

DOCKET NO. UE-011595 & UE-030751  
Avista ERM Prudence Review  
Direct Testimony of Catherine M. Elder  
Exhibit CME-1T

BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

DOCKET No. UE-011595 & UE-030751

DIRECT TESTIMONY OF CATHERINE M. ELDER (CME-1T)

ON BEHALF OF

PUBLIC COUNSEL and

SPOKANE NEIGHBORHOOD ACTION PROGRAMS and

CITIZENS' UTILITY ALLIANCE OF WASHINGTON

AUGUST 25, 2003

**This document contains non-confidential information provided under Protective Order in Docket No.UE-011595.**

1 **Q: Please state your name, business address, and present position.**

2 **A:** My name is Catherine M. Elder. My business address is 2710 Gateway Oaks  
3 Drive in Sacramento, CA 95833. I am employed by R.W. Beck, Inc., as an  
4 Executive Consultant responsible for managing its fuel consulting practice.

5 **Q: Please describe your experience and educational background.**

6 **A:** I joined R.W. Beck in May 2003 to head up its new fuel consulting practice after  
7 twelve years consulting with several firms. While at Navigant Consulting, I  
8 performed the natural gas market review and forecast of natural gas prices to  
9 support California's record \$13 billion bond issue to fund long-term power  
10 purchases in the wake of the electricity crisis; I assisted in the negotiation of  
11 certain of the state's power contracts containing gas tolling provisions, and have  
12 worked on developing or assessing fuel supply and transportation plans for power  
13 projects all over the West. As a consultant, I have testified in several California  
14 gas regulatory proceedings, including on market-based rates for an underground  
15 gas storage provider, long-run marginal cost, and various policy issues relating to  
16 the structure of gas transportation and procurement service in California. While  
17 at Pacific Gas and Electric from 1985- 1991, I helped develop gas transportation  
18 and procurement policies to protect core ratepayers, including helping to decide  
19 how to open PGT to competition. My undergraduate degree is in the Political  
20 Economy of Industrial Societies from the University of California, Berkeley, and  
21 I hold a Master's degree in Public Policy from the John F. Kennedy School of  
22 Government at Harvard University. A detailed curriculum vitae is attached as  
23 Exhibit CME-2.

1 **I. Introduction**

2 **Q: What is your role in this proceeding?**

3 **A:** I am testifying on behalf of the Public Counsel section of the Attorney General's  
4 office, the Spokane Neighborhood Action Programs and Citizens' Utility Alliance  
5 of Washington. I am providing them with technical support about the natural gas  
6 market and power supply issues in this docket.

7 **Q: Please describe the purpose of your testimony.**

8 **A:** My testimony addresses whether the approximately 40,000 MMBtu per day of  
9 natural gas sales made by Avista Corporation (Avista) during the July 1, 2002 to  
10 December 31, 2002 review period (review period) were prudent and whether  
11 associated costs should be recovered as proposed in the ERM deferral balances  
12 presented by Avista in this proceeding.<sup>1</sup>

13 **Q: Briefly describe your conclusions.**

14 **A:** I recommend the Commission disallow all \$14.7 million of the \$14.7 million net  
15 fuel expense for which Avista seeks recovery in ERM deferrals for the July 2002  
16 to December 2002 review period. These expenses are associated with natural gas  
17 that Avista originally bought for Coyote Springs II (CSII), but could not burn in  
18 that unit since CSII was operationally unavailable. Avista looked at whether its  
19 other gas-fired generating units could have burned the gas. In doing so, Avista  
20 generally found those units to be so much less efficient than the market, that even  
21 at market gas prices it was uneconomic to generate electricity in its own units.

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<sup>1</sup> One million British thermal units (MMBtu) and ten therms (1 decatherm or 1Dth) are equivalent measures of a given volume of natural gas and are used interchangeably in the industry.

1           Accordingly, Avista sold the natural gas, bought purchased power (Account 555),  
2           and credits the gas sale revenue (Account 456) against the fuel expense (Account  
3           557), resulting in net fuel expense not included in Account 547 of \$14.7 million.  
4           See Attachment A to Avista's March 28, 2003 ERM filing (Attachment A).

