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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF THE APPLICATION)
OF AVISTA CORPORATION FOR)
AUTHORITY TO INCREASE ITS RATES)
AND CHARGES FOR ELECTRIC AND)
NATURAL GAS SERVICE TO ELECTRIC)
AND NATURAL GAS CUSTOMERS IN)
THE STATE OF IDAHO.)**

**CASE NO. AVU-E-04-1/
AVU-G-04-1**

DIRECT TESTIMONY OF MICHAEL FUSS

IDAHO PUBLIC UTILITIES COMMISSION

JUNE 21, 2004

1 Q. Please state your name and business address for
2 the record.

3 A. My name is Michael Fuss. My business address
4 is 472 West Washington Street, Boise, Idaho.

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by the Idaho Public Utilities
7 Commission as a Staff engineer.

8 Q. What is your educational and professional
9 background?

10 A. I have a Bachelor of Science Degree in Civil
11 Engineering from Washington State University and a Master
12 of Business Administration Degree from Boise State
13 University. I am a licensed Civil Engineer in the states
14 of Idaho, Oregon, and Washington. I am a past president
15 of the Southern Idaho Section of the American Society of
16 Civil Engineers and have been a member of various
17 professional affiliations and service organizations.

18 I have over 15 years of Civil Engineering
19 Experience in the areas of Municipal, Utility,
20 Regulatory, and Development Civil Engineering and
21 consulting.

22 While at the Idaho Public Utility Commission I
23 have attended the National Association of Regulatory
24 Utility Commissioners (NARUC) Basic Training Program,
25 Risk Management Techniques for the Natural Gas Industry

1 at New Mexico State University and the Northwest Public
2 Power Association's course on Unbundled Cost of Service &
3 Rate Design.

4 Q. What is the purpose of your testimony?

5 A. My testimony pertains only to Avista's Natural
6 Gas (Gas) rate case. In my testimony I review the
7 Company's Natural Gas Jurisdictional Separation Study
8 (Separation Study). This separation study is used by
9 Avista to develop the Idaho gas unadjusted results of
10 operation.

11 I review the Company's Gas Cost of Service
12 (COS) Study, its method of incorporating the results of
13 operation adjustments, and the development of the Class
14 Revenue Requirement.

15 I also review the Cost of Gas in base rates,
16 Gas Special Contracts, and recommend an additional
17 natural gas tariff sheet.

18 Q. How is your testimony structured?

19 A. My testimony is structured as follows:

20 Summary

21 Gas Jurisdictional Separation

22 Methodology

23 Adjustments

24 Cost of Service

25 Methodology

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Other Studies

Adjustments

Adjustment Summary

Cost of Gas in Base Rates

Special Contracts

Tariff Summary Sheet Recommendation

Q. Would you please summarize your testimony?

A. I have reviewed and recommend acceptance of the Company's Gas Jurisdictional Separation Study using the Four-Factor methodology with one minor adjustment.

I have also reviewed and recommend acceptance of the Company's Gas Cost of Service Study known as the Washington Accepted Methodology with exception of two adjustments. I recommend an adjustment in usage within the pro forma revenue calculation that results in an increase of \$23,000 to current revenues. I also recommend allocating storage expenses and credits based on winter therm usage as opposed to the annual usage proposed by the Company.

I recommend that the Company's request to move the cost of gas in base rates to \$0.44989/therm be considered reasonable. I believe increasing the cost of gas in base rates will reduce the overall magnitude of future PGA adjustments. If actual gas costs increase, the PGA adjustment will be lower; and if actual gas costs

1 decrease, a PGA credit is more likely.

2 I recommend acceptance of the Company's
3 treatment of Idaho gas special contracts within the Gas
4 COS Study. I believe the Gas COS Study appropriately
5 allocates gas special contract revenues and expenses.

6 I recommend that the Company be directed to add
7 a tariff summary sheet to its gas tariff schedules. I
8 believe the additional tariff sheet will not be
9 administratively burdensome for the Company and it will
10 provide clarity for Customers.

11 **GAS JURISDICTIONAL SEPARATION STUDY**

12 Q. Have you reviewed the Company's Gas
13 Jurisdictional Separation Study and do you have any
14 recommendations regarding the study?

15 A. Yes, I have reviewed the Company's Gas
16 Jurisdictional Separation Study and recommend that the
17 Commission accept the Separation Study with a minor
18 adjustment. The Separation Study uses the Four-Factor
19 methodology, a methodology first reviewed by Staff when
20 initiated by the Company in 1993. The Separation Study
21 is also consistent with the methodology used in Case No.
22 WWP-E-98-11, the last Avista Idaho Electric General Rate
23 Case. Furthermore, the general methodology of the
24 Separation Study has been approved for the Company in all
25 of its other operating jurisdictions.

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Methodology

Q. Please give a brief description of the Company's Gas Jurisdictional Separation Study methodology.

A. Jurisdictional separation is performed in the following steps.

Direct Assignment

All expenses, revenues, and rate base investments that can be directly assigned are allotted to the Idaho gas jurisdiction.

Utility Codes

For items not directly assigned, six utility codes are used to assign expenses, revenues and rate base to common cost categories. The categories are Avista Electric, Avista Gas, WPNG (Avista Gas OR/CA), Common to Avista Electric and Avista Gas, Common to Avista Gas and WPNG, and Common to Avista Electric, Avista Gas and WPNG.

