

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

U.S. GEOTHERMAL, INC.,
An Idaho corporation,

Complainant,

vs.

IDAHO POWER COMPANY,
An Idaho corporation,

Respondent.

BOB LEWANDOWSKI and MARK
SCHROEDER

Complainants,

vs.

IDAHO POWER COMPANY,
An Idaho corporation,

Respondent.

Case No. IPC-E-04-8

Case No. IPC-E-04-10

PACIFICORP

DIRECT TESTIMONY OF

LAREN J. HALE

August 2004

1 **Q. Please state your name, business address and present position with**
2 **PacifiCorp (the "Company").**

3 A. My name is Laren Hale, my business address is 825 NE Multnomah, Suite 800,
4 Portland, Oregon 97232, and my present position is Regulatory Analyst Ld/Sr.

5 **Qualifications**

6 **Q. Briefly describe your education and business experience.**

7 A. I received an undergraduate degree in Business Finance and a Masters of Business
8 Administration from the University of Utah. I began working for Utah Power &
9 Light Company in 1979. During my 25 years with the Company, I have held a
10 variety of positions including Senior Power Planner, Senior Cost of Service
11 Analyst, and Senior Pricing Analyst. I was promoted to my present position in
12 April 2001.

13 **Q. Please describe your current duties.**

14 A. Among other duties, I am responsible for the preparation of the Company's
15 avoided costs in each of the Company's six jurisdictions.

16 **Q. Have you been a witness before this Commission in the past?**

17 A. Yes, I was a witness in Case IPC-E-95-9. In that case I supported the Company's
18 calculation of IRP-based avoided costs.

19 **Summary of Testimony**

20 **Q. Will you please summarize your testimony?**

21 A. Yes. My testimony addresses the following issues:

22 (1) US Geothermal is requesting that the 10 MW ceiling used to determine
23 eligibility for standard tariff prices should be defined as 10 aMW. Idaho Power is

1 promoting a capacity definition of "10 MW in any hour." We agree with Idaho
2 Power's approach with one addition. We proposed that there be an initial capacity
3 determination to verify that a QF is eligible for tariff prices **and** that this initial
4 capacity determination should be enforced with a contract provision limiting
5 payment to not more than 10 MW in any hour.

6 (2) Idaho Power's standard contract has provisions that allows a QF to commit
7 to monthly delivery schedules in order to receive firm pricing. We agree that
8 conditioning firm pricing on monthly delivery commitments is a reasonable
9 requirement.

10 (3) Idaho Power's standard contract has a provision that allows for termination
11 of the contract if retail deregulation results in unrecoverable stranded costs. We
12 support Idaho Power's position that utilities need to act prudently to mitigate their
13 potential exposure if deregulation results in unrecovered stranded costs.

14 **Appropriate Method for Calculating the 10 MW Ceiling for Standard Avoided Cost**
15 **Price Application**

16 **Q. What is the Company's position as to how the 10 MW ceiling for standard or**
17 **published price application should be determined?**

18 A. The Company agrees with Idaho Power that the 10 MW ceiling should be
19 determined to be a measure of maximum capacity and not of average energy
20 delivery. Some measure of maximum capacity has historically been used both in
21 Idaho and the other jurisdictions where PacifiCorp operates. The application of
22 standard avoided cost prices to PacifiCorp's QF contracts and tariffs employs a
23 capacity ceiling or determination, and not an average energy concept. By

1 definition, a “megawatt” is a measure of capacity, not average energy. Moreover,
2 the PURPA regulations which provide the legal authority for standard pricing use
3 the term “design capacity” to differentiate as to which QFs are eligible for such
4 pricing. See 18 CFR § 292.304(c)(2) (“[t]here may be put into effect standard
5 tariff prices for purchases from qualifying facilities with a design capacity of
6 more than 100 kW.”) For these reasons, PacifiCorp’s position is that the
7 Commission should continue to define the ceiling in terms of maximum capacity
8 and not average energy.

9 **Q. Does the Company have a specific proposal as to how the 10 MW capacity**
10 **ceiling should be administered?**

11 A. Yes. The Company proposes a two-part approach whereby (1) there is an initial
12 capacity determination so standard tariff prices are limited to QFs that have a
13 maximum capacity of 10 MW or less and (2) thereafter, the QF may only receive
14 payment for up to 10 MW in any hour. Basically, this approach is the same as
15 Idaho Power’s proposed “Metered Energy Test” except that it adds an initial
16 capacity determination. I will explain below why each of these two components is
17 appropriate.

