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IDAHO PUBLIC  
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER )  
COMPANY'S APPLICATION FOR ) CASE NO. IPC-E-16-14  
APPROVAL OF NEW TARIFF SCHEDULE )  
63, A COMMUNITY SOLAR PILOT )  
PROGRAM. )  
\_\_\_\_\_ )

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

MATTHEW T. LARKIN

1           Q.     Please state your name, business address, and  
2 present position with Idaho Power Company ("Idaho Power" or  
3 "Company").

4           A.     My name is Matthew T. Larkin. My business  
5 address is 1221 West Idaho Street, Boise, Idaho 83702. I  
6 am employed by Idaho Power as the Revenue Requirement  
7 Manager in the Regulatory Affairs Department.

8           Q.     Please describe your educational background.

9           A.     I received a Bachelor of Business  
10 Administration degree in Finance from the University of  
11 Oregon in 2007. In 2008, I earned a Master of Business  
12 Administration degree from the University of Oregon. I  
13 have also attended electric utility ratemaking courses,  
14 including the *Electric Rates Advanced Course*, offered by  
15 the Edison Electric Institute, and *Estimation of*  
16 *Electricity Marginal Costs and Application to Pricing*,  
17 presented by National Economic Research Associates, Inc.

18          Q.     Please describe your work experience with  
19 Idaho Power.

20          A.     I began my employment with Idaho Power as a  
21 Regulatory Analyst I in January 2009. As a Regulatory  
22 Analyst I, I provided support for the Company's regulatory  
23 activities, including compliance reporting, financial  
24 analysis, and the development of revenue forecasts for  
25 regulatory filings.

1           In January 2012, I was promoted to Regulatory  
2 Analyst II, and, in January 2014, I was promoted to Senior  
3 Regulatory Analyst. As a Senior Regulatory Analyst, my  
4 responsibilities expanded to include the development of  
5 complex cost-related studies and the analysis of strategic  
6 regulatory issues.

7           In March of 2016, I was promoted to my current  
8 position of Revenue Requirement Manager. As Revenue  
9 Requirement Manager, I oversee the Company's regulatory  
10 activities related to revenue requirement, such as power  
11 supply expense modeling, jurisdictional separation studies,  
12 and Idaho Power's Open Access Transmission Tariff Formula  
13 Rate.

14           Q       What is the Company requesting in this case?

15           A.       The Company is requesting that the Idaho  
16 Public Utilities Commission ("Commission") authorize the  
17 implementation of a voluntary Community Solar Pilot Program  
18 ("Program").

19           Q.       Please provide a summary of the proposed pilot  
20 Program offering.

21           A.       The Company is proposing to build a 500  
22 kilowatt ("kW") single-axis tracking community solar array  
23 that will exist to allow a limited number of Idaho Power's  
24 Idaho customers the opportunity to voluntarily subscribe to  
25 the generation output of the array. Participating

1 customers will be required to pay a one-time upfront  
2 Subscription Fee ("Subscription Fee") and in return will  
3 receive a monthly bill credit ("Solar Energy Credit") for  
4 their designated share of the energy produced from the  
5 array. The testimonies of David M. Angell and Peter  
6 Pengilly will describe in greater detail the community  
7 solar array and the proposed Program design, respectively.

8 Q. How is the Company's case organized?

9 A. My direct testimony will provide the  
10 Commission with an understanding of the Company's  
11 objectives for offering this pilot Program and the unique  
12 regulatory considerations that guided its design. My  
13 testimony will also summarize the total costs of the  
14 proposed Program, the determination of the Solar Energy  
15 Credit, the proposed regulatory accounting treatment, and  
16 an explanation of why the Program is in the public  
17 interest.

18 Mr. Angell will provide testimony that will describe  
19 the Request for Bid ("RFB") process for the selection of  
20 the contractor and the resulting cost to build the array.  
21 In addition, he will detail the operational aspects of  
22 offering the Program.

23 Mr. Pengilly will present testimony that will  
24 discuss the customer input that led the Company to offer  
25 this Program, as well as the Program design. His testimony

1 will further discuss the ongoing costs associated with  
2 offering the Program.

