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November 16, 2012

#### VIA ELECTRONIC AND U.S. MAIL

PUC Filing Center Public Utility Commission of Oregon PO Box 2148 Salem, OR 97308-2148

### Re: UM 1182 – In the Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation Regarding Competitive Bidding.

Enclosed for filing in Docket UM 1182 are an original and five copies of Idaho Power Company's Direct Testimony of M. Mark Stokes.

A copy of this filing has been served on all parties to this proceeding as indicated on the attached certificate of service.

Very truly yours,

Wendy McIndeo

Wendy McIndoo Office Manager

Enclosures cc: Service List

#### EFORE THE PUBLIC UTILITY COMMISSION OF OREGON

#### DOCKET NO. UM 1182

In the Matter of

PUBLIC UTILITY COMMISSION OF OREGON

Investigation Regarding Competitive Bidding.

#### IDAHO POWER COMPANY

#### DIRECT TESTIMONY

OF

#### **M. MARK STOKES**

November 16, 2012

- 1 Q. Please state your name and business address.
- A. My name is M. Mark Stokes and my business address is 1221 West Idaho Street,
  Boise, Idaho.
- 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 Power Supply Planning.

# 7 Q. Please describe your educational background and work experience with Idaho 8 Power.

9 A. I am a graduate of the University of Idaho with a Bachelor of Science Degree in Civil
10 Engineering. I also hold a Master's Degree in Business Administration from
11 Northwest Nazarene University and am a registered Professional Engineer in the
12 state of Idaho.

- I joined Idaho Power in 1991 as a member of the construction management 13 team responsible for the construction of the Milner Hydroelectric Project. In 1992, I 14 joined the Generation Engineering Department where I was responsible for dam 15 safety and regulatory compliance for Idaho Power's 17 hydroelectric projects. In 16 1996, I began working with Idaho Power's Hydro Services Group, a new business 17 initiative within the Power Production Department, where I was responsible for 18 business development and marketing. In 1999, I returned to my previous position 19 within the Power Production Department to administer Idaho Power's dam safety 20 21 program.
- In 2004, I accepted a position as the President of Ida-West Energy Company,
  a subsidiary of IDACORP. In this role, I was responsible for managing the overall
  operation of the Company as well as the operation and maintenance of nine
  hydroelectric projects with qualifying facility status. In 2006, I rejoined Idaho Power's
  Power Supply business unit as the Manager of Power Supply Planning. The Power

1	Supply Planning Department is responsible for resource planning, operations
2	planning, and short-term load forecasting.
3	Q. What is the purpose of your testimony?
4	A. My testimony will first briefly describe the purpose of this phase of UM 1182 and
5	provide some general background information regarding Idaho Power's experiences
6	with resource acquisition. I will then discuss each of the issues that have been
7	selected for analysis and make recommendations regarding how Independent
8	Evaluators ("IEs") may evaluate resource options in future resource solicitations.
9	BACKGROUND
10	Q. What is the purpose of this phase of Docket UM 1182?
11	A. This phase of the docket is intended to address the issues raised by the Commission
12	in Order No. 11-001. <sup>1</sup> In that order the Commission noted that current Competitive
13	Bidding Guideline 10(d) requires the IE to "evaluate the unique risks and advantages
14	of utility benchmark resources." The Commission directed parties to provide the
15	following in this phase of UM 1182:
16	We want a more comprehensive accounting and comparison
17	of all of the relevant risks, including consideration of construction risks, operation and performance risks, and
18	environmental regulatory risks. We also want more in-depth analysis of all of these risks. We invite comment on the
19	analytic framework and methodologies that should be used to evaluate and compare resource ownership to purchasing
20	power from an independent power producer. <sup>2</sup>
21	In order to "improve full evaluation and comparison of resources" <sup>3</sup> the
22	Commission has directed the parties to examine four issues: (1) Cost Over- and
23	<sup>1</sup> Re Public Utility Commission of Oregon Investigation Regarding Performance-Based Ratemaking Mechanisms to Address Potential Build-vsBuy Bias, Docket UM 1276, Order No. 11-001 at 6 (Jan.
24	3, 2011).
25	<sup>2</sup> Order No. 11-001 at 6.
	<sup>3</sup> Re Investigation Regarding Competitive Bidding, Order No. 12-324 at 3 (Aug. 23, 2012).