5           Avista essentially identifies the savings it achieved as having justified its actions  
6           such that it should be allowed to recover in the ERM the remaining \$14.7 million  
7           balance in net fuel expense not included in Account 547.

8                     In doing so, Avista made no effort to maximize the revenue from selling  
9           this natural gas, nor have they shown that they made an effort to effectively  
10          minimize overall net power supply costs. For example, Avista has provided no  
11          information or justification to explain how, or why, Avista selected particular  
12          days for executing these gas sales. While Avista has provided superficial  
13          descriptions of its decision-making process for executing these sales, the details  
14          that Public Counsel has requested through data requests, which would prove the  
15          sales to be prudently timed and executed, have simply not been produced by  
16          Avista. Thus, I believe that Avista should not be allowed to recover in the ERM  
17          the portion of the fuel expense not offset by gas sales revenue.

18                    In addition, while my testimony does not address the delays associated  
19          with the availability of Coyote Springs II, since the natural gas volumes at issue in  
20          this proceeding were originally intended for CSII, my testimony includes an  
21          analysis of Avista's net power supply expenses had CSII been available during  
22          the review period. If the Commission determines that the unavailability of CSII

1 was due to imprudence, my analysis will provide guidance as to the financial  
2 impact of that unavailability, and the appropriate amount of disallowance  
3 associated with the unavailability of CSII.

4 **II. Discussion**

5 **Q: Please identify the gas sales you are discussing.**

6 **A:** I am referring to the gas sales described by witness Storro at pages six through  
7 eight of Mr. Storro's direct testimony, and summarized in Exhibit RLS-2. Avista  
8 entered into 23 different transactions to dispose of 40,000 MMBtu per day of  
9 natural gas for the July 2002–December 2002 review period. I understand this to  
10 be natural gas that Avista originally bought in March 2001 to burn at CSII  
11 because Avista's lenders who were financing CSII required it. Tr. Depo. Robert  
12 Lafferty in Docket No. UE-011595, 24:3-29:21(May 1, 2002). *See also* Exhibit  
13 RJL-12, UE-011595. According to Exhibit Lafferty C-1 in WUTC Docket No.  
14 UE-011595, **[Begin Confidential] \*\*\*\*\*[End**  
15 **Confidential]** Shortly thereafter, market prices for gas dropped. This made the  
16 gas purchased at roughly \$6 per MMBtu significantly out-of-market. The  
17 prudence issues associated with these gas purchases were resolved by the  
18 settlement stipulation approved and adopted by the Commission in its Fifth  
19 Supplemental Order in Docket No. UE-011595.

20 The gas purchased at roughly \$6.00 per MMBtu continued to be out-of-  
21 market during the 2002 ERM review period. In addition, CSII was unable to  
22 operate during the review period, as discussed by Avista witness Carlberg in his

1 testimony. Avista booked the cost for the \$6.00 per MMBtu gas to Account 557  
2 “Other Expenses,” (the cost of gas purchased and not consumed for generation)  
3 and then subtracted revenues from the sale of gas (Account 456 “Other  
4 Revenues”), resulting in \$14.7 million in “Net Fuel Expense not incl. in Acct  
5 547,” shown at Line No. 7 in Attachment ‘A’ to Avista’s March 28, 2003 letter  
6 presenting its annual filing to review ERM deferrals. Direct Testimony of  
7 William G. Johnson, Exhibit WGJ-T, pp. 4-5. All else being equal, if Avista can  
8 demonstrate the prudence of those net fuel expenses, ratepayers and shareholders  
9 would share in bearing that net fuel expense, under the terms of the ERM. Avista  
10 sold this gas and used the revenue to offset the fuel expense, thus leaving a  
11 balance to be recovered in the ERM of roughly the difference between the \$6.00  
12 per MMBtu gas price and the average \$3.08 per MMBtu gas sales price I  
13 calculated in Exhibit CME-3 using data provided by Avista in Exhibit RLS-2.  
14 According to Avista, the gas sales are prudent because they produced positive  
15 “Total Savings from Not Generating” electricity. I have summarized the gas sales  
16 in Exhibit CME-3 to show the total gas sold by month and the resulting weighted  
17 average price of the gas sold, which is \$3.08 per MMBtu.

