

## **APPENDIX 2**

**Avista Dockets UE-050482 and UE-050483:  
Excerpt from Exhibit 81,  
Direct Testimony of Ronald R. Peterson  
Representing Avista Corporation  
(Cover Page and pages 1 and 2, and 15-28)**

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## Certificate

STATE OF WASHINGTON, )

)

COUNTY OF THURSTON. )

*I hereby certify that the foregoing and attached document is a full, true and correct copy of*

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An excerpt of Exhibit 81 in WUTC Docket UE-050482 (cover page and pages 1, 2, and 15-28) entitled:  
Direct Testimony of Ronald R. Peterson, Representing Avista Corporation.

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*now on file in the office of the Washington Utilities and Transportation Commission at Olympia.*

**IN WITNESS WHEREOF**, *I have hereunto set my hand and affixed the seal of the Washington Utilities and Transportation Commission, this 15th day of June, 2006.*



*Secretary of the Washington Utilities  
and Transportation Commission*

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-05 \_\_\_\_\_

DIRECT TESTIMONY OF

RONALD R. PETERSON

REPRESENTING AVISTA CORPORATION

WUC		
DOCKET NO. <u>UE-050487</u>		
EXHIBIT # <u>81</u>		
ADMIT	W/D	REJECT
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**I. INTRODUCTION**

1  
2 **Q. Please state your name, employer and business address.**

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

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

6 A. I began my career at Avista Corp. in 1975 after graduating from Washington State  
7 University with a degree in business administration, majoring in accounting. I passed the  
8 Washington State CPA examination in 1976 and worked as a staff accountant in a variety of  
9 positions until 1987, when I became Supervisor of the Company's Corporate Accounting  
10 function. In 1991, I was selected Customer Service Manager, and in 1992 was elected Treasurer.  
11 I was elected Controller and assumed the Director of Information Services responsibilities in  
12 1996. In 1998, I was elected Vice President and Treasurer. I served as both the Corporate  
13 Treasurer and Utility Controller beginning in August 2001. I was appointed to my current  
14 position in March 2003.

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

16 A. My testimony will provide an overview of Avista's resource planning and power  
17 operations. I will provide an update on the Company's hydro upgrades, a status report on the  
18 Company's FERC license commitments at the Clark Fork River hydroelectric projects, and the  
19 current re-licensing effort for the Spokane River hydroelectric projects. Next, I will discuss the  
20 Company's acquisition of the second half of Coyote Spring 2 (CS2). I will explain the  
21 Company's proposal to eliminate the deadband from the ERM calculations. Finally I will  
22 address the Company's proposed treatment of expenses related to two small generating units and

1 the Company's proposed treatment of production tax credits related to its Kettle Falls wood-fired  
2 plant.

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

4	<u>Description</u>	<u>Page</u>
5	I. Introduction	1
6	II. Avista's Resource Planning and Power Operations	3
7	III. Hydro Upgrades and Hydro Relicensing	7
8	IV. History of CS2 and Avista's Acquisition	10
9	V. Assessment of Resource Need Related to Mirant's Share of CS2	15
10	VI. Economic Analyses and Purchase Price for Mirant's Share of CS2	21
11	VII. Proposal to Eliminate ERM Deadband	28
12	VIII. Wartsila Amortization	35
13	IX. Kettle Falls Production Tax Credit	36
14		

15 I am sponsoring Exhibit Nos.\_\_(RRP-2) through \_\_(RRP-14), which were prepared under  
16 my direction:

Exhibit No.	Description
RRP-2	Resource Planning and Operations
RRP-3	Photo – Cabinet Gorge Hydroelectric Project
RRP-4	Map – Spokane River Hydroelectric Projects
RRP-5	Location of Coyote Springs Plant Relative To Avista Utilities Service Area
RRP-6	Excerpts from 2000 Updated Integrated Resource Plan
RRP-7	Coyote Springs 2 – Letter of Intent
RRP-8	Coyote Springs 2 – Purchase and Sale Agreement
RRP-9	2003 Integrated Resource Plan Excerpts re: Preferred Resource Mix
RRP-1-	August/September 2004 Loads and Resources Position
RRP-11	May 2004 CS2 Analysis
RRP-12	September 2004 CS2 Analysis
RRP-13	Navigant Consulting CS2 Analysis and Valuation
RRP-14	Kettle Falls Production Tax Credit Calculation

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1           **Q.     Are customers currently benefiting from the second half of CS2?**

2           **A.     Yes.** On January 20, 2005, Avista took ownership of the second half of CS2, and  
3 is now owner of 100% of the project. Because of expected poor hydro conditions in 2005, the  
4 ERM deadband will be exceeded and 90% of the margins realized from operation of the second  
5 half of CS2 will be credited to customers through the ERM process currently in place in  
6 Washington. However, until the second half of CS2 is included in rate base, Avista incurs the  
7 costs associated with investment in the plant and its operation expenses; neither of which are  
8 recovered through the ERM mechanism. Therefore, a mismatch exists between those receiving  
9 the benefits vs. those incurring certain expenses associated with the second half of CS2 until the  
10 Commission approves the inclusion of the remaining share of CS2 in base rates.