Four-Factor

For common items the Company uses an allocator composed of four factors to allocate these items to the Idaho natural gas utility. The four factors are: Direct O&M Expense excluding labor and resource costs, Direct Labor, Number of Customers, and Net Direct Plant.

Other Allocators

The Company uses a number of other allocators

1 such as five-day firm peak demand, distribution operating
2 expense and number of customers to allocate the
3 appropriate Avista Gas costs to the Idaho gas
4 jurisdiction.

5 **Adjustments**

6 Q. Do you recommend that the methodology from the
7 Company's Gas Jurisdictional Separation Study be accepted
8 without change?

9 A. No. I believe that one minor adjustment is
10 necessary.

11 Q. Would you please explain your minor adjustment?

12 A. I believe the Separation Study is inconsistent
13 in the allocation of plant investment, expenses, and
14 revenues in the following tax adjusting (Schedule "m")
15 accounts in report G-SCM-12A: 1999.09
16 Hardware/Software/Furniture Lease Payments, 1999.13
17 Airplane Lease Payments, and 1999.14 Sale Leaseback of
18 General Office Building. In the Separation Study as
19 filed, the Company uses allocator 5-Actual Therms
20 Purchased for these accounts. I believe this is
21 incorrect.

22 In all other areas within the Separation Study
23 where I reviewed the natural gas accounts 1999.09,
24 1999.13, and 1999.14, the revenue and expenses were
25 allocated using the four-factor allocator. The same

1 Schedule "m" accounts are also allocated using the four-
2 factor methodology in the Electric Jurisdictional
3 Separation Study. Therefore, I recommend that the
4 appropriate four-factor allocator be used to distribute
5 costs in the stated gas accounts.

6 Q. What is the net affect of this adjustment?

7 A. Using the four-factor allocator on the listed
8 accounts reduces Idaho's share of taxes and the Idaho gas
9 net operating income by \$1,888. The Company in answer to
10 Staff Production Request No. 179 confirmed the amount of
11 the adjustment.

12 **GAS COST OF SERVICE STUDY**

13 **Methodology**

14 Q. Would you please describe the Company's Gas
15 Cost of Service (COS) Study?

16 A. Certainly, the Company's Gas COS Study is a
17 complex operation using three main Excel spreadsheets to
18 incorporate the results of operation, make adjustments,
19 functionalize, classify, and allocate expenses to develop
20 the revenue requirement for the various customer classes.
21 Output from the Gas COS Study is then used to help design
22 rates. The Company uses the spreadsheet "Proform" to
23 incorporate the results of operation and make
24 adjustments. It uses the spreadsheet "Assign" to
25 functionalize, classify, and assign costs. "Assign"

1 contains various parameters used to develop allocation
2 factors and facilitate cost assignment. The final
3 spreadsheet "Sumcost" organizes the results and provides
4 a revenue requirement estimate for each customer class.

5 The Company's Gas Cost of Service Study also
6 incorporates a number of "other studies" used to
7 normalize the results and create allocation factors.
8 Some of the other studies worth mentioning are the
9 weather normalization study, the Pro Forma Gas Revenue
10 Calculation, the Labor Dollars study, and the Weighted
11 Meter and Service Cost Analysis.

12 **Other Studies**

13 Q. Would you please explain the significance of
14 these other studies and why these particular studies are
15 most important?

16 A. Certainly. The weather normalization study is
17 important because natural gas usage is highly weather
18 dependant for most customer classes. The weather
19 normalization study uses regression analysis to determine
20 the amount of gas consumption that is weather dependant
21 for each customer class. It also relates the test year
22 weather pattern to a 30-year normal weather pattern and
23 adjusts the test year usage to reflect normal weather
24 conditions. Staff witness Sterling's direct testimony
25 includes additional discussion on weather normalization.

1 The Pro Forma Revenue Calculation develops
2 normalized billing determinants (therms and customers)
3 adjusting the test year to reflect expected conditions on
4 average. This includes but is not limited to known
5 customer changes, weather normalization, and period
6 adjustments. The Pro Forma Calculation uses rates in
7 place during the test year to reflect the appropriate
8 normalized revenue generation by the various customer
9 classes.

10 The Labor Dollars Study is a study that is
11 embedded within the Gas COS Study that determines labor
12 cost allocation. This study is important because it is
13 used to develop labor allocators used in the four-factor
14 allocator within the Jurisdictional Separation Study.
15 The labor allocators are also used to allocate costs for
16 some labor related accounts.

17 The Weighted Meter and Service Cost Analysis is
18 an engineering/economic study that calculates metering
19 and service costs for the various customer classes. This
20 study is important because it creates weighting factors
21 and cost relationships used to allocate a number of meter
22 and customer cost categories.

23 Q. What is the purpose of the Gas Cost of Service
24 Study?

25 A. The Gas Cost of Service Study is an engineering

1 economic analysis that allocates expenses to establish
2 the revenue requirement based on cost causation. The
3 account-by-account study apportions each expense to the
4 various customer classes or rate schedules. The Gas Cost
5 of Service Study is the starting point in ultimately
6 establishing rates for each customer class. The results
7 of the study provide an indication of the amount of
8 revenue that should be generated from rates for each
9 customer class or rate schedule.