18 **Q: What analysis did Avista conduct in order to determine whether these gas**  
19 **sales should be executed?**

20 **A:** According to witness Storro, Avista performs a daily comparison of forward gas  
21 prices to forward power prices. Avista then appears to calculate the cost of taking  
22 market-priced natural gas and burning it in its available power plants to generate

1 electricity, versus the cost of purchasing power in the market. When the cost of  
2 purchasing power in the market was lower than the cost of generating, Avista sold  
3 gas and purchased power. Avista cites the savings from doing so as justifying the  
4 gas sale and power purchase. Direct Testimony of Richard L. Storro, Exhibit  
5 RLS-T, pp. 6-8. While Avista witness Storro suggests this analysis was  
6 performed on a daily basis during the 2002 ERM review period, all of the analysis  
7 provided by Avista covers only the specific eighteen (18) days that it executed the  
8 gas sales.

9 As I discuss in more detail later in my testimony, Public Counsel sought  
10 further information from Avista in order to evaluate the prudence of these gas  
11 sales, but Avista has not provided sufficient information to determine whether  
12 their actions were prudent. I have attached to my testimony Avista's responses to  
13 Public Counsel DR 164 (Exhibit CME-4) and PC-DR 169 (Exhibit CME-5).

14 **Q: Why did Avista use the market price of gas to perform these calculations**  
15 **instead of the approximate \$6.00 per MMBtu gas purchase price?**

16 **A:** The \$6.00 per MMBtu gas is a “sunk” cost, incurred in the past, and is thus  
17 irrelevant. Avista's comparison of forward prices for gas and electricity  
18 represents the concept that the Company's alternative to burning the \$6 per  
19 MMBtu gas is to buy and burn market-priced gas. The difference between the  
20 market price of gas and the \$6 contract price creates a “loss” that must be borne  
21 by ratepayers and/or shareholders, but it does not affect the decision of whether to  
22 “burn gas” or “buy power.”

1 **Q: Isn't it true that the Commission has already approved a settlement resolving**  
2 **prudence issues associated with the purchase of gas for Coyote Springs II at**  
3 **approximately \$6.00 per MMBtu?**

4 **A:** Yes, prudence issues associated with the \$6 per MMBtu gas purchases for CSII  
5 were resolved by the stipulation approved and adopted by the Commission in its  
6 Fifth Supplemental Order in Docket No. UE-011595. It is important to recognize,  
7 however, that finding the purchase to have been prudent is not the same as  
8 absolving Avista from any responsibility to get the best deal possible in both  
9 minimizing the loss upon sale of the \$6.00 per MMBtu gas, and minimizing the  
10 cost of replacement power. The opportunity to sell this gas and instead purchase  
11 power in the market gave Avista an opportunity to reduce the loss that the ERM  
12 would otherwise show from burning out-of-market gas. The question is whether  
13 any reduction in that loss is automatically prudent, or instead, did Avista have a  
14 responsibility to try to get the maximum price possible for the gas (while still  
15 minimizing the cost of power), and thus minimize the resulting ERM deferral  
16 balance.

17



1 **Q: Why should the expenses be disallowed?**

2 **A:** The \$14.7 million of net fuel expenses not included in Account 547 should be  
3 disallowed for the following reasons:

4 (1) *Avista has failed to prove that it took prudent actions to analyze gas and power*  
5 *price trends to effectively minimize overall net power supply costs.* Based on the  
6 evidence provided, Avista has made an insufficient effort to maximize the net  
7 benefit from selling the \$6.00 per MMBtu gas and buying power. While Avista  
8 has provided a great deal of information regarding how it accounted for various  
9 power supply expenses in its accounting journal and general ledger entries, the  
10 Company has provided scant and insufficient information to justify the prudence  
11 of these costs.

12 (2) *Avista has failed to demonstrate why it chose to sell the gas on the particular*  
13 *dates it executed the transactions.* Avista has not properly documented why gas  
14 should be sold on one day versus another. Despite repeated requests, we have no  
15 solid details to review as to why a particular volume of gas was sold on a given  
16 day, and why one particular day was selected for completing a transaction versus  
17 any other day. As an example, on April 3, 2002 Avista sold 5,000 dth/day for  
18 July at a price of \$3.35 per dth. Two days later, Avista sold another 15,000  
19 dth/day for July at a price of \$3.02 per dth – some \$0.30 per dth less than just two  
20 days prior. Avista should have had a view of the market on April 3, 2002 that  
21 justified waiting two additional days to execute the second transaction.

