BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 74

In the Matter of

RENEWABLE ENERGY
COALITION'S FINAL COMMENTS

IDAHO POWER COMPANY,

2019 Integrated Resource Plan.

I. INTRODUCTION

The Renewable Energy Coalition (the "Coalition") respectfully submits these Final Comments for consideration by the Oregon Public Utility Commission (the "Commission" or "OPUC") in the matter of Idaho Power Company's ("Idaho Power's") 2019 Integrated Resource Plan ("IRP"). The Coalition appreciates Idaho Power's reply comments on the topic of its qualifying facility ("QF") forecasting approach and Idaho Power's discovery responses. The Coalition recommends that the Commission recognize that existing QFs provide capacity value to Oregon ratepayers and direct Idaho Power to take specific actions during its next IRP. Specifically, the Commission should:

- 1) Affirm that QF renewals provide some capacity value to Idaho Power's system;
- 2) Acknowledge Idaho Power's IRP assumptions that non-wind QFs will renew their contracts;
- 3) Direct Idaho Power to provide a more detailed narrative in its next IRP regarding its approach to QF forecasting, including its assumptions that there will be no new QF contracts and that wind QFs will not renew their contracts;
- 4) Announce a decision to investigate and resolve the question of whether to provide immediate capacity payments for QFs renewing their contracts, which could be in Docket UM 2000, UM 2011, or other appropriate docket; and

5) If such an investigation is not completed before Idaho Power's next IRP filing, require Idaho Power to calculate and explain the amount of capacity deferral that will occur when existing QFs renew their contracts.

II. COMMENTS

The Coalition has raised the capacity value provided by existing QFs issue in multiple dockets since at least 2014. While this issue initially presented itself through reference to PacifiCorp in UM 1610 (a generic docket applicable to all utilities), the Commission "direct[ed] *each utility* to work with parties to address this issue in its next IRP." Idaho Power admits that it has taken no action to address the issue as it "has been consistent in the manner that it has included QFs in the 2019 IRP as it has in the Company's past IRPs." The Coalition agrees with Idaho Power that, in contrast to PGE and PacifiCorp, Idaho Power correctly assumes that most QFs will renew their contracts. While Idaho Power is more accurately forecasting QF contract renewals, Idaho Power did not comply with the Commission's order to address the value of deferred capacity that occurs when QFs renew their contracts. Therefore, Idaho Power's IRP is not in compliance with the Commission's order from 2016.

While it has been about five years since the Commission ordered Idaho Power to take action, the Coalition is willing to have the QF forecasts and planning assumptions and the question of whether renewing QFs will receive a capacity payment addressed in a generic docket. However, the Coalition urges the Commission to move expeditiously because at least some existing QFs are not being fully compensated for the capacity value

In re Pub. Util. Comm'n of Or. Investigation into QF Contracting and Pricing, Docket No. UM 1610, Order No. 16-174 at 19 (May 13, 2016) (emphasis added).

² Idaho Power Reply Comments at 66.

they provide under the current status quo. In addition, the Coalition recommends that the Commission reaffirm its decision in Order No. 16-174 and request that Idaho Power conduct this analysis in its next IRP, if the investigation has not been completed before Idaho Power's filing of its next IRP.

A. The Commission Should Affirm that QF Renewals Provide Some Capacity Value to Idaho Power's System

Idaho Power assumes in its IRP that "all QF contracts, except for wind projects, will continue to deliver energy throughout the planning period," beyond the date their power purchase agreements will expire.³ The cogeneration and small power production forecast that Idaho Power developed for this IRP included 134 QFs with a total capacity of 1,149 MW. Idaho Power currently has 627 MW of wind QFs under contract that are not included in the forecast.⁴ As articulated in the Coalition's Opening Comments, these QFs represent a significant share of Idaho Power's overall supply mix.⁵ Idaho Power has about 143 MW of online Oregon QFs.⁶

By assuming that these contracts will renew, Idaho Power is deferring other resources that it would otherwise need to acquire. There is inherent value in deferring a resource acquisition. Resource deferrals are a large part of setting avoided cost prices in Oregon, which is why this issue is so important for all QFs, particularly existing QFs. Therefore, the Commission should acknowledge that there is some value to Idaho Power of this significant source of energy.

5 The Coalition's Opening Comments at 7.

³ *Id.* at 67.

⁴ *I*

Attachment A (Idaho Power Response to Coalition Data Request 1.1).

