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IDAHO PUBLIC  
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER )  
COMPANY'S PETITION TO MODIFY ) CASE NO. IPC-E-15-01  
TERMS AND CONDITIONS OF )  
PROSPECTIVE PURPA ENERGY SALES )  
AGREEMENTS. )  
\_\_\_\_\_ )

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

LISA A. GROW

1 Q. Please state your name and business address.

2 A. My name is Lisa A. Grow and my business  
3 address is 1221 West Idaho Street, Boise, Idaho 83702.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by Idaho Power Company ("Idaho  
6 Power" or "Company") as the Senior Vice President of Power  
7 Supply.

8 Q. Please describe your educational background  
9 and work experience with Idaho Power.

10 A. I graduated from the University of Idaho in  
11 1987 with a Bachelor of Science in Electrical Engineering.  
12 I received an Executive Masters of Business Administration  
13 from Boise State University in 2008. I began my career at  
14 Idaho Power after graduating from the University of Idaho  
15 in 1987, and have held several engineering positions before  
16 moving into management in 2005. In 2005, I was named Vice  
17 President of Delivery Engineering and Operations. In 2009,  
18 I was appointed to my current position as Senior Vice  
19 President of Power Supply. My current responsibilities  
20 include overseeing the operation and maintenance of Idaho  
21 Power's generation fleet, power plant engineering and  
22 construction, environmental affairs, water management,  
23 power supply planning, and wholesale electricity and gas  
24 operations. I also oversee Idaho Power's Load Serving  
25 Operations Group, which is responsible for delivering

1 reliable energy to customers through the Company's  
2 electrical grid using its generation portfolio and system  
3 purchases. The management and administration of Public  
4 Utility Regulatory Policies Act of 1978 ("PURPA")  
5 cogeneration and small power production facilities is  
6 within Idaho Power's Load Serving Operations Group.

7 Q. What is the purpose of your testimony in this  
8 matter?

9 A. The purpose of my testimony is to present the  
10 Company's request to modify terms and conditions for PURPA  
11 energy sales agreements that the Company is required to  
12 enter into pursuant to federal law. More specifically,  
13 Idaho Power believes the current 20-year authorized  
14 contract term places undue risk of power supply cost  
15 increases on customers at a time when Idaho Power has  
16 sufficient resources to meet customer demands. The  
17 Company's required Integrated Resource Plan ("IRP") process  
18 is filed and updated every two years. Non-PURPA purchase  
19 and sales transactions are limited to less than two years  
20 pursuant to the Company's approved risk management policy.  
21 Avoided cost rates are updated at least every year.  
22 Therefore, Idaho Power requests that the Idaho Public  
23 Utilities Commission ("Commission") issue an order  
24 directing that the maximum required term for an Idaho Power  
25 PURPA energy sales agreement be reduced from 20 years to

1 two years. I will provide an overview of the Company's  
2 case and describe the composition of Idaho Power's  
3 generation resources, including its carbon emissions and  
4 renewable generation.

5 Q. Are you sponsoring any exhibits?

6 A. No. However, Idaho Power is contemporaneously  
7 filing the Direct Testimony of Randy Allphin. Mr. Allphin  
8 is sponsoring 10 exhibits in support of Idaho Power's  
9 Petition and request in this matter.

10 **I. IDAHO POWER'S GENERATION RESOURCES**

11 Q. Could you describe Idaho Power and its  
12 generation resources?

13 A. Yes. Idaho Power is a vertically integrated  
14 electric utility with operations beginning in 1916. Idaho  
15 Power serves more than 513,000 customers throughout a  
16 24,000 square mile area in southern Idaho and eastern  
17 Oregon. Idaho Power owns and operates 17 hydroelectric  
18 generating facilities, primarily on the Snake River, which  
19 provide the bulk of the Company's generating ability.  
20 Idaho Power has a nameplate generation capacity of nearly  
21 3,600 megawatts ("MW"). Idaho Power's peak system load is  
22 just over 3,400 MW, which occurred on July 2, 2013. The  
23 Company's peak system load for 2014 was approximately 3,184  
24 MW. Its minimum system load for 2014 was approximately  
25 1,073 MW. Idaho Power residential, business, and

1 agricultural customers consistently pay some of the  
2 nation's lowest prices for electricity.

