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November 4, 2014

VIA ELECTRONIC AND U.S. MAIL

Attention: Filing Center
Public Utility Commission of Oregon
3930 Fairview Industrial Drive SE
Salem, Oregon 97302-1166

Re: **Docket No. UM 1610 (Phase II) – Solar Capacity Contribution**
*In the Matter of Public Utility Commission of Oregon Investigation into
Qualifying Facility Contracting and Pricing – Idaho Power Company's
Direct Testimony of Michael J. Youngblood (Exhibit 600)*

Dear Filing Center:

Enclosed for filing in Docket No. UM 1610 are an original and five (5) copies of the Phase II Solar Capacity Contribution Direct Testimony of Michael J. Youngblood on behalf of Idaho Power Company. Copies of the testimony have been served on all parties to this proceeding as indicated in the Certificate of Service.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,



Christa Bearry
Legal Administrative Assistant

Enclosures

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

DOCKET NO. UM 1610
PHASE II
SOLAR CAPACITY CONTRIBUTION

IN THE MATTER OF PUBLIC UTILITY)
COMMISSION OF OREGON)
INVESTIGATION INTO QUALIFYING)
FACILITY CONTRACTING AND PRICING.)
_____)

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

MICHAEL J. YOUNGBLOOD

November 4, 2014

1 **Q. Please state your name and business address.**

2 A. My name is Michael J. Youngblood and my business address is 1221 West Idaho
3 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 Power" or "Company") as the
6 Manager of Regulatory Projects in the Regulatory Affairs Department.

7 **Q. Please describe your educational background.**

8 A. In May of 1977, I received a Bachelor of Science Degree in Mathematics and
9 Computer Science from the University of Idaho. From 1994 through 1996, I was a
10 graduate student in the Executive MBA program of Colorado State University. Over
11 the years, I have attended numerous industry conferences and training sessions,
12 including Edison Electric Institute's *Electric Rates Advanced Course*.

13 **Q. Please describe your work experience with Idaho Power.**

14 A. I began my employment with Idaho Power in 1977. During my career, I have worked
15 in several departments of the Company and subsidiaries of IDACORP, Inc.
16 ("IDACORP"), including Systems Development, Demand Planning, Strategic
17 Planning, and IDACORP Solutions. From 1981 to 1988, I worked as a Rate Analyst
18 in the Rates and Planning Department where I was responsible for the preparation of
19 electric rate design studies and bill frequency analyses. I was also responsible for
20 the validation and analysis of the load research data used for cost-of-service
21 allocations.

22 From 1988 through 1991, I worked in Demand Planning and was responsible
23 for the load research and load forecasting functions of the Company, including
24 sample design, implementation, data retrieval, analysis, and reporting. I was
25 responsible for the preparation of the five-year and twenty-year load forecasts used
26

1 in revenue projections and resource plans, as well as the presentation of these
2 forecasts to the public and regulatory commissions.

3 From 1991 through 1998, I worked in Strategic Planning. As a Strategic
4 Planning Associate, I coordinated the complex efforts of acquiring Prairie Power
5 Cooperative, the first acquisition of its kind for the Company in 40 years. From 1996
6 to 1998, as a part of a Strategic Planning initiative, I helped develop and provide two-
7 way communication between customers and energy providers using advanced
8 computer technologies and telecommunications.

9 From 1998 to 2000, I was a General Manager of IDACORP Solutions, a
10 subsidiary of IDACORP, reporting to the Vice President of Marketing. I was directly
11 responsible for the direction and management of the Commercial and Industrial
12 Business Solutions division.

13 In 2001, I returned to the Regulatory Affairs Department and worked on
14 special projects related to deregulation, the Company's Integrated Resource Plan
15 ("IRP"), and filings with both the Idaho Public Utilities Commission ("IPUC") and the
16 Public Utility Commission of Oregon ("Commission").

17 In 2008, I was promoted to the position of Manager of Rate Design for Idaho
18 Power. In that position I was responsible for the management of the rate design
19 strategies of the Company, as well as the oversight of all tariff administration.