3 Q. Are you sponsoring any exhibits?

4 A. Yes. I am sponsoring the following exhibits:  
5 Exhibit No. 1 - the proposed Solar Energy Credit by  
6 rate schedule; and  
7 Exhibit No. 2 - Subscription Fee calculation.

8 I. **COMMUNITY SOLAR PILOT PROGRAM DESIGN**  
9 **OBJECTIVES AND CONSIDERATIONS**

10 Q. What led the Company to consider a Community  
11 Solar Pilot Program?

12 A. The Company is offering the Program based on  
13 expressed interest from some customers who desire to have a  
14 portion or all of their energy supplied from renewable  
15 resources, specifically solar. Mr. Pengilly describes in  
16 detail the interaction with customers and stakeholders that  
17 led to the Company's proposal in this case.

18 Q. What role does the proposed Community Solar  
19 Pilot Program fill with regard to customer preference for  
20 solar energy?

21 A. For many customers, direct ownership and  
22 operation of solar resources is not desirable or feasible.  
23 Customer ownership and operation requires upfront capital  
24 costs, as well as long-term expenses and liabilities  
25 associated with system operation and maintenance. Beyond  
26

1 cost considerations, rooftop or ground-mounted solar  
2 installations are feasible only for certain property  
3 owners. Customers who reside in rental properties, multi-  
4 unit dwellings, or townhomes are necessarily limited in  
5 their options, as well as customers that have aging  
6 rooftops, shading, or unsuitable rooftop orientation.

7 The Company's proposed Community Solar Pilot Program  
8 is designed as an alternative to customers who fall into  
9 the various categories mentioned above. Additionally, with  
10 regard to cost, a 2015 study commissioned by First Solar  
11 and authored by The Brattle Group found that utility-scale  
12 photovoltaic ("PV") systems are significantly more cost-  
13 effective than residential-scale PV systems when considered  
14 as a vehicle for achieving the economic and policy benefits  
15 commonly associated with PV solar.<sup>1</sup>

16 Q. Does the Company currently have a load-serving  
17 need for the proposed solar resource?

18 A. No. As indicated by the Company's 2015  
19 Integrated Resource Plan ("IRP"), the Company is resource  
20 sufficient until 2024.<sup>2</sup> As discussed above, the Company's  
21 proposal in this case was driven by customer preference  
22 rather than load-serving need.

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<sup>1</sup> Comparative Generation Costs of Utility-Scale and Residential-Scale PV in Xcel Energy Colorado's Service Area, July 2015.

<sup>2</sup> Idaho Power's 2015 IRP, page 119.

1 Q. Because there is no current need for the  
2 proposed solar resource from a load-serving perspective,  
3 how did the Company approach pricing and design for the  
4 proposed Program?

5 A. The pricing methodology for the Subscription  
6 Fee and the overall Program design is intended to result in  
7 Program participants covering the full cost of the project  
8 (less the shareholder subsidy detailed below) with nominal  
9 impact to non-participating customers assuming full  
10 subscription. Because there is no existing load-serving  
11 need to construct the solar array, the pricing and design  
12 of the Program should ensure that the incremental costs of  
13 the Program are borne by customers who choose to  
14 participate in this optional pilot, while limiting the  
15 potential for non-participating customers to be assigned  
16 Program-related costs.

17 **II. COMMUNITY SOLAR PILOT PROGRAM COSTS**

18 Q. What is included in the Subscription Fee of  
19 the proposed Program?

20 A. The Company is proposing a cost-based method  
21 of pricing whereby the Company has set the Subscription Fee  
22 for participants to reflect the cost to construct and  
23 interconnect the solar PV facility, less an IDACORP, Inc.,  
24 shareholder contribution of 15 percent, as well as ongoing  
25 costs such as operations and maintenance expense ("O&M")

1 and property tax. Estimated incremental costs associated  
2 with marketing the Program have been incorporated into the  
3 Subscription Fee as well.

4 Q. Are land costs included in the total cost of  
5 the Program?

6 A. No. The proposed location at the Boise Bench  
7 substation, described in more detail by Mr. Angell, is land  
8 that is currently in the Company's plant-in-service. The  
9 Company believes that the construction of the array will  
10 not affect the utility use of the parcel.

