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IDAHO PUBLIC  
UTILITIES COMMISSION

**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE APPLICATION	)	CASE NO. AVU-E-08-01
OF AVISTA CORPORATION FOR THE	)	CASE NO. AVU-G-08-01
AUTHORITY TO INCREASE ITS RATES	)	
AND CHARGES FOR ELECTRIC AND	)	
NATURAL GAS SERVICE TO ELECTRIC	)	DIRECT TESTIMONY
AND NATURAL GAS CUSTOMERS IN THE	)	OF
STATE OF IDAHO	)	TARA L. KNOX
	)	

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

1 I. INTRODUCTION

2 Q. Please state your name, business address and  
3 present position with Avista Corporation?

4 A. My name is Tara L. Knox and my business address  
5 is 1411 East Mission Avenue, Spokane, Washington. I am  
6 employed as a Senior Rate Analyst in the State and Federal  
7 Regulation Department.

8 Q. Would you briefly describe your duties?

9 A. I am responsible for preparing the regulatory  
10 cost of service models for the Company, as well as  
11 providing support for the preparation of results of  
12 operations reports.

13 Q. Would you describe your educational background  
14 and professional experience?

15 A. Yes. I am a 1982 graduate of Washington State  
16 University with a Bachelor of Arts degree in General  
17 Humanities, and a Master of Accounting degree in 1990. As  
18 an employee in the Rate Department at Avista since 1991, I  
19 have attended several ratemaking classes, including the EEI  
20 Electric Rates Advanced Course that specializes in cost  
21 allocation and cost of service issues. I have also been a  
22 member of the Cost of Service Working Group since 1999,  
23 which is a discussion group made up of technical  
24 professionals from utilities throughout the United States  
25 and Canada concerned with cost of service issues.



1 **II. REVENUE NORMALIZATION**

2 **Electric Revenue Normalization**

3 **Q. Would you please describe the electric revenue**  
4 **adjustment included in Company witness Ms. Andrews pro**  
5 **forma results of operations?**

6 A. Yes. The electric revenue normalization  
7 adjustment represents the difference between the Company's  
8 actual recorded retail revenues during the 2007 test period  
9 and retail revenues on a normalized (pro forma) basis. The  
10 total revenue normalization adjustment decreases Idaho net  
11 operating income by \$632,000 as shown in column (u) on page  
12 6 of Ms. Andrews Exhibit No.13, Schedule 1. The revenue  
13 normalization adjustment consists of three primary  
14 components: 1) re-pricing customer usage (adjusted for any  
15 known and measurable changes) at present base tariff rates  
16 in effect, 2) adjusting customer loads and revenue to a  
17 calendar-year basis (unbilled revenue adjustment), and 3)  
18 weather normalizing customer usage and revenue.

19 **Q. Would you please briefly discuss electric weather**  
20 **normalization?**

21 A. Yes. The Company's weather normalization  
22 adjustment calculates the change in kWh usage required to  
23 adjust actual loads during the 2007 test period to the  
24 amount expected if weather had been normal. This  
25 adjustment incorporates the effect of both heating and

1 cooling on weather-sensitive customer groups. The weather  
2 adjustment is developed from regression analysis of five or  
3 ten years (as explained later) of billed usage per customer  
4 and billing period heating and cooling degree-day data.  
5 The resulting seasonal weather sensitivity factors are  
6 applied to monthly test period customers and the difference  
7 between normal heating/cooling degree-days and monthly test  
8 period observed heating/cooling degree-days.

9 In addition to its use as a component of the revenue  
10 normalization adjustment, Company witness Mr. Kalich  
11 includes the combined Washington and Idaho adjustment with  
12 2007 loads to reflect the normal load shape for 2009 pro  
13 forma loads in the modeling for the Pro Forma Power Supply  
14 costs.

15 **Q. How are normal heating and cooling degree days**  
16 **defined?**

17 A. Normal heating and cooling degree days are based  
18 on a rolling 25-year average of heating and cooling degree-  
19 days reported for each month by the National Weather  
20 Service for the Spokane Airport weather station. For  
21 heating, the 25 years are included on a heating season  
22 basis, July through June, so (for example) the October  
23 average reflects all the Octobers beginning in 1982 and  
24 through 2006 whereas the May average reflects all of the  
25 Mays beginning in 1983 and through 2007. For cooling, the

1 25 years reflect the cooling season calendar years  
2 beginning in 1983 and through 2007. Each year the normal  
3 values will be adjusted to capture the next heating and  
4 cooling season with the oldest data dropping off, thereby  
5 encapsulating the most recent information available at the  
6 end of each calendar year.

7 **Q. What revisions have you made to the weather**  
8 **adjustment methodology since the company's last general**  
9 **rate case in Idaho?**

10 A. In prior cases, annual average sensitivity factors  
11 were derived and applied uniformly to all heating and  
12 cooling degree days throughout the year. In this new  
13 process the definition of the independent variables has  
14 been adjusted to produce seasonal sensitivity factors.  
15 Seasonal sensitivity factors change depending on the time  
16 of year, therefore it is important to determine when the  
17 deviations from heating and cooling degree days occurred,  
18 which is why we now use a monthly calculation to determine  
19 the adjustment volumes. This modification addressed  
20 concerns that applying the annual factors on a monthly  
21 basis produced some counter-intuitive results during  
22 shoulder and summer months, as well as concerns  
23 (particularly for natural gas) that the baseload value  
24 should approximate observed summer usage.

1           Also, we re-examined the question of whether five  
2 years of data included enough data points. Based on trend  
3 variables testing for systematic changes over time, we were  
4 comfortable with the use of ten year data sets for electric  
5 residential customers and all weather-sensitive natural gas  
6 customer groups in Idaho (as well as all electric and  
7 natural gas weather-sensitive customer groups in  
8 Washington). However, in response to visual inspection of  
9 graphed residuals (error values) over time, a marked change  
10 appeared to occur in Idaho electric general service  
11 customer groups about halfway through the ten year period.  
12 Consequently, the Idaho residential customer group utilizes  
13 a ten year regression analysis whereas the weather-  
14 sensitive general service customer groups utilize a five  
15 year regression analysis.

16           Finally, in the methodology utilized in prior cases,  
17 two statistical tests were used to determine whether a  
18 regression result was acceptable. Namely, the t-statistic  
19 for all independent variables must be greater than the  
20 absolute value of two, and the adjusted R-square statistic  
21 must be greater than sixty percent. For the new method we  
22 have added a third test to satisfy concerns that auto-  
23 correlation of error terms may have been present in the  
24 data. Now in addition to the first two tests, the

1 regression result must also pass the Durbin-Watson test for  
2 auto-correlation at five percent significance.

3 **Q. How has the definition of normal heating and**  
4 **cooling degree days changed?**

5 A. In prior cases the Company has used NOAA (National  
6 Oceanographic and Atmospheric Administration) published  
7 Monthly Station Normals for the Spokane airport weather  
8 station which represents a 30-year average. As mentioned  
9 above, in this case the Company is proposing a 25-year  
10 average instead.

11 **Q. Why are you proposing to change from a 30-year to**  
12 **a 25-year average for normal degree days?**

13 A. The NOAA normal publication utilizes the same  
14 National Weather Service data to develop their 30-year  
15 average or "normal", but it is only updated every ten  
16 years, so those statistics now reflect 1971 to 2000 data,  
17 which does not include the most current weather. During  
18 the years since the last NOAA publication, the Inland  
19 Northwest has experienced consistently warmer weather.  
20 Therefore, use of the outdated 30-year average may tend to  
21 overstate expected heating requirements and understate  
22 expected cooling requirements. Moving to a shorter average  
23 period, and maintaining the rolling average to keep current  
24 with the weather that has been experienced in Avista's



1 service territory, helps to overcome the limitations of the  
2 published "normal" data.

3 **Q. What was the impact of electric weather**  
4 **normalization on the 2007 test year?**

5 A. Weather was warmer than normal during the 2007  
6 test year, especially during the month of July, resulting  
7 in a net reduction to usage. The adjustment to normal  
8 required the addition of 77 heating degree-days and the  
9 deduction of 139 cooling degree-days. The net adjustment  
10 to Idaho sales volumes was a reduction of 14,411,360 kWhs  
11 which is slightly less than one-half of one percent of  
12 billed usage.

