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**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

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| IN THE MATTER OF THE PETITION OF IDAHO POWER COMPANY FOR AN ORDER TEMPORARILY SUSPENDING IDAHO POWER'S PURPA OBLIGATION TO ENTER INTO CONTRACTS TO PURCHASE ENERGY GENERATED BY WIND-POWERED SMALL POWER PRODUCTION FACILITIES | ) | CASE NO. IPC-E-05-22<br><br>DIRECT TESTIMONY OF ROBERT J. LAFFERTY |

ON BEHALF OF
AVISTA CORPORATION

## I. INTRODUCTION

**Q. Please state your name, employer and business address.**

A. My name is Robert J. Lafferty and I am employed as Manager, Wholesale Marketing & Contracts at Avista Corporation (Avista or Company) and my business address is 1411 East Mission Avenue, Spokane, Washington.

**Q. Please state your educational background and professional experience.**

A. I began my career at Avista Corp. in 1974 after graduating from Washington State University with a Bachelor of Arts degree in Business Administration and a Bachelor of Science degree in Electrical Engineering. In 1979, I passed the Professional Engineering License examination in the state of Washington. I have served in a variety of positions in the engineering, marketing, and energy resources departments. I began work in the energy resources area (electricity and natural gas) in March 1996, and have held various positions involving the planning, acquisition and optimization of energy resources. Since December 2003, I have served as Manager, Wholesale Marketing & Contracts where my responsibilities include acquisition and management of long-term electric resources.

Q. What is the scope of your testimony in this proceeding?

A. My testimony will address the unique characteristics of wind resources and the current circumstances that indicate that it is time to reassess how avoided costs should be computed for intermittent wind-powered resources. I will explain why Avista joins in Idaho Power's Petition that the Commission temporarily suspend the obligation to enter into new contracts with Qualifying Facilities (QFs) to purchase wind-powered

generation output at Commission approved published prices and terms. This suspension would be for a period of time during which an investigation would be conducted to consider the impacts and costs associated with integration of substantial amounts of wind resource.

**Q. What recent circumstances have manifested themselves with regard to acquisition of intermittent wind-powered resources in the state of Idaho?**

A. Idaho Power, in its Petition, indicates that it has received contacts representing a significant amount of QF wind resource since the issuance of Order No. 29646. Idaho Power states that it has received approvals for contracts totaling 61.5 megawatt (MW), have pending contracts before the Commission of contracts representing 21 MW, and have further inquiries representing an additional 193 MW of wind resource. This represents a total of 275.5 MW of wind resource. This amount exceeds Idaho Power's Integrated Resource Plan acquisition goal for wind resource in 2005 of 200 MW. Idaho Power expresses concern regarding the incremental system impacts, including those to reliability, and associated system costs that may result from the acquisition of such large amounts of wind. Idaho Power notes in its Petition, at the time that the Commission adopted the combined cycle combustion turbine as the surrogate avoided resource for setting avoided costs, that neither the Commission nor Idaho Power had much experience with the integration of intermittent wind resource.

Avista has also been gaining experience with regard to integration of intermittent wind resources. On November 18, 2004, Avista began receiving the dynamic signal that integrated 35 MW of wind resource that it had acquired for a ten-year contact term. This represents Avista's first experience dynamically integrating a substantial wind resource

into its system. The quantity and speed with which wind resources are being proposed in Idaho points toward a need now to review the potential impacts and to assess the appropriate application of costs associated with integrating large amounts of wind resource.

**Q. Does wind-powered generation bring the same capacity and energy attributes to the purchasing utility as a combined-cycle combustion turbine (CCCT), which serves as the basis for the avoided cost resource in the state of Idaho?**

A. No. Wind-powered generation is only able to generate energy in an intermittent fashion. As such, wind-powered generation does not provide the schedulable capacity characteristics that are available from a CCCT. In contrast to a CCCT, additional system capacity must be made available in order to integrate a wind-powered resource into the power grid in a reliable fashion.

As discussed above, Avista purchases a 35 MW wind resource output under a ten-year agreement and integrates it into its system on a dynamic basis. Avista's system provides all capacity for shaping and ancillary services necessary to integrate this wind resource. Tables 1 and 2 contained in Exhibit No. 201 show the output from the 35 MW wind resource purchase contract. Table 1, shows Avista's hourly average output from that portion of the Stateline wind project for the month of January 2005. Table 2 shows Avista's share of daily average output from the project over the period January 1, 2005 through June 30, 2005. These two tables show the variability associated with wind resource power production and illustrate the challenge of "firming" or shaping large

amounts resource with this type of output characteristic in order to match load requirements.

