

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-06 _____

DIRECT TESTIMONY OF

RONALD R. PETERSON

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

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

A. My name is Ronald R. Peterson. I am employed as Vice President of Energy Resources by Avista Corporation located at 1411 East Mission Avenue, Spokane, Washington.

Q. Would you briefly describe your educational and professional background?

A. I began my career at Avista Corp. in 1975 after graduating from Washington State University with a bachelor's degree in business administration, majoring in accounting. I passed the Washington State CPA examination in 1976 and worked as a staff accountant in a variety of positions until I became Supervisor of the Company's Corporate Accounting function in 1987. I was selected Customer Service Manager in 1991 and was elected Treasurer in 1992. I was elected Controller and assumed the Director of Information Services responsibilities in 1996. In 1998, I was elected Vice President and Treasurer. I served as both the Corporate Treasurer and Utility Controller beginning in August 2001, and was appointed to my current position in March 2003.

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

A. My testimony will provide an overview of Avista's resource planning and power operations including an explanation of the Company's decision to buy out the Rathdrum lease. I will provide an update on the Company's hydro and thermal plant upgrades. Finally, I will provide a status report on the Company's FERC license commitments at the Clark Fork River hydroelectric projects and the current relicensing efforts for the Spokane River hydroelectric projects.

1 A table of contents for my testimony is as follows:

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9 **Q. Are you sponsoring any exhibits?**

10 A. Yes. I am sponsoring Exhibit Nos.__(RRP-2) (Avista's 2005 Electric Integrated
11 Resource Plan) and __(RRP-3) (Map – Spokane River Hydroelectric Project), which were
12 prepared under my direction.

13

14 **II. AVISTA'S RESOURCE PLANNING AND POWER OPERATIONS**

15 **Q. Would you please provide a brief overview of Avista's power resources?**

16 A. Yes. Avista's resource portfolio consists of a diverse mix of resources including
17 hydroelectric generation projects, base-load coal and natural gas-fired thermal generation
18 facilities, wood waste-fired renewable generation, natural gas-fired peaking generation projects,
19 long-term contracts including renewable wind generation and Mid-Columbia hydroelectric
20 generation, and market power purchases and exchanges. Avista-owned generation facilities have
21 a total capability of 1,823 MW, of which 54% is hydroelectric and 46% is thermal.

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1 The following table summarizes the present capability of Avista's owned generation resources.

Company-Owned Projects	MW
Noxon Rapids	527
Cabinet Gorge	261
Post Falls	18
Upper Falls	10
Monroe Street	15
Nine Mile	25
Long Lake	88
Little Falls	36
Total Hydroelectric Generation	980
Colstrip Units 3 and 4	230
Coyote Springs 2	287
Kettle Falls	51
Total Base-Load Thermal Generation	568
Northeast CT	67
Kettle Falls CT	7
Boulder Park	25
Rathdrum CT	176
Total Thermal Gas Peaking Generation	275
Total Generation	1823

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3 In addition to the above mix of Company-owned generation resources, the Company has
4 long-term contractual rights for a total of 138 MW of capability from the Mid-Columbia
5 generation projects that are owned and operated by the Public Utility Districts of Grant, Chelan,
6 and Douglas counties. The Company also has a ten-year contract in place for the purchase of 35
7 MW of wind generation capability from the Stateline Wind Project. The Company receives 100
8 MW of flat (7 x 24) power at the Mid-C hub from two parties under contracts through 2010.

9 **Q. Would you please provide a brief overview of Avista's resource planning and**
10 **power supply operations?**

1 A. Yes. As explained above, the Company uses a combination of owned and
2 contracted-for resources to serve its retail and wholesale load requirements. Dispatch decisions
3 related to these resources are made within Avista Utilities' Energy Resources Department. The
4 Department regularly conducts studies to determine capacity and energy resource needs on a
5 short-term, medium-term and long-term basis. The Company enters into short and medium-term
6 wholesale sales and purchase transactions to balance resources with load requirements. Longer-
7 term resource decisions related to building new resources, upgrading existing resources, demand-
8 side management (DSM), and long-term contract purchases are generally made in conjunction
9 with the Company's Integrated Resource Plan (IRP) and Request for Proposals (RFP) processes.
10 The Company also acquires some resources outside of an RFP process.

