

RECEIVED

2011 NOV 14 PM 2:00

IDAHO PUBLIC
UTILITIES COMMISSION

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF IDAHO POWER
COMPANY'S 2011 INTEGRATED
RESOURCE PLAN

Case No. IPC-E-11-11

COMMENTS OF RENEWABLE NORTHWEST PROJECT

Renewable Northwest Project (RNP) appreciates the opportunity to comment on Idaho Power Company's 2011 Integrated Resource Plan (IRP). RNP followed the development of Idaho Power's 2011 IRP and attended some of the 2011 IRP Advisory Council (IRPAC) meetings as a public participant. Based on our own participation and our discussion with IRPAC members, RNP wishes to commend Idaho Power staff for an IRP process characterized by open dialogue and receptivity to stakeholder comments.

RNP generally supports the primary resource in Idaho Power's initial 10-year portfolio: improved access to markets through development of the Boardman to Hemingway transmission line ("B2H"). Meeting summertime peak capacity needs with market purchases from the winter-peaking west appears to be a solid plan for the utility, and B2H also brings strong reliability benefits. B2H can also position Idaho Power to acquire more energy from renewable resources, and lower the cost of integrating renewables by enabling access to within-hour flexibility now developing in the broader market. RNP recognizes the substantial enterprise required to develop a large, multi-state transmission line, and appreciates Idaho Power's efforts to move the B2H project forward in a manner that can benefit its customers, partners, and the region.

RNP recognizes the risk that B2H could be delayed, and that Idaho Power may need

to address a capacity deficit before B2H comes online. We encourage consideration of alternatives to Idaho Power's alternative resource portfolio (1-4 SCCT), which is comprised solely of single cycle combustion turbine (SCCT) plants. Before pursuing an all-gas alternative, the Company should give demand side management ("DSM") alternatives and solar photovoltaic ("solar PV") resources as much time as possible to ripen, because pursuing those alternatives to lowering peak needs could provide greater long-term benefits to the utility and its customers. It would also help Idaho Power achieve consistent, long-term reductions in the carbon intensity of its generating portfolio. Further discussion in support of these and other comments follows.

1. B2H Can Benefit Idaho Power Customers and the Region.

RNP is keenly aware of the need for transmission development in the Northwest and believes that B2H would benefit Idaho Power's customers and the region in terms of market access, renewable resource availability, and reliability. With B2H already gaining momentum from its placement on the federal regulatory fast track (through assignment to the administration's "Rapid Response Team for Transmission"), accepting this IRP filing with recognition of B2H's benefits to Idaho Power can help further the project's progress. RNP sees the primary benefits of B2H to Idaho Power as follows:

First, B2H provides Idaho Power with transmission access to a liquid market that provides optionality and keeps the market's lowest cost resources available to the utility. The diversity inherent in the market makes investment in transmission less risky than investing in a single resource whose cost is dependent on gas prices alone. B2H also can help Idaho Power lower the cost of integrating variable renewable energy resources, by allowing the utility to access maturing markets for within hour flexibility. Those maturing

markets include within-hour scheduling with other balancing authorities, the energy imbalance market, and the Joint Initiative's I-TAP project to develop a rapid, transparent trading platform for balancing services.

Second, B2H reaches renewable energy resource zones in the Northwest that would otherwise be inaccessible, possibly allowing for the future development of renewable energy resources that can serve Idaho Power and the region. It is important to note that Idaho Power "received more than 4,000 MW of requests to commence transmission service between 2005 and 2014 on the Idaho-Northwest transmission path," of which only 122 MW were granted due to a lack of available transmission capacity. (Idaho Power Company 2011 Final IRP ("2011 IRP"), p. 52.) Depending on how the available capacity of B2H is allocated by Idaho Power and its project partners, significant amounts of transmission capacity could be made available to renewable resources, thereby enabling those resources to serve the entire region. Notably, Idaho Power identified wind resources as having the lowest levelized cost of production of any physical resource (2011 IRP, p. 83, Table 6.9) and we expect that the entire region may benefit from the improved access to transmission for wind, solar, and other renewable resources. Expanded transmission to different regions will give Idaho Power access to geographically diverse wind and solar resources, which can mitigate their variability and lower the need for balancing reserves.¹