3 Idaho Power's five-year average fuel mix consists of  
4 over 58 percent renewables, which is primarily hydro and  
5 wind. Idaho Power has always been a low carbon emitting  
6 and primarily renewable energy electric utility. Idaho  
7 Power is nearly 100 years old, and its first power plant  
8 was hydroelectric. Idaho Power believes in a balanced  
9 generation portfolio, including renewable energy that  
10 blends demand-side management and energy efficiency  
11 programs to meet the needs of all its customers. As shown  
12 in Mr. Allphin's Exhibit No. 2, as of January 26, 2015,  
13 Idaho Power had 1,428 MW of renewable energy (PURPA and  
14 non-PURPA purchases) on its system or under contract,  
15 excluding the Company's hydro resources. This renewable  
16 generation consists of: 728 MW of wind, 461 MW of solar,  
17 35 MW of geothermal, and 184 MW of small PURPA hydro and  
18 other. Because Idaho Power does not receive the Renewable  
19 Energy Certificates/Credits ("RECs") from most of its  
20 Qualifying Facility ("QF") generation, this generation  
21 cannot be used to meet any potential renewable portfolio  
22 standard requirements. Idaho Power cannot represent to  
23 customers that they are receiving renewable energy from the  
24 QFs, or from generation, for which it does not receive the  
25 RECs, and is not making any such representation here.

1 However, these are the renewables that operate on the  
2 Company's system and which the Company must integrate.

3 Q. Could you describe Idaho Power's current  
4 portfolio of generation resources?

5 A. Idaho Power's current resource portfolio  
6 consists of a diverse mix of low-cost generation types  
7 totaling nearly 3,600 MW of nameplate capacity. Idaho  
8 Power's resource portfolio is anchored by the Company's  
9 hydroelectric system consisting of 17 projects located on  
10 the Snake River and its tributaries. These 17 projects  
11 provide 1,709 MW of nameplate capacity and approximately  
12 8.4 million megawatt-hours ("MWh") annually under median  
13 water conditions. Idaho Power is the non-operating partner  
14 in three coal-fired power plants that provide the Company  
15 with 1,119 MW of nameplate capacity. Idaho Power's share  
16 of these resources includes the Jim Bridger power plant at  
17 771 MW, the North Valmy power plant ("Valmy") at 284 MW,  
18 and the Boardman power plant ("Boardman") at 64 MW. Idaho  
19 Power's resource portfolio also includes three natural gas-  
20 fired combustion turbine plants. Langley Gulch, a  
21 combined-cycle plant, provides 318 MW of nameplate  
22 capacity. The Company's two simple-cycle "peaker" plants,  
23 the Danskin power plant and Bennett Mountain power plant,  
24 provide a combined 444 MW of nameplate capacity. Idaho  
25 Power also owns a small diesel-fired generator located in

1 Salmon, Idaho, that provides approximately 5 MW of  
2 nameplate capacity.

3 Q. In addition to energy from its own resources,  
4 does Idaho Power obtain generation from any other sources?

5 A. Yes. The Company currently has power purchase  
6 agreements with one wind project and two geothermal  
7 projects. Elkhorn Valley wind project, located in  
8 northeastern Oregon, provides 101 MW of nameplate wind  
9 generation. The Raft River geothermal power plant, located  
10 in southern Idaho, provides 13 MW of nameplate capacity.  
11 The Neal Hot Springs geothermal project, located in eastern  
12 Oregon, provides 22 MW of nameplate capacity.

13 Idaho Power also contracts with QFs for energy  
14 purchases under PURPA. As shown in Mr. Allphin's Exhibit  
15 No. 2, Idaho Power currently has 133 PURPA contracts for  
16 approximately 1,302 MW of nameplate capacity. The PURPA  
17 generation facilities consist of low-head hydroelectric  
18 projects on various irrigation canals, cogeneration  
19 projects at industrial facilities, wind projects, solar  
20 projects, anaerobic digesters, landfill gas, and wood  
21 burning facilities.

22 Q. How does a diverse generation portfolio  
23 benefit Idaho Power and its customers?

24 A. Idaho Power has learned from nearly a century  
25 of operations that energy diversity means energy security.

1 The Company's resource portfolio is among the most diverse  
2 and therefore secure in the nation. The Company leverages  
3 its hydro, coal, and natural gas resources to provide  
4 dependable "baseload" energy to customers, along with  
5 purchased renewable resources and a robust set of energy  
6 efficiency programs. It is the same principle as  
7 maintaining a diversified investment portfolio to manage  
8 risk; a variety of resources minimizes the risk that comes  
9 with having all your eggs in one basket.