10 Q. Do you agree with the Company's Gas Cost of
11 Service Study?

12 A. Not entirely; there are any number of ways to
13 perform a cost of service study and any number of items
14 that can be used to allocate costs among customer
15 classes. Any individual or interest group could
16 reasonably argue for changes that would cause costs to
17 shift from one customer class to another. After a
18 detailed review of the Company's Gas COS Study, I believe
19 several small adjustments are required.

20 **Adjustments**

21 Q. What changes to the Company's Gas Cost of
22 Service Study do you recommend?

23 A. I recommend changes to the Company's Pro Forma
24 Gas Revenue calculation. The Company adjusts for known
25 and measurable changes in usage by adding or subtracting

1 revenue in the Pro Forma Revenue Calculation. In Brian
2 Hirschhorn's workpapers GA1-GA5 adjustments are made in
3 gas consumption to reflect actual conditions, weather
4 normalization, and unbilled usage. The consumption
5 reduction in Mr. Hirschhorn's calculation of revenue
6 associated with Schedules 111 and 112 double counts gas
7 revenue included in the monthly minimum charge. Double
8 counting the reduction causes an understatement of
9 approximately \$23,000 in the Idaho Gas Pro Forma Revenue
10 Calculation. I recommend that additional revenue be
11 included in the Company's Gas COS Study to properly
12 reflect normalized revenues.

13 I further recommend adding consumption to the
14 normalized billing determinants used to determine
15 proposed rates.

16 Q. What is the net affect of your recommended
17 adjustments?

18 A. The net affect of my adjustments is a decrease
19 in Idaho Gas Revenue Requirement of \$23,414 when tax
20 effects are included.

21 Q. Does Staff agree with the methodology the
22 Company uses to allocate storage costs and storage
23 capacity release credits to the various Idaho customer
24 classes?

25 A. No. Staff has reviewed the Company's

1 methodology and believes that adjustment is necessary.
2 The Company allocates storage costs and credits among the
3 Idaho classes based on annual consumption. While this
4 methodology will allocate costs and credits, it does not
5 reflect the true value each class receives when using the
6 Company's storage facilities.

7 The primary purpose of the Company's storage
8 facilities is for winter peak supply. The use of the
9 storage facilities is very limited throughout the rest of
10 the year. In fact stored gas is currently distributed to
11 Idaho on a systematic schedule. Storage is used in the
12 months of November, December, January, February, and
13 March. Staff believes that allocating storage costs
14 based on individual customer class usage over these
15 months is more appropriate because it better reflects
16 values received by each class. Consequently, I have
17 included this allocation methodology in the Company's Gas
18 Cost of Service Study.

19 Furthermore, Staff believes that the storage
20 capacity release credits should also be allocated based
21 on the monthly storage withdrawal cycle. Staff has made
22 two adjustments to the Company's Gas Cost of Service
23 Study to reflect this change. Staff first allocates the
24 credit over the Company's fixed storage withdrawal
25 schedule on the basis of volume to determine the amount

1 of credit attributable to each month. Staff then
2 allocates the monthly storage credit to each customer
3 class based on the class's contribution to the monthly
4 throughput. I have included this allocation methodology
5 in Staff's adjustment to the Gas Cost of Service Study.
6 The storage allocator calculation is attached as Exhibit
7 No. 136. All natural gas rates and Gas Cost of Service
8 results presented in my testimony include these
9 allocations. While the changes to the storage
10 allocations do not change the Gas Jurisdictional Revenue
11 Requirement, Staff believes it provides a more
12 appropriate revenue requirement by customer class. Staff
13 recommends that the Commission approve allocation of
14 storage costs and credits based on the Company's actual
15 use of storage.

16 **Adjustment Summary**

17 Q. What is the net affect on the Gas
18 Jurisdictional Revenue Requirement from the recommended
19 adjustments included in your testimony?

20 A. The net affect to the Idaho Gas Revenue
21 Requirement is a decrease of \$26,367. The decrease is
22 shown as adjustment G13 & G14 on Staff Exhibit No. 107.

23 Q. Have you provided a summary of the Staff
24 adjusted Gas Cost of Service results?

25 A. Yes, attached as Exhibit No. 137 are the

1 results of the Staff adjusted Gas Cost of Service Study.

2 **COST OF GAS IN BASE RATES**

3 Q. Has the Company requested a change in the cost
4 of gas included in base rates?

5 A. Yes, the Company has requested to increase gas
6 costs in base rates to \$0.44989/therm.

7 Q. Do you believe an adjustment of gas cost in
8 base rates is necessary?

9 A. Yes, over the past several years the Company
10 has requested and received several fairly large Purchase
11 Gas Cost Adjustments (PGA). These rate adjustments were
12 intended to reflect the Company's actual cost of gas
13 purchased for customers above the price of gas included
14 in base rates. The Company is proposing to add the
15 current PGA WACOG adjustment of \$0.27186/therm to base
16 rates to produce a total base rate gas cost of
17 \$0.44989/therm.

18 I believe this change in gas cost is
19 appropriate. Base rates should reflect the best estimate
20 of what gas costs would be in the future. The more
21 accurately base rates reflect gas costs, the less extreme
22 PGA adjustments will be.

