ORDER NO. 14 253

ENTERED JUL 08 2014

# BEFORE THE PUBLIC UTILITY COMMISSION

# OF OREGON

LC 58

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| In the Matter of<br>IDAHO POWER COMPANY,<br>2013 Integrated Resource Plan | ORDER |

DISPOSITION: PLAN ACKNOWLEDGED IN PART AND AS REVISED

## I. INTRODUCTION

Idaho Power Company is a public utility operating in Oregon and is subject to the Commission's jurisdiction and requirements regarding integrated resource planning. Idaho Power's 2011 Integrated Resource Plan (IRP) was acknowledged with exceptions and guidance for its next IRP in Order No. 12-177. Idaho Power now seeks acknowledgment of its 2013 IRP.

We require each regulated energy utility to prepare and file an IRP within two years of acknowledgment of the utility's last plan. In the IRP, an energy utility must: (1) evaluate resources on a consistent and comparable basis; (2) consider risk and uncertainty; (3) aim to select a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers; and (4) create a plan that is consistent with the long-run public interest as expressed in Oregon and federal energy policies.[1]

Once a utility completes a plan, we review for adherence to the procedural and substantive requirements outlined in Order No. 89-507. We generally acknowledge the plan—that is, find it reasonable based on the information available at that time—or return it to the utility with comments.[2] We may also decline to acknowledge specific action items if we question whether the utility's proposed resource decision presents the least cost and risk option for its customers.

We reaffirm our long-standing view that decisions made in IRP proceedings do not constitute ratemaking. Decisions whether to allow a utility to recover from its customers the costs associated with new resources may only be made in a rate proceeding. Acknowledgment of an IRP, however, is relevant to subsequent examination of whether a

[1] Order No. 07-002.
[2] *Id.* at 2.

utility's resource investment is prudent and should be recovered from ratepayers. As we have previously stated:

> Consistency of resource investments with least-cost planning principles will be an additional factor that the Commission will consider in judging prudence. When a plan is acknowledged by the Commission, it will become a working document for use by the utility, the Commission, and any other interested party in a rate case or other proceeding before the Commission[.] Consistency with the plan may be evidence in support of favorable rate-making treatment of the action, although it is not a guarantee of favorable treatment.[3]

Just as acknowledgment does not guarantee favorable ratemaking, a decision to not acknowledge an action item does not constitute a preliminary determination of imprudence. The purpose of the IRP process is to provide the utility with the information and opinion of stakeholders and the Commission based on information presented by the utility. The question of whether a specific investment made by a utility in its planning process was prudent will be fairly examined in a subsequent rate case proceeding.

## II. DISCUSSION

We conclude Idaho Power satisfies all the procedural guidelines and all but one of the substantive guidelines for IRP planning. Idaho Power did not comply with the IRP Guideline regarding flexible capacity adopted in Order No 12-013.

We acknowledge the short-term action items in Idaho Power's Action Plan, except for the investment in selective catalytic reduction emissions technology at Jim Bridger Units 3 and 4.[4] In addition, we acknowledge two additional action items recommended by Staff that relate to energy efficiency. We do not acknowledge the remaining action items, which are for the most part outside the two-to-four year action plan period.[5]

## III. IDAHO POWER'S IRP

During the 20-year planning period, Idaho Power expects that the number of its customers will increase by about 8,400 each year, from approximately 500,000 in 2012 to 670,000 in 2032. Idaho Power's expected-case load forecast predicts that summer-peaking hour load requirements will grow at about 55 MW per year, and that the average-energy requirements will grow at 21 aMW per year. Idaho Power's load and resource balance analysis, which accounts for forecast load growth and generation from all of the company's existing resources and planned purchases, shows no energy deficits through the planning period. Idaho Power's analysis shows a capacity deficit starting in 2016 and monthly peak-hour deficit positions growing steadily in magnitude and the number of months affected. By July 2032, the capacity deficits are approximately 870 MW.

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[3] *Id.* at 24, *quoting* Order No. 89-507 at 7.
[4] *See* Appendix A.
[5] *See* Guideline 4(n).

Idaho Power identifies as its major resource addition the Boardman to Hemingway transmission line (B2H) with market purchases. The company's preferred portfolio also includes demand response, continued operations at the Jim Bridger and North Valmy coal facilities after investment in emission-control technology, and the continued operation of Idaho Power's other existing supply-side resources.

Guideline 4(n) requires the utility to include an action plan with resource activities the utility intends to undertake over the next two to four years. Idaho Power includes the following activities in its Action Plan:

| Year | Resource – Action |
|---|---|
| 2013-2018 | Boardman to Hemingway – Ongoing permitting, planning studies, and regulatory filings |
| 2013 | Gateway West – Ongoing permitting, planning studies, and regulatory filings |
| 2013 | North Valmy Unit 1 – Commit to the installation of dry sorbent injection emission-control technology |
| 2013 | Jim Bridger Units 3&4 – Commit to the installation of selective catalytic reduction emission-control technology |
| 2016-2017 | Demand response – Have demand response capacity available to satisfy deficiencies up to approximately 150 MW |
| 2018 | Boardman to Hemingway – Transmission line complete and in service |
| 2019 | Shoshone Falls – Upgrade complete and in service |
| 2019 | Jim Bridger Unit 2 – Commit to the installation of selective catalytic reduction emission-control technology |
| 2020 | Jim Bridger Unit 1 – Commit to the installation of selective catalytic reduction emission-control technology |
| 2020 | Boardman – Coal-fired operations at the Boardman plant are scheduled to end by year-end 2020 |
| 2024-2032 | Demand response – Have demand response capacity available to satisfy deficiencies in 50 MW increments up to approximately 370 MW |