11 Q. How did the Company determine the costs to be  
12 reflected in the Subscription Fee?

13 A. As described in the testimony of Mr. Angell,  
14 the Company submitted a RFB to establish firm costs to  
15 construct the proposed community solar array. The cost to  
16 construct provided by the selected contractor is  
17 \$1,158,763. Mr. Angell's testimony also details additional  
18 interconnection costs to connect the solar facility to  
19 Idaho Power's grid of \$81,000.

20 In his testimony, Mr. Pengilly describes the ongoing  
21 expenses reflected in the total project cost, including  
22 incremental expected O&M for the life of the project,  
23 property taxes, and \$50,000 for incremental Program  
24 marketing expenses.

25

1 Q. Does the Company project to receive federal  
2 Investment Tax Credits ("ITC") for the Program?

3 A. Yes. Under current law, the 30 percent ITC  
4 for eligible facilities will be available through 2019.  
5 The ITC will be subject to normalization, as required for  
6 public utilities by the Internal Revenue Code.

7 Q. Did the Company pass on the ITC benefits to  
8 customers in this Program?

9 A. Yes. The calculation of the upfront  
10 Subscription Fee recognizes the ITC benefits in the same  
11 manner as the Company records them for income tax  
12 accounting purposes.

13 Q. Will the Company earn a return on the project?

14 A. No. All project costs are borne by the  
15 voluntary participants upfront, and the Company will not  
16 earn a return on this project.

17 Q. Why is the Company proposing to include a  
18 shareholder-funded subsidy of 15 percent of the solar  
19 facility construction costs?

20 A. The Company is building a solar facility that  
21 is smaller in size than what is considered the industry  
22 standard for "utility scale" solar. As detailed in Mr.  
23 Pengilly's testimony, one of the learning objectives of the  
24 Community Solar Pilot Program is to gauge customer  
25 commitment toward participating in a community solar

1 option, potentially to inform a larger scale offering in  
2 the future. Because larger projects achieve economies of  
3 scale in relation to the 500 kW system proposed in this  
4 Program, the Company has committed to a contribution of 15  
5 percent of the solar facility costs to help facilitate this  
6 learning objective.

7 Q. How did the Company determine that a 15  
8 percent shareholder funding was appropriate?

9 A. The Company arrived at a 15 percent  
10 contribution through the RFB process. In the RFB process,  
11 the Company requested that the bidders provide an alternate  
12 bid for the full build-out of the selected site. The  
13 difference in price per kW between the proposed project  
14 (500 kW) and the full build-out (approximately 1 megawatt  
15 ("MW")) was approximately 15 percent. The Company believes  
16 that the 15 percent difference in price represents the  
17 economies of scale that a larger project would experience  
18 as compared to the pilot Program.

19 Q. Please quantify the shareholder funding  
20 contribution.

21 A. As discussed above, the shareholder  
22 contribution is calculated as 15 percent of the cost to  
23 construct the solar facility. Based on the cost provided  
24 by the successful contractor of \$1,158,769, 15 percent is  
25 approximately \$173,815.

1           Q.     What is the resulting Subscription Fee after  
2 taking into account the costs described above?

3           A.     Based on the costs described above, less the  
4 shareholder contribution of 15 percent, the proposed  
5 Subscription Fee is \$740, the equivalent of a 320 watt  
6 ("W") panel, as shown in Exhibit No. 2. The Subscription  
7 Fee is a one-time upfront payment that will result in a  
8 Solar Energy Credit on the customer's monthly bill for the  
9 25-year life of the Program.

10          Q.     How many subscriptions will be available?

11          A.     There will be approximately 1,563  
12 subscriptions available. The Company determined that the  
13 total number of subscriptions available should be the  
14 equivalent of the number of panels equal to the project's  
15 expected capacity of 500 kW. As Mr. Angell details in his  
16 testimony, the selected contractor will install 320 W  
17 panels. Based on this information, the number of  
18 subscriptions is calculated as follows: (a)  $500\text{kW} \times 1,000 =$   
19  $500,000\text{W}$ , (b)  $500,000\text{W} \div 320\text{W} = 1,563$ .