11

12                           **V.     ASSESSMENT OF RESOURCE NEED RELATED TO**  
13   **MIRANT'S SHARE OF CS2**

14

15           **Q.     Is the acquisition of the second half of CS2 consistent with Avista's**  
16 **Integrated Resource Plan?**

17           **A.     Yes.** Avista's most recent IRP (April 2003) identified a Preferred Resource  
18 Strategy (Resource Strategy) including a mix of wind, coal, conservation, and natural gas-fired  
19 resources. The report focused on supply diversity and the need to reduce both future costs and  
20 price volatility. In total, the need for new resource additions through 2013 totaled more than 400  
21 aMW. As explained earlier, in addition to the acquisition of the second half of CS2, Avista has  
22 added a variety of resources to its portfolio in recent years including 35 MW of wind capability,  
23 small generation contracts, market purchases, DSM, and hydroelectric upgrades.

1           The natural gas-fired combined-cycle component of the 2003 IRP Resource Strategy  
2 equaled 149 aMW. The opportunity to acquire the remaining half of CS2, at 140 MW, is  
3 consistent with the 2003 IRP long-term Resource Strategy. Excerpted pages from the 2003 IRP,  
4 which show the natural gas-fired combined cycle component of the Resource Strategy, are  
5 attached in Exhibit No. \_\_ (RRP-9). A complete copy of the 2003 IRP has been provided in the  
6 workpapers of this filing.

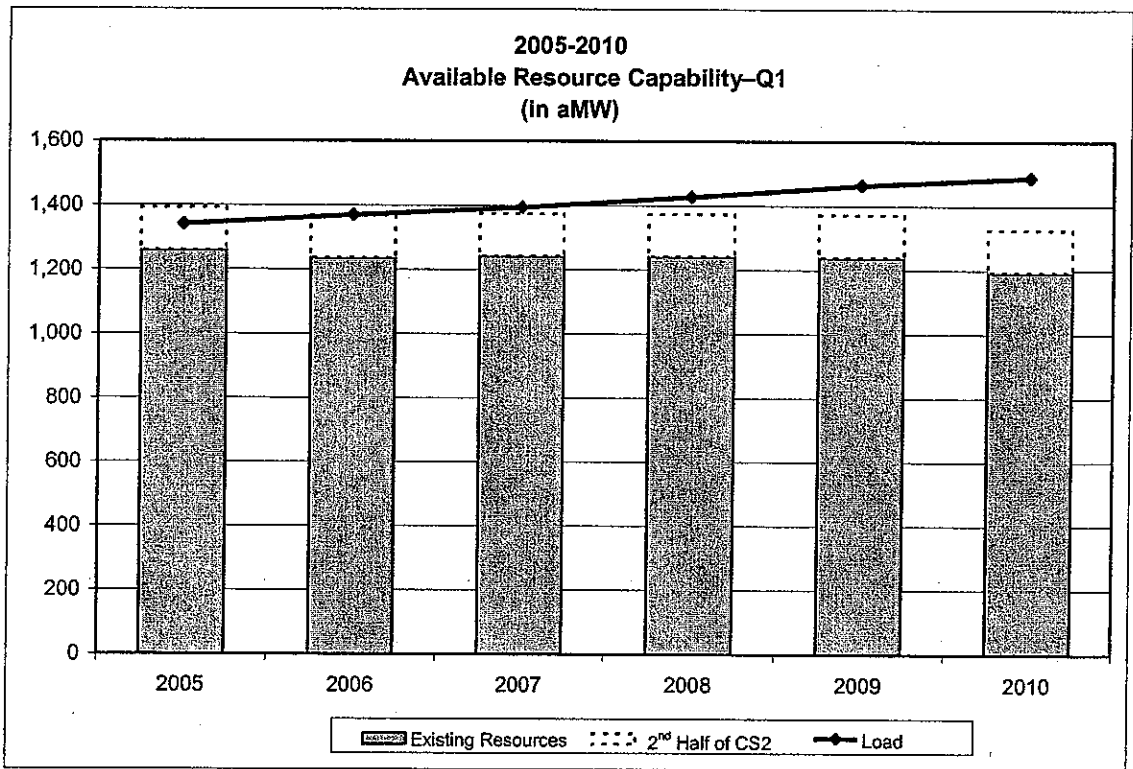
7           **Q. Did Avista's load and resource position show a resource need at the time of**  
8 **the acquisition of the second half of CS2?**