18 **Q. Please describe your proposal concerning initial capacity determinations.**

19 A. PacifiCorp proposes that any QF seeking to obtain standard tariff prices must
20 contractually represent that the maximum capacity of the QF at any time, when
21 operated consistent with the manufacturer’s specifications, prudent utility
22 practices and actual operating conditions, does not exceed 10 MW. This

1 definition is consistent with the FERC's "design capacity" standard in that it
2 focuses on how the QF will be designed and operated.

3 **Q. Why is an initial capacity determination appropriate?**

4 A. An initial capacity determination is appropriate to ensure that standard tariff prices
5 are limited to QFs that have an aggregate capacity of 10 MW or less. While Idaho
6 Power's Metered Energy Test will ensure that deliveries do not exceed the 10
7 MW ceiling in any hour, it will not serve to adequately limit the overall size of
8 QFs eligible for standard tariff prices. PacifiCorp's position is that the 10 MW
9 capacity ceiling should apply to the actual capacity of the QF, not just the hourly
10 delivery limitation. As discussed by Idaho Power witness Rick Gale on page 25
11 of his Direct Testimony, the rationale in PURPA for standard tariff prices was to
12 minimize transaction costs for small QFs associated with individually-negotiated
13 QF pricing and contracts. In most of PacifiCorp's other jurisdictions, the ceiling
14 for standard tariff prices is 1 MW. In Idaho, this Commission has determined that
15 10 MW should be the ceiling for standard tariff price application. Adopting Idaho
16 Power's Metered Energy Test, without an initial capacity determination, would
17 allow QFs of any size to get standard tariff prices by agreeing to limit deliveries to
18 10 MW in any hour. Alternately, adopting U.S. Geothermal's average energy
19 approach, without an initial capacity determination, would allow a QF of any size
20 to receive standard tariff prices provided annual deliveries are limited to 10 aMW.
21 Allowing QFs of unlimited size to obtain the standard tariff prices is inconsistent
22 with the "transaction cost" justification. An initial capacity determination is
23 necessary to preserve the integrity of the 10 MW capacity ceiling.

1 **Q. Are there other consequences associated with allowing QFs over 10 MW to**
2 **obtain standard tariff prices?**

3 A. Yes. Both Idaho Power and U.S. Geothermal seem to contemplate in their
4 testimony that a QF developer may: (1) build a QF in excess of 10 MW, (2) sell
5 up to 10 MW to an Idaho utility at standard tariff prices, and (3) market the
6 remaining output to other utilities or purchasers. This scenario is inappropriate
7 for several reasons. First, as noted above, allowing developers of larger QFs to
8 obtain standard tariff prices violates the integrity of the 10 MW ceiling and the
9 “transaction cost” justification on which it was based. Second, it potentially
10 allows QF developers to require multiple utilities in Idaho to purchase up to 10
11 MW each from the same QF at standard tariff prices. This would effectively
12 render the 10 MW ceiling meaningless. Third, allowing QFs under standard tariff
13 price contracts to sell to multiple purchasers gives them an economic incentive to
14 (1) sell to other purchasers at market rates during the most valuable delivery hours
15 and (2) put the remaining power to the purchasing utility at the standard tariff
16 prices during the least valuable delivery hours. Particularly if the Commission
17 were to adopt U.S. Geothermal’s 10 aMW proposal, a scenario could be
18 envisioned where a QF sold all of its output during peak delivery hours to a power
19 marketer at market rates, deliver up to 10 aMW of off-peak energy to Idaho Power
20 at standard tariff prices, and deliver any additional excess power to PacifiCorp
21 also at standard tariff prices. This outcome is inconsistent with PURPA.
22 Accordingly, PacifiCorp requests that the Commission require an initial capacity
23 determination to verify whether a QF is eligible to be paid standard tariff prices.

1 Alternately, the Commission should clarify that QFs are limited to one standard
2 rate contract and may not simultaneously sell to other purchasers.

3 **Q. Is an initial capacity determination, without additional contract provisions,**
4 **adequate to preserve the integrity of the 10 MW ceiling?**

5 A. No. As testified by Idaho Power's witness Rick Gale on pages 27-28 and U.S.
6 Geothermal's witness Kevin Kitz on pages 9-10, typical capacity definitions such
7 as "nameplate capacity" or "design capacity" may be subject to differing
8 interpretations. These differences may arise because manufacturers use different
9 assumptions concerning power factor and operating conditions in describing the
10 capacity of their generating units. The result is that QFs with a nameplate
11 capacity of 10 MW or less may in fact be able to generate substantially in excess
12 of 10 MW. PacifiCorp has had experiences with QFs that generate or are capable
13 of generating substantially in excess of their stated nameplate capacity. Thus, an
14 initial capacity determination is a necessary but not sufficient means of preserving
15 the integrity of the 10 MW capacity ceiling.