Under-Runs; (2) Counterparty Risk; (3) Heat Rate Degradation; and (4) Wind 2 Capacity Factors.

Please describe Idaho Power's experience with respect to resource 3 Q. acquisition? 4

Idaho Power has extensive recent experience in the acquisition, operation, and 5 A. integration of generation resources. Over the last ten years Idaho Power has 6 7 acquired three natural gas-fired generation facilities with a total nameplate capacity of over 600 megawatts ("MW"). Idaho Power has also entered into power purchase 8 agreements ("PPAs") with independent power producers ("IPPs") for wind resources 9 totaling almost 700 MW of total nameplate capacity. The Company has also 10 contracted with other generation projects including renewable resources such as 11 geothermal, hydroelectric, solar, and biomass. In addition to supply side resources, 12 Idaho Power has aggressively pursued the acquisition of cost-effective demand side 13 resources. Idaho Power supports a diverse and balanced generation portfolio 14 containing both utility supply-side and demand-side generation projects and 15 independent generation projects, each where appropriate. 16

#### What projects has Idaho Power acquired through a competitive bidding 17 Q. process? 18

- Since 2003 Idaho Power has issued seven Requests for Proposals ("RFPs") to A. 19 address supply side resource needs identified in the Company's then-current 20 Integrated Resource Plan ("IRP"). Idaho Power/101 provides a list of each of the 21 generation resources acquired by Idaho Power since 2003.4 As the list 22 demonstrates, since Idaho Power acquired the Bennett Mountain Power Plant in 23
- <sup>4</sup> This list does not include PPAs entered into pursuant to the Public Utility Regulatory Policies Act of 25 1978 ("PURPA").

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2003—which was acquired through a build-and-transfer agreement with the IPP Mountain View Power—Idaho Power has conducted competitive procurements for additional natural gas projects, wind projects, geothermal projects, and PPAs.

Q. Do you believe Idaho Power's generation portfolio reflects a self-build bias?

A. No. In total, Idaho Power's generation portfolio contains nearly 4,600 MW of utilityowned and independent power projects. Currently, nearly 3,600 MW are produced by company-owned generation assets, while 831 MW of nameplate generation are provided by 109 Public Utility Regulatory Policies Act ("PURPA") projects under contract. In addition, the Company obtains 32 MW of nameplate generation in twoutility scale geothermal power purchase agreements, and 101 MW from a power purchase agreement with the Elkhorn Valley wind project located near La Grande, Oregon. Thus, IPPs supply a significant proportion Idaho Power's generation.

Although PURPA projects are not acquired through a competitive bidding 13 process and therefore not necessarily within the scope of the inquiry in this docket, it 14 is important to understand the impact that PURPA projects have had on Idaho 15 Power's competitive bidding process. For example, during Idaho Power's 2009 Wind 16 RFP process, at least two developers who proposed utility-scale projects that were 17 unsuccessful in the competitive procurement process split their projects into several 18 smaller projects in order to pursue PURPA contracts with Idaho Power. In addition, 19 non-performance of PURPA projects has highlighted the importance of accurately 20 assessing counterparty risk and requiring sufficient creditworthiness of respondents 21 and inclusion of liquidated damages provisions in negotiated contracts. These 22 protections ensure Idaho Power's customers are protected in the event of a default 23 by the generator. 24

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#### COST OVER- AND UNDER-RUNS

#### 2 Q. Please describe the Cost Over- and Under-Run issue.

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In response to this issue, the parties have been asked to account for the difference in 3 A. risk between a utility self-build bid and an IPP bid related to the possibility that the 4 ultimate costs of either project will be over or under the estimated costs used to 5 develop the bid. The assumption underlying this issue is that an IPP contractually 6 guarantees a construction cost for a project and therefore customers are insulated 7 from the risk of a cost over-run. On the other hand, for utility self-build resources, the 8 assumption is that the actual costs, rather than the bid costs, are included in rates. 9 10 Thus, the assumption is that customers bear the risk that a utility self-build project will exceed the estimate that was used to develop the winning bid. 11

#### 12 Q. Are the assumptions that you described valid?

A. Not necessarily. It is important to note that the actual costs that are incurred by a utility to acquire a utility-owned resource are included in rates only if the investment was determined to be prudently incurred. Thus, if construction of the utility-owned resource results in a cost over-run, the utility will be required to justify and defend that cost over-run before the full costs of the resource are included in rates. It is incorrect to assume that customers will always bear cost over-runs.