20 In January of 2012, I became the Manager of Regulatory Projects for Idaho
21 Power, which is my current position. In this position, I provide the regulatory support
22 for many of the large individual projects and issues currently facing the Company.
23 Most recently that has included providing regulatory support for the inclusion of the
24 Langley Gulch power plant investment in rate base and supporting the Company's
25 efforts to address numerous issues involving qualifying facilities ("QF") as defined
26 under the Public Utility Regulatory Policies Act of 1978 ("PURPA"), including Docket

1 No. UM 1610, reviewing PURPA QF contract provisions, avoided cost rates, and
2 other issues.

3 **Q. What is the purpose of your testimony in this matter?**

4 A. The purpose of my testimony is to summarize the methods used by Idaho Power to
5 determine the capacity component of avoided cost rates, summarize the change
6 directed by the Commission in Order No. 14-058 and the objections raised thereto,
7 and give examples of how the methodologies calculate capacity. My testimony
8 addresses the calculation of the capacity adder portion of avoided cost rates both for
9 the negotiated non-standard methodology and for the Standard avoided cost rate
10 methodology as it is currently applied to wind and solar QFs. This calculation is only
11 applicable in the utility's resource deficiency period when the QF is assumed to avoid
12 a proxy resource under Oregon's surrogate avoided resource, or proxy method.

13 **Q. What is Idaho Power's recommendation with regard to the current
14 determination of the capacity component of avoided cost rates?**

15 A. Idaho Power recommends that no change is necessary to the current method of
16 determining the capacity component of avoided cost rates, as that method has been
17 modified by the direction provided in Order No. 14-058. The traditional proxy
18 methodology, and its previous allocation of 100 percent capacity contribution to all
19 proposed QF resource types, has been modified to reflect the **actual** capacity
20 contribution of wind and solar as directed by Order No. 14-058.

21 **Q. What is Oregon's proxy method?**

22 A. Oregon's proxy method ("Oregon Method") is the same methodology used by
23 Portland General Electric Company ("PGE") and PacifiCorp d/b/a Pacific Power to
24 calculate Standard avoided cost rates since the Commission issued Order No. 06-
25 538 in 2006, and by Idaho Power since 2012, modified by Order No. 14-058 in
26 Phase I of this docket to incorporate integration costs and to account for the actual

1 contribution to capacity made by each resource type (wind, solar, and other or
2 baseload QFs).

3 **Q. What issue has been raised regarding the application of the capacity adder for**
4 **solar QFs?**

5 A. On April 24, 2014, Obsidian Renewables, LLC (“Obsidian”) filed a motion for
6 clarification in which it claimed that applying the capacity adder on a dollars-per-
7 megawatt-hour basis results in an inadvertent “double discount” of the capacity
8 payment to a solar QF because the solar QF has a relatively low capacity factor and
9 does not generate the same amount of energy as the capacity resource. Obsidian
10 argued that the capacity adder should be paid as a fixed dollar amount to the QF
11 rather than depend on the QF’s actual energy output. OneEnergy, Inc.
12 (“OneEnergy”) and the Community Renewable Energy Association (“CREA”) also
13 filed a motion for clarification that supported the claims made by Obsidian.
14 OneEnergy and CREA propose that the proxy capacity costs could be spread using
15 the QF’s capacity factor rather than the capacity factor of the proxy resource. The
16 result is the same under either proposal, and both proposals result in higher
17 payments to solar QFs for the Standard Renewable avoided costs.

18 **Q. Does Idaho Power have Standard Renewable avoided cost rates in Oregon?**

19 A. No. Idaho Power does not have Standard Renewable avoided cost rates in Oregon
20 because the Company is not subject to the Renewable Portfolio Standards (“RPS”)
21 required in Oregon for PGE and Pacific Power.

22 **Q. Then why is Idaho Power providing testimony on this subject at this time?**

23 A. In workshops held by the Commission Staff (“Staff”) to discuss issues related to
24 Order No. 14-058 compliance filings and issues to be addressed in Phase II of UM
25 1610, the issue of the appropriate calculation for the capacity adder for Standard
26 Renewable avoided cost rates has been discussed. For the most part, Idaho Power

1 has remained out of those conversations, as they do not pertain to the Company.
2 However, in recent discussions with Staff, the Company has become aware that
3 Staff intends to recommend that any modifications to the Standard Renewable
4 avoided cost rate methodology be applied in similar fashion to the determination of
5 Standard avoided cost rates. This implication would directly affect the Company and
6 its customers; therefore, the Company believes it is necessary to affirm that the
7 current calculation of the capacity adder for the Standard avoided cost rate is
8 compliant with Order No. 14-058.