13 **Natural Gas Revenue Normalization**

14 **Q. Would you please describe the natural gas revenue**  
15 **adjustment included in Ms. Andrews pro forma results of**  
16 **operations?**

17 A. Yes. The natural gas revenue normalization  
18 adjustment is similar to the electric adjustment and  
19 represents the difference between the Company's actual  
20 recorded retail revenues during the 2007 test period and  
21 retail revenues on a normalized (pro forma) basis. The  
22 adjustment includes the re-pricing of pro forma sales and  
23 transportation volumes at present rates using pro forma  
24 sales volumes that have been adjusted for unbilled sales,  
25 abnormal weather, and any material customer load or

1 schedule changes. The rates used exclude: 1) Temporary  
2 Gas Rate Adjustment Schedule 155, which reflects the  
3 approved amortization rate for deferred gas costs approved  
4 in the Company's last PGA filing and 2) Public Purposes  
5 Rider Adjustment Schedule 191.

6 **Q. Does the Revenue Normalization Adjustment contain**  
7 **a component reflecting normalized gas costs?**

8 A. Yes. Purchase gas costs are normalized using the  
9 gas costs approved by the Commission in Case No. AVU-G-07-  
10 02, the Company's 2007 PGA filing, as set forth under  
11 Schedule 150. Those gas costs are then applied to the pro  
12 forma retail sales volumes so that there is a matching of  
13 revenues and gas costs.

14 The total net amount of the natural gas revenue  
15 normalization, which includes the purchase gas cost  
16 adjustment, is a decrease to net operating income of  
17 \$42,000, as shown in column (i), page 5 of Ms. Andrews  
18 Exhibit No.13, Schedule 2.

19 **Q. Would you please briefly discuss natural gas**  
20 **weather normalization?**

21 A. Yes. The natural gas weather adjustment is  
22 developed from a regression analysis of ten years of billed  
23 usage per customer and billing period heating degree-day  
24 data. The resulting seasonal weather sensitivity factors  
25 are applied to monthly test period customers and the

1 difference between normal heating degree-days and monthly  
2 test period observed heating degree-days. This calculation  
3 produces the change in therm usage required to adjust  
4 existing loads to the amount expected if weather had been  
5 normal.

6 **Q. How are normal heating and cooling degree days**  
7 **defined?**

8 A. Normal heating degree-days are based on a rolling  
9 25-year average of heating degree-days reported for each  
10 month by the National Weather Service for the Spokane  
11 Airport weather station. The 25 years are included on a  
12 heating season basis, July through June, so (for example)  
13 the October average reflects all the Octobers beginning in  
14 1982 and through 2006 whereas the May average reflects all  
15 of the Mays beginning in 1983 and through 2007. Each year  
16 the normal values will be adjusted to capture the next  
17 heating season with the oldest data dropping off, thereby  
18 encapsulating the most recent information available at the  
19 end of each calendar year.

20 **Q. Does this proposed weather adjustment methodology**  
21 **reflect the same revisions that were discussed regarding**  
22 **electric service?**

23 A. Yes, both the revisions to the process for  
24 determining the weather sensitivity factors and the change  
25 to the definition of "normal" are reflected in the

1 Company's weather normalization adjustment to natural gas  
2 usage.

3 **Q. What was the impact of natural gas weather**  
4 **normalization on the 2007 test year?**

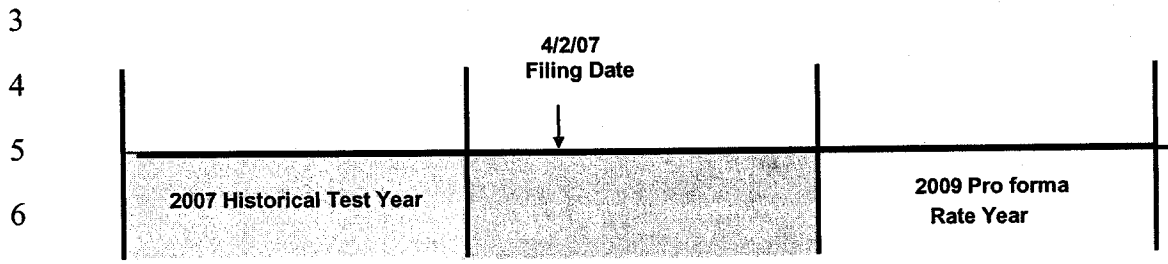
5 A. Weather was warmer than normal during the 2007  
6 test year. A colder than normal January was offset by  
7 warmer than normal February, March, and December resulting  
8 in a relatively small annual weather adjustment. The  
9 adjustment to normal required the addition of 77 heating  
10 degree-days. The adjustment to sales volumes was an  
11 addition of 331,196 therms which is less than one-third of  
12 one percent of billed usage.

13 **III. PRODUCTION PROPERTY ADJUSTMENT**

14 **Q. What is the purpose of a Production Property**  
15 **Adjustment?**

16 A. The purpose of using a Production Property  
17 Adjustment is to avoid an over-collection of fixed and  
18 variable production costs resulting from an increase in  
19 retail load from the historical test period to the pro  
20 forma rate period. In this general rate case Avista is  
21 using a 2007 historical test period, and a 2009 pro forma  
22 rate year. The illustration below shows, for Avista's  
23 present case: 1) the 2007 historical test year, 2) the date  
24 of the current rate case filing, and 3) the pro forma rate

1 year (calendar year 2009) in which new rates, if approved,  
2 will be in place.



8 In a rate case, the revenue requirement is spread to  
9 historical test year loads to establish new retail rates,  
10 which for Avista's present rate case is 2007 retail loads.  
11 When a rate case is developed to include the fixed and  
12 variable power supply costs during the 2009 pro forma rate  
13 year to serve 2009 rate year loads, we need to ensure that  
14 those fixed and variable costs are not over-collected as  
15 the load grows from the 2007 test year to the 2009 pro  
16 forma rate year. The Production Property Adjustment serves  
17 this purpose. The use of a Production Property Adjustment  
18 was approved by the Washington Utilities and Transportation  
19 Commission in the Company's recently-concluded 2007 rate  
20 case.

21 **Q. Why is Avista proposing a Production Property**  
22 **Adjustment in this case?**

23 A. We believe a Production Property Adjustment, in  
24 conjunction with pro forma rate year loads for power  
25 supply, results in a better matching of revenues and

1 expenses during the period that new retail rates from this  
2 rate case will be in effect. The use of 2009 pro forma  
3 loads will result in pro forma revenues and expenses in  
4 this filing that are much closer to what is expected to  
5 occur during the 2009 rate year, and the Production  
6 Property Adjustment will ensure that the Company does not  
7 over-collect its fixed and variable production costs. The  
8 Retail Revenue Credit (incremental load) adjustments in the  
9 PCA would be relatively small, since any true-ups would be  
10 based on a comparison of actual load for 2009 versus the  
11 2009 pro forma load included in base rates.

12 We have also applied the same theory to transmission  
13 fixed and variable costs in the development of the  
14 Production Property Adjustment. As loads grow, new  
15 customers (new retail KWH sales) will contribute toward the  
16 recovery of these transmission costs, and we have applied  
17 the same adjustment to transmission costs. Therefore, the  
18 proposed Production Property Adjustment ensures that both  
19 production costs and transmission costs are not over-  
20 collected during the year that rates go into effect.

21 **Q. How is the Production Property Adjustment applied?**

22 A. The production and transmission costs, both fixed  
23 and variable, that are included in the proposed retail  
24 rates in this case are factored down by the ratio of the  
25 Idaho 2007 test period loads and the Idaho 2009 pro forma

1 rate year loads. The retail load associated with the  
2 directly assigned purchase of Potlatch generation (which is  
3 tracked through the PCA at 100%) has been excluded from  
4 both 2007 and 2009 in order to match the proposed  
5 authorized retail load used to determine incremental load  
6 adjustments in the PCA. This ratio is then applied to the  
7 Production and Transmission operating and maintenance  
8 expenses, including depreciation and amortization expense,  
9 as well as net Production and Transmission rate base.

10 Company witness Mr. Kalich included the 2009 pro forma  
11 rate year loads in the AURORA model so that the costs  
12 associated with serving the loads are reflected in this  
13 case, and he provides further explanation of these loads in  
14 his testimony.

15 **Q. Do you have an exhibit that shows the calculation**  
16 **of the production property adjustment?**

17 A. Yes. Exhibit No. 14, Schedule 1 begins with the  
18 identification of the production and transmission revenue,  
19 expense and rate base amounts included in each of Ms.  
20 Andrews actual, restating, and pro forma adjustments to  
21 2007 results of operations (not including the production  
22 property adjustment). The values on line 39, labeled Pro  
23 Forma Total, reflect production and transmission revenues,  
24 expenses, and rate base necessary to serve 2009 retail  
25 loads. The values on line 43, labeled 2007

1 Production/Transmission Costs, are the amounts on line 39  
2 multiplied by the production factor (calculated on line 42)  
3 in order to reflect the proportion of those costs required  
4 to be recovered by 2007 retail loads. The difference  
5 between the 2007 and 2009 values (shown on line 44), is the  
6 production property adjustment Ms. Andrews included in her  
7 calculation of revenue requirement in this case.