# Q. Are there any other ways to mitigate the customer risk associated with a cost over-run?

A. Yes, through contracting with the Engineering, Procurement, and Construction
 ("EPC") contractors that will be retained to construct the utility-owned resource. It is
 not uncommon for EPC contracts to include fixed-price terms that limit the utility and
 customer risk of construction cost variances. In addition, nearly all EPC contracts
 provide for damages for cost over-runs. Thus, the contracting process that is used to
 construct the utility-owned resource often provides protections for both the utility and

customers in the event that costs exceed the amounts included in the bidding process.

#### 3 Q. What other processes are used to address the risk of cost over-runs?

Prior to construction of utility self-build projects, Idaho Power is required by Idaho A. 4 Code §§61-526 thru -528 to obtain from the Idaho Public Utilities Commission 5 ("IPUC") a Certificate of Public Convenience and Necessity ("CPCN"). The CPCN 6 7 process requires a full contested case process. When applying for a CPCN, Idaho Power includes a commitment estimate, which is Idaho Power's best estimate of the 8 project capital costs that would be included in rate base. The term "commitment" is 9 significant because Idaho Power commits to developing the project for the costs 10 identified in the CPCN application. The commitment estimate is the same as the 11 estimated costs included by Idaho Power in the self-build bid included in the RFP 12 process. In other words, if the Company's self-build option is the winning bid in the 13 RFP process, the Company must then obtain a CPCN from the IPUC and as part of 14 the CPCN process the Company must commit to constructing the resource at the 15 same cost that was included in the winning bid. 16

For example in Idaho Power's most recent CPCN application, which was for the Langley Gulch combined-cycle combustion turbine, Idaho Power made the following commitment:

20 Idaho Power is able to make a reliable estimate of the total capital cost of the Project. As it has done in prior CPCN 21 applications, Idaho Power has termed this estimate a "Commitment Estimate." The Commitment Estimate is a good 22 faith estimate of the Project's total capital cost, including certain additional costs the Company anticipates it will incur 23 but cannot quantify with precision at this time. Idaho Power's Commitment Estimate for the Project is \$427,400,000. 24 \* \* \* Idaho Power will commit to procure and construct the Project 25

25 for an amount that will not exceed the Commitment Estimate. 26 Amounts incurred in excess of the Commitment Estimate would be subject to a "soft cap," that is excess costs could only be included in rates if the Commission agreed the additional amounts expended were prudent and should be included in fair, just, and reasonable rates.

Idaho Power will provide the Commission with periodic percentage of completion and cost expenditure reports during the construction phase of the Project. The final report on the Project will compare the actual completed cost to the Commitment Estimate.<sup>5</sup>

7 As noted in the quoted application, "The final report on the Project will compare the actual completed cost to the Commitment Estimate." When the final 8 report is filed in early 2013, the actual final capital costs of the project will be fully 9 available to regulators and interveners. Actual line-item costs as well as any cost-10 over-runs are identified and are evaluated as part of the regulatory process. Cost 11 over-runs are included in the rate base only if the expenditures are deemed prudent 12 by the Commission in the regulatory process. When a utility develops a project, 13 regulators have a tried and proven regulatory process to protect the customers from 14 cost over-runs. 15

## 16 Q. What processes are used to ensure customers receive the benefit of cost 17 under-runs?

A. As with any cost incurred to procure the resource, the Company's investment is
subject to a prudence review. For self-build projects, the notable difference between
cost over-runs and cost-under runs is that a cost under-run results in a customer
benefit. As stated above, the final report on a utility self-build project compares the
actual completed cost to the commitment estimate. Actual line-item costs, including
any cost under-runs, are identified and evaluated as part of the regulatory process.
The value of cost under-runs is not included in rate base. Therefore, the same

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<sup>5</sup> Idaho Case Number IPC-E-09-03, Application, pages 6 and 7.

prudence review that protects customers from cost over-runs also ensures that the Company's customers receive the benefits provided through cost under-runs. In the case of the Langley Gulch project, the final cost of the project was \$396.6 million, which was approximately \$30.7 million less than Idaho Power's original commitment estimate.

