

BEFORE THE

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IDAHO PUBLIC UTILITIES COMMISSION

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IN THE MATTER OF IDAHO POWER)
COMPANY'S PETITION TO MODIFY)
TERMS AND CONDITIONS OF)
PURPA PURCHASE AGREEMENTS)

CASE NO. IPC-E-15-01

IN THE MATTER OF AVISTA)
CORPORATION'S PETITION TO)
MODIFY TERMS AND CONDITIONS)
OF PURPA PURCHASE)
AGREEMENTS)

CASE NO. AVU-E-15-01

IN THE MATTER OF ROCKY)
MOUNTAIN POWER COMPANY'S)
PETITION TO MODIFY TERMS AND)
CONDITIONS OF PURPA)
PURCHASE AGREEMENTS)

CASE NO. PAC-E-15-03

DIRECT TESTIMONY OF YAO YIN

IDAHO PUBLIC UTILITIES COMMISSION

APRIL 23, 2015

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

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

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

6 A. I am employed by the Idaho Public Utilities
7 Commission as a Utilities Analyst.

8 Q. What is your educational and professional
9 background?

10 A. I received a Bachelor of Science in Biological
11 Sciences from Shandong University in 2006. Later, I
12 earned a Master of Science in Molecular Cellular Biology
13 (2007), a Master of Public Policy in Environmental Policy
14 (2009), and a Ph.D. in Environmental Science (2011), all
15 from Oregon State University. I will be attending the
16 Practical Regulatory Training for the Electric Industry
17 Course held May 17-22, 2015 by the Center for Public
18 Utilities at New Mexico State University.

19 Prior to joining the Commission, I worked for
20 Energy Biosciences Institute at University of Illinois at
21 Urbana-Champaign as a Postdoctoral Research Associate.
22 Later, I worked for the Energy Policy Institute at Boise
23 State University as a Research Assistant Professor. I
24 joined the Commission in May 2014.

25 Q. What is the purpose of your testimony in this

1 proceeding?

2 A. The purpose of my testimony is to review Rocky
3 Mountain Power's proposal to change its indicative pricing
4 practice in the Integrated Resource Planning (IRP)
5 methodology so that it may provide more accurate avoided
6 cost rates to proposed QF projects.

7 Q. What do you mean by "proposed QF projects"?

8 A. "Proposed QF projects" are projects for which a
9 QF developer has requested indicative avoided cost prices,
10 and is actively pursuing or negotiating a power purchase
11 agreement (PPA) with a utility.

12 Q. Do the "proposed QF projects" include QF
13 projects that are seeking SAR-based published rates?

14 A. No, not in the context of my testimony as
15 discussed here. SAR-based projects that are seeking
16 published rates (those that are smaller than the published
17 rate eligibility cap) may request the current published
18 rates approved by the Commission.

19 Q. Are you proposing changes to the Integrated
20 Resource Planning process?

21 A. No. SAR-based projects, IRP-based projects, and
22 other long-term non-PURPA contracts will continue to be
23 included in the IRP planning process as contracts are
24 signed.

25 My testimony addresses a change to the practice

1 of giving indicative pricing to proposed QF project that
2 are negotiating IRP-based avoided cost rates as part of
3 the IRP methodology.

4 Q. Does the term "proposed QF project" refer to
5 projects that make general inquiries about procedures for
6 obtaining a PURPA contract?

7 A. No. Typically, a QF is considered a proposed QF
8 when it is seriously pursuing a power purchase agreement
9 (PPA) and makes it to the stage of requesting indicative
10 avoided cost prices. Projects at earlier stages, such as
11 the general inquiry stage, are typically not considered as
12 proposed projects.

13 Q. What are indicative prices?

14 A. Indicative prices are preliminary estimates of
15 avoided cost rates which serve as the starting point for
16 negotiations between QFs and a utility. They may differ
17 from the final prices in a contract (i.e., contract
18 prices).