## IV. DISCUSSION

In this order, we first address Idaho Power's Action Plan, discussing the comments filed by participants[6] and specific IRP Guidelines as appropriate. We then address issues raised by the participants or that we identify related to Idaho Power's compliance with the IRP Guidelines and our order regarding Idaho Power's 2011 IRP that are not discussed in connection with our review of the Action Plan.

[6] Renewable Northwest (RNW), the Citizens' Utility Board of Oregon (CUB), the Oregon Department of Energy (ODOE), and Staff of the Public Utility Commission (Staff) filed opening and reply comments regarding Idaho Power's IRP, and Idaho Power filed two rounds of comments in response. In addition, a resident of Idaho, John Weber, forwarded comments to Staff, which Staff forwarded to the Administrative Hearings Division for inclusion in the record.

## A. Transmission

### *1. Boardman to Hemingway*

Currently, the Boardman to Hemingway transmission project (B2H) is envisioned as a single-circuit 500 kV transmission line approximately 300 miles long between northeast Oregon and southwest Idaho. Idaho Power states that it has entered into a joint funding agreement with PacifiCorp and the Bonneville Power Administration to pursue permitting the project, under which Idaho Power is the permitting project manager.

Idaho Power proposes the following actions for the Boardman to Hemingway transmission project:

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|---|---|
| *2013-2018* | *Boardman to Hemingway – Ongoing permitting, planning studies, and regulatory filings* |
| *2018* | *Boardman to Hemingway – Transmission line complete and in service* |

#### *a. Participants' Comments*

RNW supports investment in B2H because it would provide Idaho Power not only with transmission to a liquid market, enabling the company to access low-cost resources to meet capacity and energy needs, but to also generate revenue by selling energy to other regional utilities. RNW also contends B2H will provide environmental benefits by enabling Idaho Power to reach renewable energy resource zones, thereby facilitating renewable energy resources.

Staff recommends acknowledgement of ongoing permitting, planning studies, and regulatory filings for B2H. Staff notes that B2H is included in five of the nine portfolios modeled in the 2013 IRP. The preferred portfolio and the next lowest "total costs portfolios" include B2H. Staff finds that the IRP analysis regarding B2H supports acknowledgment of ongoing permitting, planning studies, and regulatory filings.

Staff recommends, however, that we decline to acknowledge B2H "Transmission line complete and in-service" in 2018. Staff reports that the estimated in-service date for B2H has moved from 2018 (the year noted in Idaho Power's IRP) to 2020 (the year reported in the company's reply comments). Staff concludes this action item is now well beyond the two-to-four year period prescribed in the IRP Guidelines.

With respect to Idaho Power's activities that occur between the our order in this docket and Idaho Power's 2015 IRP, Staff asks to be apprised of any (1) updated project plan incorporating changes related to Bureau of Land Management delays and Energy Facilities Siting Council developments; (2) final agreement regarding allocation of construction costs between project participants; and (3) significant regulatory decisions that impact the project schedule or costs. Staff also asks that the company to further explore whether B2H would significantly impact wind generation curtailment during

periods of low demand as well as the impact of B2H on resource integration costs in general.

In its first round of comments, Idaho Power asserts that Staff's recommendation to acknowledge only the permitting activities of B2H and not the construction phase of the project is inconsistent with the our past acknowledgment of B2H and is unnecessary to ensure continued analysis of this project. In its final comments, Idaho Power states that it is only requesting acknowledgment of specific action items scheduled to occur within the next four years (which excludes the construction of B2H), but does ask that we acknowledge the 2013 IRP in its entirety, which includes B2H in its preferred portfolio.

*b. Commission Resolution*

We acknowledge ongoing permitting, planning studies, and regulatory filings for B2H. As Staff notes, the analysis in the IRP supports these planned near-term activities. We anticipate additional analysis regarding B2H in Idaho Power's 2015 IRP before acknowledging other actions related to B2H.

We decline to acknowledge completion of B2H because it is well beyond the two-to-four year period for action items specified by the IRP Guidelines. Further, we disagree with any suggestion that declining to acknowledge the construction of B2H is inconsistent with our previous acknowledgment of certain activities (*e.g.*, permitting) related to this resource or inconsistent with previous orders acknowledging IRPs based on a preferred portfolio that includes B2H. Our acknowledgment of an IRP is based on our conclusion that it complies with our guidelines and that the plan seems reasonable based on information known at the time.

