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IDAHO PUBLIC  
UTILITIES COMMISSION

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

U.S. GEOTHERMAL, INC. an Idaho corporation,	)	
	)	Case No. IPC-E-04-08
Complainant,	)	
	)	
vs.	)	
	)	
IDAHO POWER COMPANY, an Idaho corporation,	)	
	)	
Respondent.	)	
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BOB LEWANDOWSKI and MARK SCHROEDER,	)	Case No. IPC-E-04-10
	)	
Complainants,	)	
	)	POST-HEARING BRIEF
vs.	)	
	)	
IDAHO POWER COMPANY, an Idaho corporation,	)	
	)	
Respondent.	)	
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## I.

### Introduction

At the close of the technical hearing on September 3, 2004, the Commission granted the requests of the Complainants to file post-hearing briefs addressing the topic of firm vs. non-firm QF purchases. Counsel for U.S. Geothermal indicated that in his brief he intended to address the approach the Commission has historically taken to define firm vs. non-firm QF energy. Commission Kjellander also requested that the parties address the issue of "intermittent" resources in their briefs.

Idaho Power does not believe there is any real dispute as to how the Commission has historically differentiated between firm and non-firm QF resources. As a result, the Company will not spend a great deal of time in this brief discussing that history. As Idaho Power pointed out in its direct testimony, regardless of how firm QF energy has been defined in the past, fundamental changes have occurred at Idaho Power and in the electric utility industry in general since the Commission last addressed this issue in the early 1980's. The real question presented to the Commission in these two cases is whether the Commission should continue with the 1980's paradigm or if a different approach is in the public interest.

Idaho Power considers the question raised by Commissioner Kjellander to be extremely important. Intermittent resources like wind or solar are not a subset of firm resources. Because their "fuel supply" can vanish and re-appear very quickly, they are clearly best described as a non-firm, as-available resource. If the Commission adopts the position espoused by Complainants Lewandowski and Schroeder that all energy generated by intermittent wind resources must be purchased as firm energy at the

published rates, the impact of that decision on future RFP solicitations for wind resources and the financial consequences to the Company's customers could be substantial. As a result, the treatment of purchases of intermittent QF resources may merit additional consideration outside of these complaint proceedings.

## II.

### Argument

#### 1. **The Commission Should Consider The Distinction Between Firm And Non-Firm QF Energy In Light Of Current Conditions.**

In seeking leave to file a post-hearing brief, counsel for U.S. Geothermal indicated that it was his intention to use the post-hearing brief to address the Commission's prior orders that define the terms "non-firm" and "firm" in the context of energy purchased from QFs. Idaho Power does not believe there is any dispute as to how the Commission has traditionally used those terms. In Order No. 15746 issued in 1980 in Case No. P-300-12, the Commission noted that, under Section 292.304(d) of the FERC rules, a small power producer has the option of selling power to a utility either on an "as-available" basis or "pursuant to a legally enforceable obligation." In Order No. 15746 and subsequently in Order No. 18190 issued in 1983 in Case No. U-1006-200, the Commission defined the "as-available sale" to correspond to non-firm energy and the "pursuant to a legally enforceable obligation" to correspond to firm energy. As the Commission noted in Order No. 18618 issued in Case No. U-1006-216, "The Company is correct, therefore, when it asserts that Order Nos. 18190 and 18358 distinguish between firm and non-firm energy prices and that it is the 'quality of the energy produced' by the co-generator or small power producer that determines its price." (Order No. 18618, p. 3.)

In Order No. 18618, the Commission also stated:

. . . energy is considered firm if it is provided by the seller pursuant to a legally enforceable obligation to deliver and if it is of sufficient reliability that it can serve to defer or avoid construction of the company's own plants. Hydro projects -- both those of the company and those of small power producers -- have always been assumed to meet this definition. (Order No. 18618, p. 9).

As Idaho Power noted in its direct testimony in this case, using the definition of firm energy established in the early 1980's, a QF is only obligated to sign a contract and provide an estimate of what it thinks it will generate each month over the twenty (20) to thirty-five (35) year term of its agreement to be entitled to receive firm energy prices. As Mr. Gale noted, in today's world, the actual firmness of the energy deliveries under these 1980's vintage contracts more closely resembles non-firm energy deliveries than firm energy deliveries. In the Firm Energy Sales Agreements ("FESA's") without the 90%/110% band provision, QF developers provide an estimate of what they expect to generate each month, but there is no requirement, nor is there any economic incentive, for QF developers to provide accurate estimates or to actually deliver energy in the monthly amounts they estimate they will provide in the Firm Energy Sales Agreement. The actual amount of energy delivered by QF's under these agreements can fluctuate between 0 MW and 10 MW, hour-to-hour, day-to-day, month-to-month, either because the project has lost its motive force or the developer has chosen to reduce generation for some other reason. With the exception of the five new QF contracts which include the 90%/110% band, Idaho Power's QF contracts do not require QF's to provide the higher value firm energy Idaho Power's customers are paying for.

