

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 58

In the Matter of

IDAHO POWER COMPANY

2013 Integrated Resource Plan

Final Comments of Renewable Northwest
Project

Renewable Northwest Project (“RNP”) appreciates the opportunity to submit these Final Comments on Idaho Power Company’s (“Idaho Power” or “the company”) 2013 Integrated Resource Plan (“IRP”) in response to the comments filed by other parties to this proceeding. As discussed in these Final Comments, RNP urges the Oregon Public Utility Commission (the “Commission”) to acknowledge the company’s selection of the Boardman to Hemingway transmission line (“B2H”) as the primary resource in its preferred portfolio, but also to direct the company to improve (1) its analysis of coal replacement portfolios; (2) its modeling of wind resource costs; and (3) its flexible capacity analysis.

1. The Commission Should Acknowledge B2H as the Primary Resource in Idaho Power’s Preferred Portfolio, While Encouraging Improved Risk Analysis.

RNP continues to support the development of B2H as the primary resource in Idaho Power’s preferred resource portfolio. B2H is a valuable, least-cost investment that, together with the expansion of the company’s demand response program, meets the company’s capacity needs while providing the flexibility to pursue a clean energy future.

In the Commission Staff’s (“Staff”) Opening Comments, Staff recommends that the Commission only acknowledge the permitting activities associated with B2H in part because of concerns with the company’s natural gas forecast and risk analysis. (Staff’s Opening Comments,

Page 1, 3). RNP recognizes Staff's valid concern that the risk analysis' conservative gas forecasts and stochastic assumptions may underestimate the upside risk of market prices. Nonetheless, the IRP shows B2H to be a least-cost asset across many future scenarios. Developing a major transmission project is a significant undertaking, and acknowledging only the permitting activities associated with B2H may not provide the company with the confidence and business certainty needed to move forward with this investment. Accordingly, we encourage the Commission to acknowledge the development of B2H as the primary resource in Idaho Power's preferred portfolio to the extent appropriate. At the same time, we encourage the company to refine its risk analysis to better characterize unlikely but expensive futures.

2. Investing in Legacy Coal Plants Remains a Risky Resource Strategy

In RNP's Opening Comments, RNP made three points that identified how Idaho Power's IRP failed to justify pollution control investments in its existing resource portfolio: (1) the company did not consider natural gas conversions of the Jim Bridger 3 & 4 boilers; (2) the company did not include a range of pollution control costs; and (3) the company's analysis of pending carbon regulation did not account for recent direction from the Obama Administration that may reduce the cost competitiveness of existing resources. (RNP's Opening Comments, Page 4-6). RNP remains concerned because the company's Reply Comments do not demonstrate an understanding of RNP's listed study deficiencies. The proposed investments should not be made until the company adequately addresses the IRP's study flaws.

It is the wrong time to make large capital investments in legacy coal units. Federal policy is steering utilities away from further investment in carbon intensive resources. In its Opening Comments, RNP recommended that the company consider how the June 2013 Presidential Memorandum affected Idaho Power's resource strategy. (*Id.* at 5-6). In its Reply Comments,

the company responded, “because the IRP was filed in June 2013, the Company could not have accounted for the June 2013 announcement without delaying the filing of the 2013 IRP. In addition, and more importantly, the announced regulations pertain only to new power plants and Idaho Power is not proposing any new coal plants in the 2013 IRP.” (Idaho Power’s Reply Comments, Page 11). However, the Presidential Memorandum does indeed direct federal agencies to regulate carbon emissions from existing resources. Using the authority granted under section 111(d) of the Clean Air Act, the Environmental Protection Agency (“EPA”) has been ordered to develop regulations to limit carbon emissions from modified (i.e., upgraded) power plants within one year, and to finalize greenhouse gas emission restrictions for existing power plants in the years thereafter. RNP is very concerned that the company has not considered this pivotal rulemaking and its effects on the company’s resource portfolio. RNP recommends that the Commission direct the company to take notice of the recent rulemaking process.