23 Q. Is a gas cost of \$0.44989/therm the appropriate
24 price level to be included in base rates today?

25 A. While Staff cannot predict the magnitude of

1 future natural gas prices with certainty, we believe that
2 the \$0.44989/therm proposed by the Company is a
3 reasonable price level for natural gas in base rates
4 going forward. Natural gas prices are considerably
5 higher today than in 1988 when the current base rate gas
6 price of \$0.17803/therm was established. However, Staff
7 notes that increasing gas costs included in base rates
8 will not eliminate the need for a PGA in the future. To
9 the extent actual gas costs increase, the PGA will simply
10 be lower than it otherwise would have been. If actual
11 gas costs decrease, then larger PGA credits will result.

12 That being said, natural gas is in a period of
13 extreme volatility. Staff believes that natural gas
14 prices will likely vary between \$0.300 and \$0.600 over
15 the next five to seven years. The Company's proposed
16 cost of gas in base rates falls at approximately the mid-
17 point of Staff's estimated range of future gas prices.
18 Therefore, Staff recommends that the Company's proposal
19 be accepted.

20 **SPECIAL CONTRACTS (NATURAL GAS)**

21 Q. How are Idaho Gas Special Contract customers
22 like Potlatch, IMCO, and Lignetics treated in the rate
23 case?

24 A. The Company has included all expenses
25 associated with serving Idaho's Gas Special Contract

1 customers in the general rate filing. These expenses are
2 allocated among all customer classes using the same
3 methodology used for allocating other service costs. In
4 order to offset the rate effect of allocating special
5 contract expenses to other customer classes, special
6 contract revenue is also credited to the classes. The
7 result is the inclusion of costs and benefits to all
8 other customer classes.

9 Staff believes that the revenue credit
10 continues to provide an adequate offset to Company
11 expenses as approved by the Commission during the
12 contract approval process. Based on Staff's review of
13 the Company's Gas Cost of Service Study, the credits are
14 appropriately applied.

15 Q. Are Idaho Gas Special Contract Customers rates
16 changed as a result of this case?

17 A. No. All Gas Special Contract Customers in
18 Idaho are served under existing long-term contracts at
19 fixed rates. All current Idaho contracts were in place
20 before the test year used by the Company in this case.
21 While Special Contract rates are not changed as a result
22 of this case, the Commission has previously reviewed the
23 contract conditions and revenue contribution from these
24 customers and found them prudent. However, when the
25 current contracts expire, the terms and contribution of

1 each contract should be reevaluated and updated to
2 reflect the appropriate cost of service or appropriate
3 level of contribution to margin. Staff does not believe
4 that any change is necessary at this time.

5 **TARIFF ISSUE**

6 Q. Do you have any natural gas general tariff
7 recommendations?

8 A. Yes, Staff recommends that the Company add a
9 tariff summary sheet, denoted as sheet D, which
10 summarizes all natural gas rate schedules and all natural
11 gas adjustment clauses with the exception of local
12 franchise fees. Currently the Company uses a number of
13 tariff sheets such as Schedules 150, 155, and 191 to
14 identify various periodic rate adjustments such as
15 Purchase Gas Adjustments (PGAs) and Demand Side
16 Management (DSM) tariff riders. While the use of the
17 various tariff schedules minimizes the number of sheets
18 that must be updated, the practice increases the
19 likelihood for rate calculation errors and is somewhat
20 confusing to customers. Staff believes adding a tariff
21 sheet will benefit customers and will not be overly
22 burdensome on the Company.

23 Q. Does this conclude your direct testimony in
24 this proceeding?

25 A. Yes, it does.

**Staff Calculation
Allocate Storage Costs Based on Storage Withdrawal Schedule**

Withdrawal from Schedule 163 paragraph 4
5/28/2004

Storage Capacity Release Credit to Idaho \$647,000

Spread of Credit based on the Storage Withdrawal Schedule		
From Schedule 163 Para 4		
	Withdrawal Dth	Credit Spread
November	65179	\$61,579
December	170748	\$161,316
January	213435	\$201,645
February	192780	\$182,131
March	42687	\$40,329
Total	684829	\$647,000

Rate Schedule Allocator Based on Winter Usage						
Data From Production Request 290						
	Sch 101	Sch 111	Sch 121	Sch 131	Sch 146	Total
November	5148821	1269795	222157	60150	381259	7082182
December	6649173	1535662	225555	62009	374138	8846537
January	8669247	1939247	204488	60327	378706	11252015
February	7606192	1728687	197331	50236	322536	9904982
March	7340150	1692575	212566	47471	288421	9581183
Total	35413583	8165966	1062097	280193	1745060	46666899

New Allocator E08
46666899 Check

Summed Allocator for Storage Capacity Credit						
Credit Allocated To Schedule Based on Therm Usage						
	Sch 101	Sch 111	Sch 121	Sch 131	Sch 146	Total
November	\$44,768	\$11,041	\$1,932	\$523	\$3,315	\$61,579
December	\$121,247	\$28,003	\$4,113	\$1,131	\$6,822	\$161,316
January	\$155,360	\$34,753	\$3,665	\$1,081	\$6,787	\$201,645
February	\$139,861	\$31,787	\$3,628	\$924	\$5,931	\$182,131
March	\$30,896	\$7,124	\$895	\$200	\$1,214	\$40,329
Total	\$492,133	\$112,707	\$14,232	\$3,858	\$24,069	\$647,000