8 **Q. What is shown on page 2 of Exhibit 14, Schedule 1?**

9 A. Page 2 of Exhibit No.14, Schedule 1 shows the  
10 calculation of the proposed revenue requirement associated  
11 with production and transmission costs in this case. The  
12 rate of return and debt cost percentages on line 2 are  
13 inputs from the proposed cost of capital. The rate base  
14 and net expense values are the same costs calculated on  
15 page 1 to determine the production property adjustment.  
16 The value of the Potlatch Generation purchase has been  
17 excluded from net expense consistent with the exclusion of  
18 the related load for PCA purposes. Line 10 shows the  
19 average Production and Transmission cost per kWh proposed  
20 to be embedded in customer rates.

21 **IV. ELECTRIC COST OF SERVICE**

22 **Q. Please briefly summarize your testimony related**  
23 **to the electric cost of service study.**

24 A. I believe the Base Case cost of service study  
25 presented in this case is a fair representation of the



1 costs to serve each customer group. The Base Case study  
2 shows Residential Service Schedule 1, Extra Large General  
3 Service Schedule 25 and 25P, and Street and Area Lighting  
4 provide less than the overall rate of return under present  
5 rates. General Service Schedule 11, Large General Service  
6 Schedule 21 and Pumping Service Schedule 31 provide more  
7 than the overall rate of return under present rates but  
8 less than the requested return.

9 **Q. What is an electric cost of service study and**  
10 **what is its purpose?**

11 A. An electric cost of service study is an  
12 engineering-economic study, which separates the revenue,  
13 expenses, and rate base associated with providing electric  
14 service to designated groups of customers. The groups are  
15 made up of customers with similar load characteristics and  
16 facilities requirements. Costs are assigned in relation to  
17 each group's characteristics, resulting in an evaluation of  
18 the cost of the service provided to each group. The rate  
19 of return by customer group indicates whether the revenue  
20 provided by the customers in each group recovers the cost  
21 to serve those customers. The study results are used as a  
22 guide in determining the appropriate rate spread among the  
23 groups of customers. Exhibit No. 14, Schedule 2 explains  
24 the basic concepts involved in performing an electric cost  
25 of service study. It also details the specific methodology

1 and assumptions utilized in the Company's Base Case cost of  
2 service study.

3 **Q. What is the basis for the electric cost of**  
4 **service study provided in this case?**

5 A. The electric cost of service study provided by  
6 the Company as Exhibit No.14, Schedule 2 is based on the  
7 2007 test year pro forma results of operations presented by  
8 Company witness Ms. Andrews in Exhibit No.13, Schedule 1.

9 **Q. Would you please explain the cost of service**  
10 **study presented in Exhibit No. 14, Schedule 3?**

11 A. Yes. Exhibit No. 14, Schedule 3 is composed of a  
12 series of summaries of the cost of service study results.  
13 The summary on page 1 shows the results of the study by  
14 FERC account category. The rate of return by rate schedule  
15 and the ratio of each schedule's return to the overall  
16 return are shown on Lines 39 and 40. This summary was  
17 provided to Mr. Hirschhorn for his work on rate spread and  
18 rate design. The results will be discussed in more detail  
19 later in my testimony.

20 Pages 2 and 3 are both summaries that show the revenue  
21 to cost relationship at current and proposed revenue.  
22 Costs by category are shown first at the existing schedule  
23 returns (revenue); next the costs are shown as if all  
24 schedules were providing equal recovery (cost). These  
25 comparisons show how far current and proposed rates are,

1 from rates that would be in alignment with the cost study.  
2 Page 2 shows the costs segregated into production,  
3 transmission, distribution, and common functional  
4 categories. Page 3 segregates the costs into demand,  
5 energy, and customer classifications.

6 The Excel model used to calculate the cost of service  
7 and supporting schedules have been included in their  
8 entirety both electronically and hard copy in the  
9 workpapers accompanying this case.

10 **Q. Does the Company's electric Base Case cost of**  
11 **service study follow the methodology accepted in the**  
12 **Company's last electric general rate case in Idaho?**

13 A. Yes. The Base Case cost of service study was  
14 prepared using the methodology accepted by the Idaho  
15 commission in Case No. AVU-E-04-01.

16 **Q. Given that the specific details of this**  
17 **methodology are described in Exhibit No. 14, Schedule 2,**  
18 **would you please give a brief overview of the key elements**  
19 **and the history associated with those elements?**

20 A. Production and transmission costs are classified  
21 to energy and demand by a peak credit analysis. Avista has  
22 been using the peak credit classification process for cost  
23 of service studies in both Washington and Idaho  
24 jurisdictions since the 1980's. Distribution costs are

1 classified and allocated by the basic customer theory<sup>1</sup>  
2 accepted by the Idaho commission in Case No. WWP-E-98-11.  
3 Additional direct assignment of demand related distribution  
4 plant has been incorporated to reflect improvements  
5 accepted by the commission in Case No. AVU-E-04-01.  
6 Administrative and general costs are first directly  
7 assigned to production, transmission, distribution, or  
8 customer relations functions. The remaining administrative  
9 and general costs are categorized as common costs and have  
10 been assigned to customer classes by the four-factor  
11 allocator accepted by the Idaho commission in Case No. AVU-  
12 E-04-01.

13 **Q. What are the results of the Company's Base Case**  
14 **cost of service study?**

15 A. The following table shows the rate of return and  
16 the relationship of the customer class return to the  
17 overall return (relative return ratio) at present rates for  
18 each rate schedule:

---

<sup>1</sup> Basic customer theory classifies only meters, services and street lights as customer-related plant; all other distribution facilities are considered demand-related.



1 factors for most customer groups (rate schedules) utilizes  
2 current billing system statistics and predicted daily  
3 volumes from the current weather sensitivity analysis in  
4 conjunction with load shape relationships produced by the  
5 prior load research data. The extra large general service  
6 schedules are not estimated, as current actual hourly  
7 demand data is available for them.

8 **Q How does the load shape information affect the**  
9 **cost of service study results?**

10 A. Slightly more than one-third of the costs in  
11 this study are demand-related and therefore affected by the  
12 coincident peak or non-coincident peak allocation factors.  
13 Even though I believe the study as a whole provides a  
14 reasonable representation of the cost of service, the  
15 results should not be used with a high level of precision.

16 In addition, because of the absence of a recent demand  
17 study, reliable data was not available to conduct adequate  
18 analysis of demand-metered Schedule 11 customers to  
19 evaluate the reasonableness of segregating them into a  
20 separate schedule, as briefly addressed in Mr. Hirschhorn's  
21 testimony.

22 **Q. Is the Company conducting a new demand study?**

23 A. Yes. Currently the Company is in the process of  
24 developing an hourly load research study. Under the  
25 current timeline, load research meters will be installed on

1 a statistical sample of customers from each of the customer  
2 groups later this year in order to collect a full year of  
3 hourly data.

4 **V. NATURAL GAS COST OF SERVICE**

5 **Q. Please describe the natural gas cost of service**  
6 **study and its purpose.**

7 A. A natural gas cost of service study is an  
8 engineering-economic study which separates the revenue,  
9 expenses, and rate base associated with providing natural  
10 gas service to designated groups of customers. The groups  
11 are made up of customers with similar usage characteristics  
12 and facility requirements. Costs are assigned in relation  
13 to each groups' characteristics, resulting in an evaluation  
14 of the cost of the service provided to each group. The  
15 rate of return by customer group indicates whether the  
16 revenue provided by the customers in each group recovers  
17 the cost to serve those customers. The study results are  
18 used as a guide in determining the appropriate rate spread  
19 among the groups of customers. Exhibit No.14, Schedule 4  
20 explains the basic concepts involved in performing a  
21 natural gas cost of service study. It also details the  
22 specific methodology and assumptions utilized in the  
23 Company's Base Case cost of service study.

24 **Q. What is the basis for the natural gas cost of**  
25 **service study provided in this case?**







1 and one-half based on throughput. A detailed description  
2 of the methodology is included in Exhibit No.14, Schedule  
3 4.

4 **Q. What are the results of the Company's natural gas**  
5 **cost of service study?**

6 A. I believe the Base Case cost of service study  
7 presented in this filing is a fair representation of the  
8 costs to serve each customer group. The study indicates  
9 that Large Firm and Interruptible Service schedules (121  
10 and 131) are providing less than the overall return  
11 (unity), while Transportation Service Schedule 146 is  
12 providing more than unity. Small Firm is also above unity,  
13 but below the requested return, and Residential Service is  
14 only slightly below unity.