The issue is of particular importance for existing QFs. Existing QF have been operating for years, and at the end of their contract, they are paid for the capacity value they provide to Idaho Power. However, under Oregon's avoided cost methodology, when their contract expires, they will be required to enter a new contract that has a sudden price drop. The price reduction is because the new contract will not compensate them for capacity value during Idaho Power's resource sufficiency period at the beginning of the contract. This is in contrast to Idaho, where existing QFs renewing their contracts are paid for the capacity value they provide because the utility plans on them renewing their contracts and deferring resource acquisitions. Thus, Idaho has better PURPA policies aimed at keeping its existing renewable resources than does Oregon.

The Coalition is not proposing that the Commission revise its avoided cost methodology in this case, but it highlights the impact because the IRP significantly impacts avoided cost prices.

B. The Commission Should Direct Idaho Power to Provide a More Detailed QF Forecast in its Next IRP

Though Idaho Power's explanation in reply comments regarding its QF forecasting methodology is appreciated, a greater level of detailed explanation should be included in future IRPs to better aid stakeholder understanding. Based upon Idaho Power's reply comments and discovery responses, the Coalition's understanding of Idaho Power's IRP assumptions for QFs are that: 1) there will no new QF development over the entire planning period; 2) existing non-wind QFs will renew their contracts; and 3) existing wind QFs will not renew their contracts. In addition, Idaho Power's IRP did not include the analysis required by Order No. 16-174.

Idaho Power's IRP states that "Idaho Power cannot predict the level of future PURPA development; therefore, only signed contracts are accounted for in Idaho Power's resource planning process." Idaho Power's original IRP filing did not articulate anything about whether it assumes those signed contracts will continue operating beyond their contract expiration and it certainly does not distinguish Idaho Power's differential treatment of wind QFs. However, in discovery and reply comments, Idaho Power explained that it assumes all existing QFs, except wind QFs, will renew their contracts.

The Coalition appreciates this explanation. However, to help stakeholders understand Idaho Power's QF forecasting methodology, Idaho Power should provide an analysis and narrative explanation regarding the basis for its assumption in its IRP filing. By requiring Idaho Power to explain its QF forecasting, the Commission can encourage Idaho Power to develop the best and most well-reasoned forecasting approach. For example, Idaho Power takes issue with simply assuming that all QF contracts will renew because of concerns regarding whether wind QFs will renew their contracts. The Coalition generally agrees that, while many, if not most QFs will renew, there may be legitimate reasons for not assuming 100% renewal. However, it is difficult to accept outright any particular assumption without a well-reasoned and supported analysis supporting that assumption.

⁷ IRP at 32.

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Idaho Power Reply Comments at 67; Attachment A (Idaho Power Response to Coalition Data Requests 1.4 and 1.5).

Idaho Power Reply Comments at 67.

In regards to wind QFs, Idaho Power states in Reply Comments that it believes the cost to repower wind QFs can be significant, and therefore assumes that wind QFs will not enter new contracts at the end of their contract term. ¹¹ In discovery, Idaho Power bases this assumption on uncertainties regarding federal Protection Tax Credits and the IRP estimates for its own repowering. ¹²

The Coalition appreciates Idaho Power's data responses but is not certain their assumptions are correct. Accordingly, the Coalition would like to further explore their conclusions in future proceedings. For example, the Coalition believes it is unreasonable to assume there will be *no* new QF development over the entire planning period, and instead that some new QFs should be assumed, which in aggregate can defer future resource acquisitions. In addition, a recent report released in 2019, drawing from a survey of wind energy professionals, found the expected useful life of a wind facility is now projected to be around 30 years.¹³ For a QF contract in Oregon, that means that the wind facility could enter two 15-year contracts with Idaho Power, i.e. an original contract and a renewal contract. Therefore, Idaho Power's assumptions around wind projects renewals may be outdated.

In summary, the Coalition specifically requests that the Commission direct Idaho Power to articulate and provide support for its QF planning assumptions in its next IRP.

¹¹ *Id.*

Attachment A (Idaho Power Response to Coalition Data Requests 1.4 and 1.5).

Ryan H. Wiser & Mark Bolinger, *Benchmarking Anticipated Wind Project Lifetimes: Results from a Survey of U.S. Wind Industry Professionals* 4, BERKELEY LAB (Sept. 2019), https://emp.lbl.gov/publications/benchmarking-anticipated-wind-project.

It can be difficult to explore these issues through the discovery process, and the Coalition believes that Idaho Power could provide more detailed analysis regarding its assumptions that no wind QFs will renew their contracts and there will be no new QF development in its service territory.