20          Q.     Did the Company consider other payment options  
21 for the Program aside from the upfront Subscription Fee?

22          A.     Yes. The Company also considered a monthly  
23 payment option, but determined the upfront Subscription Fee  
24 was the least risk in terms of potential unrecovered costs  
25 for both the Company and non-participating customers.

1 Q. Why is the Company proposing the upfront  
2 Subscription Fee rather than the monthly option?

3 A. In light of the fact that the pilot Program is  
4 designed solely for the subscribers of the Program and in  
5 recognition that the Company's need for additional  
6 generation does not occur until 2024, the Company felt that  
7 the financial risk for non-participants and the Company  
8 would be too great under the monthly payment option if  
9 panels went unsubscribed throughout the life of the  
10 Program. Under the monthly payment option, if customers  
11 were to drop out of the Program prematurely, the remaining  
12 unpaid portion of the subscription would be borne by the  
13 Company and/or non-participating customers. This risk does  
14 not exist under the upfront Subscription Fee option.

15 Q. Is the Company investigating a third-party  
16 financing option that would effectively provide  
17 participants with a monthly payment option?

18 A. Yes. The Company has reached out to several  
19 lending institutions to see if there is interest in  
20 offering a special rate for financing of a community solar  
21 subscription. This option is still currently in-process.  
22 If there is interest by a third-party lender, the Company  
23 will make this offering known to prospective subscribers  
24 during the recruitment period.

25

1                   **III.   SOLAR ENERGY CREDIT AND BILL OFFSETS**

2           Q.       How will a participant's monthly energy  
3 production be calculated?

4           A.       The total energy output of the array will be  
5 measured on a monthly basis at a production meter connected  
6 at the generation source. Line losses of 3.3 percent, as  
7 described by Mr. Angell, will be applied to the total  
8 output to determine loss-adjusted actual production. The  
9 resulting energy will be divided by the total number of  
10 subscriptions, and participants will receive their  
11 proportionate share of the energy commensurate with their  
12 level of subscription. The forecast annual energy per  
13 subscription is approximately 638 kWh.<sup>3</sup>

14          Q.       What is the credit that participants will  
15 receive for their share of the solar production?

16          A.       The Company is proposing a per kilowatt-hour  
17 ("kWh") Solar Energy Credit for the solar production. The  
18 Solar Energy Credit is based on the Company's embedded  
19 energy-related costs as determined by the most recently  
20 reviewed class cost-of-service methodology filed in Case  
21 No. IPC-E-11-08, adjusted to reflect revenue requirement  
22 changes that were subsequently authorized by the Commission  
23 which impact the authorized level of energy-related cost  
24 recovery.

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<sup>3</sup>Estimated average annual loss-adjusted energy of 996,977 kWh ÷  
1,563 subscriptions = 638 kWh/year per subscription.

1           Q.     Please describe what kinds of costs are  
2 classified as "energy-related" in the class cost-of-service  
3 study.

4           A.     Consistent with the cost-of-service  
5 methodology in the Company's last general rate case,  
6 energy-related costs are generally the variable costs  
7 associated with the operation of the generating plants,  
8 such as fuel.  However, due to the hydro production  
9 capability of the Company, a portion of the hydro and  
10 thermal generating plant investment has historically been  
11 classified as energy related.

12          Q.     Why should the Solar Energy Credit reflect  
13 embedded energy-related costs?

14          A.     Providing participants with a bill credit  
15 based on embedded energy costs reflects the general concept  
16 that participants are choosing to subscribe to the  
17 community solar facility for a portion of their electricity  
18 supply rather than receiving electricity generated from the  
19 Company's overall system resources.  By basing the bill  
20 credit on embedded energy-related costs, the Solar Energy  
21 Credit allows for a transparent and repeatable methodology  
22 that can be easily updated over time.  This methodology  
23 will ensure that participating customers are able to offset  
24 the energy-related portion of base rates, while still  
25 contributing to the recovery of fixed costs related to

1 infrastructure needed to serve all customers, as well as  
2 other non-variable costs, such as customer service and  
3 billing. The Company believes this methodology is  
4 consistent with the objective of limiting adverse rate  
5 impacts to non-participating customers.