22 Moreover, Avista should have provided in response to discovery questions an

1 explanation of why it waited the two additional days and/or why these two  
2 particular days were the right ones to execute these transactions. Avista has not  
3 produced any explanation of why these gas sales are reasonable, except to say  
4 that on the days it executed the gas sales, power prices were lower than gas  
5 prices. Avista has also failed to produce even a simple showing of its tracking of  
6 the daily forward prices for gas and power. Given this critically important  
7 “missing link,” I can only conclude that Avista simply has **no** explanation to  
8 justify the prudence of the gas sales. While Avista’s goal was to achieve savings,  
9 the Company appears to believe that as long as it achieved some savings to offset  
10 the cost of fuel booked to Account 557, it met its obligation.

11 (3) *Avista has failed to explain why it repeatedly used Rathdrum as the marginal unit*  
12 *in its savings analysis.* Even if the Commission decides that CSII’s non-  
13 availability was not due to imprudence, it is not clear that Avista’s spark spread  
14 calculations for evaluating the cost of burning the gas itself are correct. Avista  
15 calculates the savings to ratepayers from the sell gas/buy power transactions  
16 generally using Rathdrum as the marginal unit for most of the 40,000 MMBtu.  
17 Avista has not documented in the analysis provided why Rathdrum is the  
18 marginal unit. More importantly, for Rathdrum to burn almost all of the 40,000  
19 MMBtu, given its maximum output of 176 MWs (according to Avista’s 2003  
20 Integrated Resource Plan, page 5), means that it could only have been operating,  
21 in each and every month examined, at a capacity factor of 20% and still be able to  
22 burn most of the 40,000 MMBtu of the gas bought for CSII. Units such as

1 Rathdrum are not designed to operate at maximum output for long periods of  
2 time. Thus, I question Avista's assumption that Rathdrum could have burned  
3 most of the 40,000 MMBtu during the July to December 2002 ERM review  
4 period.

5 (4) *Avista admits that they do not evaluate or review their results.* Avista made no  
6 effort to look back into the market and assess whether it could have done a better  
7 job selling the out-of-market gas and buying power. In response to PC DR-164  
8 (Exhibit CME-4) and PC DR-169 (Exhibit CME-5), Avista states that it does not  
9 conduct what it terms "hindsight" analysis. Thus, once a package of gas is sold,  
10 Avista pays no attention to subsequent market conditions to evaluate whether that  
11 sale was a good deal or not.

12 **Q: Please describe in more detail your first point about Avista not attempting to**  
13 **maximize revenue from the sale of the gas.**

14 **A:** Avista answers in PC-DR 164 (Exhibit CME-4) that it made no attempt to  
15 maximize revenue when it sold natural gas rather than burn it to generate  
16 electricity (i.e., minimize the loss by selling the \$6 per MMBtu-priced gas at a  
17 price as close to \$6 as possible). I agree that maximizing revenue from the gas  
18 sale should not have been its *only* goal. However, it should have been an  
19 important consideration in the analysis. It appears instead that Avista assumed  
20 that any savings it achieved with respect to power costs was, by definition,  
21 reasonable. However, when you scatter gas sales and power purchases over a  
22 nearly 12-month period, knowing that Avista Utility is exposed to this grossly

1 out-of-market priced gas, it seems incongruous that the utility has no obligation to  
2 get the best deal it can. Avista instead appears to have simply sold the gas on  
3 dates that power was cheaper than gas and called it “good enough.”