C. The Commission Should Strive to Resolve the Capacity Payment Issue by the End of 2021

When this issue was first raised in UM 1610, the concern was primarily over the utilities benefiting from the value that QFs provide their systems without properly compensating QFs for that value. Specifically, the QF advocates noted that "[t]he utilities plan in their IRPs on existing QFs to renew contracts, thereby allowing deferral of capacity investments, yet QFs are not compensated for the capacity value associated with the deferral and are effectively providing it for free." Staff agreed with the QF parties. The Commission "agree[d] with Staff and the Joint QFs that a certain amount of capacity may not be valued if utilities assume in their IRPs that existing QFs nearing contract expiration will automatically renew," and then the Commission "direct[ed] each utility to work with parties to address this issue in its next IRP." 16

While PacifiCorp simply decided to change its assumptions and assume that QFs will not renew rather than addressing the underlying issue regarding making a capacity payment to the QFs, Idaho Power did nothing. Idaho Power still assumes that its

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Docket No. UM 1610, Order No. 16-174 at 19.

Id.

¹⁶ *Id.* (emphasis added).

contracted QFs (except for wind) renew, but it does not compensate existing Oregon QFs for capacity when they enter into new contracts.

Therefore, even though Idaho Power was directed to address this issue *in its next IRP* following the May 2016 order in UM 1610, the Coalition is now willing to address this issue in a generic docket applicable to all utilities. The Coalition's willingness question whether existing QF should be paid for capacity is expressly contingent upon the Commission's willingness to do so within a timely manner. Specifically, the Coalition requests that the Commission decide by the time of its final order in this IRP proceeding, whether to provide immediate capacity payments for QFs renewing their contracts in Docket UM 2000, UM 2011, or other appropriate docket. If such an analysis can be completed by the end of 2021, then the Commission should reaffirm its decision from 2016 and direct Idaho Power to address this issue in its next IRP.

III. CONCLUSION

The Commission should affirm that renewing QFs provide value to Idaho Power, direct Idaho Power to appropriately forecast QF renewals and explain its forecast in its next IRP, and should strive to resolve the QF capacity payment issue prior to Idaho Power filing its next IRP (and if it is not promptly resolved, then Idaho Power should provide an analysis of the capacity benefits associated with QFs in its next IRP).

Dated this 8th day of January 2021.

Respectfully submitted,

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Of Attorneys for Renewable Energy Coalition

Attachment A

Idaho Power Responses to Coalition Data Requests

REC's DATA REQUEST NO. 1.1:

Please provide a complete list of qualifying facility contracts that have entered into PPA with Idaho Power since 1980 including the following information, and please provide all workpapers in original electronic format:

- a. Project Name
- b. Project County and State
- c. PPA execution date
- d. Resource Type
- e. Nameplate Capacity
- f. Actual Commercial Operation Date
- g. Contracted Commercial Operation Date
- h. Type of PPA (Standard or Non-Standard)
- i. PPA Expiration date
- j. Whether the contract is for a new or existing project, and if renewing, then the dates for each contract
- k. For QFs that began operating and whose contracts expired, whether the QF entered into a new contract with Idaho Power, and, if not, why not.

IDAHO POWER COMPANY'S AMENDED RESPONSE TO REC'S DATA REQUEST NO. 1.1:

6/24/20 update: The confidential designation of the attachment to DR 1.1 has been removed.

The requested information is provided in the Excel spreadsheet accompanying this response. With regard to subparts (h) and (k) –

- (h) "standard or Non-Standard" type of PPA, this definition of the PPA is specific to PURPA projects in the Oregon jurisdiction, a designation of "N/A" in the Excel spreadsheet indicates an Idaho jurisdictional project.
- (k), to the extent Idaho Power is made aware of a QF's motivation as to why it does not seek a replacement contract, Idaho Power does not document or retain the reason.