6 Q. Will the Solar Energy Credit be fixed for the  
7 life of the Program?

8 A. No. The Company proposes to update the Solar  
9 Energy Credit as needed based on changes to its embedded  
10 energy-related costs recovered through base rates.

11 Q. Does the Company's proposed Solar Energy  
12 Credit reflect the seasonal production of the proposed  
13 solar facility?

14 A. Yes. The Company is proposing a Solar Energy  
15 Credit that reflects the seasonal nature of solar  
16 production. The energy produced at a solar facility in  
17 Idaho will experience peak production in the summer months  
18 when energy costs are generally higher. By incorporating  
19 this seasonality, the Solar Energy Credit will be  
20 reflective of the seasonal differences in the cost of  
21 energy.

22 Q. Is the Company proposing to reflect the  
23 seasonal nature of the solar production by offering  
24 seasonal Solar Energy Credit rates?

25

1           A.     No. For billing simplicity and ease in  
2 customer understanding, the Company is proposing a single  
3 Solar Energy Credit rate for each class; however, these  
4 year-round rates were appropriately adjusted to reflect the  
5 summer/non-summer weighting of solar production.

6           Q.     How will the community solar bill credit be  
7 calculated?

8           A.     The community solar bill credit will equal the  
9 product of (a) the proposed Solar Energy Credit rate  
10 specified in tariff Schedule 63 and (b) the subscriber's  
11 share of the total monthly production for that month. The  
12 total dollar value of the Solar Energy Credit reflected on  
13 a customer's bill will fluctuate monthly as production from  
14 the solar facility fluctuates.

15          Q.     Will participation in the Program affect any  
16 other components of a customer's bill?

17          A.     Yes. The Company is proposing that the  
18 participant's share of the monthly output will also be  
19 applied as a kWh credit toward billed kWh subject to the  
20 annual Power Cost Adjustment ("PCA") rate. As detailed  
21 above, participation in the Community Solar Pilot Program  
22 is effectively replacing energy supplied from the Company's  
23 existing resources and recognizing that the energy produced  
24 from the solar facility has no variable fuel cost  
25 component. Because the Solar Energy Credit reflects the

1 embedded energy-related cost in base rates, the participant  
2 should also be able to offset year-over-year variations in  
3 these energy-related costs tracked through the PCA.

4 Q. Has the Company provided an example of a  
5 residential participant's bill?

6 A. Yes. Company witness Mr. Pengilly provides a  
7 billing example for the average residential customer as  
8 Exhibit No. 4 to his testimony.

9 **IV. REGULATORY ACCOUNTING TREATMENT**

10 Q. Please describe the objective of the proposed  
11 regulatory accounting treatment for the Program.

12 A. The key regulatory accounting objective of the  
13 Program is that non-participants will not bear any  
14 incremental costs of the Program.

15 Q. Please describe the Company's proposed  
16 accounting for the project.

17 A. The project will be considered utility plant  
18 and will close to electric plant-in-service, Federal Energy  
19 Regulatory Commission ("FERC") Account 101, in the same  
20 manner as any other Company-owned asset. The shareholder  
21 contribution of 15 percent of the plant-related costs will  
22 be written off of the plant-in-service account and the  
23 Company will record a Contribution in Aid of Construction  
24 (CIAC) for the remaining balance assuming a 100 percent  
25 subscription rate. The combination of the two entries will

1 effectively zero out the plant balance on the Company's  
2 books. The portion of the upfront Subscription Fees  
3 related to ongoing costs such as incremental O&M,  
4 marketing, and property tax will be recorded a deferred  
5 revenue account. The balance of the deferred revenue  
6 account will be amortized over the life of the project.

7 Q. How will the Company ensure that the Program  
8 is neutral for non-participants?

9 A. The community solar plant-related costs will  
10 be zero on the Company's books based on the accounting  
11 entries described above; therefore, any future change in  
12 base rates will exclude any community solar plant-related  
13 costs. With regard to incremental Program expenses  
14 (marketing, ongoing O&M, property taxes), during future  
15 ratemaking proceedings, a test year adjustment will be made  
16 based on the annual amortization of the deferred revenue  
17 account. The result of the adjustment will effectively  
18 offset the ongoing incremental costs of the Program in the  
19 Company's revenue requirement determination in future rate  
20 cases.