9 **Q. What did the Commission direct regarding the capacity adder in Order No. 14-**
10 **058?**

11 A. The Commission stated, "We modify the current methodology for calculating
12 standard avoided cost prices and standard renewable avoided cost prices to account
13 for the capacity contribution of different QF resources and wind integration costs."
14 Order No. 14-058, p. 2. The Commission provided additional guidance on page 15
15 of Order No. 14-058, under the heading, "Capacity Contribution of QF Resources."
16 The Commission differentiates between the Standard method, and the Standard
17 Renewable Method to equate to the standard prices and Standard Renewable
18 prices. The Commission states:

19 Currently, no adjustments are made to Standard and Standard
20 Renewable avoided cost prices to account for the actual
21 contribution to capacity made by each QF resource type. To
22 produce more accurate avoided cost estimates, parties
23 propose adjusting the capacity component in standard and
24 renewable avoided cost prices to capture the expected
25 capacity contribution of each QF resource type. For the
26 Standard Method, Staff proposes multiplying the capacity
component currently embedded in the method by a "capacity
contribution factor," equal to the expected contribution to peak
load of the specific QF resource type. The assumed capacity
contribution to peak load would be the contribution estimate
used in the utility's acknowledged IRP for the specific type of
generation (wind, solar, etc.).

1 For the Standard Renewable Method, Staff proposes adjusting
2 the capacity component implicit in the renewable on-peak
3 price by the incremental capacity contribution of the specific
4 QF resource type relative to the avoided renewable resource.

5 . . . We agree on the need to adjust for capacity contribution of
6 each resource type and adopt Staff's proposed method for
7 calculating capacity adjustments

8 **Q. At a high level, please describe the Oregon Method used to determine**
9 **Standard avoided cost rates?**

10 A. The Oregon Method for determining Standard avoided cost rates differentiates the
11 calculation of avoided costs for a utility in a resource deficit position from a utility in a
12 surplus position. This historical differentiation is based on recognition that a utility's
13 avoided costs differ depending on the resource position of the utility.

14 Simply stated, in a period of resource deficiency, the calculation of avoided
15 costs reflects the variable and fixed costs of a natural gas-fired combined-cycle
16 combustion turbine ("CCCT"), otherwise referred to as the proxy resource. In a
17 resource sufficient period, the Company uses on-peak and off-peak market based
18 prices to determine avoided cost prices.

19 **Q. Please describe how capacity and energy costs are determined when a**
20 **company is in a resource deficit position.**

21 A. The calculation of avoided costs reflects the variable and fixed costs of a CCCT.
22 The CCCT costs used in the determination of Idaho Power's current Standard
23 avoided cost prices are based on the costs included for the Company's most recent
24 CCCT brought on-line, the Langley Gulch power plant.

25 CCCTs are built as baseload units that provide both capacity and energy, and
26 the Oregon Method provides that the fixed costs of the CCCT unit are split into
capacity and energy components. To determine the portion of fixed costs allocated
to capacity, Idaho Power uses the fixed cost of a simple-cycle combustion turbine

1 (“SCCT”), which are built and operated as peak load resources, to define the portion
2 of the fixed costs of the CCCT that are assigned to the capacity component. Fixed
3 costs for the CCCT in excess of SCCT costs are assigned to the energy component
4 of avoided costs.

5 **Q. How are adjustments made to Standard avoided cost rates to account for the**
6 **actual contribution to capacity made by each QF resource type?**

7 A. In accordance with Order No. 14-058, the capacity adder portion of the Standard
8 avoided cost rate is modified to account for the capacity contribution of each QF
9 resource type. In Idaho Power’s case, the current capacity contribution for a wind
10 QF is 3.9 percent and for a solar QF it is 32 percent. These capacity contribution
11 percentages are multiplied times the capacity adder for the proxy resource. For a
12 wind QF, the Standard avoided cost rate is further adjusted by subtracting the wind
13 integration charge. This directly comports to the Commission direction from Order
14 No. 14-058.

15 **Q. Is there a difference between the capacity factor and the capacity contribution**
16 **of a QF resource?**

17 A. Absolutely. The capacity factor of a power plant is the ratio of its actual output over a
18 period of time, to its potential output if it were possible for it to operate at full
19 nameplate capacity indefinitely. Basically, it is the measure of how much energy that
20 resource is expected to produce over a given period of time, and is represented as a
21 percentage of plant capacity.