Idaho Power Response to Coalition Data Request 1.1 Attachment

LC 74 Attachment - Response to REC DR 1.1

a.	b.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.
Project Name	County	State	Contract Date	Resource	Nameplate Capacity	Operation Date	Scheduled Operation Date	Standard/ Non- Standard	Contract Expiration/Ter mination Date	New/ Replacement	Contract Status
American Falls Solar II,	-						-			-	
LLC	Power	ID	10/13/2014	Solar	20.00	3/1/2017	12/1/2016	N/A	3/1/2037	New	Online
American Falls Solar, LLC	Power	ID	10/13/2014	Solar	20.00	3/1/2017	12/1/2016	N/A	3/1/2037	New	Online
Arena Drop	Canyon	ID	3/8/2010	Hydro	0.45	9/1/2010	7/15/2010	N/A	9/1/2030	New	Online
B6 Anaerobic Digester 2010	Gooding	ID	5/4/2010	Biomass	2.28	8/1/2010	9/1/2009	N/A	8/1/2020	New	Online
Baker City Hydro	Baker	OR	6/8/2015	Hydro	0.24	9/1/2015	7/1/2015	Standard	9/1/2030	New	Online
Baker Solar Center	Baker	OR	6/21/2017	Solar	15.00	2/18/2020	12/31/2019	Non- Standard	2/18/2040	New	Online
Bannock County Landfill	Bannock	ID	11/13/2013	Biomass	3.20	5/1/2014	5/1/2014	N/A	5/1/2034	New	Online
Barber Dam	Ada	ID	7/13/1987	Hydro	3.70	4/10/1989	1/1/1988	N/A	4/10/2024	New	Online
Bennett Creek Wind Farm	Elmore	ID	12/20/2006	Wind	21.00	12/15/2008	12/31/2007	N/A	12/15/2028	New	Online
Benson Creek Windfarm	Baker	OR	10/9/2013	Wind	10.00	3/23/2017	12/31/2016	Standard	3/23/2037	New	Online
Bettencourt Dry Creek Biofactory	Twin Falls	ID	1/22/2010	Biomass	2.25	5/3/2010	5/1/2010	N/A	12/1/2020	New	Online
Big Sky West Dairy Digester (DF-AP #1, LLC)	Gooding	ID	4/21/2008	Biomass	1.50	1/15/2009	2/14/2009	N/A	1/15/2029	New	Online
Birch Creek	Gooding	ID	7/3/2019	Hydro	0.07	11/1/2019	11/1/2019	N/A	11/1/2039	Replacement	Online
Black Canyon #3	Gooding	ID	1/30/2019	Hydro	0.13	4/1/2019	4/1/2019	N/A	4/1/2039	Replacement	Online
Black Canyon Bliss Hydro	Gooding	ID	8/19/2014	Hydro	0.03	10/8/2015	11/15/2014	N/A	10/8/2035	New	Online
Blind Canyon	Gooding	ID	10/31/2014	Hydro	1.63	12/16/2014	12/15/2014	N/A	12/16/2034	Replacement	Online
Box Canyon	Twin Falls	ID	9/26/2018	Hydro	0.30	2/12/2019	2/12/2019	N/A	2/12/2039	Replacement	Online
Briggs Creek	Twin Falls	ID	6/21/1984	Hydro	0.60	10/10/1985	10/10/1985	N/A	10/10/2020	New	Online
Brush Solar	Baker	OR	10/31/2016	Solar	2.75	12/26/2019	10/1/2019	Standard	12/26/2039	New	Online
Burley Butte Wind Park	Cassia	ID	5/5/2005	Wind	21.30	2/1/2011	9/1/2010	N/A	2/1/2031	New	Online
Bypass	Jerome	ID	11/12/1986	Hydro	9.96	6/18/1988	6/18/1988	N/A	6/18/2023	New	Online

