

BEFORE THE

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**IDAHO PUBLIC
UTILITIES COMMISSION**

IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF THE COMMISSION'S)
REVIEW OF PURPA QF CONTRACT)
PROVISIONS INCLUDING THE SURROGATE)
AVOIDED RESOURCE (SAR) AND)
INTEGRATED RESOURCE PLANNING (IRP))
METHODOLOGIES FOR CALCULATING)
PUBLISHED AVOIDED COAT RATES.)**

CASE NO. GNR-E-11-03

REBUTTAL TESTIMONY OF DR. CATHLEEN M. MCHUGH

IDAHO PUBLIC UTILITIES COMMISSION

JUNE 29, 2012

1 Q. Please state your name and business address for
2 the record.

3 A. My name is Cathleen McHugh. My business address
4 is 472 West Washington Street, Boise, Idaho.

5 Q. Are you the same Cathleen McHugh who previously
6 submitted testimony in this proceeding?

7 A. Yes I am.

8 Q. What is the purpose of your rebuttal testimony
9 in this proceeding?

10 A. The purpose of my rebuttal testimony is to
11 propose an update to the manner in which capacity payments
12 are calculated in the SAR model. I am effectively
13 providing rebuttal testimony to my earlier direct
14 testimony.

15 Q. What was your previous recommendation in terms
16 of how capacity payments are calculated in the SAR model?

17 A. Previously, I had recommended that when a
18 utility is capacity deficient, resource-specific capacity
19 payments be based on that resource's ability to contribute
20 to the deficient season's peak demand. If both seasons
21 were deficient, then capacity payments would be based on
22 the *minimum* of the two seasons' capacity contribution.

23 This method is straightforward and
24 computationally simple. Furthermore, it considered the
25 fact that capacity provided by a QF in one season does not

1 necessarily translate into capacity avoided by the utility
2 if the utility has to add capacity for the other season.

3 Q. Why are you now proposing changes to this
4 method?

5 A. Since filing direct testimony, Staff has
6 continued to review the SAR model. Quite frankly, during
7 this time Staff devised what it believes is a better
8 method of computing avoided capacity. Staff recognized
9 that *if* the nameplate capacity of the QF resource was used
10 as an input into the SAR model, then the capacity
11 contribution of the QF could be computed for each year of
12 the contract. Capacity payments could then be based on
13 this capacity contribution.

14 Staff devised a worksheet to be included in the
15 SAR model which demonstrates how the capacity contribution
16 is calculated step-by-step and the resultant factor
17 applied to the capacity payment. The factor represents
18 the share of the capacity payment the QF receives – for
19 instance, a factor of 10 percent indicates the QF would
20 receive 10 percent of the capacity payment. This
21 worksheet is included as Exhibit No. 305 for a 10 MW canal
22 drop hydro project located in Idaho Power's service
23 territory.

24 In 2012-2013, the capacity factor is 0 percent
25 reflecting the fact that Idaho Power is not capacity

1 deficient in those years. In 2014, the factor is 10
2 percent which reflects the fact that only 10 percent of
3 the QF's output can be used to reduce Idaho Power's need
4 for capacity. From 2015 onward, the capacity factor is
5 100 percent reflecting the fact that all the capacity
6 provided by the QF can be used to reduce Idaho Power's
7 need for capacity. As can be seen, this new method is
8 robust to different scenarios regarding the needs of a
9 utility and the ability of a particular QF resource to
10 meet those needs.

11 Q. How does this new method compare to the old
12 method?

13 A. In Exhibit No. 305, I use a star to indicate
14 years in which the capacity factor differs between the two
15 methods and show the capacity factor calculated under the
16 old method. The old method could not differentiate
17 between years in which the utility needed a little
18 capacity (such as 2014) and years in which the utility
19 needed a lot of capacity (years 2015-2031). Furthermore,
20 the old method could not recognize that *sometimes* capacity
21 provided in only one season did actually translate into
22 capacity avoided by the utility (years 2027-2031).