9           A. Yes. The Company's loads and resources (L&R) positions are updated  
10 periodically to reflect various resource additions, deletions, and modifications, as well as changes  
11 in Avista's load obligations. The Company's L&R at the time the Company entered into the  
12 agreement to acquire Mirant's share of CS2, showed energy resource deficiencies in the 1<sup>st</sup>, 3<sup>rd</sup>  
13 and 4<sup>th</sup> quarters of 2005 and future years, absent the second half of CS2. Excerpts from the  
14 Company's August/September 2004 loads and resources position are included in Exhibit  
15 No. \_\_ (RRP-10). (The entire reports have been included in workpapers.) Although the addition  
16 of the second half of CS2 adds to Avista's surplus energy during the 2<sup>nd</sup> quarter, under many  
17 operating conditions a natural gas-fired combined cycle project such as CS2 would be displaced  
18 by lower priced power during the spring runoff period in the 2<sup>nd</sup> quarter, and would not be  
19 running. The second half of CS2, however, is a needed addition to Avista's resource base by  
20 covering deficits in Q1, Q3, and Q4.

21           The following chart shows the Company's August/September L&R positions for the 1<sup>st</sup>  
22 quarter of each year from 2005 through 2010. The chart shows that Avista's existing resources

1 for the 1<sup>st</sup> quarter of each year, for planning purposes, are not sufficient to cover the Company's  
 2 load. As the loads continue to grow over time, they exceed available resources including the  
 3 second half of CS2.

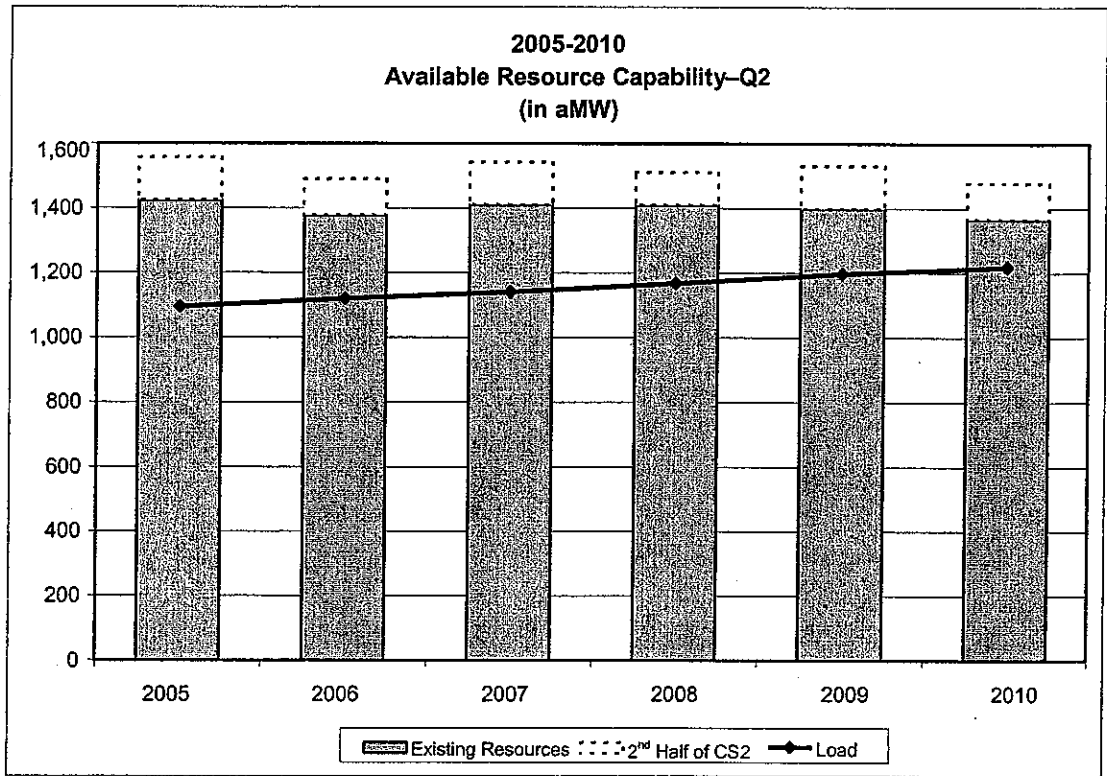
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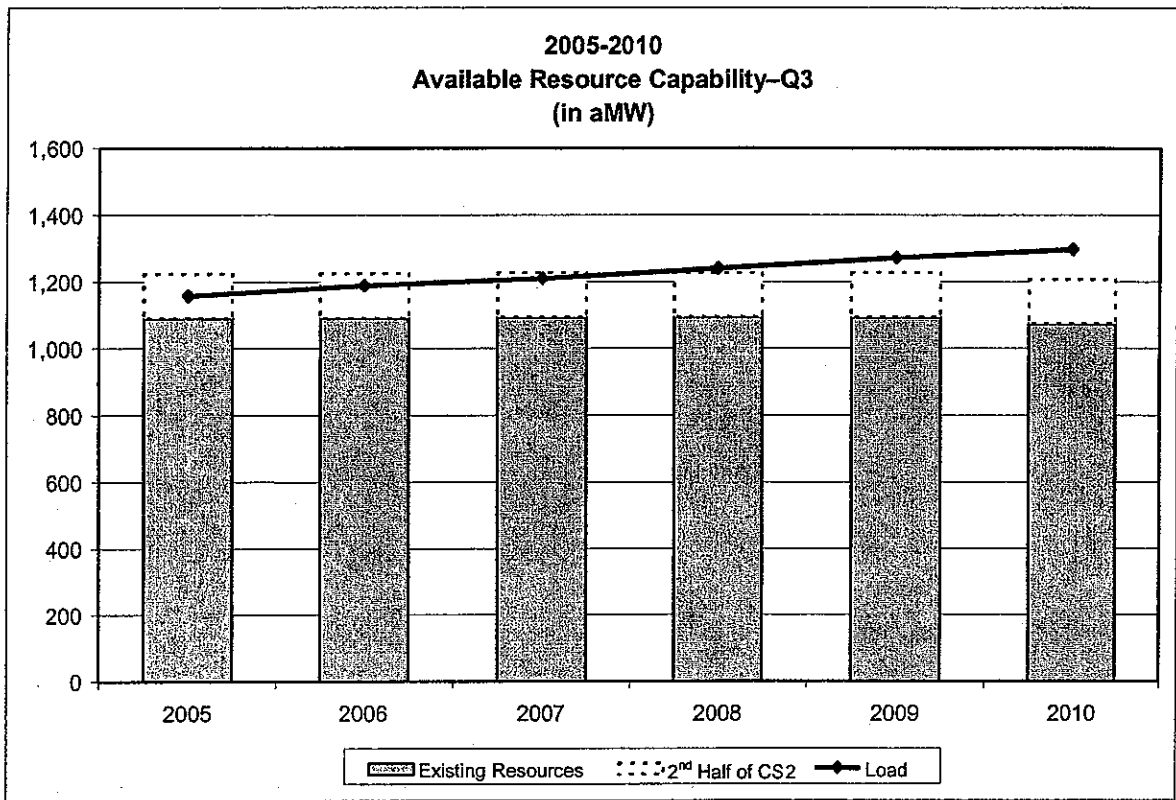
The next chart shows the Company's L&R positions for the 2<sup>nd</sup> quarter of each year from 2005 through 2010. The chart shows a surplus on Avista's system for the 2<sup>nd</sup> quarter, both with and without the second half of CS2. This is caused by the increased availability of hydroelectric generation in the 2<sup>nd</sup> quarter, as well as the fact that loads are generally lower given the relatively mild temperatures in the same period.