4 **Q: Please elaborate on the transaction timing and documentation issues you**  
5 **cited as your second reason for disallowance.**

6 **A:** My concern here is that there is no particular rhyme or reason as to when Avista  
7 decided to execute these transactions. Avista asserts that on the specific eighteen  
8 days that it sold gas through twenty-three different transactions as reflected in  
9 Exhibit RLS-2, purchased power cost less than generating itself, and thus it made  
10 sense to sell gas and purchase power. If you look at the process described by  
11 witness Storro, Avista looks to the market on, for example, January 8, 2002 and  
12 sees that power and gas prices for July show that July power costs less than July  
13 gas. Direct Testimony of Richard L. Storro, pp. 6-8; PC DR-164 attached hereto  
14 as Exhibit CME-4. Based on this analysis, they perform some confirming  
15 calculations involving what generation unit they would otherwise use to burn the  
16 gas, and decide to execute the gas sale and power purchase for a portion of the  
17 40,000 MMBtu (e.g., the January 8, 2002 sale was for 10,000 MMBtu of July gas  
18 at a price of \$2.20 per MMBtu).

19 The problem is that it is unclear whether Avista simply locks the  
20 transaction in the moment it “sees” it available, or whether Avista has intelligence  
21 or policies that cause it to “wait” and see if the July deal gets better on January 9<sup>th</sup>  
22 10<sup>th</sup> or 20<sup>th</sup>, for example. Thus, what we would like to see are not only the prices

1 available in the market on the day the sale was transacted, but Avista's  
2 expectations about forward markets for gas and power that led a particular day to  
3 be selected for transacting a given sale because Avista presumably held some  
4 view that this was the best deal it could likely get. Data like this was provided  
5 when the Commission considered the prudence of the original purchase of the  
6 40,000 MMBtu in Docket No. UE-011595, yet when Public Counsel asked Avista  
7 what information and analysis it relied upon in making the decision to execute the  
8 given transactions, expectations about subsequent market prices are not even  
9 identified on the list of criteria Avista considered. PC-DR 167j (Exhibit CME-7).  
10 Thus, from what we can tell, Avista only considered: "plant and gas availability,  
11 heat rates and variable O&M cost of the available plants, and the market price of  
12 gas and power." (See PC-DR 167j, 168, and 169, attached hereto as Exhibits  
13 CME-7, CME-8, and CME-5, respectively). That simply is not enough.

14 Avista should consider how changes in expected and potential market  
15 fundamentals are likely to be reflected in forward markets, how the existing long  
16 position affects its overall value at risk, what upcoming market "events" might  
17 affect prices. We would also expect to see a daily chart/analysis of the expected  
18 relationship between gas and power prices that would illustrate which day's gas  
19 prices might be higher versus days that power prices might be lower. As I  
20 mentioned previously, Avista presented a much more comprehensive case on  
21 similar kinds of matters in UE-011595. Direct Testimony of Robert J. Lafferty,  
22 Exhibit RJJ-T, and associated Exhibits RJJ-1 through RJJ-25 in Docket No. UE-

1 011595. Avista should have presented that kind of data, such as the data provided  
2 in Exhibits RJL-11 and RJL-15 cited above, in this ERM proceeding.

3 **Q: Can you point to specific transactions that illustrate this concern?**

4 **A:** Yes, I can. As an example, please consider the transactions for August gas.  
5 Avista sold 5,000 MMBtu for August delivery on May 21, 2002 at a price of  
6 \$3.06 per MMBtu. It then waited until July 15, 2002 to sell its remaining 30,000  
7 MMBtu of August gas – at a much lower price of \$2.20 per MMBtu. Exhibit  
8 CME-3 and Exhibit RLS-2. In the documentation Avista has provided, there is  
9 nothing that tells us why Avista waited until July 15, 2002 to sell the bulk of its  
10 August gas. Moreover, we have assertions, but no proof, that Avista  
11 systematically tracked future “spark spreads” for the remaining portion of 2002  
12 on every day of 2002 and confirmed from that analysis that there were no other  
13 days on which it either could have achieved higher net benefits or had reasonable  
14 expectations that such net benefits could not in fact be achieved.<sup>2</sup> Direct  
15 Testimony of Richard L. Storro, Exhibit RLS-T, pp. 6-8. And while we have  
16 Avista’s statement in PC DR-158 that sometimes the timing of a transaction was  
17 affected by Avista’s risk management policy, we have no documentation or  
18 analysis from Avista as to the exact impact of that risk management policy.  
19 Exhibit CME-9. Without such documentation, analysis, and detailed evaluation,  
20 this Commission cannot find these transactions prudent.