15 The following table shows the rate of return and the  
16 relative return ratio at present rates for each rate  
17 schedule:

18 **Table 2**

<u>Customer Class</u>	<u>Rate of</u> <u>Return</u>	<u>Return Ratio</u>
Residential Service Schedule 101	4.93%	0.95
Small Firm Service Schedule 111	7.14%	1.37
Large Firm Service Schedule 121	2.40%	0.46
Interruptible Service Schedule 131	3.21%	0.62
Transportation Service Schedule 146	<u>11.22%</u>	<u>2.15</u>
Total Idaho Natural Gas System	<u>5.21%</u>	<u>1.00</u>

1           The summary results of this study were provided to Mr.  
2 Hirschhorn as an input into development of the proposed  
3 rates.

4           **Q. Does this conclude your pre-filed direct**  
5 **testimony?**

6           A. Yes.

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IDAHO PUBLIC UTILITIES COMMISSION

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GOVERNMENTAL AFFAIRS  
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STATE OF IDAHO ) TARA L. KNOX  
)

FOR AVISTA CORPORATION

(ELECTRIC AND GAS)

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IDAHO PUBLIC  
UTILITIES COMMISSION

**CONFIDENTIAL**

**Avista Utilities  
Production Property Adjustment Calculation  
Idaho Electric  
Twelve Months Ended December 31, 2007**

**THIS PAGE ALLEGEDLY CONTAINS TRADE SECRETS OR CONFIDENTIAL  
MATERIALS AND IS SEPARATELY FILED.**

Exhibit No. 14  
Case No. AVU-E-08-01  
T. Knox, Avista  
Schedule 1, p.1 of 2

Proposed Production and Transmission Revenue Requirement  
Calculation of Retail Revenue Credit Rate at Proposed Return

		2007	2009	Debt Cost	
1	Prod/Trans	Pro Forma Rate Base	\$298,570	\$313,996	
2		Proposed Rate of Return	<u>8.740%</u>	<u>8.740%</u>	3.56%
3	Rate Base	Net Operating Income Requirement	\$26,095	\$27,443	
4	Tax Effect	Net Operating Income Requirement (Rate Base x Debt Cost x -35%)	(\$3,720)	(\$3,912)	
5	Net Expense	Net Operating Income Requirement (Expense - Revenue)	\$95,600	100,539	
6	Tax Effect	Net Operating Income Requirement (Net Expense x -.35%)	(\$33,460)	(\$35,189)	
7	Total Prod/Trans	Net Operating Income Requirement	\$84,515	\$88,881	
8	1 - Tax Rate	Conversion Factor (Excl. Rev. Rel. Exp.	0.65	0.65	
9	Prod/Trans	Revenue Requirement	<b>\$130,023</b>	<b>\$136,740</b>	\$6,718
10	Prod/Trans Rev Requirement per kWh		\$ 0.04383	\$ 0.04383	6,718
		Potlatch Generation Purchase of \$19,861 Passed through PCA at 100%			
11	Excluded from Net Expense on Line 5		18,885	19,861	976

## ELECTRIC COST OF SERVICE

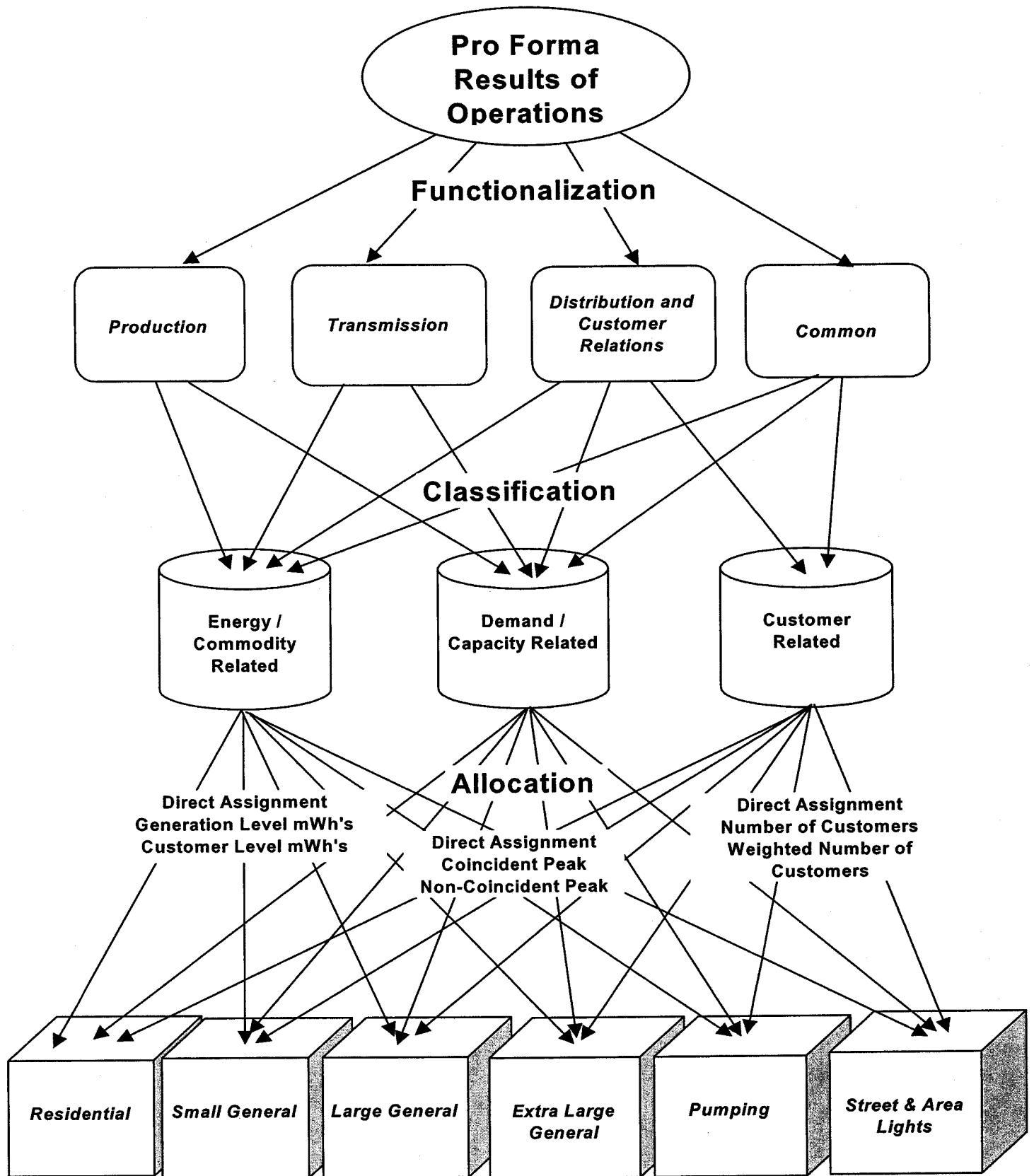
A cost of service study is an engineering-economic study, which apportions the revenue, expenses, and rate base associated with providing electric service to designated groups of customers. It indicates whether the revenue provided by the customers recovers the cost to serve those customers. The study results are used as a guide in determining the appropriate rate spread among the groups of customers.

There are three basic steps involved in a cost of service study: functionalization, classification, and allocation. See flow chart.

First, the expenses and rate base associated with the electric system under study are assigned to functional categories. The uniform system of accounts provides the basic segregation into production, transmission, and distribution. Traditionally customer accounting, customer information, and sales expenses are included in the distribution function and administrative and general expenses and general plant rate base are allocated to all functions. In this study I have created a separate functional category for common costs. Administrative and general costs that cannot be directly assigned to the other functions have been placed in this category.

Second, the expenses and rate base items that cannot be directly assigned to customer groups are classified into three primary cost components: energy, demand or customer related. Energy related costs are allocated based on each rate schedule's share of commodity consumption. Demand (capacity) related costs are allocated to rate schedules on the basis of each schedule's contribution to peak demand. Customer related items are allocated to rate schedules based on the number of customers within each schedule. The number of customers may be weighted by appropriate factors such as relative cost of metering equipment. In addition to these three cost components, any revenue related expense is allocated based on the proportion of revenues by rate schedule.

# ELECTRIC COST OF SERVICE STUDY FLOWCHART



**Pro Forma Results of Operations by Customer Group**



The final step is allocation of the costs to the various rate schedules utilizing the allocation factors selected for each specific cost item. These factors are derived from usage and customer information associated with the test period results of operations.