**2. Conditions Have Changed Since The 1980's When The Commission Defined "Non-Firm" And "Firm" Energy To Be Purchased From QFs**

In his direct testimony, Idaho Power Witness Ric Gale identified material changes in electric industry conditions that argue for this Commission to approve QF contract requirements that properly value the quality of energy delivered by QF's to utilities in today's world. These changed conditions include:

(a) Idaho Power has changed from an energy-constrained company to a capacity-constrained company. Seasonal peaks require the Company to have a high degree of confidence that energy purchases will be delivered in the amounts and at the times specified to match seasonal peak energy demands.

(b) Transmission constraints require that the Company more precisely anticipate its needs for firm energy imports. The ability to rely on firm resources within the utility's control area is increasingly important.

(c) The growing prominence of intermittent generating technologies, such as wind and solar, require a new approach in the Company's PURPA contracting procedures.

(d) The Company's increased use of firm market purchases as hedges to manage risk under its Commission-approved Risk Management Policy escalates the importance of firm resource availability.

Of these changed conditions, the fact that since the 1980's Idaho Power has changed from an energy-constrained utility to a capacity-constrained utility provides the strongest rationale for the Commission to allow the Company to require QF's to commit to deliver a specific amount of energy each month.

When the Commission defined firm energy in the 1980's, it did so in an environment when Idaho Power was energy-constrained. As a result, the difference in value between energy delivered whenever it was generated and energy delivered in specific monthly amounts was less significant. However, as a capacity-constrained utility, requiring QF developers to commit to deliver firm energy in specific monthly amounts increases the quality and thus the value of that energy to Idaho Power.

Complainants continue to assert that it is not necessary to require QF's to commit to monthly energy amounts because QF's represent an insignificant portion of Idaho Power's total resource portfolio. In fact, just since 2002 when the Commission issued its orders increasing QF entitlement to the published rates from 1 MW to 10 MW, authorizing twenty-year QF contracts and increasing QF rates, Idaho Power has entered into new QF contracts with a total nameplate capacity of nearly 60 MW. Adding the U.S. Geothermal and Schroeder QF resources to that total would contribute another 22+ MW, bringing the total QF contract additions to approximately 80 MW nameplate. This total is very nearly equal to the capacity of the Company's Danskin combustion turbine. At a time when the Company's Integrated Resource Plans clearly demonstrate that the Company needs to add additional dispatchable capacity on its system, and the SAR is a dispatchable combustion turbine resource, maintaining the 1980's definition of firm energy overstates the value of QF resources.

### **3. The Commission Has Not Explicitly Addressed the Value of Intermittent QF Resources**

As discussed in the previous section of this brief, the Commission's prior orders have only differentiated between firm and non-firm QF resources. "Intermittent" is the electric industry term used to describe generating resources such as wind or solar

whose output can fluctuate significantly on a minute-to-minute basis. These fluctuations can be due either to periods when the wind stops blowing or the sun goes behind a cloud or to periods when the wind blows so hard that the wind-generation resource shuts off to protect itself. The fluctuations in intermittent resource generation can range between zero generation to the full nameplate capacity of the generator over a very short period of time. Consequently, intermittent QF resources are the penultimate example of non-firm, if, as and when-available resources.

Intermittent resources present a new challenge to utility resource planners and system operators. While the Commission's orders issued in the early 1980's to implement PURPA include references to wind resources, the expected Idaho applications of wind generation technology contemplated in those orders was the small wind turbine of the type that we think of today as the typical net-metering resource.<sup>1</sup> It is only within the last few years that tax incentives and improved generating equipment technology have made large-scale wind development feasible in Idaho and surrounding states.