New Allocator S22
\$647,000 Check

(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Description	System	Residential	Small Firm	Large Firm	Interrupt	Transport			
	Total	Sch 101	Sch 111	Sch 121	Sch 131	Sch 146			
Plant In Service									
1 Production Plant									
2 Underground Storage Plant	5,041,000	3,825,407	882,095	114,729	30,267	188,503			
3 Distribution Plant	87,598,000	75,115,371	10,131,341	937,240	199,847	1,214,201			
4 Intangible Plant	766,000	652,766	91,047	8,694	1,902	11,591			
5 General Plant	5,943,000	5,064,228	706,537	67,486	14,762	89,987			
6 Total Plant In Service	99,348,000	84,657,773	11,811,019	1,128,149	246,778	1,504,281			
Accum Depreciation									
7 Production Plant									
8 Underground Storage Plant	(2,294,000)	(1,740,822)	(401,414)	(52,209)	(13,773)	(85,782)			
9 Distribution Plant	(26,397,000)	(22,793,740)	(2,880,654)	(299,560)	(63,624)	(359,421)			
10 Intangible Plant	(626,000)	(533,435)	(74,422)	(7,109)	(1,555)	(9,479)			
11 General Plant	(2,076,000)	(1,769,029)	(246,806)	(23,574)	(5,157)	(31,434)			
12 Total Accumulated Depreciation	(31,393,000)	(26,837,027)	(3,603,296)	(382,452)	(84,110)	(486,115)			
13 Net Plant	67,955,000	57,820,746	8,207,723	745,696	162,668	1,018,166			
14 Accumulated Deferred FIT	(9,831,160)	(8,377,462)	(1,168,781)	(111,638)	(24,420)	(148,859)			
15 Miscellaneous Rate Base	743,000	515,867	138,081	32,620	6,839	49,592			
16 Total Rate Base	58,866,840	49,959,152	7,177,023	666,679	145,087	918,899			
17 Revenue From Retail Rates	51,419,278	40,113,651	8,954,774	1,521,691	385,070	444,092			
18 Other Operating Revenues	1,156,000	925,383	173,755	19,897	5,091	31,875			
19 Total Revenues	52,575,278	41,039,034	9,128,529	1,541,588	390,161	475,967			
Operating Expenses									
20 Purchased Gas Costs	35,797,892	27,296,587	6,923,227	1,262,238	312,505	3,334			
21 Underground Storage Expenses	133,805	101,539	23,414	3,045	803	5,003			
22 Distribution Expenses	2,123,435	1,822,953	214,313	39,047	8,452	38,669			
23 Customer Accounting Expenses	1,918,196	1,863,897	46,106	5,235	1,309	1,649			
24 Customer Information Expenses	257,116	220,236	23,672	4,865	1,023	7,321			
25 Sales Expenses	216,129	213,954	2,105	37	7	26			
26 Admin & General Expenses	3,593,160	2,950,686	436,794	74,663	20,296	110,721			
27 Total O&M Expenses	44,039,733	34,469,853	7,669,631	1,389,130	344,396	166,723			
28 Taxes Other Than Income Taxes	876,000	746,673	104,021	9,923	2,168	13,215			
29 Depreciation Expense									
30 Underground Storage Plant Depr	104,968	79,656	18,368	2,389	630	3,925			
31 Distribution Plant Depreciation	2,125,000	1,841,640	226,067	23,626	5,013	28,653			
32 General Plant Depreciation	321,016	273,548	38,164	3,645	797	4,861			
33 Amortization of Intangible Plant	260,000	221,555	30,910	2,952	646	3,937			
34 Total Depr & Amort Expense	2,810,984	2,416,399	313,509	32,613	7,087	41,376			
35 Income Tax	1,389,744	707,601	469,169	52,362	19,775	140,837			
36 Total Operating Expenses	49,116,461	38,340,526	8,556,330	1,484,027	373,426	362,151			
37 Net Income	3,458,817	2,698,508	572,199	57,561	16,734	113,815			
38 Rate of Return	5.88%	5.40%	7.97%	8.63%	11.53%	12.39%			
39 Return Ratio	1.00	0.92	1.36	1.47	1.96	2.11			
40 Interest Expense	2,761,000	2,343,207	336,620	31,269	6,805	43,099			