### **BASE CASE COST OF SERVICE STUDY**

#### **Production and Transmission Classification (Peak Credit)**

This study utilizes a Peak Credit methodology to classify production and transmission costs into demand and energy classifications. The Peak Credit method acknowledges that baseload production facilities provide energy throughout the year as well as capacity during system peaks and likewise the transmission system is built not only for peak use, but also for everyday delivery of energy. The demand/energy ratio is determined by the relationship of the current replacement cost per kW generating capacity of the Company's peaking units to the current replacement cost per kW generating capacity of the Company's thermal or hydro plant. The peak credit ratio for thermal plant is 33.57% to demand and 66.43% to energy. The peak credit ratio for hydro plant is 26.82% to demand and 73.18% to energy. As an intermediate resource (between peaking and baseload), Coyote Springs II has been included with the thermal plant costs, whereas all other plants in the 340 to 349 FERC plant accounts are considered peaking units.

Transmission costs are classified by fifty-fifty weighting of the thermal and hydro peak credit ratios resulting in the transmission peak credit ratio of 30.19% to demand and 69.81% to energy. Fuel and load dispatching expenses are classified entirely to energy. Peaking plant related costs are classified entirely to demand. Purchased Power and Other Power Supply expenses are classified to demand and energy by the relative amounts of assigned and allocated Production Plant in Service.

## **Production and Transmission Allocation**

Production and transmission demand related costs are allocated to the customer classes by class contribution to the average of the twelve monthly system coincident peak loads. Although the Company is usually technically a winter peaking utility, it experiences high summer peaks and careful management of capacity requirements is required throughout the year. The use of the average of twelve monthly peaks recognizes that customer capacity needs are not limited to the heating season.

Energy related costs are allocated to class by pro forma annual kilowatthour sales adjusted for losses to reflect generation level consumption.

## **Distribution Facilities Classification (Basic Customer)**

The Basic Customer method considers only services and meters and directly assigned Street Lighting apparatus (FERC Accounts 369, 370, and 373 respectively) to be customer related distribution plant. All other distribution plant is then considered demand related. This division delineates plant which benefits an individual customer from plant which is part of the system. The basic customer method provides a reasonable, clearly definable division between plant that provides service only to individual customers from plant that is part of the interconnected distribution network.

## **Customer Relations Distribution Cost Classification**

Customer service, customer information and sales expenses are the core of the customer relations functional unit which is included with the distribution cost category. For the most part they are classified as customer related. Exceptions are sales expenses which are classified as energy related and uncollectible accounts expense which is considered separately as a revenue conversion item. Demand Side Management expenses recorded in Account 908 are also considered separately from the other customer information costs.

The demand side management investment and amortization are classified implicitly to demand and energy by the sum of production plant in service, then allocated to rate schedules by coincident peak demand and energy consumption respectively.

### **Distribution Cost Allocation**

Distribution demand related costs which cannot be directly assigned are allocated to customer class by the average of the twelve monthly non-coincident peaks for each class. Distribution facilities that serve only secondary voltage customers are allocated by the non-coincident peak excluding primary voltage customers or number of customers excluding primary voltage customers. This includes line transformers, services, and secondary voltage overhead or underground conductors and devices. The costs of specific substations and related primary voltage distribution facilities are directly assigned to Extra Large General Service customers based on their load ratio share of the substation capacity from which they receive service.

Most customer costs are allocated by average number of customers. Weighted customer allocators have been developed using typical current cost of meters, estimated meter reading time, and direct assignment of billing costs for hand-billed customers. Street and area light customers are excluded from metering and meter reading expenses as their service is not metered.

### **Administrative and General Costs**

Administrative and general costs which are directly associated with production, transmission, distribution, or customer relations functions are directly assigned to those functions and allocated to customer class by the relevant plant or number of customers. The remainder of administrative and general costs are considered common costs, and have been left in their own functional category. These common costs are classified by the implicit relationship of energy, demand and customer within the four-factor allocator applied to them. The four-factor allocator consists of a 25% weighting of each of the following: 1) operating & maintenance expenses

excluding resource costs, labor expenses, and administrative and general expenses; 2) operating and maintenance labor expenses excluding administrative and general labor expenses; 3) net production, transmission, and distribution plant; and 4) number of customers.

### **Revenue Conversion Items**

In this study uncollectible accounts and commission fees have been classified as revenue related and are allocated by pro forma revenue. These items vary with revenue and are included in the calculation of the revenue conversion factor. Income tax expense items are allocated to schedules by net income before income tax adjusted by interest expense.

For the functional summaries on pages 2 and 3 of the cost of service study, these items are assigned to component cost categories. The revenue related expense items have been reduced to a percent of all other costs and loaded onto each cost category by that ratio. Similarly, income tax items have been reduced to a percent of net income before tax then assigned to cost categories by relative rate base (as is net income).

The following matrix outlines the methodology applied in the Company Base Case cost of service study.

RUC Case No. AVU-E-08-01 Methodology Matrix  
 Avista Utilities Idaho Jurisdiction  
 Electric Cost of Service Methodology

Account	Functional Category	Classification	Allocation
<b>Production Plant</b>			
Thermal Production	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Hydro Production	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Other Production (Coyote Springs)	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Other Production	P = Production	Demand	D01 Coincident Peak Demand
<b>Transmission Plant</b>			
All Transmission	T = Transmission	Demand/Energy by Trans Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
<b>Distribution Plant</b>			
360 Land	D = Distribution	Demand	D02 Non-coincident Peak Demand (NCP)
361 Structures	D = Distribution	Demand	D03/D04/D05 Direct Assign Large / Non-coincident Peak Demand Excl DA
362 Station Equipment	D = Distribution	Demand	D03/D04/D05 Direct Assign Large / Non-coincident Peak Demand Excl DA
364 Poles Towers & Fixtures	D = Distribution	Demand	D03/C04/D06 Direct Assign Large & Lights / NCP Excl DA / NCP Secondary
365 Overhead Conductors & Devices	D = Distribution	Demand	D03/C04/D06 Direct Assign Large / NCP Excl DA / NCP Secondary
366 Underground Conduit	D = Distribution	Demand	D03/C04/D06 Direct Assign Large / NCP Excl DA / NCP Secondary
367 Underground Conductors & Devices	D = Distribution	Demand	D03/C04/D06 Direct Assign Large / NCP Excl DA / NCP Secondary
368 Line Transformers	D = Distribution	Demand	D06 Non-coincident Peak Demand Secondary
369 Services	D = Distribution	Customer	C02 Secondary Customers unweighted Excl Lighting
370 Meters	D = Distribution	Customer	C04 Customers weighted by Current Typical Meter Cost
373 Street and Area Lighting Systems	D = Distribution	Customer	C05 Direct Assignment to Street and Area Lights
<b>General Plant</b>			
All General	O=Other	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
<b>Intangible Plant</b>			
301 Organization	O=Other	Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
302 Franchises & Consents	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
303 Misc Intangible Plant - Grant Co Transmission	T = Transmission	Demand/Energy by Trans Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
303 Misc Intangible Plant - Software	O=Other	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
<b>Reserve for Depreciation/Amortization</b>			
Intangible	P/T/O	Follows Related Plant	S01/S02/S23 Sum of Production Plant / Sum of Transmission Plant / Corp Cost Allocator
Production	P = Production	Follows Related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Transmission	T = Transmission	Follows Related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Distribution	D = Distribution	Follows Related Plant	D02/D03/D04/D05/D06/D07/D08/C02/C04/C05 - See Related Plant
General	O=Other	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
<b>Other Rate Base</b>			
252 Customer Advances for Construction	D = Distribution	Customer	S13 Sum of Account 369 Services Plant
282/190 Accumulated Deferred Income Tax	P/T/D/O by Plant Balances	Follows Related Plant	S01/S02/S03/S04 Sums of Production / Transmission / Distribution / General Plant
Gain on Sale of General Office Building	O=Other	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
Hydro Related Deferred Balances	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Demand Side Management Investment	DSM	Demand/Energy from Production Plant	S01 Sum of Production Plant
<b>Production O&amp;M</b>			
Thermal	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Thermal Fuel (501)	P = Production	Energy	E02 Annual Generation Level Consumption
Hydro	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption

Account	Functional Category	Classification	Allocation
<b>Production O&amp;M (continued)</b>			
Water for Power (536)	P = Production	Energy	E02 Annual Generation Level Consumption
Other (Coyote Springs)	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Other Fuel (547)	P = Production	Energy	E02 Annual Generation Level Consumption
Other	P = Production	Demand	D01 Coincident Peak Demand
Purchased Power and Other Expenses (555 and 557)	P = Production	Demand/Energy from Production Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
System Control & Misc (556)	P = Production	Energy	E02 Annual Generation Level Consumption
<b>Transmission O&amp;M</b>			
All Transmission	T = Transmission	Demand/Energy by Trans Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
<b>Distribution O&amp;M</b>			
580 OP Super & Engineering	D = Distribution	Demand/Customer from Other Dist Op Exp	S16 Sum of Other Distribution Operating Expenses
581 Load Dispatching	D = Distribution	Demand	D02 Non-coincident Peak Demand
582 Station Expenses	D = Distribution	Demand	S09 Sum of Account 362 Station Equipment
583 Overhead Lines	D = Distribution	Demand	S10 Sum of Accounts 364 and 365 Poles, Towers, Fixtures & Overhead Conductors
584 Underground Lines	D = Distribution	Demand	S11 Sum of Accounts 366 and 367 Underground Conduit & Underground Conductors
585 Street Lights	D = Distribution	Customer	S15 Sum of Account 373 Street Light and Signal Systems
586 Meters	D = Distribution	Customer	S14 Sum of Account 370 Meters
587 Customer Installations	D = Distribution	Customer	S13 Sum of Account 369 Services
588 Misc Operating Expense	D = Distribution	Demand/Customer from Other Dist Op Exp	S16 Sum of Other Distribution Operating Expenses
589 Rents	D = Distribution	Demand	D02 Non-coincident Peak Demand
590 MT Super & Engineering	D = Distribution	Demand/Customer from Other Dist Mt Exp	S17 Sum of Other Distribution Maintenance Expenses
591 MT of Structures	D = Distribution	Demand	S08 Sum of Account 361 Structures & Improvements
592 MT of Station Equipment	D = Distribution	Demand	S09 Sum of Account 362 Station Equipment
593 MT of Overhead Lines	D = Distribution	Demand	S10 Sum of Accounts 364 and 365 Poles, Towers, Fixtures & Overhead Conductors
594 MT of Underground Lines	D = Distribution	Demand	S11 Sum of Accounts 366 and 367 Underground Conduit & Underground Conductors
595 MT of Line Transformers	D = Distribution	Customer	S12 Sum of Account 368 Line Transformers
596 MT of Street Lights	D = Distribution	Customer	S15 Sum of Account 373 Street Light and Signal Systems
597 MT of Meters	D = Distribution	Customer	S14 Sum of Account 370 Meters
598 Misc Maintenance Expense	D = Distribution	Demand/Customer from Other Dist Mt Exp	S17 Sum of Other Distribution Maintenance Expenses
<b>Customer Accounts Expenses</b>			
901 Supervision	C = Customer Relations	Customer	S18 Sum of Other Customer Accounts Expenses Excluding Uncollectibles
902 Meter Reading	C = Customer Relations	Customer	C03 Customers Weighted by Estimated Meter Reading Time
903 Customer Records & Collections	C = Customer Relations	Customer	C01/C06 All Customers unweighted / Direct Assign Handbilled Cust
904 Uncollectible Accounts	R = Revenue Conversion	Revenue	R01 Retail Sales Revenue
905 Misc Cust Accounts	C = Customer Relations	Customer	C01 All Customers unweighted
<b>Customer Service &amp; Info Expenses</b>			
907 Supervisor	C = Customer Relations	Customer	C01 All Customers unweighted
908 Customer Assistance	C = Customer Relations	Customer	C01 All Customers unweighted
908 DSM Amortization Expenses	DSM	Demand/Energy from Production Plant	S01 Sum of Production Plant
909 Advertising	C = Customer Relations	Customer	C01 All Customers unweighted
910 Misc Cust Service & Info	C = Customer Relations	Customer	C01 All Customers unweighted
<b>Sales Expenses</b>			
911 - 916	C = Customer Relations	Energy	E02 Annual Generation Level Consumption

IPUC Case No. AVU-E-08-01 Methodology Matrix  
 Avista Utilities Idaho Jurisdiction  
 Electric Cost of Service Methodology

Account	Functional Category	Classification	Allocation
<b>Admin &amp; General Expenses</b>			
920 - 927 & 930 - 935 Assigned to Production	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
920 - 927 & 930 - 935 Assigned to Transmission	T = Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
920 - 927 & 930 - 935 Assigned to Distribution	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
920 - 927 & 930 - 935 Assigned to Customer Relations	C = Customer Relations	Customer	C01 All Customers unweighted
920 - 935 Assigned to Other	O=Other	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
928 FERC Commission Fees	P = Production	Energy	E02 Annual Generation Level Consumption
928 IPUC Commission Fees	R = Revenue Conversion	Revenue	R01 Retail Sales Revenue
<b>Depreciation &amp; Amortization Expense</b>			
Intangible	P/T/O	Demand/Energy/Customer as in related Plant	S01/S02/S23 Sum of Production Plant / Sum of Transmission Plant / Corp Cost Allocator
Production	P = Production	Demand/Energy as in related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Transmission	T = Transmission	Demand/Energy as in related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Distribution	D = Distribution	Demand/Customer as in related Plant	D02/D03/D04/D05/D06/D07/D08/C02/C04/C05 - See Related Plant
General	O=Other	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
<b>Taxes</b>			
Property Tax	P/T/D/O	Demand/Energy/Customer from Related Plant	S01/S02/S03/S04 Sums of Production / Transmission / Distribution / General Plant
State kWh Generation Taxes	P = Production	Demand/Energy by Combo Peak Credits & Energy	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Misc Production Taxes	P = Production	Demand/Energy by Combo Peak Credits & Energy	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Misc Distribution Taxes	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Idaho State Income Tax	R = Revenue Conversion	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
Federal Income Tax	R = Revenue Conversion	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
Deferred FTT	R = Revenue Conversion	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
<b>Other Income Related Items</b>			
CS2 Levelized Return and Boulder Write-off Amort	P = Production	Demand/Energy as in related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
<b>Operating Revenues</b>			
Sales of Electricity- Retail	R = Revenue from Rates	Revenue	Input Pro Forma Revenue per Revenue Study
Sales for Resale (447)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
Misc Service Revenue (451)	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Sales of Water & Water Power (453)	P = Production	Demand	D01 Coincident Peak Demand
Rent from Production Property (454)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
Rent from Distribution Property (454)	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Other Electric Revenues - Generation (456)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
Other Electric Revenues - Wheeling (456)	T = Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
Other Electric Revenues - Energy Delivery (456)	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Optional Renewable Revenue (Sch 95)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
Montana Retail Revenue	P = Production	Demand	D01 Coincident Peak Demand
<b>Salaries &amp; Wages (allocation factor input)</b>			
Operation & Maintenance Expenses			
Production Total	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
Transmission Total	T = Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
Distribution Total	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Customer Accounts Total	C = Customer Relations	Customer	S18 Sum of Other Customer Accounts Expenses Excluding Uncollectibles
Customer Service Total	C = Customer Relations	Customer	C01 All Customers unweighted
Sales Total	C = Customer Relations	Energy	E02 Annual Generation Level Consumption
Admin & General Total	O=Other	Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers

Sumcost  
Scenario: Company Base Case  
AVU-E-04-01 Method

AVISTA UTILITIES  
Cost of Service Basic Summary  
For the Year Ended December 31, 2007