10 Q. Could you describe Idaho Power's carbon  
11 emissions?

12 A. Idaho Power is one of the lowest carbon  
13 emitting utilities in the industry. Based upon 2012  
14 emissions, for overall emissions, Idaho Power is ranked  
15 among the 36 lowest and, for emission intensity (MWh), it  
16 is among the 38 lowest carbon dioxide emitters among the  
17 nation's 100 largest electricity producers. Idaho Power  
18 charts its carbon intensity in its annual sustainability  
19 reports, as well as tracking and displaying its progress on  
20 its website. Idaho Power established a carbon emission  
21 intensity goal in 2009 to reduce average carbon dioxide  
22 emission intensity for the 2010 to 2013 period by 10 to 15  
23 percent below its 2005 intensity of 1,194 pounds per MWh.  
24 In November 2012, Idaho Power's Board of Directors approved  
25 extending that goal through 2015. By the end of 2013,

1 Idaho Power had reduced its average carbon dioxide  
2 intensity over the 2010 to 2013 period to 929 pounds per  
3 MWh, a 22 percent reduction from 2005 carbon dioxide  
4 intensity. Preliminary results for the year ending 2014  
5 show that the Company remains on track with approximately  
6 944 pounds per MWh, which is a 21 percent reduction from  
7 2005 levels.

8           Being a predominately hydro-based system, Idaho  
9 Power's carbon intensity varies based upon the hydrologic  
10 conditions; that is, good water years help reduce carbon  
11 emissions. However, Idaho Power has taken other steps to  
12 reduce emission intensity. The most recent addition to  
13 Idaho Power's generation is the Langley Gulch natural gas-  
14 fired plant, which was originally planned to be a coal  
15 plant, generates with about half of the carbon dioxide  
16 intensity of a coal-fired plant, helps with integration of  
17 intermittent renewable energy, and provides an option to  
18 further reduce carbon dioxide emissions and intensity by  
19 fuel switching from coal to natural gas. Idaho Power has  
20 also been working to maximize effective utilization of its  
21 existing hydroelectric resources. Recent turbine upgrades  
22 have seen efficiency gains of 3 to 5 percent increases in  
23 MW generated with the same amount of water. This includes  
24 cloud seeding and effective water leasing practices. Idaho  
25 Power's current cloud seeding project includes 36 ground

1 generators and an aircraft, which results in an estimated  
2 193,000 MWh of additional hydroelectric generation.  
3 Expansion of the cloud seeding program could produce an  
4 estimated additional 277,000 MWh of hydroelectric  
5 generation.

6 Q. Are there other considerations with the  
7 continued operation of coal plants besides carbon  
8 emissions?

9 A. Beyond carbon dioxide, Idaho Power has been  
10 working to reduce NO<sub>x</sub> and SO<sub>2</sub> emissions from coal-fired  
11 plants and has seen a dramatic decrease in those emissions  
12 since 1998 because of enhanced operating efficiencies at  
13 the plants, improvements in pollution control equipment,  
14 and increased integration of renewable energy. In  
15 testimony from Case No. IPC-E-13-16 during 2013, Idaho  
16 Power discussed a path for the eventual retirement of coal  
17 resources. As the Company seeks to balance the impacts of  
18 carbon with the economic realities of its customers, it  
19 knows that it cannot immediately terminate operation of  
20 coal-fired plants. As the Company continues to evaluate  
21 its coal plants from an economic standpoint, from the  
22 context of 111(d), and from all relevant considerations, it  
23 is mindful that those plants have a finite life. The  
24 Company has no new coal plants in its IRP. The Company is  
25 shutting down coal-fired operations at the Boardman plant

1 in 2020. Idaho Power has been in discussions with the  
2 joint owner of the Valmy plant regarding the future of that  
3 plant and the resource alternatives that could replace the  
4 generation from that plant. Cost is, of course, an  
5 important factor, and the state public utility commissions  
6 and Idaho Power's customers demand that risk be considered  
7 and that future rate increases be mitigated where possible.  
8 Idaho Power currently benefits from the diversity of its  
9 generation resources, and that diversity helps mitigate the  
10 power supply cost risk borne by customers as the Company  
11 transitions to the new energy landscape.