21 However, it should be noted that because the annual  
22 amortization amount will be based on estimated costs,  
23 actual costs may differ from that estimate. The Company  
24 does not believe these differences will result in material  
25

1 costs or benefits being assigned to non-participating  
2 customers in the future.

3 Q. Is the Company planning to track differences  
4 between estimated and actual costs through the life of the  
5 Program?

6 A. No. While the deferred revenue account will  
7 be amortized over the life of the Program, the Company does  
8 not intend to track differences between estimated costs  
9 embedded in the upfront Subscription Fee and actual costs  
10 incurred throughout the life of the Program.

11 **V. PUBLIC INTEREST**

12 Q. Why does the Company believe offering the  
13 Community Solar Pilot Program is in the public interest?

14 A. The Company believes the pilot Program is in  
15 the public interest because the Program is the direct  
16 result of customers expressing their desire for additional  
17 choices when it comes to renewable energy. By offering  
18 access to community solar on a pilot basis, the Company is  
19 hoping to expand the renewable energy options available to  
20 customers who are interested in supporting solar energy.  
21 In addition, participation through a Company-sponsored  
22 renewable energy program provides for better consumer  
23 protection through Idaho Power's regulated business  
24 practices as compared to third-party installations or  
25 leasing of rooftop solar installations.

1 Q. How is the Program design in the public  
2 interest?

3 A. The Program is structured to minimize the  
4 impacts to non-participating customers while offering a  
5 community solar project in the most cost-effective way  
6 possible. The Company's proposal is designed such that the  
7 costs associated with this customer option are borne by  
8 those customers who choose to pursue the option.

9 Q. What benefits will the Community Solar Pilot  
10 Program bring to the Company?

11 A. As discussed in the testimonies of Mr.  
12 Pengilly and Mr. Angell, the Company will use the Community  
13 Solar Pilot Program as a learning opportunity. The Company  
14 will evaluate each aspect of the Program to determine what  
15 areas could be improved upon and identify best practices in  
16 the event the Company proposes additional community solar  
17 projects in the future.

18 **VI. CONCLUSION**

19 Q. Please summarize your testimony.

20 A. The Company is requesting that the Commission  
21 approve the proposed voluntary Community Solar Pilot  
22 Program. The proposed Program is the direct result of  
23 customers who have expressed a desire to have a portion or  
24 all of their energy supplied from renewable resources.  
25 Because the Program is the result of customer interest and

1 there is no load-serving need to construct the proposed  
2 solar facility, the Program has been designed such that the  
3 costs of offering the Program are borne by the  
4 participants. In return for their participation, Program  
5 participants will receive a monthly bill credit for the 25-  
6 year term of the Program. The proposed Solar Energy Credit  
7 rate reflects the Company's embedded energy-related costs.  
8 Additionally, the Company is proposing the participant's  
9 share of the monthly output also be applied as a kWh credit  
10 toward billed kWh subject to the annual PCA rate. Offering  
11 the Program as a pilot will provide a learning opportunity  
12 that may inform additional community solar projects in the  
13 future. The Company believes that the Program, as  
14 proposed, is in the public interest and should be approved.

15 Q. Does this complete your testimony?

16 A. Yes, it does.

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**BEFORE THE  
IDAHO PUBLIC UTILITIES COMMISSION**

**CASE NO. IPC-E-16-14**

**IDAHO POWER COMPANY**

**LARKIN, DI  
TESTIMONY**

**EXHIBIT NO. 1**

**Idaho Power Company  
Community Solar Pilot Program  
Solar Energy Credit by Rate Schedule**

<b><u>Schedule</u></b>	<b><u>Description</u></b>	<b><u>Solar Energy Credit</u></b> <b><u>¢ per kWh</u></b>
1 and 5	Residential Service	3.0246
7	Small General Service	3.0209
9S	Large General Service	2.9936
9P and 9T	Large General Service	2.7352
19	Large Power Service	2.7735
24	Irrigation Service	2.6559
26	Micron Special Contract	2.5167
29	Simplot Special Contract	2.5371
30	DOE Special Contract	2.4915