(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Description				System Total	Residential Service Sch 101	Small Firm Service Sch 111	Large Firm Service Sch 121	Interrupt Service Sch 131	Transport Service Sch 146
STAFF REVENUE REQUIREMENT CALCULATION									
Total Rate Base				\$58,866,840	\$49,959,152	\$7,177,023	\$666,679	\$145,087	\$918,899
Total Current Revenues				\$52,575,278	\$41,039,034	\$9,128,529	\$1,541,588	\$390,161	\$475,967
Total Current Operating Expenses AT				\$49,116,461	\$38,340,526	\$8,556,330	\$1,484,027	\$373,426	\$362,151
Net Income AT				\$3,458,817	\$2,898,508	\$572,199	\$57,561	\$16,734	\$113,815
Current Rate of Return				5.88%	5.40%	7.97%	8.63%	11.53%	12.39%
Percent of Current Return				100.00%	91.93%	135.69%	146.94%	196.30%	210.80%
Recommended Rate of Return				9.25%	9.25%	9.25%	9.25%	9.25%	9.25%
Net Income Required At Rec. ROR				\$5,445,183	\$4,621,222	\$663,875	\$61,668	\$13,421	\$84,998
Income Deficiency BT				\$1,986,366	\$1,922,714	\$91,676	\$4,107	(\$3,314)	(\$28,817)
Tax Gross Up Factor				0.639261	0.639261	0.639261	0.639261	0.639261	0.639261
Increase in Rev. Rqmt. AT				\$3,107,284	\$3,007,713	\$143,409	\$6,425	(\$5,184)	(\$45,079)
Total Recommended Revenue Requirement				\$55,682,562	\$44,046,747	\$9,271,938	\$1,548,013	\$384,977	\$430,888
Other Operating Revenues (Staff Alloc)				(\$1,156,000)	(\$925,383)	(\$173,755)	(\$19,897)	(\$5,091)	(\$31,875)
Rev. Req. From Rates @ COS & ROR				\$54,526,562	\$43,121,364	\$9,098,183	\$1,528,116	\$379,886	\$399,013
Staff Adjustment				\$0	(\$213,745)	\$105,251	\$21,840	\$10,759	\$75,895
Staff Recommended Rate Revenue Requirement				\$54,526,562	\$42,907,619	\$9,203,435	\$1,549,956	\$390,644	\$474,908
Cost of Service Index				100.00%	99.50%	101.16%	101.43%	102.83%	119.02%
Recommended Increase				\$3,107,284	\$2,793,968	\$248,660	\$28,265	\$5,575	\$30,816
Recommended Increase (%)				5.98%	6.97%	2.78%	1.86%	1.45%	6.94%

AVISTA UTILITIES
 STAFF PROPOSED COST OF SERVICE BY SCHEDULE
 IDAHO - GAS
 12 MONTHS ENDED DECEMBER 31, 2002
 (000s of Dollars)

Line No	Type of Service (a)	Schedule Number (b)	Revenue Under Present Rates (1) (c)	Move to COS (d)	Cost of Service Revenue Requirement (e)	Therms (000s) (f)	Cost of Service Per Therm (g)	Cost of Gas (h)
1	General Service	101	\$40,114	\$3,008	\$43,121	50978	84.588¢	\$27,297
2	Large General Service	111	\$8,955	\$143	\$9,098	12930	70.368¢	\$6,923
3	High Annual Load Factor LGS	121	\$1,522	\$6	\$1,528	2357	64.825¢	\$1,262
4	Interruptible Service	131	\$385	(\$5)	\$380	691	54.974¢	\$313
5	Transportation Service	146	\$444	(\$45)	\$399	4200	9.501¢	\$3
6	Special Contracts		\$500	\$0	\$500	58852	0.850¢	\$0
7	Total		\$51,919	\$3,107	\$55,027	130007	42.326¢	\$35,798