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Camp Reed Wind Park	Elmore	ID	7/9/2009	Wind	22.50	12/31/2010	9/30/2010	N/A	12/31/2030	New	Online
Canyon Springs	Twin Falls	ID	8/28/2018	Hydro	0.11	1/1/2019	1/1/2019	N/A	1/1/2039	Replacement	Online
Cassia Wind Farm LLC	Twin Falls	ID	4/7/2006	Wind	10.50	3/24/2009	12/31/2006	N/A	3/24/2029	New	Online
Cedar Draw	Twin Falls	ID	3/14/2019	Hydro	1.55	6/1/2019	6/1/2019	N/A	6/1/2039	Replacement	Online
Clear Springs Trout	Twin Falls	ID	7/6/2018	Hydro	0.56	11/1/2018	11/1/2018	N/A	11/1/2038	Replacement	Online
Cold Springs Windfarm	Elmore	ID	11/12/2010	Wind	23.00	12/8/2012	12/31/2012	N/A	12/8/2032	New	Online
Crystal Springs	Twin Falls	ID	3/31/1984	Hydro	2.44	4/1/1986	4/1/1986	N/A	4/1/2021	New	Online
Curry Cattle Company	Twin Falls	ID	12/15/2017	Hydro	0.25	6/17/2018	6/17/2018	N/A	6/17/2033	Replacement	Online
Desert Meadow Windfarm	Elmore	ID	11/12/2010	Wind	23.00	12/8/2012	12/31/2012	N/A	12/8/2032	New	Online
Dietrich Drop	Jerome	ID	7/13/1987	Hydro	4.50	8/29/1988	5/1/1988	N/A	8/29/2023	New	Online
Durbin Creek Windfarm	Baker	OR	10/9/2013	Wind	10.00	3/23/2017	12/31/2016	Standard	3/23/2037	New	Online
Eightmile Hydro Project	Lemhi	ID	5/5/2014	Hydro	0.36	10/28/2014	8/30/2014	N/A	10/28/2034	New	Online
Elk Creek	Idaho	ID	8/31/1984	Hydro	2.00	5/16/1986	5/16/1986	N/A	5/16/2021	New	Online
Fall River	Fremont	ID	10/28/1991	Hydro	9.10	8/22/1993	8/22/1993	N/A	8/22/2028	New	Online
Fargo Drop Hydroelectric	Canyon	ID	12/1/2011	Hydro	1.27	4/28/2013	4/30/2013	N/A	4/28/2033	New	Online
Faulkner Ranch	Gooding	ID	12/11/1986	Hydro	0.87	8/15/1987	8/15/1987	N/A	8/15/2022	New	Online
Fighting Creek Landfill Gas to Energy Station	Kootenai	ID	3/5/2014	Biomass	3.06	4/1/2014	4/1/2014	Standard	4/1/2029	New	Online
Fisheries Dev.	Gooding	ID	6/29/1990	Hydro	0.26	7/3/1990	7/3/1990	N/A	7/3/2040	New	Online
Fossil Gulch Wind	Twin Falls	ID	9/9/2004	Wind	10.50	9/30/2005	1/1/2005	N/A	9/30/2025	New	Online
Geo-Bon #2	Lincoln	ID	3/1/1985	Hydro	0.93	11/15/1986	11/15/1986	N/A	11/15/2021	New	Online
Golden Valley Wind Park	Cassia	ID	5/5/2005	Wind	12.00	2/1/2011	6/1/2006	N/A	2/1/2031	New	Online
Grand View PV Solar Two	Elmore	ID	7/17/2014	Solar	80.00	12/13/2016	9/1/2016	N/A	12/13/2036	New	Online
Grove Solar Center, LLC	Malheur	OR	1/2/2014	Solar	6.00	10/22/2016	12/31/2016	Standard	10/22/2036	New	Online
Hailey Cspp	Blaine	ID	6/14/1985	Hydro	0.06	6/25/1985	6/25/1985	N/A	6/25/2020	New	Online
Hammett Hill Windfarm	Elmore	ID	11/12/2010	Wind	23.00	12/8/2012	12/31/2012	N/A	12/8/2032	New	Online
Hazelton A	Jerome	ID	12/8/2010	Hydro	8.10	3/1/2011	1/1/2011	N/A	2/28/2026	New	Online
Hazelton B	Jerome	ID	12/21/1990	Hydro	7.60	5/8/1993	5/8/1993	N/A	5/8/2028	New	Online
Head of U Canal Project	Jerome	ID	4/23/2014	Hydro	1.28	6/2/2015	5/1/2015	N/A	6/2/2035	New	Online
Hidden Hollow Landfill											
Gas High Mesa Wind	Ada Twin	ID	10/11/2005	Biomass	3.20	1/1/2007	3/1/2006	N/A	1/1/2027	New	Online
Project	Falls/Elmore	ID	11/16/2011	Wind	40.00	12/27/2012	12/28/2012	N/A	12/27/2032	New	Online