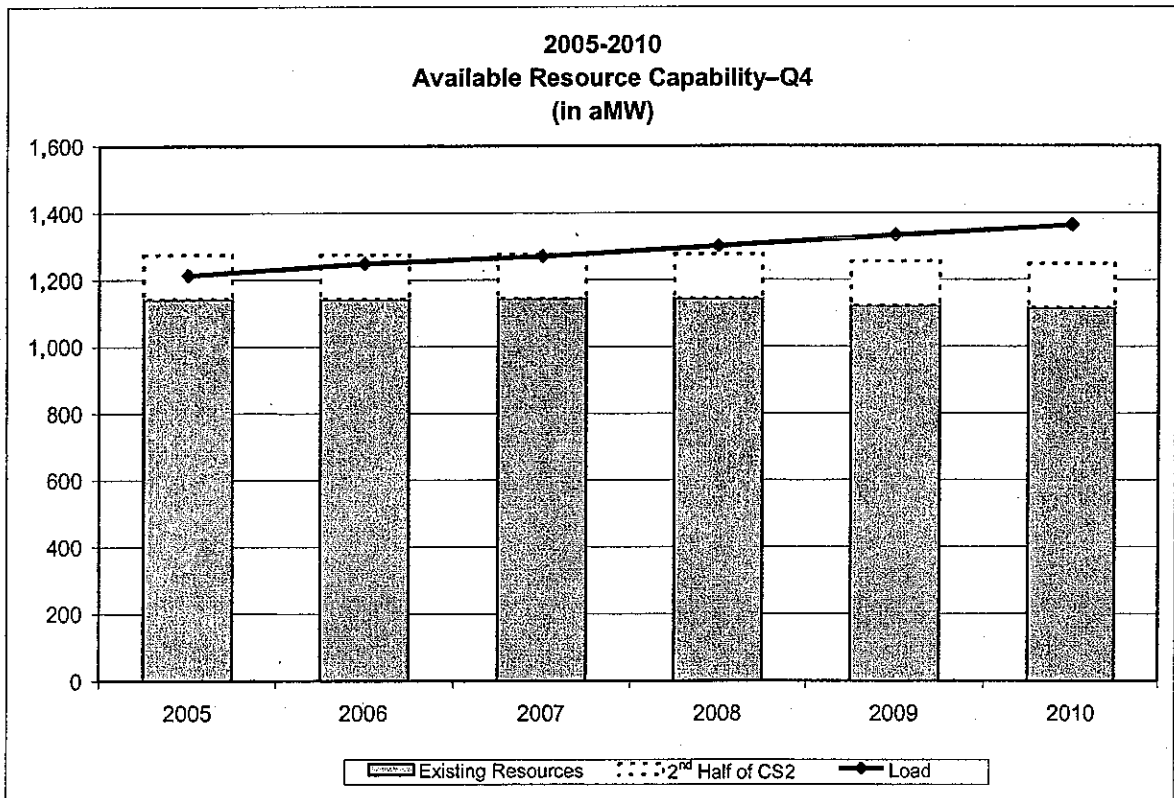


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The following two charts show the Company's L&R positions for the 3<sup>rd</sup> and 4<sup>th</sup> quarters of each year from 2005 through 2010. The charts show that Avista's existing resources for the 3<sup>rd</sup> and 4<sup>th</sup> quarters of each year, for planning purposes, are not sufficient to cover the Company's load. Again, as the loads continue to grow over time, they exceed available resources including the second half of CS2.

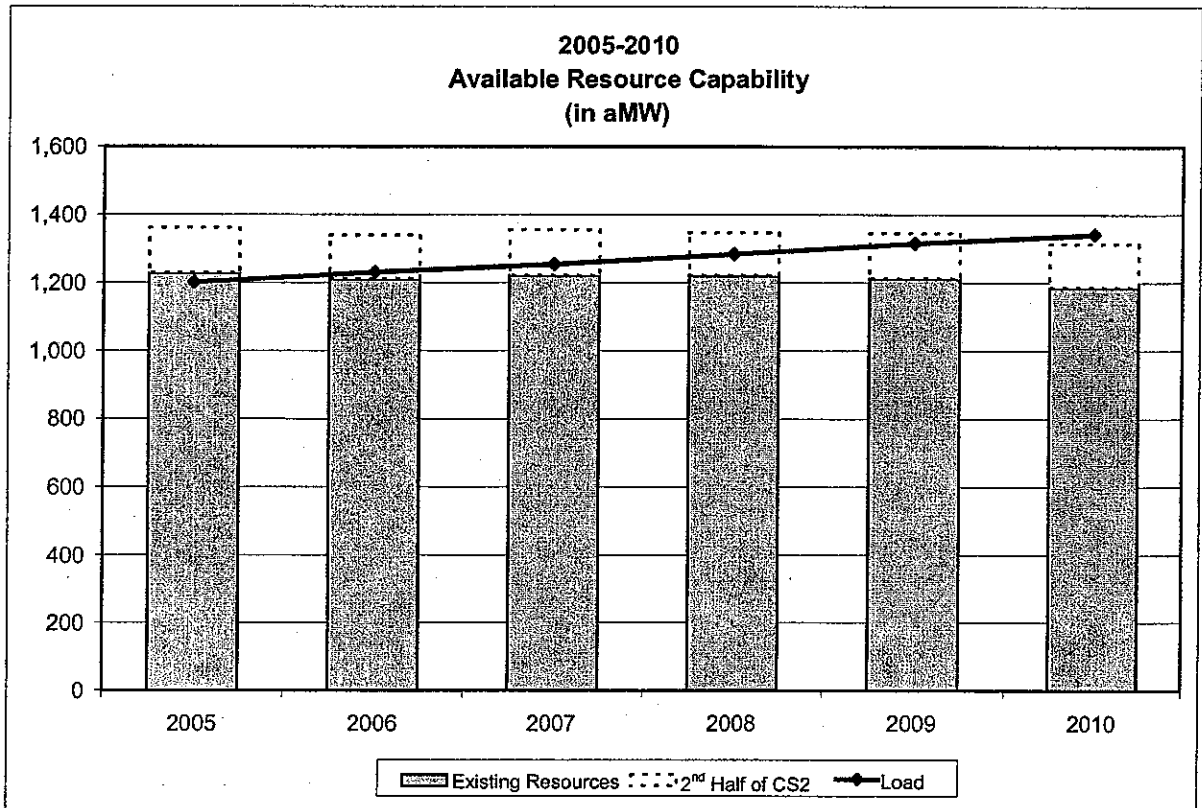


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1 The final chart below shows the Company's L&R positions for each calendar year 2005  
 2 through 2010. In developing this chart, the surpluses in the 2<sup>nd</sup> quarter of each year are averaged  
 3 with the deficiencies in the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters. The 2<sup>nd</sup> quarter surpluses "mask" the  
 4 deficiencies in the other three quarters.