(1) Includes Purchase Adjustment Schedule 150 / Excludes other rate adjustments

(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Description				System Total	Residential Service Sch 101	Small Firm Service Sch 111	Large Firm Service Sch 121	Interrupt Service Sch 131	Transport Service Sch 146
Functional Cost Components at Current Rates									
1 Production				36,008,084	27,456,863	6,963,878	1,269,650	314,340	3,353
2 Underground Storage				(174,818)	(175,993)	(9,368)	229	1,134	9,179
3 Distribution				11,422,937	9,444,718	1,463,583	168,334	46,803	299,499
4 Common				4,163,193	3,388,156	536,701	83,482	22,794	132,061
5 Total Current Rate Revenue				51,419,396	40,113,743	8,954,795	1,521,695	385,070	444,093
6 Exclude Cost of Gas w / Revenue Exp.				35,847,253	27,336,965	6,933,468	1,264,105	312,715	0
7 Total Margin Revenue at Current Rates				15,572,143	12,776,778	2,021,327	257,590	72,355	444,093
Margin per Therm at Current Rates									
8 Production				\$0.002260	\$0.002352	\$0.002352	\$0.002352	\$0.002352	\$0.000798
9 Underground Storage				(\$0.002457)	(\$0.003452)	(\$0.000725)	\$0.000097	\$0.001641	\$0.002186
10 Distribution				\$0.160534	\$0.185271	\$0.113197	\$0.071410	\$0.067729	\$0.071312
11 Common				\$0.058508	\$0.066463	\$0.041510	\$0.035414	\$0.032985	\$0.031444
12 Total Current Margin Melded Rate per Therm				\$0.218846	\$0.250633	\$0.156334	\$0.109273	\$0.104707	\$0.105740
Functional Cost Components at Uniform Current Return									
13 Production				36,008,084	27,456,863	6,963,878	1,269,650	314,340	3,353
14 Underground Storage				(198,311)	(151,648)	(34,191)	(4,018)	(1,164)	(7,290)
15 Distribution				11,445,404	10,095,121	1,059,087	120,206	25,725	145,265
16 Common				4,164,219	3,426,340	513,145	80,523	21,465	122,746
17 Total Uniform Current Cost				51,419,396	40,826,676	8,501,918	1,466,360	360,367	264,075
18 Exclude Cost of Gas w / Revenue Exp.				35,847,253	27,336,965	6,933,468	1,264,105	312,715	0
19 Total Uniform Current Margin				15,572,143	13,489,711	1,568,450	202,255	47,652	264,075
Margin per Therm at Uniform Current Return									
20 Production				\$0.002260	\$0.002352	\$0.002352	\$0.002352	\$0.002352	\$0.000798
21 Underground Storage				(\$0.002787)	(\$0.002975)	(\$0.002644)	(\$0.001704)	(\$0.001685)	(\$0.001736)
22 Distribution				\$0.160850	\$0.198029	\$0.081912	\$0.050993	\$0.037228	\$0.034588
23 Common				\$0.058523	\$0.067212	\$0.039688	\$0.034159	\$0.031063	\$0.029226
24 Total Current Uniform Margin Melded Rate per Therm				\$0.218846	\$0.264619	\$0.121308	\$0.085799	\$0.068958	\$0.062877
25 Margin to Cost Ratio at Current Rates				1.00	0.95	1.29	1.27	1.52	1.68
Functional Cost Components at Proposed Rates									
26 Production				36,007,890	27,456,689	6,963,859	1,269,647	314,340	3,353
27 Underground Storage				(60,260)	(80,574)	4,264	2,399	1,653	11,999
28 Distribution				14,249,882	11,993,804	1,685,697	192,920	51,559	325,902
29 Common				4,329,168	3,537,791	549,635	84,994	23,093	133,655
30 Total Proposed Rate Revenue				54,526,680	42,907,711	9,203,455	1,549,960	390,645	474,909
31 Exclude Cost of Gas w / Revenue Exp.				35,847,060	27,336,792	6,933,450	1,264,103	312,715	0
32 Total Margin Revenue at Proposed Rates				18,679,621	15,570,919	2,270,005	285,856	77,931	474,909
Margin per Therm at Proposed Rates									
33 Production				\$0.002260	\$0.002352	\$0.002352	\$0.002352	\$0.002352	\$0.000798
34 Underground Storage				(\$0.000847)	(\$0.001581)	\$0.000330	\$0.001017	\$0.002392	\$0.002857
35 Distribution				\$0.200264	\$0.235274	\$0.130376	\$0.081839	\$0.074612	\$0.077598
36 Common				\$0.060841	\$0.069398	\$0.042510	\$0.036056	\$0.033419	\$0.031824
37 Total Proposed Margin Melded Rate per Therm				\$0.262518	\$0.305444	\$0.175568	\$0.121264	\$0.112775	\$0.113078
Functional Cost Components at Uniform Proposed Return									
38 Production				36,007,992	27,456,793	6,963,860	1,269,646	314,340	3,353
39 Underground Storage				(79,636)	(61,591)	(13,425)	(1,317)	(452)	(2,852)
40 Distribution				14,268,359	12,500,995	1,397,466	150,814	32,260	186,824
41 Common				4,329,965	3,567,578	532,850	82,405	21,877	125,256
42 Total Uniform Proposed Cost				54,526,680	43,463,775	8,880,751	1,501,549	368,025	312,581
43 Exclude Cost of Gas w / Revenue Exp.				35,847,161	27,336,895	6,933,450	1,264,102	312,714	0
44 Total Uniform Proposed Margin				18,679,519	16,126,880	1,947,301	237,447	55,311	312,581
Margin per Therm at Uniform Proposed Return									
45 Production				\$0.002260	\$0.002352	\$0.002352	\$0.002352	\$0.002352	\$0.000798
46 Underground Storage				(\$0.001119)	(\$0.001208)	(\$0.001038)	(\$0.000559)	(\$0.000654)	(\$0.000679)
47 Distribution				\$0.200523	\$0.245224	\$0.108083	\$0.063978	\$0.046684	\$0.044483
48 Common				\$0.060852	\$0.069983	\$0.041212	\$0.034957	\$0.031659	\$0.029824
49 Total Proposed Uniform Margin Melded Rate per Therm				\$0.262516	\$0.316350	\$0.150609	\$0.100728	\$0.080041	\$0.074427
50 Margin to Cost Ratio at Proposed Rates				1.00	0.97	1.17	1.20	1.41	1.52