12 At the end of the day, the Company is still  
13 obligated to produce reliable, fair-priced energy for its  
14 customers. Moreover, it has to operate within its  
15 regulatory framework, but while doing so must be  
16 conscientious as to environmental issues, cost recovery  
17 risk, and other various issues that must be considered when  
18 striking an appropriate balance.

19 **II. OVERVIEW OF THE COMPANY'S CASE**

20 Q. What does Idaho Power see as the major issues  
21 in this case?

22 A. Several things: (1) the continuing and  
23 unchecked requirement for the Company to enter into long-  
24 term, fixed-price agreements to acquire QF generation with  
25 no regard for the Company's need for additional generation

1 on its system; (2) the continued acquisition of large  
2 amounts of unneeded intermittent PURPA generation pursuant  
3 to long-term, fixed-price agreements which inflate power  
4 supply costs and degrade the reliability of Idaho Power's  
5 system; (3) the continuing requirement to acquire  
6 generation outside of the Commission's established IRP  
7 process; (4) the fundamental disconnection between the way  
8 a regulated monopoly service provider, like Idaho Power,  
9 must plan for and acquire generation resources and the  
10 PURPA mandatory purchase requirement; and (5) the  
11 unnecessary risk that is entirely borne by Idaho Power and  
12 its customers of locking in a long-term, fixed-price  
13 agreement, with no ability to alter, change, update, or  
14 adjust the pricing, terms, and conditions therein for the  
15 duration of the agreement.

16 Q. Why is the Company bringing another PURPA  
17 related matter before the Commission at this time?

18 A. Idaho Power's requested modification of terms  
19 and conditions of required PURPA energy sales agreements is  
20 in response to the overwhelming amount of continued PURPA  
21 requests for long-term, fixed-price contracts with Idaho  
22 Power and in response to the Commission's recent statements  
23 in orders approving contracts for upwards of 500 MW of new  
24 PURPA solar generation.

25

1 Idaho Power has a long history of active PURPA QF  
2 projects. The first QF projects were constructed and  
3 started selling their output to Idaho Power under PURPA in  
4 approximately 1982. For about the next 20 years, Idaho  
5 Power accumulated a large number of predominately small  
6 hydro PURPA QF projects that steadily increased and  
7 maintained energy deliveries under 200 MW total generation,  
8 as shown in Mr. Allphin's Exhibit No. 1. In fact, to this  
9 day, small hydro QFs make up the majority of PURPA projects  
10 under contract with Idaho Power, but provide a relatively  
11 small amount of the total PURPA generation. However, since  
12 about 2002, and after the Commission increased the maximum  
13 contract term from 5 years back to 20 years (Case No. GNR-  
14 E-02-01), Idaho Power has experienced rapid and large  
15 additions of predominately wind, and now solar, QF projects  
16 coming on-line and under contract. Idaho Power currently  
17 has a total of 1,302 MW of PURPA QF projects under  
18 contract, with 781 MW of those projects constructed and  
19 operating today, as shown in Mr. Allphin's Exhibit No. 2.  
20 In addition, Idaho Power has current requests, received  
21 over the last several months, for an additional 885 MW of  
22 PURPA solar generation.

23 Upon review of the Commission's recent approval of  
24 the last 11 PURPA solar energy sales agreements in the last  
25 two months, the Commission questioned the continued

1 acquisition of such large amounts of PURPA generation when  
2 there is no associated need for that generation, and a  
3 concern for passing those substantial costs on to Idaho  
4 Power customers. The Commission stated in those orders:

5 To encourage the development of  
6 renewable energy resources, PURPA  
7 requires that electric utilities  
8 purchase generation produced by QFs  
9 under a federal rate mechanism  
10 (i.e., avoided cost) that is  
11 established and implemented by state  
12 utility commissions. Unfortunately,  
13 PURPA does not address and FERC  
14 regulations do not adequately  
15 provide for consideration of whether  
16 the utility being forced to purchase  
17 QF power is actually in need of such  
18 energy.