19 Q. What do QF projects need to do before requesting
20 indicative prices from a utility?

21 A. Idaho Power's Schedule 73 and Avista's Schedule
22 62 specify the information a project needs to submit
23 before requesting indicative prices. Rocky Mountain Power
24 does not have a similar schedule in Idaho, although I
25 recommend it propose one so that QF projects can have a

1 better idea of the procedures for requesting indicative
2 prices in Idaho.

3 Q. Please describe the current indicative pricing
4 practice approved by the Commission.

5 A. Currently, proposed projects are not placed in a
6 queue but are instead treated for pricing purposes as if
7 they are all the first project to receive the next
8 indicative prices. In other words, the first proposed
9 project, the second proposed project, the third proposed
10 project...will all be treated the same as the first
11 project for purposes of receiving indicative pricing.

12 The indicative prices, however, can be
13 recalculated (before they become contract prices) if an
14 earlier contract is signed, or if a signed contract is
15 removed.

16 Q. Which Commission Order approved of this
17 practice?

18 A. In Case No. GNR-E-11-03, the Commission stated
19 that "long-term contracts shall be considered in IRP
20 Methodology calculations at such time as the utility and
21 QF have entered into a signed contract for the sale and
22 purchase of QF power." Order No. 32697 at 22. (Emphasis
23 added).

24 Q. Are there practical concerns with this practice?

25 A. Theoretically, this practice may result in

1 accurate avoided cost rates by allowing indicative prices
2 to be recalculated when an earlier contract is signed. In
3 reality, however, it can be very difficult to recalculate
4 rates for proposed projects in a timely manner when there
5 are many projects seeking indicative prices at the same
6 time. As Rocky Mountain stated on page 7 of its Petition
7 in this case (PAC-E-15-03), "the currently approved
8 requirement that the Company's avoided cost rate modeling
9 can only be updated to account for signed QF contract[s]
10 will result in PURPA [contracts] . . . based on indicative
11 pricing that becomes inaccurate" The inability to
12 update indicative pricing "will result in payments to QFs
13 that exceed avoided costs" (Rocky Mountain
14 Petition at 33.)

15 In addition, a QF may not want to re-negotiate
16 the new updated rates, because the new indicative prices
17 may be lower than the original ones. New indicative
18 prices may be lower because, under the IRP methodology,
19 each successive QF displaces lower-cost resources in the
20 utility's dispatch stack.

21 Q. Why were these concerns not much of an issue in
22 the past?

23 A. The current indicative pricing practice works
24 well when individual project sizes are small, cumulative
25 project sizes are small, and multiple projects are not

1 being proposed at about the same time, because the
2 resulting indicative prices are accurate and rarely need
3 to be recalculated. Today, however, PURPA project sizes
4 are much larger, both individually and cumulatively, and
5 multiple projects frequently seek indicative prices at the
6 same time. Under this circumstance, the sequence of
7 projects, which determines every project's avoided cost
8 rates, needs to be established to reflect how each project
9 actually displaces the utility's resources and contributes
10 to the utility's capacity. Unless indicative pricing is
11 able to reflect the actual impacts of each project,
12 inaccurate avoided cost rates may result.

13 Q. Please describe the new indicative pricing
14 practice proposed by Rocky Mountain.

15 A. The new indicative pricing practice would offer
16 more accurate indicative prices to QFs by putting all the
17 proposed projects into a queue based on the times they
18 request indicative prices. As Rocky Mountain describes
19 the proposed change on page 38 of its Petition, the
20 proposed modified indicative pricing practice "reflects
21 all active QF projects in the pricing queue ahead of any
22 newly proposed QF requests for indicative pricing."

23 Q. Are there advantages to the newly proposed
24 practice?

25 A. Yes. When all proposed projects are placed in a

1 queue, rather than being treated as the first project,
2 each project will receive different indicative pricing,
3 depending on its position in the queue. Generally, the
4 higher the position in the queue, the higher the avoided
5 cost rates. Using a queue will allow indicative pricing
6 to reflect how each project actually displaces the
7 utility's resources and contributes to the utility's
8 capacity at the start of the negotiation process.

