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VIA ELECTRONIC EMAIL

PUC Filing Center
Public Utility Commission of Oregon
PO Box 1088
Salem, OR 97308-1088

Re: Docket LC 63 - Idaho Power Company's 2015 Integrated Resource Plan ("IRP")

Attached for filing in the above-identified docket are Idaho Power Company's Final Comments.

Please contact this office with any questions.

Very truly yours,

Handwritten signature of Wendy McIndoo in blue ink.

Wendy McIndoo
Office Manager

Attachment

1 The Company's only substantive disagreement with Staff's Action Plan
2 recommendation involves the Shoshone Falls hydroelectric facility upgrades. Staff
3 recommends that the Commission delay acknowledging the small upgrade that is planned
4 for 2017, pending the submission of additional analysis from Idaho Power. As described
5 in the 2015 IRP and in more detail in these Final Comments, the planned upgrade is
6 based primarily on maintenance needs at the aging facility and is no longer tied to an
7 identified resource need in the 2015 IRP. Therefore, Staff's requested analysis does not
8 correspond to the type of upgrade that is currently planned. The Company recommends
9 that the Commission acknowledge the entirety of the Action Plan and, if the Commission
10 does not acknowledge the Shoshone Falls upgrade Action Items, it should make clear that
11 doing so does not prejudice the prudence of the upgrade.

12 II. DISCUSSION

13 A. Idaho Power Generally Supports Staff's Recommendation to Acknowledge the 14 2015 Action Plan.

15 Staff recommends that the Commission acknowledge Idaho Power's 2015 Action
16 Plan, with the exception of two items related to the Shoshone Falls upgrade.³ Staff's
17 acknowledgement also includes several recommendations for additional analysis in future
18 IRPs related to the Clean Air Act Section 111(d) regulations, particularly as those
19 regulations impact the North Valmy and Jim Bridger coal-fired generating plants.⁴

20 CUB acknowledged that the "Company has done good and extensive work in this
21 process" and CUB was not critical of any item in the Action Plan.⁵ Although CUB
22 expressed several concerns over the Company's modeling, CUB specifically noted that it

³ Staff's Final Comments at 16.

⁴ Staff's Final Comments at 5-7 and 9-11.

⁵ CUB Final Comments at 5.

1 valued the Company's "upward trend in energy efficiency."⁶

2 The Company appreciates the general agreement of Staff and CUB. While the
3 Company disagrees with Staff's position on the Shoshone Falls upgrade (discussed
4 below), the Company agrees with Staff's additional recommendations regarding future
5 analysis of Clean Air Act Section 111(d) regulations. Given the parties' support, the
6 Commission should acknowledge the Action Plan and find that it satisfies the procedural
7 and substantive requirements of the Commission's IRP Guidelines and is reasonable.⁷

8 **B. Idaho Power Supports Staff's Additional Recommendations for Future**
9 **Analysis.**

10 In addition to its recommendation for Clean Air Act Section 111(d) analysis in future
11 IRPs, Staff also presents several other recommendations for additional updates and
12 analysis between the acknowledgment of the 2015 IRP and the filing of the 2017 IRP.⁸
13 The Company agrees to provide the additional analysis Staff requests, with two
14 recommended clarifications.

15 *First*, Staff recommends that much of the Company's additional analysis be included
16 in the Company's 2015 IRP Update. The Company agrees to provide the additional
17 analysis, but believes that the analysis should be included in the 2017 IRP, rather than the
18 2015 IRP Update. Because of the timing of the Commission's acknowledgment of the
19 2015 IRP, the Company's 2015 IRP Update will be due in March 2017.⁹ The Company's
20 2017 IRP, however, will be filed in June 2017, only three months after the 2015 IRP
21 Update. Given that Staff's requested analysis is substantial and will necessarily be

⁶ CUB Final Comments at 5.

⁷ *Re Investigation into Integrated Resource Planning*, Docket UM 1056, Order No. 07-002 at 2 (Jan. 8, 2007); *Re Portland General Electric Company 2007 Integrated Resource Plan*, Docket LC 43, Order No. 08-246 (May 6, 2008).

⁸ Staff's Final Comments at 16-17.

⁹ See OAR 860-027-0400(8) (update filed within one year of acknowledgment).