19  
20 Idaho Power's 2013 Integrated  
21 Resource Plan does not reflect that  
22 the utility is in need of energy to  
23 reliably serve its customers. And  
24 yet, in less than four months time,  
25 13 QFs have contracted with Idaho  
26 Power for nearly 400 MW of solar  
27 generation - all expected to be on-  
28 line and producing power by the end  
29 of 2016. The combined 20-year  
30 contractual obligation of these 13  
31 projects is approximately \$1.4  
32 billion. As we have previously  
33 stated, 100% of the costs of QF  
34 generation are passed on to  
35 ratepayers. . . .

36  
37 We recently undertook a detailed  
38 review of the implementation of  
39 PURPA in Idaho. See generally GNR-  
40 E-11-03. This Commission considered  
41 changes to numerous terms and  
42 conditions contained in PURPA  
43 agreements. Recent modifications of  
44 variables within the incremental

1 cost IRP methodology confirm that  
2 the methodology provides flexibility  
3 that allows us to accurately value  
4 each QF's unique capability to  
5 deliver its resources. However, QFs  
6 continue to request contracts with  
7 Idaho Power in significant enough  
8 numbers that we remain concerned  
9 about the Company's ability to  
10 balance the substantial amount of  
11 must-take intermittent generation  
12 and still reliably serve customers.  
13 While we are pleased with the  
14 progression of the IRP methodology,  
15 avoided cost rates are not the only  
16 terms to a PURPA contract. The  
17 utilities are in the best position  
18 to inform the Commission if review  
19 of additional PURPA contract terms  
20 and conditions is warranted.

21  
22 Order Nos. 33198, pp. 5-7; 33199, pp. 5-7; 33200, pp. 5-7;  
23 33201, pp. 5-6; 33202, pp. 5-6; 33204, pp. 6-7; 33205, pp.  
24 6-7; 33206, pp. 7-8; 33207, pp. 6-8; 33208, pp. 6-8; 33209,  
25 pp. 6-8. Idaho Power agrees with and shares the  
26 Commission's concerns, and thus believes it is necessary to  
27 bring the current action to the Commission for its  
28 determination.

29 Q. What issues does Idaho Power believe should be  
30 reviewed by the Commission in response to its concerns?

31 A. Several issues related to the Commission's  
32 implementation of PURPA in the state of Idaho could warrant  
33 additional examination and possible revision. These items  
34 could include: (1) further modification to the existing  
35 avoided cost pricing methodologies to more appropriately

1 reflect need and resource sufficiency in the price; (2)  
2 implement new avoided cost pricing methodologies which move  
3 to a market-based or competitively bid-based avoided cost  
4 mechanism, such as that utilized in Washington; (3)  
5 exemption from PURPA under § 210, part M; (4) Commission  
6 pursuit of a waiver from the requirements of § 210,  
7 subpart C, for Idaho Power pursuant to 18 C.F.R. §  
8 292.402; (5) refinement of the Commission's 90%/110%  
9 definition of firmness to require firm scheduled deliveries  
10 for entitlement to rates established at the time of  
11 contracting or legally enforceable obligation, as opposed  
12 to rates determined at the time of delivery, similar to the  
13 implementation in Texas; (6) further refinement of the  
14 eligibility for rates established at the time of  
15 contracting or legally enforceable obligation by requiring  
16 QFs to be within 90 days of delivering power before the  
17 utility is obligated to the price, again similar to the  
18 implementation in Texas; (7) contractual term limitations;  
19 and (8) caps, or MW targets, upon the amount of new or  
20 repowered projects a utility is required to procure over a  
21 given period of time, similar to those in place in  
22 California. However, at this time, Idaho Power's specific  
23 request with its Petition is that the Commission modify the  
24 terms and conditions of prospective purchases from PURPA  
25 QFs by reducing the current 20-year contract term for Idaho

1 Power energy sales agreements to a maximum of two years,  
2 and direct any other relief it deems appropriate and in the  
3 public interest.

4 Q. Has the Commission changed the maximum term of  
5 required PURPA energy sales agreements in the past?

6 A. Yes. I am generally aware that the Commission  
7 has changed the authorized maximum term of a required PURPA  
8 purchase several times throughout its implementation of  
9 PURPA in the state of Idaho. The various changes to the  
10 maximum contractual term have resulted from the  
11 Commission's evaluation of changing conditions in the  
12 energy and utility environment and its attempts to balance  
13 the promotion of the development of QF resources with the  
14 cost and risk borne by Idaho Power and its customers in the  
15 transaction. From 1980 when PURPA was first implemented in  
16 the state of Idaho through 1987, utilities were obligated  
17 to provide QFs with a 35-year contract. In 1987, the  
18 Commission shortened the maximum term to 20 years based  
19 primarily upon the inherent uncertainty in long-term  
20 forecasting. Order No. 21630. In 1996, the Commission  
21 further reduced contract term to five years for QFs of 1 MW  
22 and larger, the published rate eligibility cap at that  
23 time. Order No. 26576. In 1997, the Commission extended  
24 the five-year contract term limitation to include QFs under  
25 the 1 MW published rate eligibility cap as well. Then, in