9 Q. Can you give an example to show how the new
10 indicative pricing practice would impact contract prices?

11 A. Rocky Mountain witness Dickman provides an
12 example on page 10 of his direct testimony. There he
13 states "[t]he Company calculated the impact on the IRP
14 Method avoided costs of including roughly 3,000 MW of
15 proposed QFs [generation] (located in Idaho, Utah,
16 Wyoming, Oregon) prior to the next Idaho QF. Accounting
17 for these proposed QFs rather than just those QFs with
18 signed contracts reduces avoided costs for the next Idaho
19 QF in the pricing queue by approximately \$18 per MWh on a
20 20-year levelized basis"

21 If proposed projects are not placed in a queue,
22 there could be substantial overpayments in avoided cost
23 rates to the QFs.

24 Q. Indicative pricing using this methodology
25 assumes that the proposed projects will be built

1 eventually, but what if a proposed project drops out of
2 the queue?

3 A. If projects drop out of the queue, utilities
4 will recalculate the indicative prices for projects
5 succeeding the dropped one, and the parties would
6 negotiate based on the new rates. Obviously, the new
7 rates will be higher than the original rates, because all
8 the projects that are situated lower in the queue will be
9 bumped up to displace higher-cost resources and have
10 better opportunity to contribute to the utility's capacity
11 need. Because the remaining projects will receive higher
12 avoided cost rates, they will financially benefit and
13 should readily accept the new, higher rates.

14 Q. Under the proposed indicative pricing practice,
15 is it likely that in order to get higher indicative
16 prices, projects will try to request indicative prices as
17 soon as possible to save an earlier spot in the queue even
18 if QFs are not ready to seriously negotiate an IRP-based
19 PURPA contract?

20 A. Both Idaho Power's Schedule 73 and Avista's
21 Schedule 62 require projects to provide specific
22 information about each project before the utilities
23 provide indicative pricing. Also, the schedules specify
24 timeline milestones for QFs to meet as projects and
25 negotiations progress.

1 Staff recommends that Rocky Mountain should file
2 a similar tariff schedule to lay out the PURPA negotiating
3 process and prevent projects from prematurely requesting
4 indicative pricing.

5 Q. If a QF changes significant details about its
6 project, will the QF remain in the queue?

7 A. Yes, but not in the same queue position. Rocky
8 Mountain Power states in its response to Staff's first
9 production request that "if the QF changes significant
10 details about the project (such as site location, online
11 date, or project size), the QF is removed from the queue
12 and then re-enters the queue at the bottom as a new
13 request with the new project description." I agree with
14 Rocky Mountain's approach, but believe specific criteria
15 may need to be developed for management of the queue, such
16 as rules for QF entry, re-positioning, and removal from
17 the queue.

18 Q. What is your recommendation regarding Rocky
19 Mountain's request to change its indicative pricing
20 practice?

21 A. I recommend that the indicative pricing practice
22 provided to proposed QF projects be updated to place all
23 the proposed projects in a queue, thereby providing more
24 accurate and up-to-date avoid costs. The Commission
25 should discontinue the "signed contract" requirement in

1 Order No. 32697 for purposes of giving indicative pricing
2 to IRP-base projects. Finally, Rocky Mountain should be
3 directed to file a tariff schedule outlining its PURPA
4 contracting procedures in Idaho.

5 Q. Does this conclude your direct testimony in this
6 proceeding?

7 A. Yes, it does.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 23RD DAY OF APRIL 2015, SERVED THE FOREGOING **DIRECT TESTIMONY OF YAO YIN**, IN CASE NOS. IPC-E-15-01/PAC-E-15-03/AVU-E-15-01, BY E-MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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