For PPA's, on the other hand, customers never receive the benefit of a cost under-run. If the IPP is able to construct its project at less than the amount included in its winning bid, the IPP's owners receive the benefit.

9 Q. Isn't it possible for a utility to structure a PPA with a share-line or some other
 10 mechanism to protect customers in the event of cost over-runs and return the
 11 benefits in the case of a cost under-run?

- Α. No, I don't believe that a share-line contract provides the same protection for 12 customers as does a utility project. In a share-line contract part of the benefit and 13 part of the cost is still borne by customers. In a utility project, customers are 14 15 protected in the event of a cost over-run and receive the full benefits in the event of a cost under-run. The regulatory process is designed to oversee utility operations and 16 to fully protect customers from imprudent actions by the utility. Additionally, utility 17 contracts are guaranteed by the full balance sheet of the utility. I am not aware of a 18 mechanism that gives customers the same protections and benefits in the 19 20 independent power contracts.
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#### COUNTERPARTY RISK

- 22 Q. Please describe the Counterparty Risk issue.
- A. As described by Staff: "For a [utility-build] resource, customers assume the financial
  performance risks associated with the utility itself. However, the financial
  performance risks associated with an IPP bid can be either higher or lower
  depending on whether the IPP's financial strength is worse, or better, than that of the

utility."<sup>6</sup> In other words, whenever the utility enters into a PPA there are risks associated with whether the IPP will be able and willing to follow through with the terms of the PPA. In the event that the IPP either cannot or simply chooses not to fulfill the terms of the PPA, customers are potentially harmed.

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#### How does Idaho Power currently account for counterparty risk?

Credit assessments are performed at the time the final shortlist is prepared. At that 6 A. time, all vendors on the shortlist are reviewed for creditworthiness. Audited financial 7 statements are a requirement for credit assessments, and credit information is 8 gathered during the RFP process, but before the final shortlist is prepared. Credit 9 assessments use quantitative financial ratio analysis to determine creditworthiness, 10 *i.e.*, liquidity ratios, leverage ratios and trends, payment trend, profitability ratios, 11 12 revenue trends and industry/peer ratio comparisons. The overall results of these assessments receive a "pass" or "fail" rating. This outcome is one data element that 13 is used in the overall selection criteria. Credit assessment ratings are valid for 90 14 15 days. Once the rating has expired, an updated assessment is conducted based 16 upon the same financial ratio criteria above. Once a resource has been selected, 17 Idaho Power conducts credit assessments at least annually.

#### 18 Q. What happens if a bidder receives a "fail" rating?

A. In most cases a "fail" rating means that the bid will be rejected. However, if sufficient
security can be obtained, *e.g.*, from a parental guaranty or letter of credit, then the
bid may remain on the shortlist.

<sup>6</sup> Staff's Recommendation for Initial Topics for Further Analysis at 4 (Mar. 19, 2012). 26 Q. What do you believe to be the main distinction between projects developed
 and operated by an independent power producer and plants owned and
 operated by a utility?

A. Idaho Power considers counterparty risk to be the primary difference between utility-owned and utility-operated generation and generation projects developed and operated by IPPs. Idaho Power is concerned that IPPs face substantial incentives to minimize their financial exposure while maximizing their financial return in any power project. In contrast, the acquisition costs, the financial return, and prudent operation of utility-owned generation resources are thoroughly evaluated in periodic and open regulatory proceedings.

Idaho Power has not experienced an independent power project with the
financial backing equal to the guarantees provided by the shareholders of a
regulated utility. The lack of equal financial guarantees is the primary difference
between a utility project and a project developed by an independent power producer.

#### 15 Q. Why is counterparty risk such an important consideration?

A. Idaho Power's experience has been that IPP's tend to structure their projects as
special purpose entities, which are often Limited Liability Corporations with minimal
assets. In addition, the parent companies of the IPPs may be inclined to severely
limit the financial assets placed into any escrow or guarantee accounts. Should
there be a problem with an independent power project, Idaho Power is concerned
that, in the event of a default, the independent power project will have no assets of
value, and Idaho Power and its customers will be left to cover the default.