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<sup>2</sup> Spark spreads are simply the relationship between power prices and natural gas prices. They are typically calculated by converting the natural gas price to an equivalent power price, using either the heat rate of the generating unit in question or some other proxy heat rate.

1 **Q: In addition to Avista’s failure to document the prudence of the timing of the**  
2 **gas sales, do you have any other observations or concerns about the gas**  
3 **sales?**

4 **A:** Yes. Public Counsel also asked Avista how it determined the volume of gas to  
5 sell on a given day. The volumes vary from a small block of 3,000 MMBtu in  
6 several transactions, to as much as 30,000 MMBtu for a trade completed in July  
7 2002 for August 2002 delivery. Gas is most easily traded in blocks of 5,000  
8 MMBtu or 10,000 MMBtu, with smaller or larger blocks typically being harder to  
9 place. In the response to PC-DR 169 asking for “any and all power or gas market  
10 statistics or analyses” relied upon to make the gas sales and corresponding power  
11 purchases, Avista provided no analysis -- only a brief explanation that “[n]atural  
12 gas is typically transacted in volumes of 5,000 to 10,000 dth/day” and that “[t]he  
13 gas sales the Company made lowered the total net power supply expense at the  
14 time the transactions were executed.” Exhibit CME-5. In the response to PC DR-  
15 164 (Exhibit CME-4), Avista provided a brief summary explanation (but not the  
16 analysis or documentation we requested) that “[t]he Company attempts to transact  
17 where there is sufficient market liquidity to obtain numerous price quotes and  
18 counterparties.”

19 I am therefore forced to conclude that there was no solid analysis as to  
20 when these transactions should occur, and no documentation justifying the  
21 specific volume of gas that should be sold. Instead, the sales appear to occur  
22 haphazardly, whenever some savings on the power supply expense can be

1 achieved, but with no indication that Avista took prudent steps to attempt to  
2 maximize the savings achieved. Avista asserts repeatedly in response to several  
3 data requests, including PC DR-164 (attached hereto as Exhibit CME-4), that  
4 “[t]he Company’s goal is not necessarily to maximize the revenues from the gas  
5 sales but to minimize overall net power supply expense.” But in fact, Avista has  
6 not provided sufficient documentation to allow us to conclude that they took  
7 prudent actions to analyze gas and power market price trends in order to  
8 effectively minimize net power supply expense.

9 Frankly, were Avista to provide compelling evidence that it had  
10 reasonable expectations that the days it conducted these trades provided the best  
11 relationship between gas and power prices, and thereby maximized savings as  
12 best Avista could, I might be satisfied. Instead, the inescapable conclusion is that  
13 Avista performed a simple, tunnel-vision analysis focused on a single given day,  
14 without taking into account the broader question of whether this was the “best”  
15 day to make the sale or whether the sale achieved the best deal obtainable in order  
16 to offset the ERM net fuel expense balance and effectively minimize net power  
17 supply costs.

18 **Q: Please elaborate on the question of Avista not performing any “hindsight”**  
19 **analysis which you discuss in item four above?**

20 **A:** Avista is trying to hide behind word games. I would expect a reasonable effort to  
21 maximize benefits to ratepayers to include an effort to look back at the  
22 transactions executed and evaluate whether there was anything Avista could have



1 done better to achieve greater savings in net power supply expenses. I expect that  
2 Avista is quite capable of learning from previous experience. In PC DR-164,  
3 Avista's reply to Public Counsel's question about how Avista decided the spark  
4 spread arbitrage opportunity would get no better, and thus it should go ahead and  
5 execute a sell gas/buy power transaction on a particular day; the Company replied  
6 that it "... does not conduct 'hindsight' analyses to determine if the timing of each  
7 sale was perfect." Exhibit CME-4. Let me be clear that I am not asking Avista to  
8 have been "perfect" – I do not expect Avista to have always read the market  
9 exactly right in order to always get the absolute best deal possible. Rather, I am  
10 simply asking for some showing that it made a reasonable effort to conduct the  
11 analysis that would have allowed it to time its transactions to achieve more than  
12 the minimum acceptable outcome.