All of this depends, of course, on how the line is used. Substantial uncertainty exists as to allocation of the capacity remaining on B2H after serving Idaho Power's estimated 450 MW of need. At the September 20, 2011, Oregon PUC Public Hearing, Idaho Power's presentation suggested that ownership rights of B2H are still under negotiation between

¹ For more information on diversity benefits, see the National Renewable Energy Laboratory's *Western Wind and Solar Integration Study*, available at <http://www.nrel.gov/wind/systemsintegration/wwsis.html>.

the other parties involved with the project – the Bonneville Power Administration (BPA), PacifiCorp, and LS Power. Idaho Power is yet to define its specific level of ownership in the project and its corresponding transmission rights. Not only is there uncertainty surrounding Idaho Power's intended use of the transmission capacity beyond its desire to meet peak summertime load of roughly 450 MW in 2020, but also there is a high level of uncertainty in regards to how Idaho Power's project partners intend to use their share of the transmission capacity. In order to fully understand the implications that B2H will have for the region, it will be important to determine how Idaho Power and its project partners intend to use the B2H capacity as specific details regarding B2H ownership rights become available.

Finally, B2H will provide strong reliability benefits. B2H provides redundancy for the utility, giving it another choice for supply in the event of a transmission outage to the east. The path proposed for B2H presently lacks a 500 kV transmission line, making it a significant weak point in the Northwest transmission system and leaving Idaho Power's customers isolated. B2H can serve as an important link to creating a full 500 kV loop around the four Northwest states. This loop would allow transmission system operators to access every load and generator with bulk power even while suffering a single line outage. Connection to a robust, reliable Northwest grid will bring improved energy security to Idaho Power's customers.

2. In the Event that B2H Is Delayed, Idaho Power Should Reevaluate Alternative Resource Options Before Pursuing More Gas Additions.

Idaho Power's alternative portfolio 1-4 SCCT contains 434 MW of SCCT capacity from 2015-2019, with 170 MW added in 2015. *Id. at 121.* Although we recognize the possibility that B2H could be delayed past its expected 2016 online date, we encourage the

Company to plan for reexamination of its alternative resource plans in the 2013 IRP—particularly given the relatively short construction lead time for a SCCT. Moving forward with a SCCT prematurely could prevent Idaho Power from acquiring resources—namely, DSM and solar PV—that are less costly and risky in the long term and that may become more attractive between now and when additional capacity is needed to meet Idaho Power’s capacity deficit. Idaho Power has shown leadership in using DSM to reduce peak capacity needs, and the Commission could encourage the utility to redouble its efforts to find DSM opportunities to defer the capacity addition until B2H comes online.

In addition, delaying resort to a SCCT may give solar PV time to become cost competitive with natural gas. As Idaho Power has recognized, the generation characteristics of solar PV are an excellent fit for much of its summertime peak-hour capacity needs. Although Idaho Power did model PV as part of its 2011 IRP at a reasonable cost for today’s market conditions (\$3,750/kW), the cost of PV in 2013-2014, when a decision will be necessary as to how to meet unmet demand if B2H is delayed significantly, is likely to have declined enough to warrant a revised cost comparison between PV and SCCT. Recent research by the U.S. Department of Energy suggests that the installed cost of utility-scale PV is likely to reach \$2.20/watt by 2016,² or 41 percent less than the cost that was modeled in Idaho Power’s IRP. Idaho Power acknowledges the downward cost trend of solar PV and stated that “Idaho Power will continue to closely follow the decreasing price trend of solar PV as this technology continues to become more cost competitive with

² The U.S. Department of Energy believes it is likely that, given the current rate of cost decline, the installed cost of solar PV will reach \$2.20/watt by 2016, down from \$8/watt in 2004. Furthermore, the U.S. Department of Energy is discussing the possibility of solar PV reaching an installed cost of \$1/watt by 2017, or the equivalent of \$0.05-0.06/kWh *without subsidies*. U.S. Department of Energy, 2010. Available at: www1.eere.energy.gov/solar/sunshot/pdfs/dpw_white_paper.pdf.

more traditional resource alternatives.” (2011 IRP, p. 46.) We appreciate Idaho Power’s attention to solar PV and recognition of its increasing cost competitiveness.