***2. Gateway West***

Gateway West is a multi-segment, multi-year, joint transmission project of Idaho Power and PacifiCorp/Rocky Mountain Power to build and operate approximately 1000 miles of new transmission lines from Wyoming to the Hemingway Substation near Melba, Idaho. The project timeline indicates line segments in service between 2019 and 2023. Idaho Power has a one-third interest in some, but not all, of the segments to be located in Idaho and sole interest in one segment.

Idaho Power asks for acknowledgment of the following action item related to Gateway West:

*2013* *Gateway West – Ongoing permitting, planning studies, and regulatory filings*

Idaho Power reports that the Gateway West and B2H projects are complementary and will provide an upgraded transmission path from the Pacific Northwest across Idaho and into eastern Wyoming with an additional transmission connection to a population center in Utah. Idaho Power states that Gateway West will benefit customers by (1) relieving transmission constraints on certain transmission paths allowing Idaho Power to move additional energy between the east and west sides of the system; (2) providing the option

to locate future generation resources east of the Treasure Valley load center; and (3) providing future load service to the Magic Valley from the Cedar Hill Substation. Idaho Power does not request acknowledgment of Gateway West as a supply side resource. Instead, the company asserts that Gateway West is reasonable to address transmission system constraints and provide for future least cost resource development.

*a. Participants' Comments*

RNW supports investment in Gateway West because it will provide the same benefits that B2H will provide—that is, access to low-cost resources, access to regions where renewable resources could be sited, and reliability.

CUB recommends that we not acknowledge Gateway West as presented. CUB notes that Gateway West is a large project composed of a number of segments that can be analyzed individually. CUB asserts that Idaho Power should narrow its request and seek acknowledgment only of the segments of Gateway West that it can demonstrate are cost effective for Idaho Power's customers.

Staff concludes that, although there is insufficient information to support acknowledgment of the construction of Gateway West, we should acknowledge the permitting-related activities that must occur prior to construction. For purposes of Idaho Power's next IRP, however, Staff recommends that the company include an analysis of the historical and projected power flows for the portions of the Gateway West project in which Idaho Power has an interest in order to demonstrate the need and specific constraint-related benefits.

*b. Commission Resolution*

We acknowledge ongoing permitting, planning studies, and regulatory filings for Gateway West. However, as CUB notes, the project is composed of multiple segments that can and should be analyzed individually. Moreover, Idaho Power has an ownership interest in relatively few of the segments and must demonstrate the need and specific constraint-related benefits for each segment in which it holds an interest before we will consider acknowledgment of the project's construction.

## B. Pollution Control Investments in Coal Resources

### *1. Idaho Power's Analysis*

IRP Guideline 8, as modified by Order No. 08-339, contains four requirements related to environmental costs. Under this guideline, the utility must model a base case scenario to reflect what it considers to be the most likely regulatory compliance future for carbon dioxide ($CO_2$), nitrogen oxides, sulfur oxides, and mercury emissions. The utility must also develop several compliance scenarios ranging from the present $CO_2$ level to the upper reaches of credible proposals by governing entities. Then, the utility must estimate, under each of the compliance scenarios, the present value of revenue requirement (PVRR) cost and risk measures in its preferred portfolio and alternate portfolios. Guideline 8 directs the utility to identify the $CO_2$ emission cost adder level

that triggers the selection of a portfolio that is substantially different from the preferred portfolio. In addition, Guideline 8 requires utilities develop a portfolio to achieve voluntary carbon emission reduction targets set forth in Oregon law.

*a. Participants' Comments*

RNW asserts that Idaho Power's analysis of its coal resources failed to meet IRP Guideline 8 because the company did not (1) model natural gas conversions of the Jim Bridger Units 3 and 4 boilers; (2) model a range of pollution control costs; and (3) account for recent direction from President Obama's Administration that may reduce the cost competitiveness of existing coal resources. RNW asserts that investing in coal units is generally not reasonable under scenarios with low natural gas costs or stringent $CO_2$ regulation or both.

CUB also criticizes Idaho Power's analysis, and contends the company failed to consider all possible scenarios. CUB proposes a four-part, Boardman-style analysis that (1) allows potential pollution controls under different scenarios; (2) compares the broader range of pollution control scenarios to alternative investments, such as repowering with natural gas, building a CCCT, or relying on front office transactions; (3) investigates whether there is a plausible scenario for a phase-out that is at a lower cost than either of the two options; and (4) analyzes whether committing to close a plant at the end of its depreciable life would reduce pollution control costs.

Staff voices a concern similar to CUB's regarding Idaho Power's failure to consider a range of early shutdown scenarios. Staff notes that Idaho Power compared the cost of early shutdown and no controls against other alternatives, but did not model a range of early shut-down scenarios, *e.g.*, smaller pollution control investment in exchange for shutdowns at different points in time, which Staff expected would be done. Like CUB, Staff recommends that future coal analysis consider alternative dates for pollution control equipment, shut down, or other alternatives such as gas conversion.

Staff concludes that Idaho Power's analysis is sufficient to comply with the IRP Guidelines, as well as our direction, provided in 2012, to evaluate whether there is flexibility in the emerging environmental regulations that would allow the company to avoid early compliance costs by offering to shut down individual units prior to the end of their useful lives.