16 **Q. What additional measures does the Company propose to preserve the**
17 **integrity of the 10 MW ceiling?**

18 A. Contracts applying standard tariff prices should specify that the utility is not
19 required to pay for any energy delivered in excess of 10 MW in any hour. This
20 will effectively ensure that a QF which claims to have a maximum capacity of 10
21 MW or less is in fact subject to a 10 MW limit on deliveries. Idaho Power makes
22 a similar recommendation, which they describe as the "Metered Energy Test."

1 Q. Can you describe the economic consequences of a decision to set the ceiling
2 for standard tariff prices at 10 aMW?

3 A. Yes. Under the 10 aMW proposal endorsed by U.S. Geothermal, a QF regardless
4 of size would be entitled to standard tariff prices for all deliveries up to 10 aMW
5 in any year. There would be no limitations as to the time of day, month or year
6 when these MWh could be delivered. There is a significant economic cost
7 associated with this type of delivery optionality, as power has different value
8 depending upon the timing and extent to which the purchaser has notice or control
9 over delivery. To illustrate this point consider the following three delivery
10 scenarios, each of which is possible under the approach adopted by U.S.
11 Geothermal:

12 (1) a 10 MW thermal-type resource, delivering 10 aMW on a flat basis during
13 all delivery hours. This resource would have a 20-year net present value
14 of \$55.8 million, which corresponds to a firm base load resource;

15 (2) a 30 MW resource (such as wind or solar), making intermittent deliveries
16 up to 30 MW in any hour for a total of 10 aMW per year. This resource
17 would have a 20-year net present value of \$49.7 million, which
18 corresponds to a non-firm resource; and

19 (3) a 30 MW thermal-type resource, delivering power to third-parties during
20 peak hours and delivering 10 aMW to the purchasing utility only in off-
21 peak hours. This resource would have the lowest 20-year net present value
22 of \$45.9 million, which corresponds to a non-firm, off peak resource.

1 As these examples indicate, moving to a 10 aMW ceiling on standard tariff prices
2 without an hourly or aggregate capacity limit can result in a variety of delivery
3 scenarios with widely differing values. The standard tariff prices assume a proxy
4 natural gas-fired, combined-cycle combustion turbine resource that is dispatchable
5 by the purchasing utility. However, because of the “one-size-fits-all” approach,
6 no adjustment is made when the actual value of the power to the utility is less than
7 that associated with the proxy resource. Therefore, QFs receiving standard tariff
8 prices are effectively being overpaid to the extent their power is less valuable than
9 the power associated with the proxy resource. The less control or notice the utility
10 has over the timing and extent of deliveries, the greater the overpayment, as
11 shown in the examples above. Effectively, this cost is a subsidy from ratepayers
12 to the QF. Exhibit 301 shows the calculation of the QF values outlined above.

13 **Q. Of the three scenarios you outlined above, which QF should be entitled to**
14 **standard tariff prices?**

15 A. The first QF should be entitled to standard tariff prices. In this case, the QF
16 provides a capacity benefit to the Company that can be relied upon for both
17 planning and system operation. The last two QFs provide the Company far fewer
18 capacity benefits and therefore should not receive standard tariff prices. They
19 require the utility to accommodate a much larger amount of generation, with more
20 variation from hour-to-hour and less notice or control as to the timing of
21 deliveries. Under PacifiCorp’s proposal, the first QF would be entitled to standard
22 tariff prices, and the second two QFs would not receive standard tariff prices but
23 would be eligible for prices calculated using an IRP based method. By contrast,

1 under U.S. Geothermal's approach, all three QFs would be entitled to standard
2 pricing.