In light of these developing DSM and solar PV alternatives, RNP believes that Idaho Power should be encouraged to reevaluate Alternative Portfolio 1-4 SCCT at a time closer to when a decision is made to divert from Idaho Power’s Preferred Portfolio. Before Idaho Power pursues an alternative portfolio of SCCTs, it should update its peak need forecast and provide the Commission with a contemporaneous “tipping point” analysis (*see* 2011 IRP, p. 115, Figure 9.25) that compares DSM and solar PV alternatives to a SCCT, and includes consideration of the former’s ability to hedge future gas price volatility.

3. Idaho Power’s IRP Should Analyze Carbon Reduction, Evaluate Solar PV Diversity Benefits, and Solicit Technical Feedback on the Wind Integration Study.

RNP makes several additional suggestions for Idaho Power’s IRP. First, we appreciate Idaho Power’s attention to carbon and other emissions costs in evaluating its portfolios going forward. The minimal differences in the carbon intensity of different portfolio additions demonstrates that the carbon intensity of Idaho Power’s generation portfolio is due to its existing resources—presumably, its coal plants—and that large hydro years are the primary determinant of lower carbon intensity. To achieve consistent, long-term reductions in its carbon emissions intensity, Idaho Power will need to look to its existing coal fleet. We recommend that the Commission require Idaho Power to analyze the costs and risks of maintaining its coal plants and how carbon costs and environmental regulations could alter their cost-competitiveness in the future. It is important that this analysis be performed before the utility commits to significant investments, and before the utility loses the flexibility of the BART regime to exchange interim investments for early

closure.

Second, as Idaho Power gains experience with solar PV through its demonstration project and Oregon solar capacity standard project,³ we encourage the utility not to limit its evaluation only to the performance of single projects. Geographic dispersion of several solar projects can have a significant effect on smoothing the short-term variability of single projects.⁴ Idaho Power should consider this research as it evaluates the performance of solar PV on its system. Moreover, solar PV is a mature technology with known characteristics; we are not certain why a demonstration project is necessary before Idaho Power moves forward with a resource that can diversify its portfolio and help reduce its peak needs.

Finally, we understand that Idaho Power is conducting a wind integration study internally. We encourage Idaho Power to look for ways in which diversity and flexible balancing resources can lower its cost of integrating what it has recognized as a low cost energy resource (see 2011 IRP, p. 83). We also encourage Idaho Power to seek both independent technical review of its study and to provide meaningful opportunity for stakeholders to give, and the utility to respond to, feedback on the study's methodology and results before those results are folded into the next IRP analysis.

4. Conclusion

In sum, RNP generally supports Idaho Power's pursuit of B2H in the 2011 IRP Preferred Portfolio, because it will increase Idaho Power's access to inexpensive market

³ It appears that Idaho Power intends for these to be two separate projects, which RNP believes is appropriate.

⁴ See Andrew Mills and Ryan Wiser, Lawrence Berkeley National Laboratory, "Implications of Wide-Area Geographic Diversity for Short-Term Variability of Solar Power" (September 2010), available at <http://eetd.lbl.gov/ea/emp/reports/lbnl-3884e.pdf>.

power, advancing power markets for integration of renewable energy, and regional renewable energy resources. We encourage Idaho Power to develop more detail regarding ownership shares in the project and how Idaho Power and its partners intend to use respective transmission rights. Finally, we respectfully encourage Idaho Power to reevaluate its alternative portfolio to consider developments in DSM and solar PV in the event that B2H is delayed.

Respectfully submitted this 14th day of November 2011.

RENEWABLE NORTHWEST PROJECT



Megan Walseth Decker
Senior Staff Counsel



Adam Schumaker
Policy Associate