13 **Q: Is Avista correct in that maximizing revenue on the gas sales is not**  
14 **necessarily the Company's primary goal?**

15 **A:** Possibly. Avista is right to worry that there could be some days that Avista could  
16 have sold the gas for higher prices, but if power prices were also high on those  
17 same days, then there may have been a lower net benefit to such a transaction.  
18 For example, while you might get lots of revenue for a gas sale on a day of higher  
19 gas prices, if the purchased power also would have been more expensive, then the  
20 net benefit of the transaction would be reduced. So I am certainly not asking for  
21 Avista to have blindly sought to maximize revenue from the gas sales. I am  
22 simply asking for proof that the detailed analysis showing that the sell gas/buy

1 power transactions were executed on the days most advantageous (not just  
2 advantageous by some measure) to effectively minimize overall net power supply  
3 expenses, and that the Company prudently selected “which day” to execute the  
4 transactions. What Avista has shown in response to repeated inquiries in data  
5 requests, including its “Forward Spark Spread Actual Trans ....xls” spreadsheets  
6 provided in response to PC DR-158 are the analysis only for the single day a  
7 transaction occurred. From that data alone, one cannot determine if there were  
8 other days that a better transaction could have been made.

9 Moreover, as I discuss below, it may be the case that much of the time  
10 during the review period, Avista had no real choice but to sell the gas and  
11 purchase replacement power. In that scenario, Avista’s objective vis-à-vis the gas  
12 sales should in fact have been to maximize the revenues from the gas sales.

13 **Q: Did Avista correctly compute the savings in these transaction spreadsheets?**

14 **A:** Based on my review, it is not clear to me that they did so.

15 **Q: What are your concerns about their savings calculation?**

16 **A:** I have two concerns. First, for most of the gas sales at issue during the 2002  
17 ERM review period transactions executed Avista uses its 176 MW combustion  
18 turbine (CT) at Rathdrum, Idaho as the available unit that would have burned the  
19 gas.<sup>3</sup> For Rathdrum to have burned most of the 40,000 MMBtu of gas sold, it  
20 would have had to have been operating at less than a 20% capacity factor.

21 Moreover, using Rathdrum as the next available unit for such a large amount of

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<sup>3</sup> There are also transactions Avista executed in 2002 for the 2003 ERM review period, which this testimony does not address.

1 gas would have required the CT unit to have operated nearly all hours at close to  
2 maximum output for an extended period of time -- July through December 2002.  
3 As a result, it may be the case that much of the time, Avista had no real choice but  
4 to sell the gas and purchase replacement power. In that case, Avista should have  
5 disconnected the gas sale from the power purchase, and sought to sell gas when it  
6 could maximize the revenue from the gas sales, and buy the replacement power  
7 when power prices were at their lowest.

8 Second, Avista states in its response to PC DR-159 (Exhibit CME-10) that  
9 all of the gas sold was for physical delivery at Malin, Oregon – which is where  
10 the pipeline typically known as Pacific Gas Transmission terminates and delivers  
11 its volumes into affiliate Pacific Gas and Electric Company for delivery primarily  
12 to customers in California. Avista points out in PC DR 159 that the gas had the  
13 most value at Malin. When Avista made a corresponding power purchase, as  
14 shown in Exhibit RLS-2, the power was purchased at Mid-Columbia. The  
15 savings analysis provided by Avista in response to PC DR-158 and WUTC DR-  
16 178 used NYMEX prices, but NYMEX provides quotes at Henry Hub, Louisiana.  
17 Avista does not document how it related NYMEX futures quotes at Henry Hub,  
18 Louisiana to broker price quotes at Malin, Oregon, nor does Avista document how  
19 it accounted for the difference in value between Mid-Columbia power delivery  
20 and Malin fuel delivery. This is a minor issue, perhaps, but further illustrates the  
21 lack of clarity and precision in Avista’s documentation and analysis to justify the  
22 prudence of its transactions.