Idaho Power considers counterparty risk to be especially significant when an
IPP chooses levelized pricing where the IPP is paid relatively higher prices for
energy in the early years of the contract and relatively lower prices in the later years
of a contract. Idaho Power is concerned that levelized pricing creates financial

incentives for IPPs to abandon a project early before customers have received the full benefit from the project. For example, Idaho Power is currently seeking to recover in federal court over ten million dollars in overpayment damages and prejudgment interest on behalf of customers from a co-generation project whose steam host abandoned the project in the latter half of the contract period.<sup>7</sup>

#### Q. How do you believe counterparty risk should be analyzed?

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7 A. I believe counterparty risk should be analyzed using quantitative methods and it may be possible to develop a quantitative procedure describing counterparty risk to 8 9 include in the Competitive Bidding Guidelines. There are many independent 10 financial firms and agencies that rate the relative risk of default. The independent work completed by the rating firms will be most valuable in preparing an independent 11 12 assessment of the ratepayer risk of various power procurement strategies and contracts. Idaho Power strongly supports the use of independent assessments 13 rather than those prepared by consultants hired by parties that have a direct financial 14 15 stake in the outcome of a contested docket.

Q. Once the counterparty risk has been determined, what do you think is the best
 method to address it in the competitive bidding process?

18 A. Idaho Power believes that the best method to address counterparty risk is to require
19 adequate security—generally letters of credit—that insure that the financial backing
20 of an IPP is equivalent to the backing provided by the shareholders of a regulated
21 utility.

- <sup>7</sup> Idaho Power Company v. Glenns Ferry Cogeneration Partners, LTD., Case No. 1:11-cv-00565-CWD (Idaho).
   26
  - DIRECT TESTIMONY OF M. MARK STOKES

#### HEAT RATE DEGRADATION

2 Q. Please describe the Heat Rate Degradation issue.

A. This issue has been included to address the concern that for utility-owned resources,
 customers bear the additional costs when the plant's heat rate degrades over time.
 On the other hand, it is assumed that PPAs for gas-fired resources<sup>8</sup> include a
 guaranteed heat rate, so customers are insulated from the risk of heat rate
 degradation.

8 Q. How is heat rate degradation assessed in Idaho Power's RPF process?

When Idaho Power develops a self-build option, the Company assumes that the Α. 9 10 plant will experience deterioration in efficiency, i.e., an increasing heat rate, over time. This is a normal occurrence for all thermal generating units. The assumed 11 heat rate degradation used by Idaho Power in the development of its self-build 12 options is based on the manufacturers' specifications. Therefore, contrary to the 13 assumption underlying this issue, the Company's self-build option does not assume 14 15 a static heat rate that will not degrade over time and therefore all the projects, both self-build and IPP projects, are compared on an equivalent basis. 16

If a utility-owned resource experiences heat rate degradation over time do
 customers always bear those costs?

A. Not necessarily. As with any expenditure, increased expenses to operate a gas-fired
plant due to heat rate degradation will likely be subjected to a prudence review. If
the Commission were to determine that a plant's heat rate was unreasonably high
because of flaws in the way the plant was maintained or operated, the Commission

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<sup>8</sup> Technically, this issue applies to all thermal resources. However, because the Company does not contemplate developing coal-fired resources, as a practical matter this issue addresses only gas-fired resources. See e.g., 2011 Integrated Resource Plan.

may well deny the utility recovery of the increased expenses associated with the increased heat rate.

Moreover, EPC contracts typically include performance guarantees that provide further protection for customers in the event that a utility-owned resource experiences a higher heat rate than expected.

6 Q. Do PPAs generally provide a guaranteed heat rate?

A. Yes. However, it is important to note that the guaranteed heat rate is a contractual term that encourages the IPP to operate its plant at or below the guaranteed heat rate. If an IPP-owned plant experiences unexpected heat rate degradation, the IPP may make the financial decision that it is less expensive to abandon the contract rather than to make the necessary repairs to the plant.

