon dioxide (CO₂) as discussed in Chapter 6, PLANNING PERIOD FORECASTS, section <i>Cost of Carbon Emissions</i> on page 73.</p> <p>Idaho Power discusses the sensitivity analysis on a range of reasonably possible cost adders (low and high case) for nitrogen oxides, sulfur oxides, and mercury emissions in Chapter 6, PLANNING PERIOD</p>

	FORECASTS, section <i>Emission Adders for Fossil Fuel-Based Resources</i> on page 72. The costs are shown in the TECHNICAL APPENDIX on pages 165-166.
<p>Guideline 9: Direct Access Loads. <i>An electric utility's load-resource balance should exclude customer loads that are effectively committed to service by an alternative electricity supplier.</i></p>	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 2011 IRP 20-year planning period.
<p>Guideline 10: Multi-state Utilities. <i>Multi-state utilities should plan their generation and transmission systems, or gas supply and delivery, on an integrated-system basis that achieves a best cost/risk portfolio for all their retail customers.</i></p>	Idaho Power intends to file the 2011 IRP in both the Idaho and Oregon jurisdictions.
<p>Guideline 11: Reliability. <i>Electric utilities should analyze reliability within the risk modeling of the actual portfolios being considered. Loss of load probability, expected planning reserve margin, and expected and worst-case unserved energy should be determined by year for top-performing portfolios. Natural gas utilities should analyze, on an integrated basis, gas supply, transportation, and storage, along with demandside resources, to reliably meet peak, swing, and base-load system requirements. Electric and natural gas utility plans should demonstrate that the utility's chosen portfolio achieves its stated reliability, cost and risk objectives.</i></p>	Idaho Power discussed the capacity planning margin in Chapter 9, MODELING ANALYSIS AND RESULTS, section <i>Capacity Planning Margin</i> , pages 115-118, and the loss of load probability in Chapter 9, MODELING ANALYSIS AND RESULTS, section <i>Loss of Load Expectation</i> , on page 119.
<p>Guideline 12: Distributed Generation. <i>Electric utilities should evaluate distributed generation technologies on par with other supply-side resources and should consider, and quantify where possible, the additional benefits of distributed generation.</i></p>	Idaho Power continues to work with its large industrial customers on various distributed generation issues as described in Chapter 5, SUPPLY-SIDE RESOURCES, section <i>Distributed Generation</i> , on page 48.
<p>Guideline 13: Resource Acquisition. <i>a. An electric utility should, in its IRP:</i></p>	Idaho Power continues to evaluate resource ownership along with other supply options. Idaho Power conducts its resource acquisition

<ul style="list-style-type: none">• <i>Identify its proposed acquisition strategy for each resource in its action plan.</i>• <i>Assess the advantages and disadvantages of owning a resource instead of purchasing power from another party.</i>• <i>Identify any Benchmark Resources it plans to consider in competitive bidding.</i> <p><i>b. Natural gas utilities should either describe in the IRP their bidding practices for gas supply and transportation, or provide a description of those practices following IRP acknowledgment.</i></p>	<p>and competitive bidding processes consistent with the guidelines established by Oregon in Order 06-446 issued on August 10, 2006.</p> <p>Idaho Power discussed asset ownership in Chapter 1, SUMMARY, section <i>Asset Ownership</i>, on page 9.</p> <p>In the next 10 years, the B2H Transmission Line is the only new IRP resource identified. Idaho Power is currently permitting this project and plans to contract for the construction work.</p>
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