Idaho Power responds that its modeling complies with Guideline 8. Idaho Power notes that it modeled three levels of carbon adders to evaluate the potential impact of carbon emissions regulations in its coal study and in the IRP. In addition, Idaho Power explains it created an alternate portfolio in which the North Valmy units are converted to a gas-fired plant and Jim Bridger Units 3 and 4 are replaced with combined cycle combustion turbines (CCCTs). Idaho Power points out that President Obama's announcement regarding $CO_2$ regulation was issued the same month Idaho Power filed its IRP and that Idaho Power could not account for the announcement without delaying the filing of the 2013 IRP. And, Idaho Power asserts the June 2013 Presidential Memorandum concerned regulations for new power plants and none are included in the company's IRP.

*b. Commission Resolution*

We conclude that Idaho Power's IRP complies with IRP Guideline 8, but as discussed below, is not sufficient to provide a basis to support acknowledgment of selective catalytic reduction emission-control technology (SCR) at Jim Bridger Units 3 and 4. Guideline 8 does not require Idaho Power to model every feasible alternative scenario, but requires the company to determine the PVRR costs and risk measures of a "set of reasonable alternative portfolios" assuming a range of different compliance scenarios. Although Idaho Power did not model a scenario in which both North Valmy units and Bridger Units 3 and 4 were converted to natural gas facilities, as RNW believes should have been done, Idaho Power did model a scenario in which North Valmy is converted to natural gas and Bridger Units 3 and 4 are replaced with CCCTs (portfolio 6). In addition, although Idaho Power did not build a compliance scenario that specifically accounts for the June 2013 Presidential Memorandum, Idaho Power did test its portfolios against a range of carbon compliance futures including a carbon adder in the planning case of $14.64 per ton beginning in 2018 and escalating three percent annually, and a carbon adder in the high case of $35 per ton beginning in 2018 and escalating nine percent annually.

The carbon adder was modeled at three levels: low ($0), planning, and high. Idaho Power did not model a distribution of values, as was done with gas prices, load, and hydro in the stochastic analysis. Instead, one-third of the simulations were drawn from each carbon adder level. The company's analysis showed the preferred portfolio 2 and the non-coal portfolio 6 would switch places at a carbon adder of $45 in 2018. We find the alternative portfolios selected by Idaho Power and the range of compliance futures sufficient to satisfy the requirements of Guideline 8.

We share CUB's and Staff's concern regarding the limited nature of Idaho Power's early retirement scenarios analysis. Even though Idaho Power may have technically complied with the action item from Order No. 12-177, we expected that Idaho Power would model a broader range of early shutdown scenarios. We expect Idaho Power to engage fully with Staff and stakeholders in a timely manner to design coal investment analyses for future IRPs to ensure more robust consideration of early shutdown as a compliance option.

Also, we direct Idaho Power to work with stakeholders to explore options for how it plans to model and perform analysis in the 2015 IRP in order to comply with the applicable emissions requirements of §111(d) of the Clean Air Act.

***2. North Valmy Unit 1***

North Valmy is a coal-fired plant consisting of two generating units located in Nevada. Idaho Power is a 50 percent owner of North Valmy. After adjusting for routine scheduled maintenance and estimated forced outages, the annual energy generating capability of Idaho Power's share of the plant is approximately 220 aMW. Idaho Power plans on the continued operation of North Valmy Unit 1 throughout the 20-year planning period of the 2013 IRP and both units of North Valmy are included in Idaho Power's preferred portfolio.

Idaho Power proposes the following action for North Valmy Unit 1 to comply with federal Mercury Air Toxics Standards (MATS):

*2013* *North Valmy Unit 1 – Commit to the installation of dry sorbent injection emission-control technology*

*a. Participants' Comments*

CUB is concerned because Idaho Power's preferred portfolio includes North Valmy with an end-of-life date that CUB fears is too far in the future. CUB notes that the end-of-life date for North Valmy is at or beyond the end of the 20-year planning period in Idaho Power's preferred portfolio but that the co-owner of North Valmy, Nevada Energy, has announced plans to close the plant in 2025.

Idaho Power responds that it modeled North Valmy consistently with its current expectation of the end-of-life date. Idaho Power asserts that Nevada Energy cannot close the plant early without Idaho Power's consent, which it has not given. Also, Idaho Power modeled two portfolios that included a shortened end-of-life date for North Valmy and replacement of lost energy with other resources. These portfolios were higher cost than the preferred portfolio.

Staff recommends acknowledgment of DSI installation. Staff finds that because the cost of the investment is so small, there is no tipping point in the modeled scenarios at which it is more cost-effective to shut down North Valmy rather than invest in DSI.

*b. Commission Resolution*

We acknowledge installation of DSI at North Valmy Unit 1. We find as Staff did that the relatively low cost of the investment leads to the conclusion that the DSI investment and continued operation of North Valmy is the least cost/least risk alternative given the information that is currently available.

We do not share CUB's concern regarding how Idaho Power included North Valmy in its preferred portfolio. First, shortening the life of North Valmy would not change the result of Idaho Power's analysis; installing DSI would still be the least cost/least risk alternative. Second, future events may lead to a shortened operating life for North Valmy, but whether they will is not certain. Idaho Power reasonably relied on the results of modeling based on the assumption North Valmy will operate as Idaho Power currently expects, rather than an assumption based on events that may, or may not, transpire.