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7 These charts illustrate how the addition of the second half of CS2 will fit very well in  
 8 Avista's resource base by covering deficiencies in the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of each year. The  
 9 addition of the second half of CS2 therefore meets important resource needs in three quarters of  
 10 each year beginning in 2005.

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1 **VI. ECONOMIC ANALYSES AND PURCHASE PRICE**  
2 **FOR MIRANT'S SHARE OF CS2**  
3

4 **Q. What economic analyses did the Company conduct prior to the purchase of**  
5 **the second half of CS2?**

6 A. With regard to the economic analyses underlying the purchase price of \$62.5  
7 million, the Company performed two separate evaluations of Mirant's half of CS2: one in May  
8 2004 and a second in September 2004. The first evaluation, completed on May 7, 2004, was  
9 comprised of eight scenarios. The eight scenarios came from four different forward analyses of  
10 the marketplace, combined with two transmission scenarios.<sup>5</sup> The transmission scenarios  
11 examined, first, the effect of the procurement of firm transmission on a year-around basis and,  
12 second, circumstances where the plant would be constrained during the second quarter due to  
13 transmission curtailments on the BPA system.<sup>6</sup>

14 Using the Aurora dispatch model, the Company performed the various scenarios to reflect  
15 the potential future value of CS2. The May 2004 Base Case scenario included a combination of  
16 forward market prices through 2008, followed by 2003 IRP prices through the end of the 20-year  
17 study period, and the assumption that the plant would not be available to serve load or sell into  
18 the wholesale marketplace in the second quarter due to transmission constraints as described  
19 above.

20 The Base Case value from the May analysis, which was used by Avista in its negotiations  
21 with Mirant, was \$68.0 million. The remaining scenarios ranged from \$43.1 to \$116.9 million.  
22 The May Base Case analysis showed an expected net present value ratepayer savings of \$7.5

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<sup>5</sup> Mirant did not procure firm transmission for its share of CS2. Avista plans to "firm up" transmission for the plant, as explained later in this Testimony.

1 million over the study period based on the purchase price of \$62.5 million. The May 2004  
2 analysis is provided in Exhibit No. \_\_ (RRP-11).

3 Avista continued to perform analyses after signing the non-binding Letter of Intent (LOI)  
4 in July 2004. Transmission alternatives were also reviewed. Avista completed its second  
5 economic evaluation in September 2004. Six of the original scenarios were revisited, resulting in  
6 a Base Case valuation equal to \$66.7 million, as compared to the original study estimate of \$68.0  
7 million. The September 2004 analysis is provided in Exhibit No. \_\_ (RRP-12).

8 **Q. Are there other benefits related to the acquisition?**

9 A. Yes. In addition to the economic value and ability to meet retail load  
10 requirements, full ownership of CS2 brings other benefits to the Company and its customers.  
11 Full ownership by Avista would improve the Company's ability to economically operate CS2.  
12 When Mirant was a partner in the CS2 project, it periodically chose to not run the plant when  
13 Avista wanted to. Although the joint operating agreement for CS2 allowed the entity interested  
14 in running the plant to take the entire output of CS2, this arrangement did not allow Avista to  
15 plan on a forward basis to meet load with the plant. If Avista was already in a balanced load and  
16 resource position at the pre-schedule time when Mirant made its decision to not operate, the  
17 Company would need to go to the pre-schedule market on a very short timeframe (1-2 hours) to  
18 purchase natural gas fuel and to sell surplus power in order to operate CS2. Full ownership will  
19 avoid this last-minute decision-making, and enhance the value of CS2 by allowing dispatch  
20 decisions to be made days and months ahead of actual operations.

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<sup>6</sup> Firm transmission is currently not available at the CS2 locations on a long-term annual basis primarily due to peak hydroelectric generation during the second quarter.

1 Further, decisions can be made faster in the event of unexpected plant de-rating or  
2 outages, or in the event capital upgrades or replacements are necessary. While each of these  
3 items is not in and of itself greatly significant, together they add up to a meaningful improvement  
4 in the ownership and operation of the CS2 project.