1 included in the 2017 IRP, the Company believes that it is more efficient for the analysis to
2 be included in the more comprehensive 2017 IRP, rather than the 2015 IRP Update.
3 Therefore, the Company requests that the Commission waive its obligation to file a 2015
4 IRP Update. This request is consistent with the Company's last IRP, where the
5 Commission also waived the obligation to file a routine update due to the delay in
6 acknowledging the 2013 IRP.¹⁰

7 *Second*, Staff has requested an analysis of the costs and benefits of joining the
8 California Independent System Operator ("CAISO") Energy Imbalance Market ("EIM") in
9 the 2015 IRP Update. While Idaho Power believes that it is appropriate to provide the
10 Commission with timely information regarding potential EIM participation, the Company
11 does not believe the recommended cost-benefit analysis should be included in the 2015
12 IRP Update (or the 2017 IRP).

13 Idaho Power does not believe this requirement would provide the Commission with
14 any additional information that would not otherwise be provided through separate channels
15 outside this docket. Idaho Power has publicly stated that it anticipates making a decision
16 with regard to EIM participation in the first quarter of 2016, and any further discussion with
17 regulatory bodies would likely precede the filing of an IRP update.

18 Idaho Power also does not believe that a cost-benefit analysis associated with EIM
19 participation should be evaluated within the context of the IRP process. While EIM
20 participation would ultimately impact the dispatch of the Company's resources, the
21 evaluation of the costs and benefits of participation is not directly related to the long-term
22 resource plan. For these reasons, the recommended analysis should not be a
23 requirement for inclusion in future IRP-related documents.

¹⁰ Order No. 14-253 at 17-18.

1 **C. The 2015 IRP Satisfies the Commission’s IRP Guidelines.**

2 Although Staff generally supports acknowledgment of the Action Plan, Staff found
3 that the Company did not comply with three IRP Guidelines because of how the Company
4 modeled its distributed residential or commercial solar photovoltaic (“PV”) resources and
5 how the Company selected its preferred long-term portfolio.¹¹

6 Regarding distributed PV resources, Staff argues that the Company’s modeling did
7 not evaluate distributed PV resources on a consistent and comparable basis to other
8 resources, as required by Guidelines 1 and 12.¹² Idaho Power disagrees with Staff’s
9 assessment—the modeling of distributed PV resources was consistent with the treatment
10 for other supply side resources considered in the IRP, thus allowing meaningful cost
11 comparisons between resources. Under Idaho Power’s treatment of distributed PV
12 resources, or any resource for that matter, the fixed costs associated with resource
13 development are assumed to be borne by all customers, but all customers also benefit
14 from the value of the energy produced by the PV resource. This approach is reasonable
15 even if the distributed generation system may be owned by a customer. Even though the
16 Company would not expend the fixed costs to install the resource, the Company presumes
17 that the customer-generator will recover its fixed cost investment over the life of the
18 resource. Otherwise, the customer is unlikely to make the investment. By analyzing the
19 total resource cost for distributed solar resources, as the Company does for all resources
20 including energy efficiency, the Company can reasonably compare their value to other
21 resources, which would not be possible if the Company modeled the resource as having
22 no fixed costs, as Staff recommends. Contrary to Staff’s claims,¹³ Idaho Power’s modeling
23 will also enable the Company to identify a precipitous drop in fixed costs, and the

¹¹ Staff’s Final Comments at 1-2.

¹² Staff’s Final Comments at 1-2.

¹³ Staff’s Final Comments at 15.

1 possibility that such a drop in costs could result in distributed solar PV becoming more
2 cost effective from a system perspective.

3 While the Company believes its treatment of distributed PV allows for a fair and
4 appropriate assessment of the costs and benefits associated with this resource, the
5 Company is willing to explore the possibility of modeling refinements in its 2017 IRP.
6 However, the Company disagrees with Staff's specific recommendation to model
7 distributed solar PV resources as demand-side resources, including Staff's
8 recommendation that the Company "determine the necessary policy and program actions
9 that would best acquire the forecasted potential and then model the contributions to the
10 load-resource balance similar to how the Company incorporates energy efficiency."¹⁴ The
11 Company does not believe that modeling distributed solar resources like energy efficiency
12 is technically appropriate. As a generation resource, distributed solar resources should be
13 modeled consistent with other supply-side resources.

14 Regarding the long-term resource portfolio, Staff argues that the Company did not
15 comply with Guideline 4, which requires the Company to select the long-term portfolio with
16 the best combination of cost and risk for the utility and its customers.¹⁵ CUB is also critical
17 of the Company's selected portfolio.¹⁶ As described in its Reply Comments, the Company
18 disagrees with Staff's and CUB's assessment of the long-term resource portfolio and
19 maintains that the 2015 IRP's preferred portfolio is the best combination of cost and risk
20 for Idaho Power and its customers.¹⁷ The Company thus maintains that it has satisfied
21 Guideline 4.