11 **Q. Please summarize the current load and resource position for the Company.**

12 A. The Company is currently in a balanced-to-surplus energy position for years 2006
13 through 2010 on an average annual basis. However, as I will explain later in my testimony, there
14 are monthly and quarterly deficits and surpluses within the years. In general terms, the
15 Company's annual energy net resource position becomes deficient in 2011 and increases
16 substantially in 2012 and beyond. The average annual energy resource deficiency beginning in
17 2011 is 94 aMW and increases to 291 aMW in 2016. Similarly, the Company's capacity
18 resource position is surplus through 2010. Capacity deficiencies begin in 2011 at 120 MW and
19 increase to 386 MW in 2016. Additional details concerning the load and resource positions are
20 in Company witness Mr. Kalich's Exhibit No.__(CGK-2).

21 **Q. How does the Company plan to meet future resource needs beginning in**
22 **2011?**

1 A. The Company plans to continue to pursue the preferred resource strategy laid out
2 in the 2005 Electric IRP. A compact disk (CD) copy of Avista's 2005 Electric IRP is attached as
3 Exhibit No. __ (RRP-2). (Hard copies will be made available upon request.) It goes into detail
4 about the need for additional resources, the specifics concerning resources that were evaluated,
5 and the range of scenarios used for resource evaluations.

6 The development of the Company's 2007 IRP is currently in progress and is scheduled
7 for release in August 2007. The Company expects to continue evaluating a mix of resource
8 options to meet its future load requirements including medium-term market purchases,
9 generation ownership, hydroelectric upgrades, renewable resources, customer load reduction (i.e.,
10 conservation), long-term contracts, and generation lease or tolling¹ arrangements. As stated
11 earlier, longer-term resource decisions are generally made in conjunction with the Company's
12 IRP and RFP processes, pursuant to Commission rules, but the Company is not precluded from
13 acquiring resources outside of an RFP process. The Company's preferred resource strategy
14 includes a mix of conservation, upgrades to its existing plants, wind, coal-fired, and other
15 renewable generation.

16 The Company has added a variety of resources to its portfolio in recent years, including:
17 the second half of Coyote Springs 2; a ten-year agreement for 35 MW of wind generation
18 capability (estimated 8-10 aMW of annual energy); medium-term purchases of 100 aMW
19 through 2010; the purchase of approximately 7 aMW of small hydroelectric generation from the
20 City of Spokane; hydroelectric upgrades at Cabinet Gorge; approximately 3.5 aMW of efficiency

¹ "Tolling" is an energy conversion service where customer supplied natural gas is converted to electric energy which is delivered to the customer based on a defined conversion ratio. The conversion ratio can be tied to the heat rate and variable operating costs of a generating plant. The fixed cost of the plant can be covered in fixed fees charged by the tolling service provider. Tolling service may be contingent on the operation of a specific plant.

1 improvements at Colstrip Unit #4; and a new purchase agreement signed with Grant County
2 PUD for a share of the output from the Priest Rapids and Wanapum hydroelectric projects
3 beginning in 2005. Additionally, the Company presently is in the final negotiation stage to
4 acquire 100 MW of new wind generation capacity (35 aMW of estimated annual energy) into its
5 system beginning on or before December 31, 2007.

6 The Company continues to evaluate and acquire conservation. For example, Avista
7 acquired approximately 90 aMW of DSM over the past eighteen years. This represents 4.9% of
8 the Company's owned generation. Avista continues to acquire cost-effective DSM and
9 anticipates acquisition of an additional 54 aMW over the next decade.

10 **Q. How does Avista manage risk in its short-term power system operations?**

11 A. Avista Utilities uses a variety of techniques to manage this risk. The Risk Policy
12 provides general guidance to the Energy Resources workgroup with regard to the management of
13 the Company's energy risk exposure, as it relates to electric power and natural gas resources.