1 2002, the Commission went back to a 20-year contract term,  
2 which has been in place to the present. Order No. 29029.

3 Q. What factors does Idaho Power believe support  
4 its request to reduce the maximum term of a PURPA energy  
5 sales agreement to a maximum of two years?

6 A. Several things establish that the long-term  
7 lock-in of contractual rates, and the bearing of that risk  
8 entirely by customers, for 20 years is unjust, unreasonable  
9 and contrary to the public interest. The acquisition of  
10 any Company-owned generation resource, as well as the  
11 Company's purchase and sale of non-PURPA generation, is  
12 either limited to terms of two years or less or is subject  
13 to intensive Commission and public participation, scrutiny,  
14 process, and proceedings to determine that the Company is  
15 acting prudently, in the public interest, and fulfilling a  
16 need in the least cost, most reliable manner possible.  
17 These requirements, particularly that of establishing need  
18 for the resource, are absent in a mandatory PURPA QF  
19 purchase. The further constraint imposed by PURPA that  
20 eliminates any ability to modify, adjust, or change the  
21 prices that are locked into a PURPA energy sales agreement  
22 for the duration of that contract's term, regardless of  
23 whether all costs were included or whether actual costs and  
24 conditions changed or varied, makes long-term, 20-year

25

1 contract terms at best risky, and in Idaho Power's case  
2 harmful.

3           The Company's required IRP is filed with and  
4 reviewed by the Commission every two years. Changes in  
5 conditions, positions, market prices, gas forecasts, load  
6 forecasts, etc., are incorporated and captured continually  
7 as they happen during the development of the IRP and its  
8 biennial filing. Those decisions and inputs are  
9 not locked in for 20 years with no ability to adjust,  
10 update, or change, like PURPA transactions.

11           With regard to market purchases of generation  
12 resources to serve load or any other energy market  
13 transactions of purchases and sales that the Company  
14 conducts, it must comply with the Commission-approved risk  
15 management policy. The Company's risk management policy,  
16 set up to govern the risk and customer exposure to market  
17 fluctuations when the Company makes power purchases and  
18 sales on the market, has short-term limitations. Under its  
19 authorized and required risk management policy, the Company  
20 does not enter into transactions beyond 18 months. If the  
21 Company were to desire to transact for any periods of two  
22 years or more, specific Commission authorization and  
23 approval is required. This policy has been deemed a  
24 prudent process for managing customer exposure to the  
25 market and transactional risk with making generation

1 purchases and sales, and the prudent term is far below the  
2 20 years required for mandatory, unchangeable PURPA  
3 purchases.

4           The Company is not able to acquire any other  
5 generation or purchased power that is indiscriminately  
6 locked in for such long terms. If the Company does acquire  
7 any non-PURPA generation or purchases longer than two  
8 years, it comes with specific Commission determinations of  
9 meeting a need in the least cost, most reliable manner  
10 available. These determinations are made only after  
11 careful examination and process, including various public  
12 processes and proceedings such as through the IRP process,  
13 a certificate of public convenience and necessity  
14 proceeding, rate base proceedings, and other specific  
15 Commission proceedings and determinations that assure  
16 customers are protected and the Company meets its  
17 obligations to reliably serve. It does not follow that a  
18 PURPA transaction, that does not have the benefit,  
19 requirement, or protections associated with all of the  
20 previously mentioned Commission processes and procedures,  
21 and must be acquired regardless of need, would be  
22 indiscriminately locked in with long-term, fixed costs that  
23 cannot be changed.

24           Q.     You previously mentioned an inflation of power  
25 supply expenses. Could you explain?



1           Q.     You also previously mentioned a degradation of  
2 the reliability of Idaho Power's system. Could you  
3 explain?