¹⁴ Staff's Final Comments at 15.

¹⁵ Staff's Final Comments at 2.

¹⁶ Staff's Final Comments at 8, 10-11.

¹⁷ Idaho Power's Reply Comments at 4-11.

1 **D. The Commission should Acknowledge the Shoshone Falls Upgrade.**

2 The Company's Action Plan includes four items related to the Shoshone Falls
3 hydroelectric facility:

- 4 (5) Filing to amend the Federal Energy Regulatory Commission ("FERC") license
5 to allow a 50 MW expansion (2015);
6 (7) Study options for a smaller upgrade ranging in size up to approximately 4
7 MW (2015-16);
8 (10) Commence construction of smaller upgrade (2017); and
9 (12) On-line date for smaller upgrade (2019).¹⁸

10 Staff recommends acknowledgment of items (5) and (7), but not (10) and (12).¹⁹
11 Staff claims that the Company has not provided the necessary analysis supporting the
12 smaller upgrade and therefore it is premature to seek acknowledgment of the Action Items
13 related to the construction of that upgrade.²⁰ The Company disagrees with Staff's
14 recommendation regarding items (10) and (12) and respectfully requests that the
15 Commission acknowledge all four Action Items relating to the Shoshone Falls facility. The
16 smaller upgrade contemplated in the 2015 Action Plan will result from the replacement of
17 aging equipment at the facility and is necessary for the continued reliable operation of the
18 plant. Unlike prior IRPs, the upgrade is no longer tied to an identified need to serve load
19 and therefore the type of analysis that Staff requires is not relevant to the upgrade.
20 Moreover, by the time the Company files its 2017 IRP, the upgrade will be under way,
21 making additional IRP analysis unnecessary.

¹⁸ 2015 IRP at 11.

¹⁹ Staff's Final Comments at 16.

²⁰ Staff's Final Comments at 10.

1 **1. Shoshone Falls Hydroelectric Facility.**

2 The Shoshone Falls hydroelectric facility is comprised of four dam sections, a single
3 intake structure, power tunnel and penstock, and two adjacent powerhouses. The 1907
4 powerhouse contains units 1 and 2, which have a combined rated output of 1 MW. The
5 1921 powerhouse contains unit 3, which has a rated output of 11 MW. Improvements to
6 the intake structure and dam were completed in 2014 and 2015.

7 **2. Treatment of Shoshone Falls Upgrade in Prior IRPs.**

8 The Company first identified a generation upgrade to the Shoshone Falls facility as a
9 potential supply-side resource in the 2002 IRP²¹. The Company originally planned a 64
10 MW expansion, which was later reduced to 50 MW. In the 2004²² and 2006²³ IRPs, the
11 upgrade was considered one of two committed generation resources. In the 2009 IRP,
12 the upgrade was treated as an uncommitted resource; however it was included in all the
13 portfolios analyzed because it was the most cost-effective new supply-side resource
14 available.²⁴ In the 2011 IRP, it was once again one of two committed generation
15 resources²⁵ (the other being the Langley Gulch generation plant) and in 2013, it was the
16 Company's only committed resource²⁶. In both the 2011 and 2013 IRPs, the Company
17 noted that while previous evaluation of the Shoshone Falls upgrade had been done under
18 median and other projected water conditions, some uncertainty existed regarding future
19 Snake River streamflows that would not only affect the Shoshone Falls project, but also all
20 of Idaho Power's Snake River hydroelectric projects. Even so, because of the benefits

²¹ See 2002 IRP at 39.

²² See 2004 IRP at 35.

²³ See 2006 IRP at 32.

²⁴ See 2009 IRP at 73, 75 and 91.

²⁵ See 2011 IRP at 35.

²⁶ See 2013 IRP at 36.

1 and additional value provided by the Shoshone Falls upgrade, the 50 MW expansion was
2 included as a committed resource.