14 The management of volumetric limits for the imbalance between projected loads and
15 resources for an 18-month forward period is part of the Risk Policy guidance. The Risk Policy
16 also provides structure for the appropriate management approvals for longer-term transactions
17 depending on the term and time of delivery into the future. The Company has also used and will
18 continue to use prudent hedging strategies to manage fuel price risk.

19 The purpose of the Risk Policy is not to develop a specific procurement plan for buying
20 or selling power or natural gas for generation at any particular time. Several factors, including
21 variability associated with loads, hydroelectric generation, and electric power and natural gas

1 prices, are considered in the decision-making process with regard to procurement of electric
2 power and natural gas for generation under the Risk Policy.

3
4 **III. Rathdrum Lease Buyout**

5 **Q. Could you please briefly discuss the history behind the previous Rathdrum**
6 **CT lease and the Company's decision to purchase this facility?**

7 A. Yes, WP Funding LP was formed in 1993 by Avista Corporation (WWP at the
8 time) for the purpose of financing the natural gas-fired combustion turbine generating facility
9 (Rathdrum CT) in Rathdrum, Idaho. This off-balance sheet financing was structured as an
10 operating lease for book and a capital lease for tax purposes, which resulted in lower overall
11 project financing costs. Avista completed construction of the project and placed it into service in
12 1995.

13 Beginning on December 31, 2003, new accounting and reporting rules (FIN 46) required
14 the Company to consolidate WP Funding LP into the Company's consolidated financial
15 statements. As a result, the Rathdrum CT and related debt were required to be recorded on the
16 Company's balance sheet, and the related depreciation and interest expense were required to be
17 recorded within the consolidated income statement (i.e., the amount of debt reflected on the
18 Company's balance sheet increased). This newly required consolidation eliminated the benefits
19 of the original financing structure.

20 **Q. How do the Company and its customers benefit from the termination of the**
21 **Rathdrum CT lease and purchase of the facility?**

1 A. The underlying analysis performed by Avista demonstrates that terminating the
2 lease was in the best interest of Avista's customers. Lease costs were higher than interest costs
3 for Company-issued debt securities. This was primarily due to the lease having a charge of 25
4 basis points for administration and 60 basis points for the equity return component of the lease.
5 The estimated annual corporate savings from these charges is approximately \$311,000 net of tax.
6 From a consolidated perspective, the Company replaced \$56.3 million of WP Funding LP debt
7 and third party-investment with lower cost borrowings by Avista Corporation. In simple terms,
8 since the new accounting required the lease costs to be reflected on the balance sheet as debt, it
9 was prudent to use the lowest cost debt available to finance the project. The Avista-issued debt
10 is less costly than the debt cost in the lease.

11 Company witness Mr. Johnson discusses the elimination of the lease expense from the
12 pro forma power supply adjustment, while Company witness Ms. Andrews discusses the rate
13 base and revenue requirement impact associated with the Rathdrum CT purchase.

14
15 **IV. HYDRO AND THERMAL PROJECT UPGRADES**

16 **Q. Please provide an update on generation upgrades on the Clark Fork River**
17 **Projects.**

18 A. The Company completed an upgrade of Cabinet Gorge Unit #2 in March 2004.
19 This project consisted of removing the original 1952 propeller runner and replacing it with a
20 modern design mixed-flow runner. Following the upgrade, the Company realized a 17 MW
21 increase in capacity, from 55 MW to 72 MW, and an increase in energy of approximately 3
22 aMW. The Company completed a similar upgrade project in 2001 for Cabinet Gorge Unit #3.

1 The capacity of the unit was increased from 55 MW to 72 MW and an estimated 4.5 aMW of
2 additional energy.

3 The Company presently is upgrading Cabinet Gorge Unit #4, and expects an additional 10
4 MW of capacity and 1.1 aMW of energy from the project when it returns to service in March
5 2007 at a total investment of \$4.8 million (system). Witnesses Kalich and Johnson have
6 reflected the additional capacity and energy in their adjustments, and witness Andrews has
7 included the investment costs associated with the upgrade.