23 Q. Have you updated Exhibit No. 303 to reflect this
24 new methodology?

25 A. Yes. I have included this as Exhibit No. 306.

1 I have used a star to indicate which rates have changed
2 from the old method to the new method. Furthermore, I
3 have indicated the magnitude of those changes. Only the
4 avoided rates for Idaho Power and Avista change. The
5 biggest change for both utilities is the rates for canal
6 drop hydro projects. Under the new method, Idaho Power
7 rates increase by 7 percent and Avista rates increase by 6
8 percent.

9 Q. Are there any other changes you have made to
10 this exhibit?

11 A. Yes. I have updated the energy and capacity
12 needs for PacifiCorp based on new information from the
13 Company.

14 Q. Does this conclude your rebuttal testimony in
15 this proceeding?

16 A. Yes, it does.
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Utility	IPCO	2
Project type	Drop Canal Hydro	
Project Nameplate	10	
	Summer	Winter
Peak Capacity Factors	100%	0%
Peak Capacity (MW)	10	0
Current Year	2012	

Notes:

- Capacity contributions are set equal to zero when the utility does not need capacity; i.e., when the planning deficit (column d) is not negative.
- Capacity contributions cannot exceed the absolute value of the planning deficit (column d).
- A capacity payment will be made if the capacity contribution is strictly positive.
- The factor is calculated as the capacity contribution divided by the project nameplate.

Updated June 13, 2012

Calculation of basis for capacity payments

	IPCO				With QF output			Capacity Calculations		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	Energy (aMW)	Summer Capacity (MW)	Winter Capacity (MW)	Planning Deficit (MW)	Summer capacity (MW)	Winter Capacity (MW)	New Planning Deficit (MW)	Capacity Contribution (1)	Capacity payment made? (2)	Capacity factor applied to rates (3)
2012	-	-	-	0.0	10.0	0.0	0.0	0.0	No	0%
2013	-	-	-	0.0	10.0	0.0	0.0	0.0	No	0%
2014	-	(1)	-	(1.0)	9.0	0.0	0.0	1.0	Yes	100%
2015	-	(80)	-	(80.0)	(70.0)	0.0	(70.0)	10.0	Yes	100%
2016	-	(175)	-	(175.0)	(165.0)	0.0	(165.0)	10.0	Yes	100%
2017	(7)	(243)	-	(243.0)	(233.0)	0.0	(233.0)	10.0	Yes	100%
2018	(44)	(310)	-	(310.0)	(300.0)	0.0	(300.0)	10.0	Yes	100%
2019	(68)	(378)	-	(378.0)	(368.0)	0.0	(368.0)	10.0	Yes	100%
2020	(101)	(446)	-	(446.0)	(436.0)	0.0	(436.0)	10.0	Yes	100%
2021	(124)	(507)	-	(507.0)	(497.0)	0.0	(497.0)	10.0	Yes	100%
2022	(190)	(575)	-	(575.0)	(565.0)	0.0	(565.0)	10.0	Yes	100%
2023	(226)	(647)	-	(647.0)	(637.0)	0.0	(637.0)	10.0	Yes	100%
2024	(252)	(716)	-	(716.0)	(706.0)	0.0	(706.0)	10.0	Yes	100%
2025	(288)	(782)	-	(782.0)	(772.0)	0.0	(772.0)	10.0	Yes	100%
2026	(340)	(855)	-	(855.0)	(845.0)	0.0	(845.0)	10.0	Yes	100%
2027	(361)	(921)	(7)	(921.0)	(911.0)	(7.0)	(911.0)	10.0	Yes	100%
2028	(456)	(1,069)	(25)	(1,069.0)	(1,059.0)	(25.0)	(1,059.0)	10.0	Yes	100%
2029	(533)	(1,183)	(96)	(1,183.0)	(1,173.0)	(96.0)	(1,173.0)	10.0	Yes	100%
2030	(552)	(1,232)	(44)	(1,232.0)	(1,222.0)	(44.0)	(1,222.0)	10.0	Yes	100%
2031	(552)	(1,232)	(44)	(1,232.0)	(1,222.0)	(44.0)	(1,222.0)	10.0	Yes	100%