***3. Jim Bridger Units 3 and 4***

Jim Bridger is a coal-fired plant consisting of four generating units located in Wyoming. Idaho Power owns one-third of the plant, or 771 MW. The Environmental Protection Agency (EPA) submitted a final rule on January 10, 2014, requiring the installation of selective catalytic reduction emission-control technology (SCR) at Bridger Units 3 and 4 by December 31, 2015 and December 31, 2016, respectively. Idaho Power's application to the Idaho Public Utilities Commission (IPUC) for a Certificate of Public Convenience

and Necessity states that Idaho Power's cost before AFUDC is estimated to be approximately $118 million.

Idaho Power proposes the following action for Jim Bridger Units 3 and 4:

*2013* *Jim Bridger Units 3 and 4 – Commit to the installation of selective catalytic reduction emission-control technology*

*a. Participants' Comments*

CUB and RNW recommend that we not acknowledge pollution control investments at Jim Bridger Units 3 and 4, contending additional analysis is needed. Specifically, CUB asserts that Idaho Power should analyze the effect that different early retirement dates would have on the need for pollution controls at Bridger Units 3 and 4 to inform whether the currently planned investment is cost-effective. CUB notes that a shorter life may reduce the controls needed (and therefore costs), making early retirement of coal plants more cost-effective than other options. RNW adds that Idaho Power did not adequately analyze conversion to natural gas or a sufficient range of future $CO_2$ compliance costs. Also, RNW believes that investing in coal units is generally not reasonable under scenarios with low natural gas costs or stringent $CO_2$ regulation or both.

Idaho Power disagrees with RNW's and CUB's conclusions regarding its analysis for Bridger Units 3 and 4, noting that it examined a range of options including early shutdown and conversion to natural gas, and that its analysis shows that installation of SCR at Bridger Units 3 and 4 is the least cost option for the majority of the alternate carbon and natural gas scenarios it modeled.

Staff recommends we acknowledge installation of SCR at Bridger Units 3 and 4. Staff concludes that Idaho Power's coal study demonstrates that the SCR investments are the lowest cost compared to the alternatives analyzed under planning case assumptions and in the majority of the carbon and gas sensitivities. In addition to reviewing the coal study, Staff constructed an independent spreadsheet analysis of the impact of a range of gas and carbon prices on the economics of the SCR investments, which confirmed the coal study results.

*b. Commission Resolution*

Based on the information we have at this time, we decline to acknowledge Idaho Power's action item related to Bridger Units 3 and 4. Our decision regarding these investments is inextricably tied to our decision regarding the same investments in the docket opened to address PacifiCorp's IRP, docket LC 57. In that docket, we did not acknowledge the investments for Bridger Units 3 and 4 for four interrelated reasons.

First, some of the alternatives modeled by PacifiCorp suggest that the installation of SCR at Bridger Units 3 and 4 is not the lowest cost resource option. Second, there were gaps in the analyses conducted by PacifiCorp. Third, some of the questions raised by Staff and other participants on the merit of retaining or retiring the units were not fully fleshed out, while others are more appropriately addressed in a rate proceeding. Finally, PacifiCorp,

the managing utility, is proceeding with the investments, which calls into question the appropriateness of addressing the investments in a planning docket.

We recognize that Idaho Power conducted its own analysis of whether installing SCR at Bridger Units 3 and 4 is the least cost and least risk option. However, Idaho Power's analysis does not persuade us to reach a resolution in this docket that differs from that in docket LC 57, at least in part because of deficiencies in Idaho Power's analysis. More specifically, Idaho Power did not (1) analyze a full range of reasonable scenarios; (2) consider a wider range of resource replacement options as PacifiCorp; or (3) evaluate an adequate range of natural gas price sensitivities.

Idaho Power is proceeding with the investments. We will undertake a fair and thorough investigation of the prudence of the SCR investments when Idaho Power seeks rate recovery. Our decision to not acknowledge them in this docket does not prejudge the prudence of the investments for purposes of rate recovery.

## C. Demand Response

Idaho Power proposes the following near-term action related to demand response:

*2016-2017* *Have demand response capacity available to satisfy deficiencies up to approximately 150 MW*

### *a. Participants' Comments*

Staff notes that both the Oregon and Idaho commissions recently issued orders approving stipulations regarding the redesign of Idaho Power's demand response programs for 2014 and beyond. Those stipulations provide that the annual value of demand response is equal to the levelized annual cost of the minimum size deferred resource, or 170 MW. Therefore, Staff recommends changing this action item to read: "Have demand response capacity available to satisfy deficiencies up to approximately ~~150 MW~~ 170 MW beginning in 2014, and increasing as needed through 2017."

Staff also recommends that the company update its assessment of demand response availability based on summer 2014 program participation and other relevant factors by the end of 2014. In addition, Staff recommends that the Energy Efficiency Advisory Group review any revisions to the resource assessment, along with other relevant factors.

RNW supports Idaho Power's continuation of its demand response program to meet the company's capacity needs.

