

1 **BEFORE THE PUBLIC UTILITY COMMISSION**
2 **OF OREGON**

3 **UM 1675**

4 In The Matter of
5 IDAHO POWER COMPANY,
6 2019 Annual Smart Grid Report.

**IDAHO POWER COMPANY'S REPLY
COMMENTS**

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8 **I. INTRODUCTION**

9 Idaho Power Company ("Idaho Power" or "Company") respectfully submits these
10 Reply Comments to the Public Utility Commission of Oregon ("Commission"). These Reply
11 Comments respond to comments submitted by the Commission Staff on November 15,
12 2019.

13 Idaho Power requests that the Commission accept the Company's 2019 Smart Grid
14 Report ("Report") as having met the requirements of Order No. 12-158 established in Docket
15 No. UM 1460 and Order No. 18-266 established in Docket No. UM 1675. In addition to
16 satisfying the Commission's requirements, the Report responds to the recommendations
17 adopted by the Commission in the 2017 Smart Grid Report proceeding.¹

18 **II. DISCUSSION**

19 In these Reply Comments, the Company responds to Commission Staff's request
20 for more detail on the status of two projects.

21 **A. Jordan Valley Energy Storage Project**

22 In the 2017 Report, Idaho Power described a smart grid investment that was being
23 explored, the Jordan Valley Energy Storage Project. The Company explained that a
24 transformer located in Jordan Valley Substation (Jordan Valley, Oregon) was operating
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¹Re *Idaho Power Company's 2017 Smart Grid Report*, UM 1675, Order No. 18-266 (July 16, 2018).

1 around nameplate capacity during summer peak load and was approved for replacement.
2 The Company's analysis showed that the Jordan Valley transformer replacement could
3 potentially be deferred by balancing the transformer load and installing a battery energy
4 storage system. It was expected that the battery would be charged during light load
5 conditions and discharged during peak load periods, relieving any potential transformer
6 overload.

7 In the 2019 Report, the Company explained that "the proposals received during the
8 competitive bid process for the Jordan Valley Energy Storage Project came in at a higher
9 cost than was estimated which resulted in the initially-developed project not being cost-
10 effective."²

11 In its comments, Staff requested that the Company "identify the original cost
12 estimate of the Jordan Valley Energy Storage Project and compare it to the actual costs."³
13 The original estimate for the Jordan Valley Energy Storage Project was \$250,000; this
14 estimate included a 250 kilowatt ("kW") / 150 kWh battery at a cost of \$150,000 and
15 interconnection costs of \$100,000. The results of a competitive bidding process indicated
16 the cost of the project would be \$565,500; the final bid included a more standard battery
17 size of 250 kW / 500 kWh at a cost of \$403,500 and an interconnection cost of \$162,000.

18 Given that the \$565,500 bid was higher than originally estimated, it was determined
19 that the project would not be cost-effective and Idaho Power ultimately did not pursue the
20 project. Idaho Power is, however, considering another option to install a small, fully-
21 functional microgrid at Jordan Valley. As described in the 2019 Report,⁴ it is expected that
22 operating a microgrid would also shift peak load and defer a traditional transformer
23 investment while allowing Idaho Power to learn the true costs and benefits of a microgrid.

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25 ² 2019 Smart Grid Report, p. 30.

26 ³ Staff's Comments, p. 2.

⁴ 2019 Smart Grid Report, p. 26.

1 **B. Demand Response Programs**

2 In the 2019 Report, the Company explained that it has offered optional demand
3 response programs since 2004 to residential and irrigation customers, and to all its customer
4 segments since 2009. Demand response programs serve as a peaking resource during
5 times of peak load on the Idaho Power system.

6 The Company offers a residential air conditioning cycling program, AC Cool Credit; an
7 irrigation program, Irrigation Peak Rewards; and a commercial/industrial demand response
8 program, the Flex Peak Program. The Company provided the total annual cost for demand
9 response in the 2019 Report. In its comments, Staff requested that the Company “include
10 the cost per MW itemized per demand response program.”⁵ The cost per megawatt (“MW”)
11 for each demand response program in 2017 and 2018 are provided in Tables 1 and 2,
12 respectively.

13 **Table 1 - 2017 Demand Response Cost per MW**

	Total Annual Cost⁶	Peak Reduction (MW)	\$ per MW
AC Cool Credit	\$936,272	29	\$32.29
Irrigation Peak Rewards	\$7,223,101	318	\$22.71
Flex Peak Management	\$658,156	36	\$18.28

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19 **Table 2 - 2018 Demand Response Cost per MW**

	Total Annual Cost⁷	Peak Reduction (MW)	\$ per MW
AC Cool Credit	\$844,369	29	\$29.12
Irrigation Peak Rewards	\$6,891,737	297	\$23.20
Flex Peak Management	\$433,313	33	\$13.13

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25 ⁵ Staff's Comments, p. 2.

26 ⁶ Docket No. UM 1710 - 2017 DSM Annual Report; Appendix 3. 2017 DSM program activity.

⁷ Docket No. UM 1710 - 2018 DSM Annual Report; Appendix 3. 2018 DSM program activity.

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III. CONCLUSION

The Company appreciates the opportunity to provide these comments and respond to questions raised by Commission Staff. The Company requests that the Commission accept its *2019 Smart Grid Report* as having met the requirements of Order Nos. 12-158 and 18-266 established in Docket No. UM 1675.

Respectfully submitted this 5th day of December 2019.



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