1 **Q: If the Commission finds Avista imprudent in not having CSII available to**  
2 **operate, what disallowance would you recommend?**

3 **A:** My testimony does not specifically address the prudence of delays associated with  
4 the availability of CSII. Nevertheless, if the Commission determines that those  
5 delays were a result of imprudence, I would recommend a disallowance of at least  
6 **[Begin Confidential] \*\*\*\*\*[End Confidential]**. In Exhibit CME-11CI  
7 assumed that CSII was available to operate. Column B shows the \$4.4 million net  
8 savings Avista cites in Exhibit RLS-2 as resulting from selling natural gas and  
9 purchasing power for each of the 23 transactions Avista conducted, as obtained  
10 from the spark spread transaction spreadsheets provided in WUTC DR-178 and  
11 PC DR-158. Column C shows the savings that would have resulted, however, had  
12 CSII been able to operate to generate the same electricity that Avista instead  
13 purchased in the market. These savings are much higher than proposed by Avista  
14 due to the fact that CSII's heat rate is so much better than that of any other Avista  
15 generating unit or even the market-implied heat rate (i.e., the rate at which gas is  
16 converted into power, as expressed in comparing the price for power in \$/MWh to  
17 the price of gas in \$/MMBtu: \$40 per MWh divided by \$4 per MMBtu implies a  
18 market heat rate of 10 MMBtu per MWh). Column C of Exhibit CME-11C  
19 shows the difference in savings to the ERM from being able to generate at CSII  
20 the power that Avista instead purchased – it is approximately **[Begin**  
21 **confidential] \*\*\*\*\*[End confidential]**. The difference between the cost  
22 reduction available had CSII been able to operate versus the transactions Avista

1 conducted is Column C's **[Begin confidential] \*\*\*\*\*[End confidential]** (the  
2 cost to generate at CSII) minus Column B's \$4 million (the cost of what Avista  
3 actually did), which equals roughly **[Begin confidential]\*\*\*\*\*[End**  
4 **confidential]**.

5 **Q: Could the disallowance you recommend be even higher?**

6 A: Yes, it could. The above calculation highlights the fact that had CSII been  
7 available to operate, its much more efficient heat rate would have generated the  
8 energy Avista needed without using all 40,000 MMBtu per day. Thus, Avista  
9 would either still have had excess natural gas to sell, or, if the market-implied heat  
10 rate were higher than CSII's heat rate, Avista could have burned all 40,000  
11 MMBtu and sold excess power into the market. In fact, my analysis shows that  
12 CSII would have been more economic nearly every day of the record period than  
13 the market-implied heat rate (except perhaps during certain Low Load hours). I  
14 have not calculated how much of the 40,000 MMBtu would not have been needed  
15 to serve Avista load, but the revenue from the corresponding power sales would  
16 have reduced the \$21.6 million in purchased power costs recorded in the ERM.

17 **Q: How else is this market-implied heat rate relevant?**

18 A: Exhibit CME-6C plots the market-implied heat rate for each of the 23 transactions  
19 Avista conducted against the gas volume Avista sold on that date. A lower  
20 market-implied heat rate means that the relationship between gas and power was  
21 better in the market than through Avista's available generation unit. In other  
22 words, the market can convert gas to power more efficiently and economically

1 than Avista can with its own generators. In fact, as the value of the market-  
2 implied heat rate declines relative to Avista’s marginal heat rate, the greater the  
3 savings Avista could achieve by selling gas and buying electricity. As shown in  
4 Exhibit CME-6C, Avista sold a relatively small amount of gas in April and  
5 August, 2002 (when the market implied heat rates were relatively lower) as  
6 compared to the larger amounts Avista sold in May or in late July (when the  
7 market implied heat rates were higher relative to other days on which Avista  
8 executed transactions). Thus, it is striking that on the days that the market-  
9 implied heat rate was lower, meaning greater savings were available, Avista  
10 engaged in transactions of smaller size. Instead, one would expect the exact  
11 opposite: sell more gas/buy more power when the savings are greater—i.e., when  
12 the market implied heat rate is lowest. Yet Avista did the opposite: its larger  
13 transactions occur on days when the market-implied heat rates are higher. Again,  
14 the real issue that is we have no showing from Avista to justify its selection of one  
15 day to execute transactions versus another day – this exhibit further highlights  
16 why the Commission should find Avista’s transactions imprudent.

### 17 **III. Conclusions**

18 **Q: Based on the foregoing, what disallowance do you recommend the**  
19 **Commission adopt in this proceeding?**

20 **A:** I recommend that the entire \$14.7 million “net fuel expense not included in  
21 Account 547” be disallowed.

22

1 **Q:** Does this conclude your testimony?

2 **A:** Yes, it does.