(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Description				System Total	Residential Service Sch 101	Small Firm Service Sch 111	Large Firm Service Sch 121	Interrupt Service Sch 131	Transport Service Sch 146
Cost by Classification at Current Return by Schedule									
1 Commodity				35,426,653	26,598,445	7,008,647	1,195,444	356,422	267,694
2 Demand				8,590,440	6,390,267	1,782,268	269,550	14,220	134,135
3 Customer				8,049,185	7,617,071	276,567	70,930	18,286	66,331
4 Total Current Rate Revenue				52,066,278	40,605,784	9,067,482	1,535,924	388,928	468,161
Revenue per Therm at Current Rates									
5 Commodity				\$0.497875	\$0.521764	\$0.542065	\$0.507123	\$0.515784	\$0.063739
6 Demand				\$0.120727	\$0.125354	\$0.137845	\$0.114347	\$0.020578	\$0.031938
7 Customer				\$0.113121	\$0.149419	\$0.021390	\$0.030090	\$0.026462	\$0.015794
8 Total Revenue per Therm at Current Rates				\$0.731724	\$0.796536	\$0.701300	\$0.651560	\$0.562824	\$0.111471
Cost per Unit at Current Rates									
9 Commodity Cost per Therm				\$0.497875	\$0.521764	\$0.542065	\$0.507123	\$0.515784	\$0.063739
10 Demand Cost per Peak Day Therms				\$21.07	\$21.24	\$26.92	\$16.27	\$5.79	\$6.21
11 Customer Cost per Customer per Month				\$11.42	\$10.91	\$40.27	\$591.09	\$761.90	\$789.66
Cost by Classification at Uniform Current Return									
12 Commodity				35,281,826	26,798,312	6,787,102	1,173,898	343,750	178,764
13 Demand				8,496,290	6,585,267	1,592,513	246,857	7,317	64,337
14 Customer				8,288,162	7,935,699	234,580	59,752	13,128	45,003
15 Total Uniform Current Cost				52,066,278	41,319,277	8,614,195	1,480,507	364,196	288,104
Cost per Therm at Current Return									
16 Commodity				\$0.495840	\$0.525684	\$0.524931	\$0.497984	\$0.497446	\$0.042564
17 Demand				\$0.119404	\$0.129179	\$0.123169	\$0.104720	\$0.010588	\$0.015319
18 Customer				\$0.116479	\$0.155669	\$0.018143	\$0.025348	\$0.018998	\$0.010715
19 Total Cost per Therm at Current Return				\$0.731724	\$0.810532	\$0.666242	\$0.628051	\$0.527033	\$0.068599
Cost per Unit at Uniform Current Return									
20 Commodity Cost per Therm				\$0.495840	\$0.525684	\$0.524931	\$0.497984	\$0.497446	\$0.042564
21 Demand Cost per Peak Day Therms				\$20.84	\$21.89	\$24.05	\$14.90	\$2.98	\$2.98
22 Customer Cost per Customer per Month				\$11.75	\$11.37	\$34.16	\$497.93	\$547.02	\$535.76
23 Revenue to Cost Ratio at Current Rates				1.00	0.98	1.05	1.04	1.07	1.62
Cost by Classification at Proposed Return by Schedule									
24 Commodity				36,358,960	27,380,243	7,130,111	1,206,415	359,276	282,915
25 Demand				9,483,541	7,154,132	1,886,416	281,135	15,778	146,081
26 Customer				9,331,061	8,865,377	299,615	76,639	19,449	69,981
27 Total Proposed Rate Revenue				55,173,562	43,399,752	9,316,142	1,564,188	394,503	498,977
Revenue per Therm at Proposed Rates									
28 Commodity				\$0.510978	\$0.537100	\$0.551460	\$0.511778	\$0.519913	\$0.067363
29 Demand				\$0.133279	\$0.140338	\$0.145900	\$0.119261	\$0.022832	\$0.034782
30 Customer				\$0.131136	\$0.173906	\$0.023173	\$0.032511	\$0.028145	\$0.016663
31 Total Revenue per Therm at Proposed Rates				\$0.775393	\$0.851344	\$0.720532	\$0.663550	\$0.570891	\$0.118808
Cost per Unit at Proposed Rates									
32 Commodity Cost per Therm				\$0.510978	\$0.537100	\$0.551460	\$0.511778	\$0.519913	\$0.067363
33 Demand Cost per Peak Day Therms				\$23.26	\$23.78	\$28.49	\$16.97	\$6.42	\$6.76
34 Customer Cost per Customer per Month				\$13.23	\$12.70	\$43.63	\$638.66	\$810.39	\$833.11
Cost by Classification at Uniform Proposed Return									
35 Commodity				36,246,348	27,536,372	6,972,062	1,187,521	347,658	202,735
36 Demand				9,411,285	7,306,248	1,751,159	261,271	9,456	83,149
37 Customer				9,515,929	9,113,904	269,690	66,857	14,726	50,752
38 Total Uniform Proposed Cost				55,173,562	43,956,525	8,992,911	1,515,649	371,841	336,636
Cost per Therm at Proposed Return									
39 Commodity				\$0.509395	\$0.540162	\$0.539236	\$0.503762	\$0.503102	\$0.048272
40 Demand				\$0.132263	\$0.143322	\$0.135439	\$0.110835	\$0.013685	\$0.019798
41 Customer				\$0.133734	\$0.178781	\$0.020858	\$0.028362	\$0.021311	\$0.012084
42 Total Cost per Therm at Proposed Return				\$0.775393	\$0.862266	\$0.695533	\$0.642959	\$0.538097	\$0.080154
Cost per Unit at Uniform Proposed Return									
43 Commodity Cost per Therm				\$0.509395	\$0.540162	\$0.539236	\$0.503762	\$0.503102	\$0.048272
44 Demand Cost per Peak Day Therms				\$23.08	\$24.28	\$26.45	\$15.77	\$3.85	\$3.85
45 Customer Cost per Customer per Month				\$13.50	\$13.06	\$39.27	\$557.14	\$613.60	\$604.19
46 Revenue to Cost Ratio at Proposed Rates				1.00	0.99	1.04	1.03	1.06	1.48

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 21ST DAY OF JUNE 2004, SERVED THE FOREGOING **DIRECT TESTIMONY OF MICHAEL FUSS**, IN CASE NO. AVU-E-04-1/AVU-G-04-1, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

DAVID J. MEYER
SR VP AND GENERAL COUNSEL
AVISTA CORPORATION
PO BOX 3727
SPOKANE WA 99220-3727

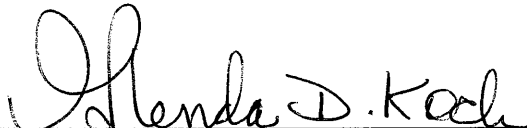
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