### *b. Commission Resolution*

We agree that revising the near-term demand response action item as recommended by Staff is appropriate in light of recently concluded dockets in Oregon and Idaho regarding demand response. We acknowledge the action item as revised by Staff. We also expect that Idaho Power will follow Staff's recommendation regarding updating its assessment of demand response availability in 2014.

## D. Long-term Action Items

Idaho Power's Action Plan includes the following long-term activities:

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|---|---|
| *2019* | *Shoshone Falls – Upgrade complete and in service* |
| *2019* | *Jim Bridger Unit 2 – Commit to the installation of selective catalytic reduction emission-control technology* |
| *2020* | *Jim Bridger Unit 1 – Commit to the installation of selective catalytic reduction emission-control technology* |
| *2020* | *Boardman – Coal-fired operations at the Boardman plant are scheduled to end by year-end* |
| *2024-2032* | *Demand Response – Have demand response capacity available to satisfy deficiencies in 50 MW increments up to approximately 370 MW* |

### *a. Participants' Comments*

Both Staff and CUB note, and Idaho Power acknowledges, that Idaho Power's Action Plan includes long-term action items in addition to the short-term action items typically presented in an IRP action plan. Staff and CUB recommend that we not acknowledge action items occurring beyond a two-to-four year period. In response, Idaho Power states that it does not seek acknowledgment of the long-term items.

### *b. Commission Resolution*

Although Idaho Power states it does not seek acknowledgment of these long-term action items, they remain part of the company's IRP. For this reason, we believe it is necessary to address them. We do not acknowledge these action items because, as Staff and CUB note, the purpose of an action plan is to identify specific near-term actions that the company plans to take to meet its resource needs.[7] We generally do not acknowledge action items planned to occur more than four years in the future.[8]

## D. Analysis of IRP

### *1. Wind Resources*

#### *a. Participants' Comments*

Several participants raise concerns related to wind resources. RNW asserts that Idaho Power's IRP underestimates the capacity factor of modern wind turbines and includes an unsupported and unreasonably high wind integration rate.

Staff and RNW raise concerns about Idaho Power's wind integration study (WIS), and the company's use of the technical review committee (TRC) we recommended the

[7] *See* Order No. 12-177.
[8] *Id.*

company form to improve such studies.[9] Staff notes that it anticipated more involvement of the TRC and recommends that Idaho Power engage with the TRC for future IRPs. RNW adds that Idaho Power's WIS based the size of the required balancing reserve on the difference between the day-ahead forecast and actual generation, which increased the assumed balancing reserves and costs. RNW notes that the TRC we required in Order No. 12-177 flagged this methodological assumption as a significant concern. Staff shares RNW's concern, and has reservations about using the study results in future filings.

In response to RNW's concern regarding overstated costs, Idaho Power notes the cost difference between the National Renewable Energy Laboratory (NREL) report and its costs comes from the conversion of 2009 dollars to 2013 dollars, the common base for the IRP's comparison of resource costs. In response to RNW's concern regarding the size of the balancing reserves, Idaho Power states that it chose to base the assumption on the day-ahead forecast because balancing reserves based on the hour-ahead forecast "would too often translate to a risky reliance on the wholesale energy market."

In response to RNW's concern regarding the average capacity factor, Idaho Power asserts that the NREL reports that Class 3 resources have an average capacity factor of 33 percent—a percentage Idaho Power adjusted downward to account for lower capacity factors of Class 2 resources. Idaho Power also asserts that its actual observations support the 26 percent average capacity factor used in the WIS and IRP.

In response to Staff's and RNW's concern regarding the role of the TRC, Idaho Power notes that we directed the company to form the committee in February 2012, nearly a year after the company had begun work on the WIS. Idaho Power announced the formation of the committee at an April 2012 workshop, but by this time the study was complete and the company was presenting preliminary study results.

*b. Commission Resolution*

We appreciate that Idaho Power responded quickly to our recommendation but are disappointed the TRC did not prove to be an effective mechanism for stakeholders to engage with Idaho Power regarding the analytical methodology of the WIS. Using the TRC to review and provide comments on the analytical methodology and results is not what we envisioned when making our 2012 recommendation. But, we recognize that our recommendation came late in Idaho Power's process, limiting the opportunity for TRC input.

We continue to recommend use of a TRC in connection with wind integration studies. The TRC could be an effective mechanism for stakeholders to engage with the company regarding the analytical methodology underlying the study and expect Idaho Power to engage with the TRC at the outset of any future study.

Regarding RNW's specific complaints regarding the WIS, we note that RNW does not urge us to disregard the WIS for the purpose of judging the reasonableness of Idaho Power's IRP, but cautions against using the WIS to determine avoided cost prices in a

[9] *Id.* at Appendix A at 3.

future proceeding. Our acknowledgment of Idaho Power's IRP has no effect on the validity of the WIS during any proceeding to establish avoided cost prices for variable wind resources. We do note, however, that effective engagement between stakeholders and utilities regarding the study methodology and inputs would likely lessen disagreements in any proceeding in which the accuracy of the study is at issue.