Horseshoe Bend Hydro	Boise	ID	10/28/1991	Hydro	9.50	9/13/1995	9/13/1995	N/A	9/13/2030	New	Online
Horseshoe Bend Wind	Cascade	MT	1/6/2004	Wind	9.00	2/28/2006	12/31/2004	N/A	2/28/2026	New	Online
Hot Springs Wind Farm	Elmore	ID	12/20/2006	Wind	21.00	12/15/2008	12/31/2007	N/A	12/15/2028	New	Online
Hyline Solar Center, LLC	Malheur	OR	1/15/2014	Solar	9.00	11/19/2016	12/31/2016	Standard	11/19/2036	New	Online
ID Solar 1	Ada	ID	7/17/2014	Solar	40.00	8/16/2016	1/16/2016	N/A	1/16/2036	New	Online
Jett Creek Windfarm	Baker	OR	10/9/2013	Wind	10.00	3/23/2017	12/31/2016	Standard	3/23/2037	New	Online
Jim Knight	Gooding	ID	4/1/1985	Hydro	0.34	6/10/1985	6/10/1985	N/A	6/10/2020	New	Online
Koyle Small Hydro	Gooding	ID	1/30/2019	Hydro	1.25	4/1/2019	4/1/2019	N/A	4/1/2039	Replacement	Online
Lateral #10 Hydroelectric	Twin Falls	ID	2/6/2020	Hydro	2.06	5/5/2010	5/5/2020	N/A	5/5/2030	Replacement	Online
Lemoyne	Gooding	ID	4/23/1985	Hydro	0.08	6/23/1985	6/30/1995	N/A	6/22/2020	New	Online
Lime Wind Energy	Baker	OR	12/8/2010	Wind	3.00	12/9/2011	12/31/2011	Standard	12/9/2031	New	Online
Little Wood River Ranch	Shoshone	ID	4/23/2014	Hydro	1.25	10/9/2015	6/1/2015	N/A	10/9/2035	New	Online
Little Wood Rvr Res	Blaine	ID	10/15/2019	Hydro	2.85	3/1/2020	3/1/2020	N/A	3/1/2040	Replacement	Online
Littlewood / Arkoosh	Lincoln	ID	6/11/1985	Hydro	0.87	8/8/1986	8/8/1986	N/A	8/8/2021	New	Online
Low Line Canal	Twin Falls	ID	11/1/2019	Hydro	8.20	5/1/2020	5/1/2020	N/A	5/1/2040	Replacement	Online
Low Line Midway Hydro	Twin Falls	ID	6/27/2005	Hydro	2.50	8/11/2007	4/1/2007	N/A	8/11/2027	New	Online
Lowline #2	Twin Falls	ID	9/12/1986	Hydro	2.79	4/29/1988	4/29/1988	N/A	4/29/2023	New	Online
Magic Reservoir	Blaine	ID	7/10/1987	Hydro	9.07	6/1/1989	6/1/1989	N/A	6/1/2024	New	Online
Mainline Windfarm	Elmore	ID	11/12/2010	Wind	23.00	12/8/2012	12/31/2012	N/A	12/8/2032	New	Online
Malad River	Gooding	ID	2/19/2019	Hydro	1.17	5/1/2019	5/1/2019	N/A	5/1/2039	Replacement	Online
Marco Ranches	Jerome	ID	2/28/1985	Hydro	1.20	8/1/1985	8/1/1985	N/A	8/1/2020	New	Online
Mile 28	Jerome	ID	8/13/1993	Hydro	1.50	6/1/1994	6/1/1994	N/A	6/1/2029	New	Online
Milner Dam Wind	Cassia	ID	10/14/2005	Wind	19.92	2/1/2011	5/1/2007	N/A	2/1/2031	New	Online
Mitchell Butte	Malheur	OR	5/22/1985	Hydro	2.09	5/18/1989	5/18/1989	Standard	12/13/2034	New	Online
Mora Drop Small Hydroelectric Facility	Ada	ID	4/13/2006	Hydro	1.85	9/15/2006	7/1/2006	N/A	9/15/2026	New	Online
Morgan Solar	Malheur	OR	10/31/2016	Solar	3.00	4/22/2020	10/1/2019	Standard	4/22/2040	New	Online
Mt. Home Solar 1, LLC	Elmore	ID	10/31/2010	Solar	20.00	3/21/2017	12/31/2016	N/A	3/21/2037	New	Online
Mud Creek S and S	Twin Falls	ID	10/5/2014	Hydro	0.52	2/20/2017	2/20/2017	N/A	2/20/2037	Replacement	Online
Mud Creek/White	Twin Falls	ID	4/15/1985	Hydro	0.32	1/10/1986	1/10/1986	N/A	1/10/2021	New	Online
Murphy Flat Power, LLC	Owyhee	ID	10/13/2014	Solar	20.00	4/1/2017	12/1/2016	N/A	4/1/2037	New	Online
North Gooding Main Hydro	Lincoln	ID	7/29/2015	Hydro	1.30	10/8/2016	4/1/2017	N/A	10/8/2036	New	Online
Ontario Solar Center	Malheur	OR	2/26/2018	Solar	3.00	3/29/2020	12/31/2019	Standard	3/29/2040	New	Online
Ontario Solai Center	iviailleul	_ UN	2/20/2010	Julai	3.00	3/23/2020	12/31/2013	Stanuaru	3/23/2040	INCM	Omme