3 **Q. Is there another reason that increasing the ceiling to 10 aMW might have an**
4 **adverse impact to the Company and its ratepayers?**

5 A. Yes. Increasing the ceiling to 10 aMW might make Idaho a magnet for out-of-
6 state QFs. Idaho has the highest avoided cost prices of any of PacifiCorp's
7 jurisdictions. With a ceiling of 10 MW, let alone 10 aMW, Idaho also has the
8 highest ceiling for standard tariff price application of any state in the Northwest.
9 This provides an incentive for out-of-state QFs to wheel their power to Idaho for
10 sale to an Idaho utility. In the past few years since the threshold was raised from 1
11 MW to 10 MW in Idaho, PacifiCorp has been approached by developers of out-
12 of-state QFs seeking to make sales to PacifiCorp in Idaho. Increasing the ceiling
13 to 10 aMW would increase the magnet effect.

14 **Whether QFs Should be Required to Commit to Monthly Delivery Schedules in**
15 **Order to Receive Firm Pricing**

16 **Q. Do you support Idaho Power's position that QFs under standard tariff price**
17 **contracts should be required to commit to monthly delivery schedules in**
18 **order to obtain firm energy prices?**

19 A. Yes. PacifiCorp agrees that a QF should be required to make some type of
20 enforceable delivery commitment in order to obtain firm pricing. As explained
21 above, standard tariff prices assume a proxy resource that is dispatchable by the
22 utility. The less control or notice that a purchasing utility has with respect to the
23 extent and timing of QF deliveries, the greater the effective subsidy to the

1 developer. Idaho Power's approach, which requires monthly (as opposed to daily
2 or hourly) generation commitments, is a reasonable requirement in exchange for
3 the QF being entitled to firm prices. Idaho Power's contract provision benefits
4 QF owners, particularly those of intermittent resources like wind, by allowing
5 them to obtain firm pricing for that portion of their generation they commit in a
6 given month. The proposal benefits the purchasing utility by giving it greater
7 operation certainty as to the extent and timing of QF deliveries. In the event the
8 Commission approves Idaho Power's proposed section 6.2 of its standard
9 contract, PacifiCorp requests that it be allowed to fashion a similar provision
10 applicable to its standard purchases in Idaho.

11 **Whether Utilities Should Be Able to Terminate QF Contracts If Retail Deregulation**
12 **Results in Unrecoverable Stranded Costs**

13 **Q. Does PacifiCorp support Idaho Power's position that utilities should be**
14 **permitted to terminate QF contracts in the event that retail deregulation**
15 **results in unrecoverable stranded costs?**

16 **A.** Yes. The arguments advanced by Idaho Power with respect to this provision
17 apply equally to other Idaho electric utilities. Power purchase costs incurred
18 through QF contracts represent a potential category of stranded costs to the extent
19 that retail deregulation occurs in Idaho. Utilities need to act prudently to mitigate
20 their potential exposure to such costs. One such method is to pursue a contract
21 provision allowing for termination in the event that such costs are deemed
22 unrecoverable. Pursuit of such a provision will help reduce the utilities'
23 vulnerability to arguments that they waived the right to recover these costs by

1 failing to take prudent efforts to avoid them. In the event the Commission
2 approves Idaho Power's proposed section 23.2 of its standard contract, PacifiCorp
3 requests that it be allowed to fashion a similar provision applicable to its standard
4 tariff price contracts in Idaho. PacifiCorp has similar concerns regarding potential
5 stranded costs in the event other jurisdictions disallow recovery of its Idaho QF
6 costs. However, these concerns are being addressed in the context of PacifiCorp's
7 proposed MSP allocation methodology, and are not the subject of this testimony.

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

9 **A. Yes.**

Case Nos. IPC-E-04-8 &
IPC-E-04-10
Exhibit No. 301
Witness: Laren J. Hale

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

PACIFICORP

Exhibit Accompanying Direct Testimony of Laren J. Hale
Estimate of QF Value Given Various Types of QF Resource

August 2004

**Estimate of QF Value given
various types of QF resource**

QF Type	Energy Type	Average Energy Price	Annual Value	20 Year NPV	NPV difference
10 MW - 10 aMW	Firm Flat	\$39.56	\$3,465,158	\$55,808,581	
30 MW - 10 aMW Intermittent	Non-Firm Flat	\$35.21	\$3,084,455	\$49,677,118	\$6,131,462
30 MW - 10aMW off-peak	Non-Firm LLH	\$32.55	\$2,851,566	\$45,926,288	\$9,882,293

Major Assumptions

Operating for	20 Years
Annual Generation	87,600 MWH
Discount rate	2.16%

Average Energy Prices are based on Dow Jones Mid-Columbia reported prices for the period July 30,2003 through July 29, 2004.

The 2.16% Discount rate is a real levelized discount rate based on US Treasury yeild curve dated 8.3.2004 .