8 **Q. Can you provide an overview of the repairs and capital improvements that**
9 **are being done on the Noxon Rapids Project?**

10 A. Yes. On June 9, 2006, the Unit #4 stator winding failed at the Noxon Rapids
11 Project. This unit was already scheduled to be upgraded in 2007. Work at this project was
12 accelerated to start in June 2006. The total cost for the rewind is approximately \$4.29 million
13 (system). Ms. Andrews has reflected this investment in her adjustments.

14 This rewind would have been a part of a project upgrade in 2007. The object of the
15 rewind is to have the unit back in service by March 1, 2007 – prior to the spring runoff. Between
16 now and the 2007 spring runoff, the other four units at Noxon Rapids are available to generate
17 energy from the available streamflow, so there is minimal if any lost energy production. The
18 second step to complete the upgrade to Unit #4 involves the replacement of the turbine runner,
19 which will be done at a later time rather than in 2007 as originally planned.

20 We also plan to upgrade four of the five units at Noxon Rapids. These upgrades are
21 expected to add an additional 38 MW of capacity and 6 aMW of energy to the project. One
22 upgrade is planned each year with completion currently planned for 2011 – 2012.

1 **Q. Please explain the capital improvements that are being done on Colstrip Units**
2 **3 and 4?**

3 A. Capital improvements on Colstrip Units 3 and 4 began this year to improve
4 operating efficiency and reliability, and to increase generation. Colstrip Unit #4 was taken down
5 on May 8, 2006 to install a new high-pressure steam turbine rotor, which resulted in
6 approximately 28 MW (4.2 MW Company share) in additional capacity using the same amount
7 of fuel. The original analog plant controls were also replaced with digital controls to optimize
8 the operation of the plant. The unit was brought back on line on June 25, 2006. Avista's share
9 of the total investment cost for the Unit #4 upgrade was approximately \$3.0 million (system).

10 On Colstrip Unit #3, the analog to digital control conversion was completed last year and
11 additional capital improvements are scheduled for May and June of 2007 at a total investment for
12 Avista of \$2.5 million (system). These improvements include the installation of a new high-
13 pressure steam turbine rotor to improve output and efficiency and the installation of NO_x controls
14 on the boiler. These changes are expected to add approximately 28 MW (4.2 MW Company
15 share) in additional capacity. Witnesses Kalich and Johnson have included the additional
16 benefits and operating costs from the upgrades in their adjustments, and witness Andrews has
17 reflected the investment costs.

18 **Q. Could you summarize the costs and timing of the hydro and thermal**
19 **upgrades included in this case?**

20 A. Yes. The following table lists the system costs along with the Washington
21 allocation broken down by project. In-service dates are also included. Ms. Andrews explains the
22 Washington allocation of rate base and revenue requirements associated with these upgrades.

Generation Projects ⁽¹⁾	Cost: System / WA (000s)	In-Service Date
Cabinet Gorge Unit 4	\$4,800 / \$3,128	Mar-07
Noxon Rapids Unit 4	\$4,294 / \$2,798	Mar-07
Colstrip Unit 4	\$2,952 / \$1,923	Jun-06
Colstrip Unit 3	\$2,548 / \$1,660	Jun-07
Total	\$14,594 / \$9,509	
⁽¹⁾ The additional generation from the Cabinet Gorge Unit 4 and Colstrip Units 3 & 4 project upgrades have been included in the AURORA model as discussed by Company witness Mr. Kalich.		

V. HYDRO RELICENSING

Q. Would you please provide an update on work being done under the existing FERC operating license for the Company's Clark Fork River generation projects?