5 **Q. How does the cost of the second half of CS2 compare with other combined**  
6 **cycle combustion turbine plants?**

7 A. As part of its review of the CS2 second half acquisition, Avista looked at the costs  
8 of other comparable natural gas-fired combined cycle projects. While few combined cycle plants  
9 have changed hands in the West, documentation on new plant costs are readily available. The  
10 information in the table below consists of data regarding estimates of new combined cycle  
11 construction costs and available information on the recent acquisition of the Fredrickson project  
12 by Puget Sound Energy. The CS2 purchase price of \$62.5 million, or \$439 per kW of installed  
13 capacity, is significantly below the cost of comparable projects, including prices for larger  
14 projects with a different configuration that tend to have a lower cost per-kW due to economies of  
15 scale.<sup>7</sup>

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<sup>7</sup> Some larger gas-fired projects are configured with two combustion turbines "attached" to one heat recovery steam generator (2x1 combined cycle project). 1x1 plants have one combustion turbine attached to a heat recovery steam generator. The 2x1 configuration generally results in a lower cost per installed capacity due to economies of scale.

1 **Comparison Data for Combined Cycle Plant Costs in the Northwest**

Source	Installed Cost (\$/kW)	Notes
<b>2<sup>nd</sup> Half CS2 Price</b>	<b>\$439</b>	<b>1x1 configuration</b>
AVA 2003 IRP	\$757	1x1 configuration
NWPCC Estimate	\$606	2x1 configuration
PSE Frederickson - Low	\$558	WSJ article
PSE Frederickson - High	\$590	PSE press release
PGE Port Westward - Low	\$590	2x1 configuration
PGE Port Westward - High	\$670	1x1 configuration
Idaho Power Draft '04 IRP	\$617	2x1 configuration
IPUC – Avoided Cost <sup>8</sup>	\$736	Order 26017, 1x1
PacifiCorp 2003 IRP	\$670	Unit type unknown
PSE 2003 IRP	\$661	2x1 configuration

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**Q. Did the Company obtain an independent review of the second half of CS2 acquisition?**

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A. Yes. The Company hired an external consultant to provide an independent assessment that could be used by management in its decision-making. This assessment was designed to take a fresh look at the valuation analysis, through independent eyes. Accordingly, Avista hired Navigant Consulting, Incorporated (NCI) to complete three tasks prior to the Company proceeding with the transaction: 1) review Avista's overall methodology and analyses; 2) develop an independent valuation of Mirant's share of CS2, to include base, low, and high scenarios; and 3) compare the CS2 price to comparable power plant transactions occurring in the Northwest and Western United States Region. The Navigant report is attached to this filing as Exhibit No. \_\_ (RRP-13).

<sup>8</sup> Surrogate combined cycle combustion turbine project cost.

1 Navigant developed an independent assessment of the future value of Mirant's share of  
2 CS2. The consultant modeled low, base, and high valuation cases using a Prosym™ model.  
3 Navigant found a base case value of \$67.2 million for Mirant's interest in CS2, which is very  
4 close to the Avista September 2004 results of \$66.7 million.

5 The Navigant evaluation indicated that the acquisition of Mirant's share of CS2 for utility  
6 customers was reasonable. In its conclusions, Navigant stated:

7 Avista's base case valuation ... for the remaining 50% of Coyote Springs II reflects a  
8 reasonable valuation for this facility and compares favorably to the other transactions  
9 consummated in the Pacific Northwest which have averaged \$561/kW. (Page 15 of the  
10 Navigant report) (emphasis added)  
11

12 Navigant went further to explain:

13 NCI's independent analyses and base case valuation results reflect a value of \$67.2  
14 million (\$472/kW) for 50% of the Coyote Springs II facility... Therefore, based upon our  
15 review of the Avista analyses, our own independent analyses, and comparable generation  
16 transactions consummated in the market, NCI believes that Avista's negotiated purchase  
17 price of \$62.5 million for 50% of the Coyote Springs II facility is reasonable. The  
18 negotiated purchase price is below the Avista and NCI base case valuation results of  
19 \$66.7 million and \$67.2 million respectively. (Page 15 of the Navigant report) (emphasis  
20 added).  
21

22 **Q. How has Avista addressed the transmission needs of the second half of**  
23 **Coyote Springs 2?**

24 A. Avista included in its analyses the cost of BPA long-term firm transmission to  
25 move power from the second half of the CS2 project to its system. BPA currently indicates that  
26 no additional annual long-term firm transmission capability is available to move more power  
27 from CS2 to the Company's system, due to transmission constraints during the spring  
28 hydroelectric runoff period. Transmission is generally available, however, during the 1<sup>st</sup>, 3<sup>rd</sup> and  
29 4<sup>th</sup> quarters of the year when Avista needs the generation.