4           A.     Yes. Idaho Power's hydroelectric and coal  
5 generation has must-run levels that the Company cannot go  
6 below without violating environmental regulations relating  
7 to the hydro facilities or taking the coal generation off-  
8 line and thus making it unavailable to meet required loads  
9 until it could be restarted. With the addition of the  
10 must-take PURPA generation, which is less predictable than  
11 firm generation and does not equate to non-firm generation  
12 as it is unscheduled and delivered if, when, and in  
13 whatever amount the QF determines, the Company's system can  
14 rapidly move to an imbalance position, in this case,  
15 primarily to an over-generation position, and the Company  
16 must take remedial actions to balance the system. If  
17 remedial actions are not available, or not employed in a  
18 timely manner, then the Company can have system reliability  
19 violations, events, and/or outages and damage. In fact,  
20 over the last several years, reliability curtailments of  
21 PURPA generation have been necessary in order to maintain  
22 the integrity of Idaho Power's system. For the period from  
23 May 2011 through December 2014, the Company had at least 15  
24 reliability events that resulted in wind generation output  
25 reductions in order to maintain the reliable operation of

1 the Company's electrical system. These curtailments, or  
2 generation limitation set points, have been relatively  
3 infrequent, for relatively short durations, and are removed  
4 as soon as possible once it can safely be done and maintain  
5 a balanced system.

6 Q. Has the Company done any analysis as to what  
7 effect the continued acquisition of large amounts of  
8 unneeded must-take PURPA generation has upon the  
9 reliability of the system?

10 A. Yes. As previously noted, the Commission  
11 expressed concern with this issue stating, "we remain  
12 concerned about the Company's ability to balance the  
13 substantial amount of must-take intermittent generation and  
14 still reliably serve customers." Mr. Allphin's Exhibit  
15 No. 6 contains a summary of the Company's analysis  
16 estimating the frequency of hours, over the years 2016 and  
17 2017, in which Idaho Power's must-run and must-take  
18 resources exceed total system load.

19 Q. What are the results of that analysis?

20 A. The results are summarized on page 1 of  
21 Exhibit No. 6. The results generally show an alarming  
22 amount of hours throughout 2016 and 2017 where must-run and  
23 must-take generation exceeds total system load.

24 Without the inclusion of any gas-fired generation,  
25 and including only the Company's must-run coal and hydro

1 generation, without any of the must-take PURPA generation  
2 whatsoever, that generation is projected to exceed load for  
3 14 percent of all hours during 2016 and 2017. The  
4 Company's must-run hydro and coal generation combined with  
5 existing must-take PURPA, but without any of the recently  
6 approved PURPA solar generation, exceeds total system load  
7 for approximately 29 percent of all hours during 2016 and  
8 2017. When the 461 MW of PURPA solar that is under  
9 contract and scheduled to be on-line in 2016 is included,  
10 Idaho Power's must-run and must-take generation exceeds  
11 total system load for approximately 32 percent of all hours  
12 in a year. Finally, inclusion of the additional 885 MW of  
13 proposed PURPA solar generation increases the frequency of  
14 must-run and must-take generation in excess of load to 40  
15 percent of all hours during 2016 and 2017.

16 Q. What is significant about the hours in which  
17 must-run and must-take generation exceeds total system  
18 load?

19 A. It is significant because the system has  
20 already been backed down as far as it can without shutting  
21 something off or sending generation off-system. Each one  
22 of these hours creates a potential over-generation event  
23 where remedial action of some kind will be necessary to  
24 keep the system in balance and meet the obligation to  
25 reliably serve customers. The historical and projected

1 market price for surplus sales has always been, and is  
2 projected to always be, much lower than the price the  
3 Company pays for PURPA. Allphin, Ex. 8; Ex. 10. If  
4 transmission capacity is available to conduct off-system  
5 sales, the Company would sell at a loss. When the Company  
6 has no identifiable need for any additional generation,  
7 each one of these potential reliability events is a  
8 completely unnecessary destabilization of Idaho Power's  
9 system, putting its required service to its customers at  
10 risk.

11 Q. Is it your opinion that the granting of the  
12 requested relief proposed by the Company is in the public  
13 interest?

14 A. Yes. The Company's requested relief is in the  
15 public interest, is within the authority and discretion of  
16 the Commission, and the Company respectfully asks the  
17 Commission to implement the same.

18 Q. Does this conclude your testimony?

19 A. Yes, it does.

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