22 Capacity contribution is a measure of how much capacity of a resource is
23 provided on-peak, when the Company needs it the most. Idaho Power uses a 90
24 percent exceedance value to calculate the nameplate generation necessary to
25 achieve the on-peak capacity contribution. The 90 percent exceedance value means
26 the resource is expected to deliver the on-peak contribution during the peak hours

1 nine times out of ten. The 90 percent exceedance criterion is also used by the
2 Company in its long-term IRP process.

3 **Q. What capacity contribution has been included in the proxy method in the past?**

4 A. In the past, prior to Order No. 14-058, all resources were deemed to have a 100
5 percent capacity contribution.

6 **Q. Did the Commission modify the application of capacity contribution in Order
7 No. 14-058?**

8 A. Yes. In Order No. 14-058, the Commission modified the determination of Standard
9 and Standard Renewable avoided costs to account for the capacity contribution of
10 intermittent QF resources relative to the proxy resource. Under the Commission-
11 approved methodology, the proxy resource capacity costs are multiplied by the QF's
12 capacity contribution, allocating the capacity costs to the on-peak hours.

13 In its motion, Obsidian referred to the recognition of a solar QF's capacity
14 contribution as the "first discount," and it does not challenge the appropriateness of
15 recognizing a lower capacity contribution for solar QFs relative to a proxy CCCT.
16 Obsidian refers to the allocation of capacity costs to the on-peak hours as the
17 "second discount" because solar QFs that generate less energy compared to the
18 proxy CCCT receive less in total dollars. Idaho Power agrees with PacifiCorp's
19 position that this argument is not correct. In reality, this "second discount" is not a
20 discount from avoided costs at all; rather, it is 100 percent of the avoided costs under
21 the proxy method and is a direct result of the proxy method rate design that has been
22 in place for Oregon QFs for many years. Furthermore, it is consistent with the
23 position taken by the Commission Staff in its UM 1610 Phase 1 testimony and is
24 consistent with the Commission's order in Phase 1.

25 **Q. Did any party contest the long-standing rate design of the proxy method in
26 Phase 1 of UM 1610?**

1 A. No. The Standard avoided cost methodology was an issue identified for review in
2 Phase 1 of UM 1610; parties had an opportunity to challenge the rate design, but did
3 not do so. The rate design was clearly laid out by Staff in Phase 1 and has been part
4 of the proxy method for many years. Parties could have, and should have,
5 challenged it in Phase 1 if they did not think it was appropriate.

6 **Q. Is the Oregon Method the only methodology Idaho Power uses to determine**
7 **avoided cost rates in Oregon?**

8 A. No. The Oregon Method is used to determine Standard avoided cost rates in
9 Oregon that are part of the standard contracts for QF resources with a nameplate
10 capacity of 10 megawatts (“MW”) or less. For all QF resources that have a
11 nameplate capacity greater than 10 MW, a non-standard contract is negotiated
12 between Idaho Power and the QF developer and utilizes the same methodology
13 approved by the IPUC for QFs greater than 10 MW. That methodology is referred to
14 as the Incremental Cost IRP (“ICIRP”) avoided cost methodology.

15 **Q. At a high level, please describe the ICIRP methodology.**

16 A. The ICIRP methodology determines the avoided cost for each QF project greater
17 than 10 MW by determining three cost components: (1) the avoided cost of energy,
18 (2) the avoided cost of capacity, and (3) the applicable integration costs. These
19 three cost components, when added together, create a unique monthly heavy and
20 light load avoided cost price for each QF project.

21 For the determination of the avoided cost of energy, the ICIRP methodology
22 assigns as the avoided cost the highest cost displaceable resource operating to
23 serve load on the Company’s system for each hour that the QF proposes delivering
24 power to the Company. Displaceable resources, as identified by the IPUC in Case
25 No. GNR-E-11-03, are Idaho Power-owned thermal resources in excess of each
26 resource’s minimum load, market purchases, and longer-term firm purchases. The

1 QF provides an energy delivery estimate for all hours, which are multiplied by the
2 corresponding highest incremental cost displaceable resource for each hour of the
3 contract term. These hourly values are aggregated into monthly heavy and light load
4 hours and divided by the QF's monthly estimate of heavy and light load energy
5 deliveries, resulting in a monthly heavy and light load avoided cost of energy.