1 Through acquisition of the second half of CS2, Avista has the opportunity to acquire  
2 Mirant's higher position in the BPA queue for long-term firm transmission requests. Avista also  
3 made its own long-term firm transmission request to BPA for the CS2 transaction. Avista may  
4 acquire firm long-term BPA transmission through either of those processes. Avista is also  
5 participating in the 2005 BPA open season for transmission upgrades to the John Day – McNary  
6 500 kV transmission line that will, if agreements are reached, provide adequate long-term firm  
7 transmission from the CS2 project to its system. The BPA open season would replace the  
8 transmission queue requests.

9 In the near-term Avista plans to contract with third parties for short-term BPA  
10 transmission, for buy-sell arrangements, and/or for energy exchange arrangements. These  
11 opportunities will allow the same energy transfer that would occur with a firm BPA transmission  
12 purchase. Preliminary discussions with BPA indicate that adequate short-term transmission  
13 capacity will be available for Q1, Q3, and Q4. In the Company's experience, non-firm  
14 transmission has very seldom been curtailed by BPA. Avista's Base Case valuation of the CS2  
15 transaction factors in costs relating to transmission and recognizes that BPA may have a  
16 constraint that restricts the Company's ability to transfer additional CS2 power during the second  
17 quarter of each year. This conservative view of Q2 transmission availability over the life of the  
18 project has only a modest impact on the value of CS2. The plant produces a small portion of its  
19 economic value during the second quarter.

20 **Q. What arrangements have been made to transport natural gas to the plant?.**

21 A. Natural gas transportation for CS2 includes three components: AECO to  
22 Kingsgate; Kingsgate to the Coyote Springs Lateral; and the Coyote Springs Lateral. At full

1 output, the 280 MW CS2 project (100% share) consumes approximately 43,000 decatherms (dth)  
2 per day.

3 For the AECO to Kingsgate portion, Avista holds 34,138 dth per day from the  
4 TransCanada Pipeline's 2003 expansion project, through October 2028. Avista Utilities also had  
5 available an additional 10,268 dth of capacity for its retail natural gas distribution business that  
6 has been reassigned through October 2008. This results in total delivery to CS2 equal to 44,406  
7 dth per day.

8 Avista holds 16,500 dth per day through October 2028 on the Kingsgate to Coyote  
9 Springs lateral. This capacity was obtained as part of Gas Transportation Northwest's (GTN)  
10 2003 expansion. Avista also holds 10,000 dth per day on GTN that has been reassigned from its  
11 retail natural gas distribution business, resulting in total delivery capability of 26,500 dth per day.  
12 Effective on January 20, 2005, the Company acquired an additional 16,500 dth per day, through  
13 October 2028, bringing the total capacity on this GTN leg to 43,000 dth per day.

14 Avista and Mirant each held contracts for 28,626 dth per day through October 2015 on  
15 the Coyote Springs Lateral. Mirant agreed as part of the CS2 transaction to transfer its existing  
16 rights on the lateral to Avista as part of the sale, giving Avista a total of 57,252 dth per day  
17 delivery capability on the lateral.

18 **Q. Can you summarize why the acquisition of the second half of Coyote Springs 2**  
19 **was prudent for Avista?**

20 **A.** Avista had immediate needs for resources in each of quarters 1, 3, and 4 beginning in  
21 2005 and increasing into the future. As an efficient combined cycle combustion turbine resource  
22 which produces most of its margin benefit in 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters, the acquisition of the

1 second half of CS2 is a good fit for meeting Avista's resource need now and into the future. The  
2 second half of CS2 is also a cost-effective resource acquisition as illustrated by Avista's  
3 economic analysis, the independent economic analysis of Navigant Consulting Inc., and by  
4 comparison against comparable generation transactions consummated in the market.

5  
6 **VII. PROPOSAL TO ELIMINATE ERM DEADBAND**

7 **Q. Would you please begin by describing the basic features of the ERM as it**  
8 **exists today, and the change that the Company is proposing to make?**

9 A. Yes. The ERM (Energy Recovery Mechanism) was implemented in Washington  
10 in July 2002, and was designed to provide a means for recovering power supply costs that were  
11 prudently incurred, but beyond the reasonable control of the Company. On a monthly basis the  
12 Company's actual power supply costs are compared with the power supply costs included in base  
13 retail rates to determine the monthly change in costs. Under the ERM, Avista absorbs or retains  
14 the first \$9.0 million of cost differences during a calendar year, and 90% of the excess over the  
15 \$9.0 million is deferred for future rebate or surcharge to customers.

16 The costs included in the ERM are purchased power expenses and thermal fuel costs.  
17 Wholesale sales revenues are also included as a credit against the purchased power and fuel  
18 costs. Although there are a number of factors that cause the actual power supply costs to be  
19 different than those included in base retail rates, the primary drivers, by far, are hydroelectric  
20 generation conditions, natural gas prices for thermal generation, and wholesale electric market  
21 prices. All of these factors are substantially beyond the control of the Company and are  
22 impossible to predict with any meaningful degree of accuracy.