As utilities add significant amounts of non-dispatchable, intermittent resources onto their systems, utility system operational and reserve requirements will make it necessary for utilities to find cost-effective ways to integrate intermittent resources. Integration could include adding firm dispatchable generating resources like the SAR, to cover energy shortfalls occurring when intermittent wind resources rapidly reduce generation or cease generation entirely. Integration could also involve

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1 In the early 1980's federal income tax incentives and California state income tax incentives led to the development of large-scale wind projects in the state of California. In reality, many of these large California wind farms were tax shelters. As soon as the tax incentives were depleted, many of the California wind farms fell into disrepair and some were abandoned.

optimized operation of hydroelectric generating resources to deal with intermittent resources. In its 2004 IRP, Idaho Power discusses the potential interaction between wind resources and the Company's hydro system. Several witnesses in this case described BPA's program that allows wind resource developers to purchase integration services from BPA. The possibility of discounting the purchase price of wind resources to recognize the problems with integrating intermittent resources onto the utility's system was also discussed.

With the obvious exception of the Complainants, all of the witnesses in this case have expressed concern with the Complainants' contention that their intermittent wind resources are entitled to be paid the published rate for all of the energy they generate. One issue that came up during the hearing that Idaho Power believes deserves additional attention is the interaction between PURPA resource acquisition requirements and the Company's plans described in its 2004 Integrated Resource Plan to issue an RFP in the very near future to acquire 200 MW of wind resources. If wind resources qualify to be paid firm energy PURPA rates for all of their generation, there will be no incentive for wind developers to competitively bid resources into the Company's RFP process. If wind developers follow the scenario described by U.S. Geothermal witnesses at the hearing and create multiple 9.9 MW qualifying facilities so that they can receive the published firm rates, it is unlikely that customers will capture any benefits of economies of scale or competitive pricing usually gleaned from a competitive bidding (RFP) program.

Recognizing that there are a number of significant issues directly related to paying firm energy prices to intermittent QF resources, it may be desirable for the

Commission to initiate an investigation to address the unique problems associated with acquisition of wind resources. The regulations implementing PURPA at § 18 CFR, § 292.304(c)(3)(ii) authorize Commissions in setting standard rates for QF purchases to differentiate among qualifying facilities using various technologies on the basis of the supply characteristics of the different technologies. Subsection (e) of the same CFR section allows the Commission to consider, in setting rates for QF purchases, the availability of capacity or energy from a qualifying facility during the system, daily and seasonal peak periods, the ability of the utility to dispatch the qualifying facility and the expected or demonstrated reliability of the qualifying facility. As a result, the Commission has authority to treat intermittent resources as non-firm QF resources. A Commission investigation of intermittent resource issues could be informal and utilize the workshop process to discuss the issues and concerns of utility resource planners and wind developers including QF's. In the meantime, Idaho Power believes that the Firm Energy Sales Agreement that it has provided to Lewandowski and Schroeder is a reasonable approach to the acquisition of intermittent QF energy resources that is fair to both QF's and customers.

**4. Idaho Power's Proposed Firm Energy Sales Agreement Pays Full Avoided Costs To Wind Resource Developers.**

Contrary to Complainants' assertions, Idaho Power is not seeking to pay less than full avoided cost for QF resources, nor is it changing the methodology for computing avoided costs. By including a monthly energy commitment -- the 90%/110% band -- the Company is simply requiring the QF to specify how much of the energy it will provide will be firm and how much will be non-firm. To the extent a QF provides firm

energy, it should receive prices based on the firm energy provided by the dispatchable SAR.

An alternative approach would pay the published rates to QF's that are willing to sign a long-term contract that includes a commitment to provide monthly energy amounts and pay a slightly discounted price to QF's that are willing to sign a long-term contract and provide a good-faith estimate of their monthly generation but are unwilling to provide a monthly energy commitment. Such an approach would be another way to recognize the difference in value between firm and "less-firm" energy.

Idaho Power recently filed with the Commission a new twenty-year Firm Energy Sales Agreement with Fossil Gulch Wind Park, LLC for a 10.5 MW wind project to be built near Hagerman, Idaho. The Fossil Gulch Project is proposed to be online by the end of this year. Table 1 below depicts the monthly energy commitments from the Fossil Gulch Project.