Open Range Solar											
Center, LLC	Malheur	OR	12/9/2013	Solar	10.00	10/12/2016	12/31/2016	Standard	10/12/2036	New	Online
Orchard Ranch Solar, LLC	Ada	ID	10/13/2014	Color	20.00	3/1/2017	12/1/2016	NI/A	3/1/2037	Now	Online
			· · · · ·	Solar				N/A	· ·	New	
Oregon Trail Wind Park	Twin Falls	ID	2/18/2005	Wind	13.50	1/25/2011	1/15/2006	N/A	1/25/2031	New	Online
Owyhee Dam Cspp Payne's Ferry Wind	Malheur	OR	4/27/1984	Hydro	5.00	8/10/1985	8/10/1985	Standard	5/9/2034	New	Online
Park	Twin Falls	ID	7/9/2009	Wind	21.00	12/31/2010	9/30/2010	N/A	12/31/2030	New	Online
Pigeon Cove	Twin Falls	ID	7/18/2019	Hydro	1.75	11/1/2019	11/1/2019	N/A	11/1/2039	Replacement	Online
Pilgrim Stage Station Wind Park	Twin Falls	ID	2/18/2005	Wind	10.50	1/17/2011	9/1/2010	N/A	1/17/2031	New	Online
Pocatello Solar 1, LLC	Power	ID	10/13/2014	Solar	20.00		12/31/2016	N/A	5/6/2016	New	Online
Pocatello Waste	Bannock	ID	4/24/1985	Biomass	0.46	12/31/1985	12/31/1985	N/A	12/31/2020	New	Online
Pristine Springs #1	Jerome	ID	2/6/2020	Hydro	0.13	5/2/2020	5/2/2020	N/A	5/2/2040	Replacement	Online
Pristine Springs #3	Jerome	ID	2/6/2020	Hydro	0.20	5/2/2020	5/2/2020	N/A	5/2/2040	Replacement	Online
Prospector Windfarm	Baker	OR	10/9/2013	Wind	10.00	3/23/2017	12/31/2016	Standard	3/23/2037	New	Online
Railroad Solar Center, LLC	Malheur	OR	2/21/2014	Solar	4.50	12/6/2016	12/31/2016	Standard	12/6/2036	New	Online
Reynolds Irrigation	Canyon	ID	4/1/1985	Hydro	0.26	5/19/1986	5/19/1986	N/A	5/19/2021	New	Online
Rock Creek #1	Twin Falls	ID	9/25/2017	Hydro	2.17	1/16/2018	1/16/2018	N/A	1/16/2038	Replacement	Online
Rock Creek #2	Twin Falls	ID	7/13/1987	Hydro	1.90	4/2/1989	4/2/1989	N/A	4/2/2024	New	Online
Rock Creek Dairy	Twin Falls	ID	5/24/2010	Biomass	4.00	8/13/2012	5/15/2012	N/A	8/13/2027	New	Online
Rockland Wind Farm	Power	ID	9/3/2010	Wind	80.00	12/9/2011	12/31/2011	N/A	12/9/2036	New	Online
Ryegrass Windfarm	Elmore	ID	11/12/2010	Wind	23.00	12/8/2012	12/31/2012	N/A	12/8/2032	New	Online
Sagebrush	Lincoln	ID	4/1/1985	Hydro	0.43	9/1/1985	9/1/1985	N/A	9/1/2020	New	Online
Sahko Hydro	Twin Falls	ID	11/1/2010	Hydro	0.50	2/17/2011	2/12/2011	N/A	2/17/2021	New	Online
Salmon Falls Wind	Twin Falls	ID	10/14/2005	Wind	22.00	4/22/2011	5/1/2007	N/A	4/22/2031	New	Online
Sawtooth Wind Project	Elmore	ID	9/1/2009	Wind	22.00	11/1/2011	12/31/2012	N/A	11/1/2031	New	Online
Schaffner	Lemhi	ID	12/20/1985	Hydro	0.53	8/8/1986	8/8/1986	N/A	8/8/2021	New	Online
Shingle Creek	Idaho County	ID	5/8/2017	Hydro	0.22	8/1/2017	8/1/2017	N/A	8/1/2022	Replacement	Online
Shoshone #2	Lincoln	ID	7/28/1993	Hydro	0.58	5/1/1996	5/1/1996	N/A	5/1/2031	New	Online
Shoshone CSPP	Lincoln	ID	10/31/2016	Hydro	0.36	2/16/2017	2/16/2017	N/A	2/16/2037	Replacement	Online
Simcoe Solar, LLC	Elmore	ID	10/13/2014	Solar	20.00	3/1/2017	12/1/2016	N/A	3/1/2037	New	Online
Simplot - Pocatello	Power	ID	12/21/2018	CoGen	15.90	3/1/2019	3/1/2019	N/A	3/1/2022	Replacement	Online
SISW LFGE	Cassia	ID	3/13/2017	Biomass	5.00	9/1/2018	10/1/2018	N/A	9/1/2038	New	Online
Snake River Pottery	Gooding	ID	8/23/2019	Hydro	0.09	12/1/2019	12/1/2019	N/A	12/1/2027	Replacement	Online