The IRP does not consider natural gas conversion opportunities at Jim Bridger 3 & 4. RNP’s Opening Comments identified the absence of natural gas conversion analysis at Jim Bridger 3 & 4 to be a significant deficiency. (RNP’s Opening Comments, Page 4-5). In its Reply Comments, Idaho Power responded that the company “specifically analyzed the economics of natural gas conversion and concludes that natural gas conversion is not the least-cost alternative.” (Idaho Power’s Reply Comments, Page 11). Despite its statements to the contrary, the company’s IRP does not model the conversion of all of its coal units to natural gas. The natural gas conversion portfolio, Portfolio Seven, converts the North Valmy coal plant to natural gas, but shuts down Jim Bridger Units 1, 2, 3 and 4 and replaces those four units with two new 350 MW CCCT plants. (Idaho Power’s 2013 IRP, Page 94). This single portfolio does not offer enough evidence as to whether natural gas conversion is the least-cost alternative. Portfolio

Seven hardly tests the economic merit of natural gas conversion at all; for the 260 MW of natural gas conversion installed at Valmy, 680 MW of coal is retired at Jim Bridger and 700 MW of *new* CCCT facilities are built to replace those closures. (*Id.*). Relying on natural gas conversions to avoid required coal pollution control upgrades remains a low-cost resource strategy that has not been sufficiently tested in Idaho Power's IRP. The analysis in LC 57 may help inform the relative economics of converting Jim Bridger Units 3 & 4 to natural gas.

A range of pollution control upgrade costs was not considered in the company's 2013 IRP. After RNP identified this deficiency in the IRP, Idaho Power responded that "the Company's modeling, both in the 2013 IRP and in the Coal Study, included costs for other anticipated regulations and examined three levels of carbon adders to evaluate the potential impact of the regulation of carbon emissions." (Idaho Power's Reply Comments, Page 11). The IRP does consider two futures with taxes on carbon emissions, in addition to a third future with no carbon adder. In addition, the IRP also attempts to "calculate the variable and fixed environmental compliance costs attributed to [NO_x, Hg, and SO₂ emissions]." (Idaho Power's 2013 IRP, Page 64). However, the IRP does not consider a range of pollution control costs at the Valmy and Bridger units as originally identified in RNP's Opening Comments. On January 10, 2014, the EPA issued a final ruling on the control technologies required at Jim Bridger Units 3 & 4. While this ruling does provide more clarity on the required pollution control investments, there remains some uncertainty regarding the specific installation costs of a SCR upgrade. Idaho Power would be wise to include a range of engineering costs associated with the installation at Jim Bridger 3 & 4.

3. Idaho Power's IRP Continues to Overstate Wind Resource Costs

Idaho Power's prudently planned use of B2H coupled with demand response will satisfy the company's upcoming capacity requirements. However, Idaho Power will need energy

resources later in its planning horizon. As such, it is important to prepare an accurate valuation of wind and other low-cost energy resources. As discussed in this section, Idaho Power continues to overstate wind resource costs by (1) assuming low wind capacity factors unsupported by evidence; (2) using an incomplete capacity value methodology; and (3) overestimating wind integration costs.

i. Idaho Power’s Assumed Wind Capacity Factors Are Too Low.

Idaho Power has not provided evidence to justify its assumption of a 26 percent capacity factor for new wind resources in its IRP. To the contrary, Idaho Power has provided both evidence and reasoning that its assumed wind capacity factors should be higher. RNP’s Opening Comments stressed that using a 26 percent capacity factor was too low. (RNP’s Opening Comments, Page 6-7). RNP observed that for class 3 and 4 wind resources available to Idaho Power, the NREL report referenced by the company suggested assuming 33 to 37 percent capacity factors. (*Id.* at 7). Idaho Power replied that “the areas where Idaho Power is most likely to have future wind development are overwhelmingly designated as marginal to fair resource of wind class 2 and 3.” (Idaho Power’s Reply Comments, Page 19). Idaho Power has not disputed NREL’s recommended capacity factors for class 3 wind resources. In addition, Idaho Power has agreed that class 3 wind resources are available to the company. (*Id.* at 18-19 & n. 58). Moreover, Idaho Power has acknowledged that the NREL report on which it relies does not specify the capacity factors for class 2 wind resources. (*Id.* at n. 58). Without any evidence to support using a 26 percent capacity factor, RNP finds it unreasonable to use this limiting assumption. In light of the NREL data and Idaho Power’s own statements, RNP recommends that the Commission direct the company to model class 3 wind resources with associated capacity factors supported by publicly available data. This change alone would reduce the levelized cost of wind by 25 percent compared to the current IRP.

ii. Idaho Power Uses an Incomplete Capacity Value Methodology.