**TABLE 1**

	<u>Month</u>	<u>kWh</u>
Season 1	March	3,100,625
	April	2,689,296
	May	2,501,984
Season 2	July	1,910,208
	August	1,781,958
	November	1,884,234
	December	2,425,295
Season 3	June	2,711,046
	September	2,422,340
	October	2,621,565
	January	1,923,853
	February	2,559,792

Even though the nameplate capacity rating of the Fossil Gulch Project is 10.5 MW, Table 1 shows the amounts of energy Fossil Gulch is committing to provide to Idaho Power each month. These amounts are typical of the capacity factor of most wind resources. Fossil Gulch will receive firm energy prices for the amounts of energy shown on Table 1 within the 90%/110% band and non-firm energy prices for any additional energy delivered up to 10,000 kWh per hour.

The Firm Energy Sales Agreement Idaho Power has offered to Lewandowski and Schroeder provides these two wind resource developers with the same opportunity Fossil Gulch has recently accepted to receive payment at firm rates for a portion of their respective project's total monthly energy generation. If the amount Complainants specify is actually provided, firm prices will be paid. Additional energy delivered up to 10,000 kWh per hour would be purchased at non-firm prices. Idaho Power continues to believe that the Firm Energy Sales Agreement it has offered to both Lewandowski and Schroeder is a reasonable approach that can work for both wind developers and the Company's customers.

**5. The Commission Has Rejected Mandatory Standard Form Contracts for QF's**

During the hearing in this case, cross-examination by counsel for Complainants inferred that Idaho Power has acted inappropriately by proposing the inclusion of 90%/110% provision in the Firm Energy Sales Agreement without first obtaining Commission permission to do so. In fact, this Commission has explicitly indicated that it does not believe that a mandatory standard form contract is in the public interest in Idaho.

In Order No. 15746 issued in 1980 in Case No. P-300-12, the Commission required Idaho Power and all other Idaho jurisdictional utilities to create a standard form contract which would be on file with the Commission and would be offered to all QF developers. If the utility desired to modify that standard form contract, it would be necessary for the utility to obtain Commission approval to do so.

Three years later, in Order No. 18190 issued on July 21, 1983, the Commission rescinded its standard contract requirement saying: "In keeping with the freedom to contract approach announced in this order, the Commission will no longer require that Idaho Power Company retain a standard form contract on file at the Commission in the Company's official tariff book."

Since the issuance of Order No. 18190 in 1983, Idaho Power has filed at least fifty QF contracts with the Commission. Each one has individually-negotiated provisions, and this Commission has reviewed each contract based upon the individual provisions of that contract. In addition, the Company has filed five, and the Commission has approved four, Firm Energy Sales Agreements that contain the 90%/110% provision that Complainants object to. Therefore, Complainants' argument that Idaho Power was obligated to obtain Commission permission prior to including the contested contract provisions in the FESA's offered to Complainants is simply incorrect.

### III.

#### **Conclusion**

One of the basic tenants of PURPA is the concept of customer neutrality. Under the concept of customer neutrality, Idaho Power's customers should be indifferent as to whether Idaho Power purchases energy from QF's or it purchases an

equivalent amount of firm energy on the wholesale market or generates an equivalent amount of energy with its own resources. If Idaho Power purchases firm energy on the wholesale market, it has the right to specify when that energy is to be delivered, and if the seller fails to deliver in the amounts and at the times specified in the contract, liquidated damages are available. If Idaho Power constructs the SAR, it has the ability to dispatch that plant and obtain energy in the amounts and at the times it is needed. If the Commission accepts the Complainants' argument that all of the energy they generate should be priced as firm energy even though Complainants make no commitment to deliver a specified monthly amount of energy, Idaho Power will not be purchasing resources that have an equivalent value to the resources Idaho Power would otherwise acquire, and the concept of customer neutrality will be violated.

Idaho Power is not unmindful that there are public policy considerations that the Commission must evaluate whenever it addresses PURPA issues. However, the Commission should not minimize the fact that in the past two years Idaho Power has entered into five contracts with QF resource developers totaling nearly 60 MW of nameplate capacity. Each of those five contracts contain the provisions that are at issue in this proceeding. Idaho Power believes this demonstrates that it is reasonable to expect QF developers to provide the kinds of commitments that are necessary to ensure that customers receive resources of equivalent value from QF developers and customer neutrality is maintained.

Dated at Boise, Idaho this 17th day of September, 2004.



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BARTON L. KLINE  
Attorney for Idaho Power Company

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 17th day of September, 2004, I served a true and correct copy of the POST-HEARING BRIEF upon the following named parties by the method indicated below, and addressed to the following:

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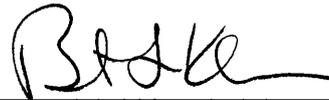
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