A. Yes. Avista received a new 45-year FERC operating license for its Cabinet Gorge and Noxon Rapids hydroelectric generating facilities on March 1, 2001. The Company has made significant progress working in collaboration with 27 signatories to the Clark Fork Settlement Agreement toward meeting the goals, terms, and conditions of the Protection, Mitigation and Enhancement (PM&E) measures under the license. The implementation program has resulted in the protection of approximately 2,500 acres of important bull trout, wetlands, uplands, and riparian habitat. The fish passage program, using electrofishing and trapping with over 150 adults radio tagged and their movements studied, has reestablished bull trout connectivity between Lake Pend Oreille and the Clark Fork River tributaries above Cabinet Gorge Dam. Avista has worked with the U.S. Fish and Wildlife Service to develop two experimental fish passage facilities over the last four years. The testing of these facilities has not produced a design that will attract adult bull trout. However, studies will continue to seek solutions for developing a volitional fish passage facility. Juvenile bull trout on their downstream migration

1 are collected in tributary streams, tagged and transported to the Clark Fork River downstream of
2 Cabinet Gorge Dam to test the survival to adults.

3 In addition, recreation facility improvements have been made to 30 different sites along
4 the reservoirs. These upgrades include better recreational access, new signage, interpretation,
5 and education materials. Finally, tribal members continue to monitor known cultural and historic
6 resources located within the project boundary to ensure that these sites are appropriately
7 protected. The costs associated with the PM&E measures were reviewed in a prior case and are
8 already included in retail rates. This update is for informational purposes only; there are no
9 additional costs included in this filing for these PM&Es.

10 When the new Clark Fork license was received, high levels of total dissolved gas
11 occurring during spill periods at Cabinet Gorge Dam was an unresolved issue. A plan to mitigate
12 these gas levels has been developed with stakeholders including the Idaho Department of
13 Environmental Quality. The plan calls for the modification of two existing diversion tunnels to
14 divert water away from the spillways. The tunnel modification is being physically modeled.
15 This work, combined with preliminary engineering studies, indicates that the estimated cost of
16 the tunnel increased significantly to approximately \$58 million for the first tunnel and \$39
17 million for the second tunnel. The Company is meeting with stakeholders to explore alternatives
18 to the construction of the tunnels. The costs associated with the tunnel modification project have
19 not been included in this filing.

20

21

1 **Q. Would you please give an update on the status of your efforts to relicense the**
2 **Spokane River Hydroelectric Projects?**

3 A. Yes. The Company filed applications with FERC in July 2005 to relicense five of
4 its six hydroelectric generation projects located on the Spokane River. These projects, currently
5 under one FERC license and referred to, collectively, as the Spokane River Project, include Long
6 Lake, Nine Mile, Upper Falls, Monroe Street, and Post Falls. Little Falls, the Company's sixth
7 project on the Spokane River, is not under FERC jurisdiction, but operates under separate
8 Congressional authority. A separate license application was made for the Post Falls Project due
9 to the unique circumstances that surround the future operation of the facility that may
10 significantly delay relicensing. A separate licensing track for the four developments downstream
11 of Post Falls is expected to allow a more efficient and timely process for moving ahead with a
12 new FERC license for those developments. Exhibit No.__(RRP-3) includes a map of the
13 Spokane River Project showing the location of the Company's six hydroelectric developments.

14 The five FERC jurisdictional developments have a total generating capacity of
15 approximately 156 MW, and average annual energy production of approximately 105 aMW. Our
16 current license for the Spokane River Project expires in August 2007. We developed these
17 applications using FERC's alternative licensing procedures.

18 The Company has not proposed an increase in rates in this filing related to the costs of
19 these relicensing efforts. The Company is deferring these costs and will address recovery of
20 them in a future rate filing.