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**CASE NO. IPC-E-16-14**

**IDAHO POWER COMPANY**

**LARKIN, DI  
TESTIMONY**

**EXHIBIT NO. 2**

**Idaho Power Company  
Community Solar Pilot Program - Subscription Fee Calculation**

Plant	\$1,158,769
Shareholder Contribution	15%
Net Plant	\$984,954
Plant Value for Tax Basis	\$837,211

Composite Tax Rate	39.095%
Deferred Tax Rate	35.000%
Federal Tax Rate	35.000%
State Tax Rate	6.300%
Federal Tax Rate, net of State	32.795%

Debt	50.040%	Debt Cost	5.728%
Preferred	0.000%	Preferred	0.000%
Common	49.960%	Common Equi	10.000%
Total	100.000%	Ave Cost	7.8629%

30% ITC Earned	\$ 295,486
50% ITC - Reduces Tax Depr basis of plant	\$ 147,743
Fed Tax on Basis Reduction	\$ 51,710
Net ITC Benefit	\$ 243,776

Book Life	25
Tax Life	5

**RATE BASE SUMMARY**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Electric Plant in Service												
Intangible Plant												
Production Plant	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954
Transmission Plant	-	-	-	-	-	-	-	-	-	-	-	-
Distribution Plant	-	-	-	-	-	-	-	-	-	-	-	-
General Plant	-	-	-	-	-	-	-	-	-	-	-	-
Total Electric Plant in Service	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954
Less: Accumulated Depreciation	39,398	78,796	118,194	157,593	196,991	236,389	275,787	315,185	354,583	393,981	433,380	472,778
Less: Amortization of Other Plant	-	-	-	-	-	-	-	-	-	-	-	-
Net Electric Plant in Service	945,556	906,157	866,759	827,361	787,963	748,565	709,167	669,768	630,370	590,972	551,574	512,176
Less: Customer Adv for Construction	-	-	-	-	-	-	-	-	-	-	-	-
Less: Accumulated Deferred Income Taxes	86,183	197,188	234,143	250,801	259,847	265,184	255,103	241,314	227,524	213,735	199,946	186,156
Add: Plant Held for Future Use	-	-	-	-	-	-	-	-	-	-	-	-
Add: Working Capital	-	-	-	-	-	-	-	-	-	-	-	-
Add: Conservation - Other Deferred Prog	-	-	-	-	-	-	-	-	-	-	-	-
Add: Subsidiary Rate Base	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL COMBINED RATE BASE</b>	<b>859,372</b>	<b>708,970</b>	<b>632,616</b>	<b>576,560</b>	<b>528,116</b>	<b>485,381</b>	<b>454,064</b>	<b>428,455</b>	<b>402,846</b>	<b>377,237</b>	<b>351,628</b>	<b>326,020</b>

**NET INCOME CALCULATION**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Total Operating Revenues	-	-	-	-	-	-	-	-	-	-	-	-
Operating Expenses												
Operation and Maintenance Expenses	58,064	8,064	8,064	8,274	8,489	8,709	8,936	9,168	9,407	9,651	9,902	10,160
Depreciation Expenses	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398
Amortization of Limited Term Plant	-	-	-	-	-	-	-	-	-	-	-	-
Taxes Other Than Income	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373
Regulatory Debits/Credits	-	-	-	-	-	-	-	-	-	-	-	-
Provision for Deferred Income Taxes	172,367	49,642	24,269	9,046	9,046	(2,372)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)
Investment Tax Credit Adjustment	-	-	-	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)
Current Income Taxes - Interest Sync	(11,038)	(9,631)	(7,945)	(7,090)	(6,461)	(5,918)	(5,440)	(5,089)	(4,802)	(4,515)	(4,228)	(3,941)
Current Income Taxes	(209,073)	(65,435)	(41,519)	(27,251)	(27,335)	(16,659)	(5,985)	(6,076)	(6,265)	(6,464)	(6,663)	(6,862)
Total Operating Expenses	56,091	28,411	28,641	16,931	17,690	17,712	17,674	18,166	18,599	19,034	19,474	19,918
Operating Income	(56,091)	(28,411)	(28,641)	(16,931)	(17,690)	(17,712)	(17,674)	(18,166)	(18,599)	(19,034)	(19,474)	(19,918)
Add: IERCO Operating Income	-	-	-	-	-	-	-	-	-	-	-	-
Consolidated Operating Income	(56,091)	(28,411)	(28,641)	(16,931)	(17,690)	(17,712)	(17,674)	(18,166)	(18,599)	(19,034)	(19,474)	(19,918)