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WIND CAPACITY FACTOR

13 Q. Please describe the Wind Capacity Factor issue.

A. This issue examines the difference between a utility-owned wind resource, wherein
 the costs associated with varying wind capacity factors are borne by customers, and
 a wind PPA, which generally include a minimum guaranteed capacity factor.

17 Q. Has this issue regarding varying wind capacity factors for utility-owned wind
 18 resources had a significant impact on the Company's customers?

- 19 A. No, this has had no impact on Idaho Power's customers because the Company does20 not have any utility-owned wind resources.
- 21 Q. Does Idaho Power have wind in its generation portfolio?

A. Yes. Although Idaho Power owns no wind projects or assets, as of the filing of this
 testimony the Company has 28 wind power PPAs. Twenty-seven of the wind
 contracts are non-competitively bid contracts delivered to Idaho Power pursuant to
 PURPA. Generation from the Elkhorn Valley wind project, a 101 MW project located
 near La Grande, Oregon, was acquired through a competitive RFP process.

## Q. Does the Elkhorn Valley wind project PPA include a guaranteed minimum capacity factor?

- A. The Elkhorn Valley PPA contains a minimum guaranteed output of 196,000 MWh per
  contract year. Given the project's 100.65 MW size, its maximum output would be
  881,694 MWh per contract year, which results in a minimum guaranteed annual
  capacity factor of approximately 22 percent.
- Q. Does Idaho Power consider wind capacity factor to be a distinguishing factor
   between utility-owned and independent power projects?
- A. No. Since it became operational in December 2007, energy production at the 9 10 Elkhorn Valley wind project varies considerably by month. However, the observed wind capacity factors at the Elkhorn Valley wind project are roughly equivalent to the 11 capacity factors identified in the bid proposal. In addition, it is important to note that 12 13 the capacity factor is only one part of the project technical evaluation. Not only did the Elkhorn Valley wind project bid identify a favorable capacity factor, the projected 14 15 energy delivery was also better tailored to Idaho Power's need for summer energy than deliveries from competing projects. 16
- 17 **Q**.

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- Does this conclude your testimony? Yes.
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# **BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON** UM 1182 Idaho Power Company Exhibit Accompanying Testimony of M. Mark Stokes Exhibit Idaho Power/101

November 16, 2012

Additions:
Resource
Generation
Power (
Idaho
Recent

Resource	Year	Capacity	Fuel	Competitive	Selection	Type
Bennett Mtn	2003	170 MW SCCT	Gas	Yes	Mtn View Power	Own
Elkhorn Wind	2005	101 MW	Wind	Yes	Horizon Wind	PPA
Raft River	2006	10 MW	Geothermal	Yes	US Geothermal	PPA
Danskin 1	2007	170 MW SCCT	Gas	Yes	Self-Build	Own
Geothermal	2008	N/A	Geothermal	Yes	None Awarded	PPA
Neal Hot	2008	23 MW	Geothermal	No*	US Geothermal	PPA
Springs						
Langley Gulch	2008	330 MW winter/300 MW	Gas	Yes	Self-Build	OWN
		summer CCCT				
Wind 2012	2009	N/A	Wind	Yes	None Awarded**	PPA

guaranteed output projects into the RFP process. Following two separate unsuccessful geothermal RFPs, Idaho Power discussed with developers in detail the individual resource status, characteristics, expected cost, etc. of the identified viable resources before selecting the Neal Geothermal project located near Vale, Oregon, as the best resource to fit Idaho Power's needs as identified in its \*Due to the exploration process and risk associated with geothermal resources, it is very difficult for projects to bid fixed price, most recent IRP.

Because the IRP had only identified a need for 150 MW of wind resources, the RFP process was terminated without selecting a \*\*ldaho Power's 2009 Wind RFP was a competitively bid solicitation for up to 150 MW of wind generation. In the fall of 2010 during the proposal evaluation process, Idaho Power received requests for 294 MW of PURPA wind contracts during a two month period. winning bidder.

#### **CERTIFICATE OF SERVICE**

2 I hereby certify that I served a true and correct copy of the foregoing document in

3 Docket UM 1182 on the following named person(s) on the date indicated below by email

4 addressed to said person(s) at his or her last-known address(es) indicated below.

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