RNP agrees with ODOE that renewable resources are further undervalued through the use of an incomplete capacity value methodology and that the company should use the more accurate effective load carrying capability (“ELCC”) methodology. (See ODOE’s Opening Comments, Page 1-4). Idaho Power is incorrect that its capacity contribution methodology is consistent with the ELCC approach. (See Idaho Power’s Reply Comments, Page 22). The exceedance methodology used by the company is based upon an arbitrary percentile level and does not capture real reliability contributions provided by any resource outside the highest peak hours. The ELCC method delivers a capacity value that represents the amount of capacity that can be reliably delivered by a resource throughout the year, including the highest peak hours. Accordingly, the Commission should direct the company to use the more accurate ELCC methodology to calculate capacity values.

iii. Idaho Power Continues to Overestimate Wind Integration Costs

RNP remains concerned with Idaho Power’s overestimation of wind integration costs. It is appropriate for the Commission to review wind integration costs as part of an IRP because these costs affect future wind resource costs and because PURPA avoided cost contracts often include the wind integration cost from a utility’s most recently approved IRP.

RNP’s Opening Comments identified just how far out-of-step Idaho Power’s wind integration costs are with those of its utility peers. Idaho Power’s Wind Integration Study concludes that wind integration will cost the company \$8.06-\$19.01/MWh, depending on the level of wind penetration on the system. (Idaho Power’s Wind Integration Study Report, Feb. 2013, Page 7). For a quick comparison, Portland General Electric’s 2013 Wind Integration Study Update resulted in a \$3.99/MWh cost, PacifiCorp’s 2012 Wind Integration Study resulted

in a \$2.55/MWh cost, and the Bonneville Power Administration's 2014-15 rate case resulted in roughly a \$5.30/MWh cost for standard wind integration services using hourly scheduling, with discounts for those who use sub-hourly scheduling. Idaho Power's elevated wind integration costs are the result of a flawed assumption regarding the amount of balancing reserves required to integrate wind.

The company's assumption regarding the amount of balancing reserves required to balance wind departs from standard utility operational practices. The wind integration study assumes that a large amount of balancing reserves are required to compensate for wind's day-ahead schedule errors. (*Id.* at 23). In reality, standard utility practice makes use of a smaller amount of balancing reserves to compensate for wind's smaller hour-ahead schedule errors. For those times when day-ahead schedule errors exceed the balancing reserves made available to serve hour-ahead schedule errors, utilities should turn to least-cost resources. In the case of Idaho Power, the least-cost resources available to the company include (but are not limited to) available generating capacity and market transactions. It is far too expensive to hold an unnecessarily large amount of balancing reserves for the entire year, and this expensive assumption is reflected in Idaho Power's high wind integration costs. In its Reply Comments, the company responds that holding a smaller, more reasonable amount of balancing reserves for wind integration "would too often translate to a risky reliance on the wholesale electric market." (Idaho Power's Reply Comments, Page 20). Standard utility practice has not found such a reliance on wholesale markets too risky, but instead has found this to be a least-cost practice for wind integration. For those hours when market purchases are forecasted to be unavailable due to limited transmission capacity, Idaho Power can hold additional balancing reserves. But it is expensive and unreasonable to assume that a larger amount of balancing reserves must be carried

throughout the entire year. Accordingly, Idaho Power's wind integration study should mirror the company's real operational practices of maintaining reliability while using least-cost resources whenever available.

4. Idaho Power Should Continue to Refine its Flexibility Analysis

RNP encourages the Commission to direct Idaho Power to refine its flexibility analysis on a going-forward basis. As noted in RNP's Opening Comments, Idaho Power's flexibility analysis performed in connection with this IRP does not meet the Commission's guidelines set forth in Order 12-013. (RNP's Opening Comments, Page 3-4). The company's IRP does not quantify the demand for flexible resources or the available supply of existing and future flexibility. The IRP simply identifies the quantity of balancing reserves the company thinks is required to integrate wind and states that the company's hydro resources provide enough flexibility to meet this demand. (Idaho Power's 2013 IRP, Page 109). Going forward, future IRPs should quantify the existing supply of flexible resources across multiple timescales. New supply-side resources should also be further characterized by the amount of flexible reserves associated with those resources. The demand for flexible resources is not simply associated with the balancing reserves needed to integrate wind; rather, it is also associated with the need to meet hourly ramps of load and other variable resources. Furthermore, this demand should be disaggregated across multiple timescales, as required by Commission order (for example, how much is required to be available on a five-minute regulation basis versus an hourly imbalance basis). Although Idaho Power's current IRP does not meet these requirements, RNP looks forward to subsequent discussion on how to improve this component of the IRP in the future.