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

22 A. Yes it does.

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EXHIBIT NO. ____ (RRP-2)

RONALD R. PETERSON

REPRESENTING AVISTA CORPORATION

Integrated Resource Plan (IRP)
Compact Disc Exhibit

Available at

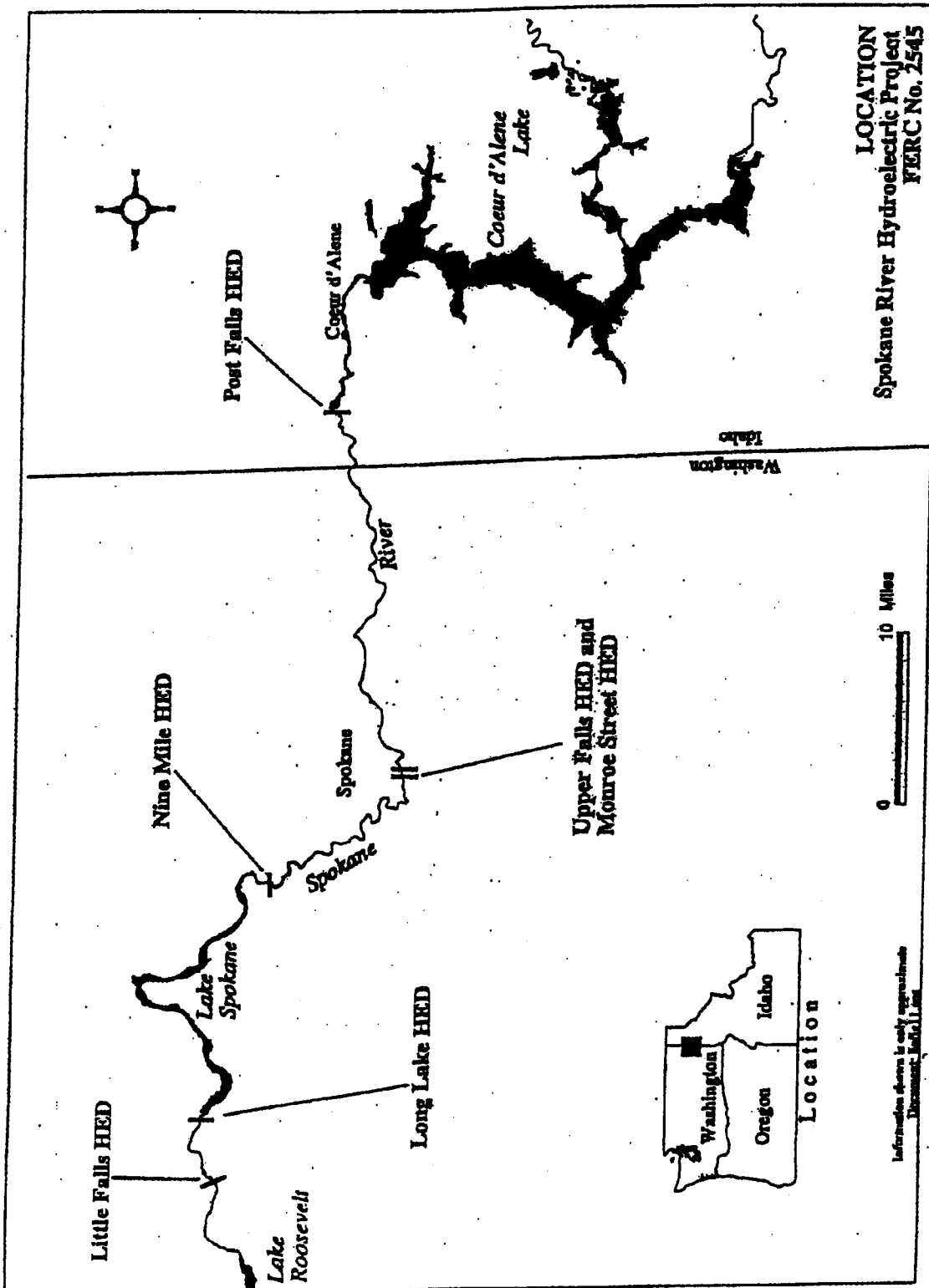
<http://www.avistautilities.com/resources/plans/electric.asp>

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EXHIBIT NO._____(RRP-3)

RONALD R. PETERSON
REPRESENTING AVISTA CORPORATION



Spokane River Hydroelectric Projects