6 **Q. How is the avoided cost of capacity component determined in the ICIRP**
7 **methodology?**

8 A. The avoided cost of capacity for non-standard contracts using the ICIRP
9 methodology is based on the fixed costs and non-fuel operation and maintenance
10 costs for a SCCT, weighted by the peak-hour capacity factor, or "capacity
11 contribution," of the benchmark resource. For solar projects, the benchmark
12 resource is the photovoltaic solar array on the top of the Company's corporate
13 headquarters building in Boise, Idaho.

14 **Q. How is this benchmark resource used to determine the avoided capacity**
15 **component for a solar QF project with nameplate capacity greater than 10**
16 **MW?**

17 A. First, the benchmark capacity contribution is determined by applying the 90 percent
18 exceedance criterion to the benchmark resource's average capacity factors for Idaho
19 Power's peak hours, 3:00 p.m. to 7:00 p.m. during the month of July. Then, a QF
20 project's average capacity factor for peak hours, based on data provided by the QF
21 project, is compared to the benchmark's average capacity factor for peak hours and
22 a ratio is calculated. This ratio is then applied to the benchmark resource capacity
23 contribution value to determine a unique capacity contribution for the specific project.
24 This project-specific capacity contribution is multiplied by the annual capacity cost of
25 the SCCT, and then spread over the project's forecasted annual energy deliveries to
26 determine the avoided cost of capacity rate for that specific project.

1 This method determines the capacity portion of the avoided cost rate for a
2 particular QF resource by assigning the costs of a SCCT based upon the actual
3 capacity contribution of the QF as compared to the benchmark resource on a 90
4 percent exceedance basis, and assigns payment of capacity across the QF
5 resource's own estimated energy deliveries.

6 **Q. In comparison, how is the capacity contribution percentage used in modifying**
7 **the capacity adder portion of the Standard avoided cost rates?**

8 A. For Standard rates, the specific capacity contribution percentage of a QF resource is
9 used to adjust the capacity adder portion of the rate associated with the CCCT proxy
10 resource. This adjustment is made in order to account for the capacity contribution
11 of each QF resource type as it relates to the proxy resource, as directed for the
12 Standard Method by Order No. 14-058.

13 **Q. Can you walk through the determination of a Standard avoided cost rate**
14 **calculation?**

15 A. Certainly. First, as I stated above, CCCTs are built as baseload units that provide
16 both capacity and energy, and the Oregon Method provides that the fixed costs of
17 the CCCT unit are split into capacity and energy components. The portion of fixed
18 costs allocated to capacity uses the fixed cost of a SCCT to define the portion of the
19 fixed costs of the CCCT that are assigned to the capacity component. Fixed costs
20 for the CCCT in excess of SCCT costs are assigned to the energy component of
21 avoided costs. In Idaho Power's current approved Standard avoided cost rates,
22 which can be viewed in Idaho Power's Oregon Schedule 85 on pages 6 through 8,
23 the capacity price in 2016, the first year of resource deficiency, is \$66.20 per
24 kilowatt-year ("kW-yr"). This price is allocated to on-peak hours when the Company
25 needs the additional capacity. The Company's 4,862 on-peak hours include all
26 heavy load hours Monday through Saturday, 0700-2200 PST, less six holidays set

1 by the North American Electric Reliability Corporation (NERC), or 55.5 percent of the
2 hours in a year. The result of this calculation is the capacity price allocated to the
3 on-peak hours, or \$13.62 per megawatt-hour (“MWh”). This is the capacity adder
4 portion of the Standard avoided cost rates.

5 The remaining fixed costs for the CCCT in excess of SCCT costs are
6 assigned to the energy component of avoided costs, and are spread to all hours the
7 CCCT is available. That is, the fixed costs are divided by the hours in a year
8 multiplied by the capacity factor of the plant to determine the capitalized energy
9 costs. For 2016, the remaining \$38.43 per kW-yr [$\$104.63 \text{ per kW-yr of CCCT fixed}$
10 $\text{costs less } \$66.20 \text{ per kW-yr SCCT fixed costs} = \38.43 per kW-yr] is divided by
11 annual hours multiplied by the capacity factor of a CCCT, resulting in \$7.49 per MWh
12 of capitalized energy costs [$\$38.43 \text{ per kW-yr} \div (8,760 \text{ hours} \times 58.6\% \text{ CCCT}$
13 $\text{capacity factor}) = \7.49 per MWh]. This amount is added to the energy cost
14 equivalent of the gas price (\$35.67 per MWh) to determine the total avoided energy
15 cost of \$43.16 per MWh shown as the Energy Only price in Schedule 85.