5. Conclusion

RNP appreciates the opportunity to comment on Idaho Power's 2013 IRP and looks forward to working with the company on addressing the issues raised in our comments.

Respectfully submitted this 15th day of January, 2014.

RENEWABLE NORTHWEST PROJECT

/s/ Jimmy Lindsay

Jimmy Lindsay
Regulatory Analysis Manager
jimmy@rnp.org

/s/ Dina Dubson

Dina Dubson, OSB No. 085660
Staff Counsel
dina@rnp.org

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I served the FINAL COMMENTS OF RENEWABLE NORTHWEST PROJECT upon the following parties on the service list for LC 58, via electronic mail, on January 15, 2014:

RENEWABLE NORTHWEST PROJECT

By: /s/ Dina Dubson

Dina Dubson, OSB No. 085660
Staff Counsel
dina@rnp.org

W	NANCY ESTEB, PHD	PO BOX 490 CARLSBORG WA 98324 betseesteb@qwest.net
W	THOMAS H NELSON ATTORNEY AT LAW	PO BOX 1211 WELCHES OR 97067-1211 nelson@thnelson.com
W	*OREGON DEPARTMENT OF ENERGY KACIA BROCKMAN (C) SENIOR ENERGY POLICY ANALYST	625 MARION ST NE SALEM OR 97301-3737 kacia.brockman@state.or.us
	PHILIP H CARVER (C) SENIOR POLICY ANALYST	625 MARION ST NE STE 1 SALEM OR 97301-3742 phil.carver@state.or.us
W	*OREGON DEPARTMENT OF JUSTICE RENEE M FRANCE (C) SENIOR ASSISTANT ATTORNEY GENERAL	NATURAL RESOURCES SECTION 1162 COURT ST NE SALEM OR 97301-4096 renee.m.france@doj.state.or.us
W	CITIZENS' UTILITY BOARD OF OREGON OPUC DOCKETS	610 SW BROADWAY, STE 400 PORTLAND OR 97205 dockets@oregoncub.org
	ROBERT JENKS (C)	610 SW BROADWAY, STE 400 PORTLAND OR 97205 bob@oregoncub.org
	G. CATRIONA MCCRACKEN (C)	610 SW BROADWAY, STE 400 PORTLAND OR 97205 catriona@oregoncub.org
W	IDAHO POWER COMPANY REGULATORY DOCKETS	PO BOX 70 BOISE ID 83707-0070 dockets@idahopower.com PO BOX 70

LISA D NORDSTROM

BOISE ID 83707-0070
lnordstrom@idahopower.com

W	MCDOWELL RACKNER & GIBSON PC LISA F RACKNER	419 SW 11TH AVE., SUITE 400 PORTLAND OR 97205 dockets@mcd-law.com
W	PORTLAND GENERAL ELECTRIC PATRICK G HAGER	121 SW SALMON ST 1WTC0702 PORTLAND OR 97204 pge.opuc.filings@pgn.com; patrick.hager@pgn.com
	BRIAN KUEHNE	121 SW SALMON STREET 3WTC BR06 PORTLAND OR 97204 brian.kuehne@pgn.com
	V. DENISE SAUNDERS	121 SW SALMON ST 1WTC1301 PORTLAND OR 97204 denise.saunders@pgn.com
W	PUBLIC UTILITY COMMISSION OF OREGON BRITTANY ANDRUS (C)	PO BOX 1088 SALEM OR 97308-1088 brittany.andrus@state.or.us
W	PUC STAFF--DEPARTMENT OF JUSTICE STEPHANIE S ANDRUS (C)	BUSINESS ACTIVITIES SECTION 1162 COURT ST NE SALEM OR 97301-4096 stephanie.andrus@state.or.us
W	RENEWABLE ENERGY COALITION JOHN LOWE	12050 SW TREMONT ST PORTLAND OR 97225-5430 jravenesanmarcos@yahoo.com
W	RENEWABLE NORTHWEST PROJECT RNP DOCKETS	421 SW 6TH AVE., STE. 1125 PORTLAND OR 97204 dockets@rnp.org
	MEGAN WALSETH DECKER	421 SW 6TH AVE #1125 PORTLAND OR 97204-1629 megan@rnp.org