**Q. How are integration or "firming" services provided?**

A. As explained by Idaho Power witness Gale, firming of wind-powered generation can be provided by the purchase of "firming" services from third-party providers, if those services and necessary transmission are available on a firm basis or, alternatively, firming service can be provided by the utility purchasing the wind-powered generation using its own physical generating resources. In either case, physical equipment capacity must be available to provide the necessary "firming." Such additional system capacity is not required in the case of a CCCT.

**Q. Is there a cost associated with providing the firming services associated with the integration of wind-powered generation resources?**

A. Yes. Third parties providing firming services charge for those services and for necessary transmission costs. Alternatively, utilities that provide their own firming services must dedicate plant capacity and make corresponding changes to system operations which results in a cost to the utility from using its physical capacity in a manner different from the way in which it is optimized today. Therefore, in either scenario, there are unique costs associated with integrating wind-powered resources.

**Q. Are there costs of integrating, or "firming," wind resources that are not part of integration of a CCCT resource?**

A. Yes. Avista agrees with Idaho Power's comments that there are costs associated with integrating intermittent wind-powered resources onto a utility's power system that are not reflected in the published avoided cost rates approved by the

Commission. As discussed above, dedication of physical capacity and changes in system operations result in incremental costs associated with shaping and firming intermittent wind power output. As the amount of wind resource acquisition increases, the overall system impacts, along with associated costs, can also be expected to be more significant. It would be appropriate now to reassess how avoided costs should be computed for intermittent wind-powered generation.

**Q. Are other factors present, in addition to the administratively determined avoided cost rates, that are influencing the interest in and the amount of wind-powered generation development?**

A. Yes. Avista concurs with Idaho Power that federal and state tax incentives, including the federal income tax credit equal to approximately $18 per megawatt-hour (MWh), have been recent significant factors stimulating wind-powered generation development. As indicated by Idaho Power in its Petition, the Federal income tax credit for wind resources was reinstated just prior to the issuance of Order No. 29646. The Northwest Conservation and Power Council data indicates that approximately 730 MW of wind-powered generation capability is currently in operation in the region and that another approximately 3,000 MW of wind-powered generation capability is under construction or planned for construction. There is an active and competitive market for wind-powered generation development.

**Q. Has Avista issued specific RFP's for wind-powered generation resources?**

A. Yes. Avista issued an RFP in 2003 for wind-powered resources and, through that process, was able to acquire a competitively priced 35 MW wind resource

for a ten-year term. That transaction was completed in 2004 and Avista began taking deliveries in April of that year. As mentioned earlier, Avista began integrating that wind resource on a dynamic basis beginning in November 2004.

**Q. Does Avista share Idaho Power's concern that the prices and terms available to wind resources under PURPA could adversely affect future wind resource RFP's?**

A. Yes. Avista's draft 2005 Integrated Resource Plan (IRP) preferred resource strategy includes the planned acquisition of up to 400 MW of wind resource capability by the year 2016. Avista hopes to acquire a mix of geographically diversified wind resources primarily through competitive RFP or negotiation processes. As mentioned earlier, Avista has already acquired 35 MW of wind resource at a favorable price for a ten-year term through a competitive RFP process that took place prior to Commission Order No. 29646. Idaho Power cites Northwestern Energy's recent Montana Commission approval of an agreement with Judith Gap LLC under which Northwestern will purchase 135 to 150 MW of wind resource at a competitive price of $31.71 per MWh. Avista shares Idaho Power's concern that the Commission approved published price, of approximately $60 per MWh, coupled with the term offered for wind resources will cause the cost of the wind resources acquired to be much higher than if they were acquired from the market through competitive RFP or negotiated processes.

**Q. Are there other factors that could affect the cost of wind resources to the purchasing utility?**

A. Yes. Another unique characteristic of wind-powered generation is that projects can be configured in any number of different power output amounts. Wind

resource projects consist of greater or lesser numbers of relatively small (approximately 1 MW to 1.5 MW each) generators. Therefore, wind developers can configure their projects to meet different project output definitions. As noted by Idaho Power, it would not be difficult for a wind project greater than 10 MW to be reconfigured into multiple projects less than 10 MW in order to qualify each project for the Commission approved published rates. Avista supports Idaho Power's Petition, which recommends a suspension of wind resource acquisition at this time, in part to prevent an unintended situation where wind project developers reconfigure their projects so that they fall below the threshold in order to qualify for posted rates.

It is important that a suspension apply to Avista to avoid creating an incentive for developers that are currently making their proposals to Idaho Power to shift their proposals to Avista. Accordingly, the rates, terms and conditions for all new contracts from the date of Avista's petition forward for wind QF developers delivering power to Avista's system in Idaho should, as with Idaho Power, be governed by the outcome of this proceeding.