16 Therefore, the Standard Baseload QF avoided cost price in 2016 is \$43.16
17 per MWh during the off-peak and \$56.78 per MWh during the on-peak hours [$\$43.16$
18 $\text{per MWh energy cost} + \$13.62 \text{ per MWh capacity cost} = \$56.78 \text{ per On-Peak MWh}$].

19 **Q. How would the Standard Solar QF avoided cost price differ when compared to**
20 **this Standard Baseload QF example?**

21 A. The Standard Solar QF avoided cost price would be calculated exactly the same
22 way, with the additional modification of the solar capacity contribution in order to
23 account for the capacity contribution of the solar QF as it relates to the proxy CCCT
24 resource as directed by the Commission in Order No. 14-058. Therefore, the
25 capacity cost of the proxy resource is multiplied by 32 percent, Idaho Power’s solar
26 capacity contribution. This means that at the time of the Company’s peak, the solar

1 QF resource is 32 percent of the proxy resource; hence, the capacity adder portion
2 of the Standard avoided cost rate is 32 percent of the proxy rate. The result is that
3 the capacity adder for the Standard avoided cost rate is \$4.36 per MWh [\$13.62 per
4 MWh capacity cost X 32% = \$4.36 per MWh]. This amount is added to the energy
5 only rate so that in 2016 a solar QF receives \$47.52 per MWh during the on-peak
6 hours and \$43.16 per MWh during the off-peak hours.

7 **Q. Is it appropriate that the capacity adder for a solar QF be a percentage of the**
8 **Standard avoided cost rate capacity adder?**

9 A. Yes. This is the determination ordered by the Commission recently in Order No. 14-
10 058. A QF resource like solar or wind does not provide the same on-peak capacity
11 contribution as the CCCT proxy resource; therefore, the adjustment is necessary so
12 that customers are not financially harmed. This is the basic change that the
13 Commission directed for Standard prices from Phase 1 of this proceeding. The
14 Commission, in denying the utilities' requests to lower the standard rate eligibility
15 cap, stated, "We acknowledge the concerns raised by Idaho Power, Pacific Power,
16 and PGE that the application of our current methodology may result in the utility and
17 its customers offering prices in excess of avoided costs. However, as explained
18 below, we conclude that the utilities' concerns about potential overpayments are best
19 addressed through our decisions to require annual updates to avoided costs. As
20 discussed below, we also address ways to incorporate wind integration costs and
21 resource capacity contributions into standard avoided cost price calculations and
22 standard renewable avoided cost price calculations" Order No. 14-058, p. 7.

23 **Q. What is the effect of the capacity contribution adjustment as compared to the**
24 **proxy rate?**

25 A. Using the numbers I just described in the example for the Standard avoided cost rate
26 in 2016, if the proxy resource were available and running for all 4,862 on-peak hours,

1 the result would be a total annual capacity cost of \$66,220.44 per MW [$\13.62 per
2 MWh X 4,862 hours = \$66,220.44 per MW]. If a solar QF were to generate at full
3 capacity, but only be available for generation for 32 percent of the on-peak hours, the
4 resulting total annual capacity cost would be \$21,190.54 per MW [$\13.62 per MWh
5 X 4,862 hours X 32% = \$21,190.54 per MW]. The total annual capacity cost for the
6 solar QF is 32 percent of the total annual capacity cost of the proxy CCCT
7 [$\$21,190.54 \div \$66,220.44 = 32\%$].

8 Another way of viewing this is that the total annual capacity cost for the solar
9 QF is \$21,190.54 per MW, and if that amount were spread over all 4,862 on-peak
10 hours, the result would be a \$4.36 per MWh capacity adder [$\$21,190.54$ per MW \div
11 4,862 on-peak hours = \$4.36 per MWh]. This resulting solar QF capacity adder of
12 \$4.36 per MWh is 32 percent of the capacity adder for the proxy resource [$\$4.36 \div$
13 $\$13.62 = 32\%$].

14 **Q. Why is it appropriate to use the capacity factor of the proxy resource to spread**
15 **capacity payments under the proxy method rather than paying QFs fixed**
16 **capacity payments or using the QF's capacity factor to spread capacity**
17 **dollars?**

18 A. Avoided costs during the deficiency period are defined as the cost of a proxy
19 resource and are intended to reflect the "actual deferral or avoidance of that
20 resource."¹ Using a capacity factor from another resource to determine payments for
21 avoided capacity is not representative of the costs of the proxy resource.
22 Furthermore, the capacity costs of a proxy CCCT provide several benefits to the
23 utility that are not provided by a solar QF, including the ability to dispatch the
24 resource on an as-needed basis and the ability to provide operating reserve

25
26 ¹ Docket No. UM 1129, Order No. 05-584, p. 26.