### *2. Capacity Contribution of Solar and Other Resources*

#### *a. Participants' Comments*

ODOE recommends certain changes to how Idaho Power examines capacity credits for solar, wind, and hydro resources, and how the company models orientation of flat-plate solar PV systems.

Idaho Power disagrees with ODOE's specific recommendation regarding the capacity contribution, but recognizes that solar resources are unique and that its analysis must address numerous considerations such as tracking systems, resource orientation, and materials. Idaho Power states it seeks to attribute the proper capacity credit to distributed solar PV and has initiated an IRP Advisory Council distributed solar PV workgroup to address the cost and capacity credit of distributed solar PV in the 2015 IRP. Idaho Power states that it anticipates the workgroup will address topics such as panel orientation and tracking systems. Idaho Power also states that it is analyzing integration of large-scale solar PV projects and working on this topic with members of its Solar Integration Study Technical Review Committee.

#### *b. Commission Resolution*

We appreciate Idaho Power's willingness to work on the issues identified by ODOE for its next IRP. We hope Idaho Power will work directly with ODOE. In any event, we expect to see results of Idaho Power's work in its 2015 IRP.

### *3. Gas Price Forecasts*

#### *a. Participants' Comments*

Staff comments on three aspects of Idaho Power's natural gas price forecasts used in the IRP. Staff expresses concerns regarding the symmetric adjustments to the base case forecast, the escalation of the Energy Information Administration (EIA) reference case gas price forecast, and the high correlation between natural gas prices and wholesale electricity prices in the company's modeling. Staff identifies gas price forecasts as an issue to be analyzed during the development of the 2015 IRP. The company responds that its stochastic inputs are reasonable and that it will consider alternatives to deriving high and low gas price scenarios for future IRPs.

#### *b. Commission Resolution*

We anticipate that these analytical issues will be raised by Staff and addressed during the planning process for the 2015 IRP.

### *4. Flexibility Guideline*

In our investigation of matters related to electric vehicle charging, we adopted our Staff's recommendation to add an IRP guideline to require utilities to incorporate planning for flexible capacity in IRPs.[10] Utilities must forecast the balancing reserves needed at different time intervals to respond to variation in load and intermittent renewable generation over the 20-year planning period and to forecast the availability of balancing reserves at different time intervals. In planning to fill any gap between the demand and supply of flexible capacity, utilities must also evaluate all resource options on a consistent and comparable basis.

#### *a. Participants' Comments*

RNP asserts that Idaho Power's IRP does not comply with the IRP Guidelines because it does not forecast the demand for and supply of flexible capacity, or evaluate flexible resources on a consistent and comparable basis. RNW suggests that future IRPs should quantify the existing supply of flexible resources across multiple time scales, quantify the amount of reserves associated with each supply-side resource, and expand types of demand for flexible resources, *e.g.*, need to meet hourly ramps of load and other variable resources.

Idaho Power responds that its 2013 IRP did, in fact, include much of the flexibility analysis that RNW asserts is lacking. Idaho Power notes that a pumped storage hydro project was modeled as a resource alternative and as a tool to assist in the integration of wind resources. Idaho Power asserts that this modeling captured the flexibility and peaking capacity of the pumped storage hydro project and helped to integrate the variable wind generation into the system, and captured market arbitrage opportunities.

Staff recognizes that the company provided qualitative analysis that shows it is unlikely Idaho Power will need additional flexible capacity over the 20-year planning horizon, but agrees with RNW that the guideline asks for quantitative analysis of the size and timing of the flexible capacity resource balance. Staff recommends that Idaho Power substantially expand its analysis in the 2015 IRP. Staff is willing to work with Idaho Power and other stakeholders to help develop the quantitative analysis.

#### *b. Commission Resolution*

We find that Idaho Power's IRP does not comply with the Flexible Resources Guideline. Idaho Power did not submit the required analysis of demand and supply of balancing reserves disaggregated across multiple timescales. We expect the company to use the recommendations of both RNW and Staff to provide a compliant and more robust analysis regarding flexible resources in its 2015 IRP.

[10] Order No. 12-013 at16-18.

### *5. Conservation Voltage Reduction*

Staff states that Idaho Power failed to include the required assessment of the available cost effective conservation voltage reduction (CVR) in its service area. Staff explains that we directed the assessment in our review of Idaho Power's 2012 IRP:

> The next IRP filed by Idaho Power will include an assessment of the available cost-effective conservation voltage reduction (CVR) resource potential in its service area. The company will propose an action item in its 2013 IRP related to this resource. The planned energy savings and reduced peak demand will be incorporated into Idaho Power's load-resource balance forecasts.[11]

We agree that Idaho Power's 2013 IRP failed to include this assessment, and direct the company to provide this assessment in its 2015 IRP.

In the interim, we direct our Staff to conduct the independent CVR and Volt/Var Ampere Reactive control programs we ordered in Idaho Power's 2013 Annual Smart Grid Report.[12] Staff should conduct the analysis within the next six months and report the results of the analysis to us at a public meeting.