**Q. What work will be done during the suspension period?**

A. During the suspension period, an investigation would take place that would assess the impacts to system costs and reliability related to the integration of significant amounts of intermittent wind resource onto Avista's electric system. The analysis should include an assessment of the total amount of intermittent wind resource that Avista's system can reasonably absorb, without affecting reliability, and the level of costs associated with different amounts of wind resource acquisition. The investigation

should consider appropriate application of those costs to the published avoided costs applicable to intermittent wind-powered resources.

**Q. Does that conclude your pre-filed direct testimony?**

A. Yes it does.

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AVISTA CORPORATION

Case No. IPC-E-05-22

Exhibit No. 201

Robert J. Lafferty

**Table 1**
**Stateline Wind Energy Center -- Avista Wind Power Contract**
**Daily Average Energy (MW) Delivered to Avista**

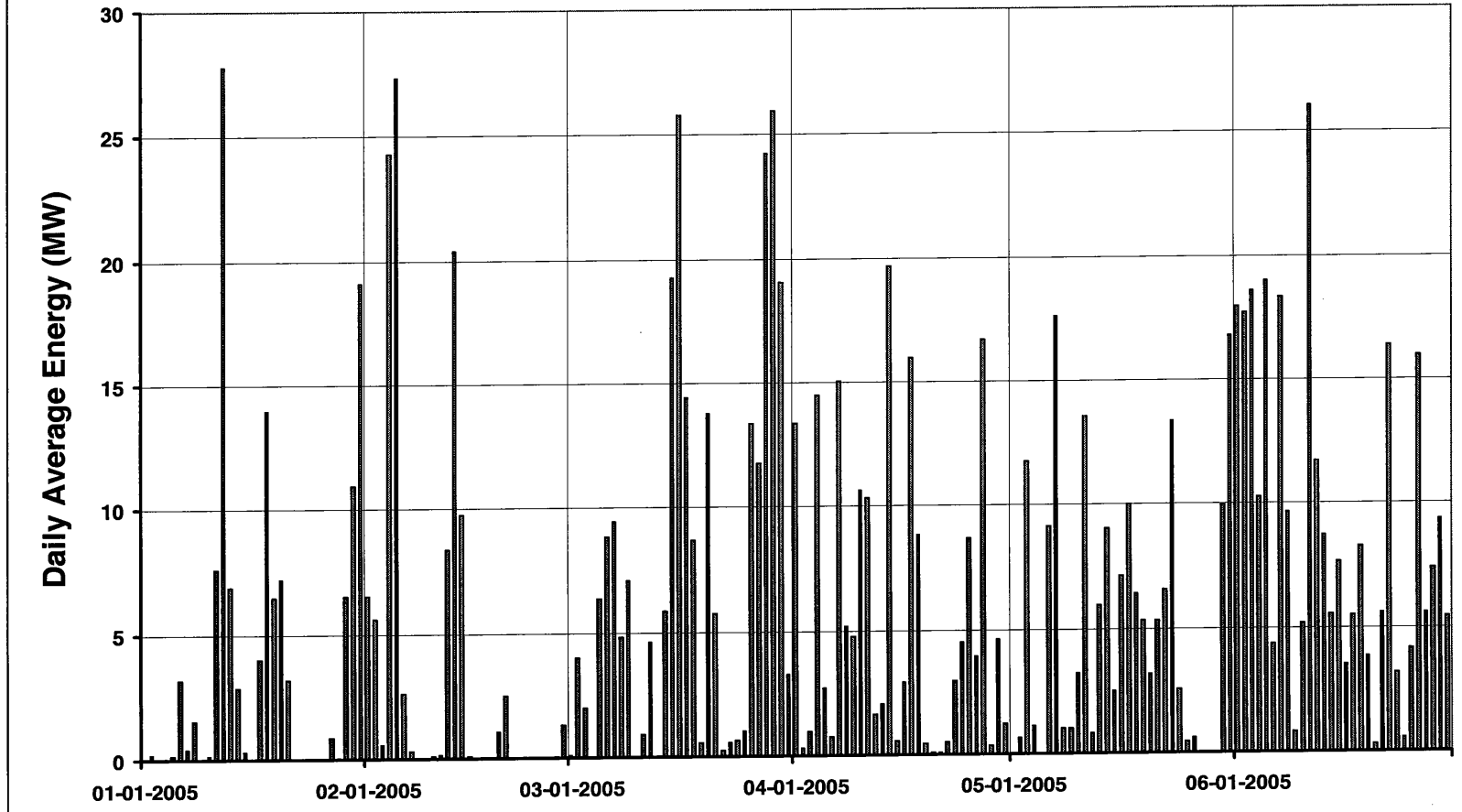

**Table 2**
**Stateline Wind Energy Center**
**Hourly Energy Deliveries to Avista**
**January 2005**
**35 MW Maximum Capability**