1 capacity. Fixing the capacity adder dollars paid to a solar QF would inflate the
2 avoided cost rates and move the method further away from true avoided costs rather
3 than closer.

4 **Q. Would it be appropriate to pay a fixed capacity payment for a solar QF based**
5 **upon the total capacity cost of the proxy CCCT?**

6 A. No, not at all. Doing so would financially harm customers because they would be
7 paying for capacity that was not actually avoided. In fact, the proxy method is
8 already an inaccurate measurement of the true avoided cost, if any. The proxy
9 method is based upon a hypothetical proxy CCCT plant as a surrogate for
10 determining the actual avoided cost. While no methodology is perfect, Idaho Power
11 continues to maintain that a more accurate determination of actual avoided costs is
12 the ICIRP avoided cost methodology used to establish avoided cost rates for QF
13 projects greater than 10 MW. Nevertheless, the Oregon Method, using the proxy
14 CCCT, is used for Standard avoided cost rates for projects less than 10 MW. The
15 capacity contribution is a way of determining the cost of capacity avoided *as it*
16 *compares to* the CCCT proxy.

17 **Q. How does the calculation of the capacity adder differ in the determination of**
18 **the Standard Renewable avoided cost rate from the Standard avoided cost**
19 **rate?**

20 A. While Idaho Power does not have Standard Renewable avoided cost rates, it is my
21 understanding that the capacity contribution is applied in the same fashion as the
22 Standard avoided cost rate. That is, for Standard avoided cost rates, the QF's
23 capacity contribution is applied to the capacity costs of the proxy CCCT, reducing the
24 amount paid to an intermittent QF for capacity. Then, as the Commission directed in
25 Order No. 14-058, if the proposed QF resource is different than the renewable proxy
26 resource (i.e., solar QF with a renewable proxy wind resource), it is simply a matter

1 of taking the incremental difference of the proposed QF from that of the renewable
2 proxy resource. Consequently, for the Standard Renewable avoided cost rates,
3 payments to a QF for capacity are increased if its capacity contribution is greater
4 than the renewable wind proxy.

5 **Q. Does it make sense to use a capacity contribution to increase the capacity**
6 **cost adder for the Standard Renewable avoided cost calculation?**

7 A. Yes, with the same caveat as before that the proxy method is not perfect in
8 determining the actual avoided cost. If a renewable QF resource had a higher
9 contribution to capacity during on-peak hours as compared to the proxy wind
10 resource, it makes sense that the capacity contribution would increase the capacity
11 cost adder in the Standard Renewable avoided cost calculation.

12 **Q. Should the Commission modify the direction with regard to capacity**
13 **contribution from Order No. 14-058?**

14 A. No. As discussed above, the objections raised as to a supposed “double discount”
15 are without merit, and as demonstrated, it is a straightforward implementation of the
16 Commission’s directive that the previous method, which indiscriminately and
17 inappropriately assigned 100 percent of a CCCT capacity value to all proposed QF
18 resource types, has been modified to simply adjust the capacity payment to reflect
19 the capacity contribution of different resources. In practice, this means for Idaho
20 Power that a wind QF’s capacity contribution of 3.9 percent, and a solar QF’s
21 capacity contribution of 32 percent, is properly reflected in the capacity portion of
22 Standard avoided cost rates, rather than overpaying, to customers’ detriment, at 100
23 percent. The fact that these payments are made on heavy load hours is the same as
24 it has always been, and is not a “second discount” but an appropriate reflection of
25 each utility’s need for capacity. Consequently, Idaho Power recommends that no
26

1 change to the implementation of the Commission's direction from Order No. 14-058
2 is necessary.

3 **Q. Does this conclude your testimony?**

4 **A.** Yes, it does.

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CERTIFICATE OF SERVICE
Docket No. UM 1610
Phase II
Solar Capacity Contribution

I hereby certify that on November 4, 2014, I served the DIRECT TESTIMONY OF MICHAEL J. YOUNGBLOOD upon all parties of record in this proceeding by electronic mail only as all parties have waived paper service.

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