Prior factor

100%

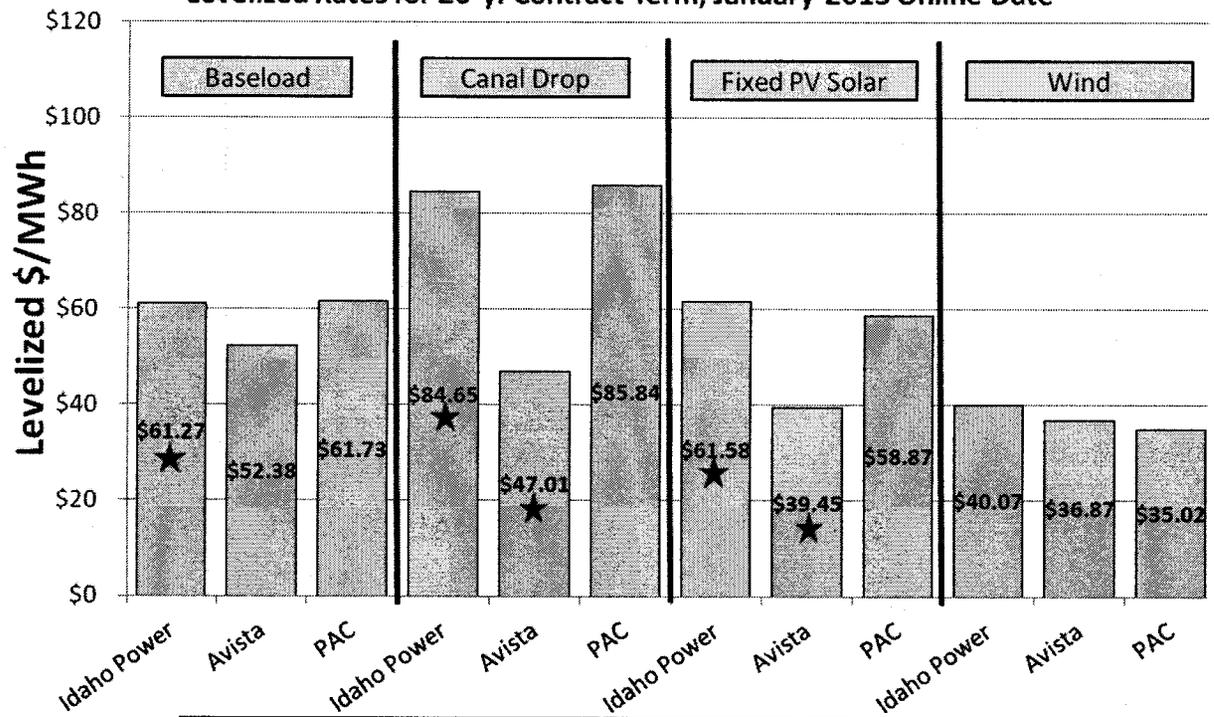
Prior factor

0%

Reb. Exhibit No. 305
 Case No. GNR-E-11-03
 C. McHugh, Staff
 06/29/12

Comparison of Proposed SAR Methodology Rates

Levelized Rates for 20-yr Contract Term, January 2013 Online Date



Deductions to account for integration and for transmission costs and losses are included for all utilities.

	Baseload	Canal Drop		Fixed PV Solar	
	Idaho Power	Idaho Power	Avista	Idaho Power	Avista
Rates under new method	\$61.27	\$84.65	\$47.01	\$61.58	\$39.45
Rates under old method	\$62.90	\$79.09	\$44.50	\$58.71	\$38.21
Difference	(\$1.63)	\$5.56	\$2.51	\$2.86	\$1.24
Percentage difference	-3%	+7%	+6%	+5%	+3%

PacifiCorp's avoided rates also changed but they changed because of updated resource and load data.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 29TH DAY OF JUNE 2012, SERVED THE FOREGOING **REBUTTAL TESTIMONY OF DR. CATHLEEN M. McHUGH**, IN CASE NO. GNR-E-11-03, BY E-MAILING AND MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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