Idaho Jurisdiction  
Electric Utility

03-18-08

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Description	System	Residential	General	Large Gen	Extra Large	Extra Large	Pumping	Street &				
	Total	Sch 1	Sch 11-12	Sch 21-22	Gen Service	Service Potlatch	Sch 31-32	Area Lights				Sch 41-49
<b>Plant In Service</b>												
1 Production Plant	349,419,000	123,948,683	35,008,568	70,179,596	30,627,751	82,600,694	5,905,485	1,148,222				
2 Transmission Plant	153,519,000	53,811,223	15,204,909	30,833,976	13,554,024	36,979,568	2,608,315	526,984				
3 Distribution Plant	365,131,000	183,065,950	58,338,616	83,921,796	11,469,208	2,105,462	8,085,480	18,144,488				
4 Intangible Plant	23,770,000	9,447,400	2,548,292	4,458,737	1,844,839	4,897,055	398,384	175,291				
5 General Plant	55,533,000	29,356,229	7,246,227	8,430,323	2,672,657	5,946,234	890,769	990,562				
6 Total Plant In Service	947,372,000	399,629,485	118,346,611	197,824,428	60,168,480	132,529,014	17,888,433	20,985,548				
<b>Accum Depreciation</b>												
7 Production Plant	(134,749,000)	(47,635,747)	(13,456,014)	(27,063,925)	(11,835,886)	(32,028,093)	(2,280,844)	(448,491)				
8 Transmission Plant	(51,662,000)	(18,108,478)	(5,116,735)	(10,376,207)	(4,561,181)	(12,444,313)	(877,747)	(177,340)				
9 Distribution Plant	(111,662,000)	(55,324,436)	(16,812,884)	(25,432,107)	(3,115,642)	(574,733)	(2,316,497)	(8,085,701)				
10 Intangible Plant	(4,540,000)	(2,198,979)	(556,724)	(743,985)	(263,667)	(637,755)	(73,927)	(64,963)				
11 General Plant	(24,058,000)	(12,717,702)	(3,139,210)	(3,652,183)	(1,157,848)	(2,576,027)	(385,899)	(429,131)				
12 Total Accumulated Depreciation	(326,671,000)	(135,985,342)	(39,081,567)	(67,268,407)	(20,934,224)	(48,260,921)	(5,934,914)	(9,205,626)				
13 Net Plant	620,701,000	263,644,143	79,265,044	130,556,021	39,234,257	84,268,094	11,953,519	11,779,923				
14 Accumulated Deferred FIT	(88,531,000)	(37,017,203)	(10,836,262)	(18,236,718)	(5,810,553)	(13,221,784)	(1,643,787)	(1,764,693)				
15 Miscellaneous Rate Base	16,096,000	5,212,821	1,535,993	3,392,291	1,503,131	4,118,703	278,963	54,097				
16 Total Rate Base	548,266,000	231,839,762	69,964,775	115,711,593	34,926,835	75,165,013	10,588,696	10,069,327				
17 Revenue From Retail Rates	193,270,000	75,282,000	24,573,000	40,085,000	13,077,000	34,045,000	3,690,000	2,518,000				
18 Other Operating Revenues	31,389,000	11,319,081	3,221,092	6,342,676	2,678,443	7,125,315	537,623	164,771				
19 Total Revenues	224,659,000	86,601,081	27,794,092	46,427,676	15,755,443	41,170,315	4,227,623	2,682,771				
<b>Operating Expenses</b>												
20 Production Expenses	118,970,000	41,385,697	11,697,037	23,894,986	10,551,358	28,993,533	2,028,014	419,375				
21 Transmission Expenses	8,348,000	2,926,127	826,807	1,676,679	737,036	2,010,861	141,834	28,656				
22 Distribution Expenses	8,537,000	4,069,514	1,138,788	2,003,212	348,837	70,502	156,467	749,679				
23 Customer Accounting Expenses	3,291,000	2,465,581	547,061	127,538	28,470	72,962	41,367	8,021				
24 Customer Information Expenses	1,518,000	649,075	165,574	259,923	112,222	302,587	24,160	4,459				
25 Sales Expenses	276,000	92,283	26,119	55,436	25,041	71,235	4,784	1,103				
26 Admin & General Expenses	20,109,000	10,345,438	2,612,430	3,195,884	1,006,053	2,252,631	330,565	365,998				
27 Total O&M Expenses	161,049,000	61,933,715	17,013,815	31,213,658	12,809,018	33,774,312	2,727,191	1,577,291				
28 Taxes Other Than Income Taxes	6,413,000	2,544,288	749,790	1,335,626	458,229	1,099,714	118,113	107,239				
29 Other Income Related Items	(158,000)	(59,188)	(16,687)	(31,733)	(13,375)	(34,004)	(2,604)	(410)				
<b>Depreciation Expense</b>												
30 Production Plant Depreciation	9,073,000	3,237,319	914,179	1,822,274	792,430	2,124,699	152,941	29,157				
31 Transmission Plant Depreciation	3,112,000	1,090,813	308,220	625,039	274,755	749,617	52,873	10,683				
32 Distribution Plant Depreciation	9,159,000	4,502,933	1,488,388	2,199,909	320,557	50,232	210,580	386,400				
33 General Plant Depreciation	3,842,000	2,030,984	501,324	583,244	184,905	411,385	61,627	68,531				
34 Amortization Expense	637,000	229,264	64,722	127,938	55,337	147,064	10,696	1,978				
35 Total Depreciation Expense	25,823,000	11,091,314	3,276,834	5,358,404	1,627,984	3,482,997	488,718	496,750				
36 Income Tax	4,290,000	1,013,249	1,528,184	1,582,752	(132,046)	61,225	185,417	51,219				
37 Total Operating Expenses	197,417,000	76,523,379	22,551,936	39,458,708	14,749,810	38,384,244	3,516,834	2,232,089				
38 Net Income	27,242,000	10,077,702	5,242,156	6,968,968	1,005,633	2,786,071	710,789	450,682				
39 Rate of Return	4.97%	4.35%	7.49%	6.02%	2.88%	3.71%	6.71%	4.48%				
40 Return Ratio	1.00	0.87	1.51	1.21	0.58	0.75	1.35	0.90				
41 Interest Expense	19,518,000	8,253,382	2,490,712	4,119,276	1,243,378	2,675,837	376,952	358,463				



	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
					System	Residential	General	Large Gen	Extra Large	Extra Large	Pumping	Street &
Description					Total	Sch 1	Sch 11-12	Sch 21-22	Gen Service	Service Potlatch	Sch 31-32	Area Lights
									Sch 25	Sch 25P		Sch 41-49
<b>Functional Cost Components at Current Return by Schedule</b>												
1 Production					117,314,335	40,313,386	12,416,443	24,385,897	9,873,346	27,806,569	2,107,399	411,296
2 Transmission					15,109,239	5,099,767	1,871,804	3,387,609	1,105,369	3,291,359	302,776	50,555
3 Distribution					38,245,594	18,043,943	7,197,848	8,811,528	1,050,641	579,955	905,478	1,656,202
4 Common					22,600,832	11,824,903	3,086,906	3,499,967	1,047,645	2,367,116	374,347	399,948
5 Total Current Rate Revenue					193,270,000	75,282,000	24,573,000	40,085,000	13,077,000	34,045,000	3,690,000	2,518,000
Expressed as \$/kWh												
6 Production					\$0.03421	\$0.03546	\$0.03859	\$0.03563	\$0.03128	\$0.03096	\$0.03576	\$0.03028
7 Transmission					\$0.00441	\$0.00449	\$0.00582	\$0.00495	\$0.00350	\$0.00366	\$0.00514	\$0.00372
8 Distribution					\$0.01115	\$0.01587	\$0.02237	\$0.01288	\$0.00333	\$0.00065	\$0.01537	\$0.12193
9 Common					\$0.00659	\$0.01040	\$0.00959	\$0.00511	\$0.00332	\$0.00264	\$0.00635	\$0.02944
10 Total Current Melded Rates					\$0.05636	\$0.06623	\$0.07638	\$0.05858	\$0.04143	\$0.03790	\$0.06262	\$0.18537
<b>Functional Cost Components at Uniform Current Return</b>												
11 Production					117,995,190	41,028,867	11,596,359	23,699,203	10,467,579	28,774,853	2,011,773	416,556
12 Transmission					15,409,177	5,401,199	1,526,164	3,094,902	1,360,459	3,711,754	261,805	52,895
13 Distribution					37,241,883	19,145,624	5,738,999	7,950,640	1,300,608	618,486	764,953	1,722,572
14 Common					22,623,750	11,959,519	2,952,061	3,434,454	1,088,821	2,422,454	362,893	403,548
15 Total Uniform Current Cost					193,270,000	77,535,210	21,813,583	38,179,198	14,217,468	35,527,546	3,401,424	2,595,571
Expressed as \$/kWh												
16 Production					\$0.03441	\$0.03609	\$0.03604	\$0.03463	\$0.03316	\$0.03203	\$0.03414	\$0.03067
17 Transmission					\$0.00449	\$0.00475	\$0.00474	\$0.00452	\$0.00431	\$0.00413	\$0.00444	\$0.00389
18 Distribution					\$0.01086	\$0.01684	\$0.01784	\$0.01162	\$0.00412	\$0.00069	\$0.01298	\$0.12681
19 Common					\$0.00660	\$0.01052	\$0.00918	\$0.00502	\$0.00345	\$0.00270	\$0.00616	\$0.02971
20 Total Current Uniform Melded Rates					\$0.05636	\$0.06821	\$0.06780	\$0.05579	\$0.04504	\$0.03955	\$0.05772	\$0.19108
21 Revenue to Cost Ratio at Current Rates					1.00	0.97	1.13	1.05	0.92	0.96	1.08	0.97
<b>Functional Cost Components at Proposed Return by Schedule</b>												
22 Production					130,110,384	44,338,438	13,646,603	26,818,145	11,018,412	31,535,243	2,313,306	440,238
23 Transmission					20,514,455	6,776,019	2,384,762	4,412,867	1,591,776	4,895,805	390,013	63,213
24 Distribution					50,830,925	24,169,376	9,361,742	11,825,050	1,527,225	727,466	1,204,470	2,015,596
25 Common					24,142,236	12,589,166	3,290,894	3,733,938	1,127,587	2,581,486	399,211	419,953
26 Total Proposed Rate Revenue					225,598,000	87,873,000	28,684,000	46,790,000	15,265,000	39,740,000	4,307,000	2,939,000
Expressed as \$/kWh												
27 Production					\$0.03794	\$0.03901	\$0.04242	\$0.03919	\$0.03491	\$0.03511	\$0.03926	\$0.03241
28 Transmission					\$0.00598	\$0.00596	\$0.00741	\$0.00645	\$0.00504	\$0.00545	\$0.00662	\$0.00465
29 Distribution					\$0.01482	\$0.02126	\$0.02910	\$0.01728	\$0.00484	\$0.00081	\$0.02044	\$0.14839
30 Common					\$0.00704	\$0.01108	\$0.01023	\$0.00546	\$0.00357	\$0.00287	\$0.00677	\$0.03092
31 Total Proposed Melded Rates					\$0.06579	\$0.07730	\$0.08916	\$0.06837	\$0.04836	\$0.04424	\$0.07309	\$0.21637
<b>Functional Cost Components at Uniform Requested Return</b>												
32 Production					130,308,838	45,394,422	12,829,408	26,172,357	11,547,280	31,688,330	2,219,937	457,104
33 Transmission					20,600,662	7,220,909	2,040,341	4,137,601	1,818,810	4,962,276	350,009	70,716
34 Distribution					50,497,809	25,795,375	7,908,043	11,015,458	1,749,698	733,558	1,067,261	2,228,416
35 Common					24,190,691	12,787,846	3,156,524	3,672,327	1,164,234	2,590,235	388,027	431,498
36 Total Uniform Cost					225,598,000	91,198,552	25,934,316	44,997,742	16,280,022	39,974,399	4,025,234	3,187,735
Expressed as \$/kWh												
37 Production					\$0.03800	\$0.03993	\$0.03988	\$0.03825	\$0.03658	\$0.03528	\$0.03767	\$0.03365
38 Transmission					\$0.00601	\$0.00635	\$0.00634	\$0.00605	\$0.00576	\$0.00552	\$0.00594	\$0.00521
39 Distribution					\$0.01473	\$0.02269	\$0.02458	\$0.01610	\$0.00554	\$0.00082	\$0.01811	\$0.16405
40 Common					\$0.00705	\$0.01125	\$0.00981	\$0.00537	\$0.00369	\$0.00288	\$0.00658	\$0.03177
41 Total Uniform Melded Rates					\$0.06579	\$0.08023	\$0.08061	\$0.06575	\$0.05158	\$0.04450	\$0.06831	\$0.23468
42 Revenue to Cost Ratio at Proposed Rates					1.00	0.96	1.11	1.04	0.94	0.99	1.07	0.92
43 Current Revenue to Proposed Cost Ratio					0.86	0.83	0.95	0.89	0.80	0.85	0.92	0.79