**REVENUE DEFICIENCY CALCULATION**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Proposed Rate of Return	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%	7.86%
Earnings Deficiency	128,601	90,071	81,385	64,470	61,121	57,558	54,608	52,863	51,281	49,703	48,130	46,560
Net-to-Gross Tax Multiplier	1.642	1.642	1.642	1.642	1.642	1.642	1.642	1.642	1.642	1.642	1.642	1.642
Revenue Deficiency	211,163	147,896	133,635	105,859	100,360	94,510	89,667	86,800	84,204	81,613	79,029	76,451

Solar Rev Req NPV	\$1,064,896
Interconnection Rev Req NPV	\$89,950
Total Rev Req NPV	\$1,154,846
Subscription Cost	\$740

Note: The Company anticipates that the Federal ITC will be recognized by the Company in Year 4. The full amortization of the ITC will extend into Year 28 even though the Program ends in Year 25.

**Idaho Power Company  
Community Solar Pilot Program - Subscription Fee Calculation**

Marketing Expense	\$ 50,000
O&M Expense (\$/KW)	16
O&M Escalation	2.60%
Property Tax Rate	0.55%

	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28
984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954
984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954	984,954
512,176	551,574	590,972	630,370	669,768	709,167	748,565	787,963	827,361	866,759	906,157	945,556	984,954	984,954	984,954	984,954	984,954
472,778	433,380	393,981	354,583	315,185	275,787	236,389	196,991	157,593	118,194	78,796	39,398	0	0	0	0	0
172,367	158,578	144,788	130,999	117,209	103,420	89,631	75,841	62,052	48,263	34,473	20,684	6,895	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
300,411	274,802	249,193	223,584	197,976	172,367	146,758	121,149	95,541	69,932	44,323	18,714	(6,895)	0	0	0	0
10,424	10,695	10,973	11,258	11,551	11,851	12,159	12,475	12,800	13,133	13,474	13,824	14,184	14,544	14,904	15,264	15,624
39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398	39,398
6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373	6,373
(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)	(13,789)
(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)	(11,819)
(3,654)	(3,367)	(3,080)	(2,793)	(2,506)	(2,219)	(1,932)	(1,645)	(1,358)	(1,071)	(784)	(497)	(210)	-	-	-	-
(6,567)	(6,673)	(6,781)	(6,893)	(7,007)	(7,125)	(7,245)	(7,369)	(7,496)	(7,626)	(7,759)	(7,896)	(8,037)	(8,180)	(8,324)	(8,471)	(8,620)
20,366	20,818	21,274	21,735	22,200	22,670	23,145	23,624	24,109	24,599	25,094	25,594	26,100	26,600	27,100	27,600	28,100
(20,366)	(20,818)	(21,274)	(21,735)	(22,200)	(22,670)	(23,145)	(23,624)	(24,109)	(24,599)	(25,094)	(25,594)	(26,100)	(26,600)	(27,100)	(27,600)	(28,100)
(20,366)	(20,818)	(21,274)	(21,735)	(22,200)	(22,670)	(23,145)	(23,624)	(24,109)	(24,599)	(25,094)	(25,594)	(26,100)	(26,600)	(27,100)	(27,600)	(28,100)
7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%	7,86%
44,994	43,432	41,875	40,322	38,774	37,230	35,691	34,157	24,109	24,599	25,094	25,594	26,100	26,600	27,100	27,600	28,100
1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642	1,642
73,880	71,316	68,759	66,209	63,667	61,132	58,605	56,086	39,587	40,391	41,204	42,025	42,856	43,687	44,518	45,349	46,180