Snedigar	Twin Falls	ID	9/30/2019	Hydro	0.50	1/1/2020	1/1/2020	N/A	1/1/2040	Replacement	Online
Tamarack CSPP	Adams	ID	3/27/2018	Biomass	6.25	6/1/2018	6/1/2018	N/A	6/1/2038	Replacement	Online
Tasco - Nampa	Canyon	ID	10/2/2003	Thermal	2.00	9/1/2003	9/1/2003	N/A	9/1/2040	New	Online
Tasco - Twin Falls	Twin Falls	ID	11/20/2006	Thermal	3.00	8/11/2001	8/11/2001	N/A	1/19/2040	New	Online
Thousand Springs Wind Park	Twin Falls	ID	2/18/2005	Wind	12.00	1/17/2011	1/15/2006	N/A	1/17/2031	New	Online
Thunderegg Solar Center, LLC	Malheur	OR	2/21/2014	Solar	10.00	11/29/2016	12/31/2016	Standard	11/29/2036	New	Online
Tiber Dam	Liberty County	MT	2/3/2003	Hydro	7.50	6/1/2004	5/15/2004	N/A	6/1/2024	New	Online
Trout-Co	Gooding	ID	1/7/1985	Hydro	0.24	12/1/1986	12/1/1986	N/A	12/1/2021	New	Online
Tuana Gulch Wind Park	Twin Falls	ID	2/18/2005	Wind	10.50	1/25/2011	1/15/2006	N/A	1/25/2031	New	Online
Tuana Springs Expansion	Twin Falls	ID	8/5/2009	Wind	35.70	5/14/2010	6/30/2010	N/A	5/14/2030	New	Online
Tunnel #1	Malheur	OR	5/31/1985	Hydro	7.00	6/8/1993	6/8/1993	Standard	6/8/2036	New	Online
Two Ponds Windfarm	Elmore	ID	11/12/2010	Wind	23.00	12/8/2012	12/31/2012	N/A	12/8/2032	New	Online
Vale Air Solar Center, LLC	Malheur	OR	12/9/2013	Solar	10.00	11/9/2016	12/31/2016	Standard	11/9/2036	New	Online
Vale I Solar	Malheur	OR	10/31/2016	Solar	3.00		10/1/2019	Standard		New	Online
White Water Ranch	Gooding	ID	2/24/1984	Hydro	0.16	8/1/1985	8/1/1985	N/A	8/1/2020	New	Online
Willow Spring Windfarm	Baker	OR	5/23/2014	Wind	10.00	3/23/2017	12/31/2016	Standard	3/23/2037	New	Online
Wilson Lake Hydro	Jerome	ID	12/21/1990	Hydro	8.40	5/18/1993	5/18/1993	N/A	5/18/2028	New	Online
Yahoo Creek Wind Park	Twin Falls	ID	7/9/2009	Wind	21.00	12/31/2010	9/30/2010	N/A	12/31/2030	New	Online

REC's DATA REQUEST NO. 1.4:

Please provide Idaho Power's cost estimate of repowering wind QFs, which serves as the basis for Idaho Power's statement in reply comments that these costs "can be very significant, and therefore the Company cannot as accurately predict whether these generators will choose to repower."

IDAHO POWER COMPANY'S RESPONSE TO REC'S DATA REQUEST NO. 1.4:

Repowering costs of wind generation facilities can be very significant and varies by project. Repowering may consist of refurbishment of existing equipment or complete replacement of major components such as the platform, tower, nacelle, rotor, blades and other components.

Idaho Power has not been provided with cost information from PURPA QFs and none of the wind QFs under contract with Idaho Power have discussed or provided data that verifies they intend to repower their projects as the first energy sales agreement to expire with a wind QF will not occur until 2025. However, Idaho Power's 2019 Amended Integrated Resource Plan estimates the total capital investment of wind facilities to be \$1,863/kW, which is a significant cost.

REC's DATA REQUEST NO. 1.5:

Please provide all information relied upon by Idaho Power to reach its conclusions that "the Company cannot as accurately predict whether these generators will choose to repower."

IDAHO POWER COMPANY'S RESPONSE TO REC'S DATA REQUEST NO. 1.5:

Federal production tax credits ("PTC") have been a major driver of wind development and repowering of wind facilities in the U.S., including PURPA wind projects. The PTC was extended in 2015 and provided 10 years of tax credits at \$23/MWh for new projects and turbine upgrades that were started in 2016. The PTC was scaled down by 20 percent annually from that time forward, and in 2020 the PTC was scheduled to reach \$0/MWh. However, in 2019 the PTC was extended again through 2020 only. Idaho Power's first expiration of a PURPA energy sales agreement with a wind Qualifying Facility ("QF") will not occur until 2025. Other factors that may influence a decision of a QF on whether to repower a project includes unknown future PURPA avoided cost prices, integration costs, contract provisions, etc.

In Idaho Power's experience, PURPA contracts involving small hydro, biomass, cogeneration, and other renewable resource types have entered into replacement contracts with little or no additional investment required to maintain generation capacity. Solar QFs have provided manufacturer warranty information that extends beyond the current term of solar projects under contract with Idaho Power. On the other hand, none of the wind QFs under contract with Idaho Power have discussed repowering their facilities nor have they provided any data or information that verifies the QFs intent to repower and continue operating their projects beyond the current contract and useful life of their wind generation facilities. Therefore, the Company cannot accurately predict whether these generators will choose to invest in repowering.