3 **3. Shoshone Falls Upgrade in the 2015 IRP.**

4 For the 2015 IRP, Idaho Power once again analyzed the benefits and costs of the 50
5 MW expansion of the Shoshone Falls facility.²⁷ The incremental electrical generation the
6 plant would produce with the expansion is, on average, approximately 200 GWh annually,
7 and over the 20-year planning period, the incremental energy produced from the
8 expansion is projected to yield a benefit to the preferred portfolio of approximately \$13.8
9 million on a net present value (“NPV”) basis. However, nearly 75 percent of the
10 incremental energy in an average year will be produced during the six-month period from
11 January through June, with substantially less production during July through September.
12 Therefore, while the analysis indicates some economic benefit from the incremental
13 energy, the 50 MW Shoshone Falls expansion cannot be linked to an IRP-determined
14 resource need, as it provides little to no capacity or energy during peak summer load
15 months. Thus, Idaho Power’s 2015 IRP no longer includes a 50 MW upgrade to the
16 facility.

17 In light of Idaho Power’s decision not to move forward with the 50 MW expansion of
18 Shoshone Falls, Idaho Power’s engineering and operations staff developed an Action Plan
19 intended to address the aging infrastructure of the facility. Specifically, Idaho Power’s
20 2015 IRP states that the Company will explore the construction of a smaller upgrade to
21 more cost-effectively replace the aging 0.6 MW and 0.4 MW units at Shoshone Falls (*i.e.*,
22 units 1 and 2 in the 1907 powerhouse) and complete additional improvements to the
23 intake structure. These improvements are necessary for the plant to provide continued
24 reliable service.

²⁷ See 2015 IRP at 130-31.

1 The remaining improvements at the intake structure include relocating and replacing
2 the trash rack, adding a trash rake, addressing deteriorated concrete and steel, and
3 providing equipment access. Units 1 and 2, which would have been replaced as part of
4 the 50 MW expansion project, are in very poor condition and need to be replaced entirely.
5 In December 2012 the Company completed an evaluation that included replacing these
6 units with a single unit ranging in size between 1.7 MW and 4 MW. These ratings coincide
7 with the current units' hydraulic capacity and the maximum hydraulic capacity of the
8 existing intake structure and penstock, while being mindful of the spatial limitations of the
9 1907 powerhouse. The overall design concept is to minimize construction and the impact
10 to historic project features by using the existing 1907 powerhouse to house the new unit.

11 Under Idaho Power's Action Plan, in early 2016 the Company will begin design work
12 on the upgrade. Initially, the design efforts will focus on determining the best unit size to
13 replace units 1 and 2. The design will consider power generation, constructability, impact
14 to the existing structures, and cost. The design will progress to a detail necessary for a
15 FERC amendment application for the new unit rating and subsequent agency consultation.
16 Design and consultation is expected to be complete mid-2017.

17 Procurement of the new turbine, generator, and step-up transformer are scheduled
18 for mid-2017 through the end of 2018. The construction, which is highly dependent on
19 means and methods, is currently scheduled from March through December 2018. At the
20 end of the project, intake structure improvements will be complete, and there will be a new
21 single generating unit housed in the existing 1907 powerhouse alongside the existing unit
22 3 in the 1921 powerhouse.

23 As Idaho Power states in the 2015 IRP, the larger expansion that was originally
24 contemplated "cannot be linked to an IRP-determined resource need."²⁸ The Company

²⁸ 2015 IRP at 131.

1 believes the modified improvements that will commence in 2016 and be implemented by
2 2018 fall outside of the scope of what an IRP is intended to address. There is a need to
3 modernize the Shoshone Falls plant to address aging infrastructure concerns of a facility
4 that is over 100 years old. With this upgrade comes a modest 1.7 MW to 4 MW
5 incremental capacity/efficiency gain. The Company believes that its actions and
6 improvements of the Shoshone Falls facility are more akin to maintenance than related to
7 an IRP. However, in light of the fact that the Shoshone Falls upgrade has been included
8 in so many prior IRPs, the Company included its modest reliability upgrade in the 2015
9 IRP Action Plan.

10 The Company requests the Commission acknowledge all three Action Plan items
11 regarding the chosen smaller upgrade of the Shoshone Falls facility as requested. If the
12 Commission chooses to accept the Staff's recommendation to not acknowledge Action
13 Items (10) and (12), the Company requests that the Commission not preclude future cost
14 recovery of the reliability investment the Company intends to make.²⁹

15 III. CONCLUSION

16 The Company appreciates the opportunity to file these comments and respond to
17 concerns and issues raised by Staff and CUB. The Company requests that the
18 Commission acknowledge its 2015 IRP consistent with these Final Comments. The
19 Company also requests that the Commission waive its obligation to file an update to its
20 2015 IRP, given that the 2017 IRP will be filed shortly after the due date for the 2015 IRP
21 Update.

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²⁹ Order No. 14-253 at 1-2.

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Respectfully submitted this 19th day of February, 2016.

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