### *6. Energy Efficiency*

Although Idaho Power's IRP contains specific energy efficiency targets as part of its plan, the company does not include those amounts in the Action Plan. Staff proposes two action items to address energy efficiency:

| | | |
|---|---|---|
| *2013-2017* | *Energy Efficiency* | *The forecast reduction for 2013 to 2017 programs will be 69 aMW* |
| *2013-2017* | *Energy Efficiency* | *The incremental energy efficiency savings for 2013 to 2017 will reduce energy loads by 38 aMW* |

We adopt Staff's proposed additions to the Action Plan.

### *7. NEEA*

Idaho Power plans to curtail funding to the Northwest Energy Efficiency Alliance (NEEA) in the next five-year funding cycle. Idaho Power explains that it has asked NEEA to operate under an alternative funding model that would allow Idaho Power's funds to be directed toward the costs of activities that Idaho Power believes are most valuable to its customers. Idaho Power supports the concept of optional programs in NEEA's 2015-2019 Business Plan in which funders could choose to participate and fund certain programs or opt out of them altogether.

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[11] Order No. 12-177 at 5.
[12] Order No. 13-481 at 1-2.

*a. Participants' Comments*

CUB and Staff are concerned with Idaho Power's proposal to curtail funding to NEAA. Staff believes that NEAA is one of Idaho Power's most cost effective energy investments. Staff notes that NEEA is a compact between over 100 Northwest utilities and efficiency organizations that creates value for its supporters by broad market intervention and energy efficiency market development. NEEA's activities have resulted in the development of an energy efficiency products and practices pipeline to the region that benefits Idaho Power's and the region's ratepayers.

*b. Commission Resolution:*

We do not know Idaho Power's final decision about continued participation in NEEA. However, we are dismayed by the possibility that Idaho Power's approach could undermine support for regional market transformation. We agree with Staff's observations of the importance of NEEA. We believe that market transformation is an integral part of an effective energy efficiency strategy to lower cost and risk to ratepayers. Based on our analysis and our continued oversight of funding to NEEA from Oregon ratepayers, we believe that NEEA is capturing cost-effective energy efficiency over the long run and expanding opportunities for cost-effective energy efficiency in the future. For those programs Idaho Power opts out of, we expect Idaho Power will acquire commensurate savings from equivalent services at a cost equal to or less than what NEEA could provide.

## D. Recommendations For Idaho Power's 2015 IRP

In Order No. 12-177, we reminded Idaho Power that IRP Guideline 4(n) requires utilities to include in an IRP action plan the resource activities the utility plans to undertake over the next two to four years to acquire the identified resources. We also recommended that Idaho Power's future IRPs include a "concise listing of action items for all resources and resource related activities, with each action item numbered."[13]

Idaho Power did include an action plan with resource activities it plans to take in the next two to four years, but the plan also includes longer-term actions. We clarify that, in future IRPs, Idaho Power should limit its Action Plan to activities it plans to undertake in the next two to four years. Idaho Power may compile other lists of activities planned for an extended period, as it has done in this IRP, but we recommend the company create and identify the action plan activities for which it requests specific acknowledgment. Again, we recommend that the company number each of these action items to facilitate our review.

## E. IRP Update

Staff sought delays in these proceedings to facilitate our review of resource action items presented for acknowledgment in both PacifiCorp's IRP and Idaho Power's IRP.

[13] Order No. 12-177 at 8.

As a result of this delay, Idaho Power's annual update to its 2013 IRP, which is due no later than 12 months after acknowledgment. However, Idaho Power must file its 2015 IRP with the Idaho Public Utilities Commission no later than June 2015. Idaho Power intends to file an IRP in Oregon at the same time it files in Idaho.

Given that Idaho Power will file its next IRP with the Idaho commission by June 2015, we waive the requirement that Idaho Power file an annual update to this IRP. This waiver addresses only a routine IRP update, and we expect Idaho Power to file an IRP update if it anticipates a significant deviation from its acknowledged 2013 IRP in the manner required by IRP Guideline 3(f).

## V. ORDER

IT IS ORDERED that the 2013 Integrated Resource Plan filed by Idaho Power Company is acknowledged in part consistent with the terms of this order.

Made, entered, and effective JUL 08 2014.

**Susan K. Ackerman**
Chair

**John Savage**
Commissioner

**Stephen M. Bloom**
Commissioner

# Appendix A

**Acknowledged Action Plan Items**

| Year | Resource - Action |
|---|---|
| 2013- 2018 | Boardman to Hemingway – Ongoing permitting, planning studies, and regulatory filings |
| 2013 | Gateway West – Ongoing permitting, planning studies, and regulatory filings |
| 2013 | North Valmy Unit 1 – Commit to the installation of dry sorbent injection emission-control technology |
| 2016-2017 | Have demand response capacity available to satisfy deficiencies up to approximately 170 MW beginning in 2014, and increasing as needed through 2017 |
| 2013-2017 | Energy efficiency – The forecast reduction for 2013 to 2017 programs will be 69 aMW |
| 2013-2017 | The incremental energy efficiency savings for 2013-2017 will reduce energy loads by 38 aMW |
| 2013-2015 | CVR – Include an assessment of the available cost-effective conservation voltage reduction (CVR) resource potential in service area and an action item related to this resource in the next IRP. Incorporate the planned energy savings and reduced peak demand into load-resource balance forecasts. |