Sumcost  
Scenario: Company Base Case  
AVU-E-04-01 Method

AVISTA UTILITIES  
Revenue to Cost By Classification Summary  
For the Year Ended December 31, 2007

Idaho Jurisdiction  
Electric Utility

03-18-08

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Description					System Total	Residential Service Sch 1	General Service Sch 11-12	Large Gen Service Sch 21-22	Extra Large Gen Service Sch 25	Extra Large Service Potlatch Sch 25P	Pumping Service Sch 31-32	Street & Area Lights Sch 41-49
<b>Cost Classifications at Current Return by Schedule</b>												
1 Energy					106,334,253	35,159,428	10,881,403	22,172,428	9,124,553	26,623,905	1,950,780	421,757
2 Demand					69,137,127	27,848,290	10,237,132	17,427,091	3,946,973	7,420,441	1,449,996	807,205
3 Customer					17,798,620	12,274,282	3,454,465	485,481	5,474	654	289,224	1,289,038
4 Total Current Rate Revenue					193,270,000	75,282,000	24,573,000	40,085,000	13,077,000	34,045,000	3,690,000	2,518,000
Expressed as Unit Cost												
5 Energy	\$/kWh				\$0.03101	\$0.03093	\$0.03382	\$0.03240	\$0.02891	\$0.02964	\$0.03311	\$0.03105
6 Demand	\$/kW/mo				\$8.69	\$9.23	\$10.68	\$9.52	\$6.62	\$5.41	\$10.18	\$19.69
7 Customer	\$/Cust/mo				\$12.54	\$10.55	\$15.51	\$28.66	\$35.09	\$54.53	\$19.19	\$854.23
<b>Cost Classifications at Uniform Current Return</b>												
8 Energy					107,098,144	35,809,128	10,135,170	21,511,023	9,716,872	27,641,706	1,856,335	427,911
9 Demand					68,533,320	29,083,623	8,705,851	16,232,748	4,492,959	7,885,043	1,292,795	840,300
10 Customer					17,638,536	12,642,458	2,972,562	435,427	7,637	798	252,295	1,327,360
11 Total Uniform Current Cost					193,270,000	77,535,210	21,813,583	38,179,198	14,217,468	35,527,546	3,401,424	2,595,571
Expressed as Unit Cost												
12 Energy	\$/kWh				\$0.03123	\$0.03150	\$0.03150	\$0.03143	\$0.03079	\$0.03077	\$0.03150	\$0.03150
13 Demand	\$/kW/mo				\$8.61	\$9.64	\$9.09	\$8.87	\$7.53	\$5.75	\$9.07	\$20.50
14 Customer	\$/Cust/mo				\$12.42	\$10.87	\$13.35	\$25.70	\$48.95	\$66.48	\$16.74	\$879.63
15 Revenue to Cost Ratio at Current Rates					1.00	0.97	1.13	1.05	0.92	0.96	1.08	0.97
<b>Cost Classifications at Proposed Return by Schedule</b>												
16 Energy					118,738,279	38,812,046	12,000,099	24,512,943	10,264,753	30,538,985	2,153,931	455,521
17 Demand					85,820,646	34,729,336	12,512,866	21,616,404	4,990,656	9,199,815	1,785,187	986,383
18 Customer					21,039,076	14,331,618	4,171,035	660,653	9,591	1,201	367,883	1,497,096
19 Total Proposed Rate Revenue					225,598,000	87,873,000	28,684,000	46,790,000	15,265,000	39,740,000	4,307,000	2,939,000
Expressed as Unit Cost												
20 Energy	\$/kWh				\$0.03463	\$0.03414	\$0.03730	\$0.03582	\$0.03252	\$0.03400	\$0.03655	\$0.03353
21 Demand	\$/kW/mo				\$10.79	\$11.51	\$13.06	\$11.81	\$8.37	\$6.71	\$12.53	\$24.06
22 Customer	\$/Cust/mo				\$14.82	\$12.32	\$18.73	\$38.99	\$61.48	\$100.06	\$24.41	\$992.11
<b>Cost Classifications at Uniform Requested Return</b>												
23 Energy					118,947,168	39,770,945	11,256,495	23,890,939	10,791,918	30,699,903	2,061,714	475,254
24 Demand					85,506,864	36,552,591	10,986,989	20,493,223	5,476,588	9,273,273	1,631,695	1,092,504
25 Customer					21,143,968	14,875,016	3,690,832	613,581	11,516	1,223	331,825	1,619,976
26 Total Uniform Cost					225,598,000	91,198,552	25,934,316	44,997,742	16,280,022	39,974,399	4,025,234	3,187,735
Expressed as Unit Cost												
27 Energy	\$/kWh				\$0.03469	\$0.03499	\$0.03499	\$0.03491	\$0.03419	\$0.03418	\$0.03499	\$0.03499
28 Demand	\$/kW/mo				\$10.75	\$12.11	\$11.47	\$11.19	\$9.18	\$6.77	\$11.45	\$26.65
29 Customer	\$/Cust/mo				\$14.89	\$12.79	\$16.57	\$36.22	\$73.82	\$101.94	\$22.02	\$1,073.54
30 Revenue to Cost Ratio at Proposed Rates					1.00	0.96	1.11	1.04	0.94	0.99	1.07	0.92
31 Current Revenue to Proposed Cost Ratio					0.86	0.83	0.95	0.89	0.80	0.85	0.92	0.79

## NATURAL GAS COST OF SERVICE STUDY

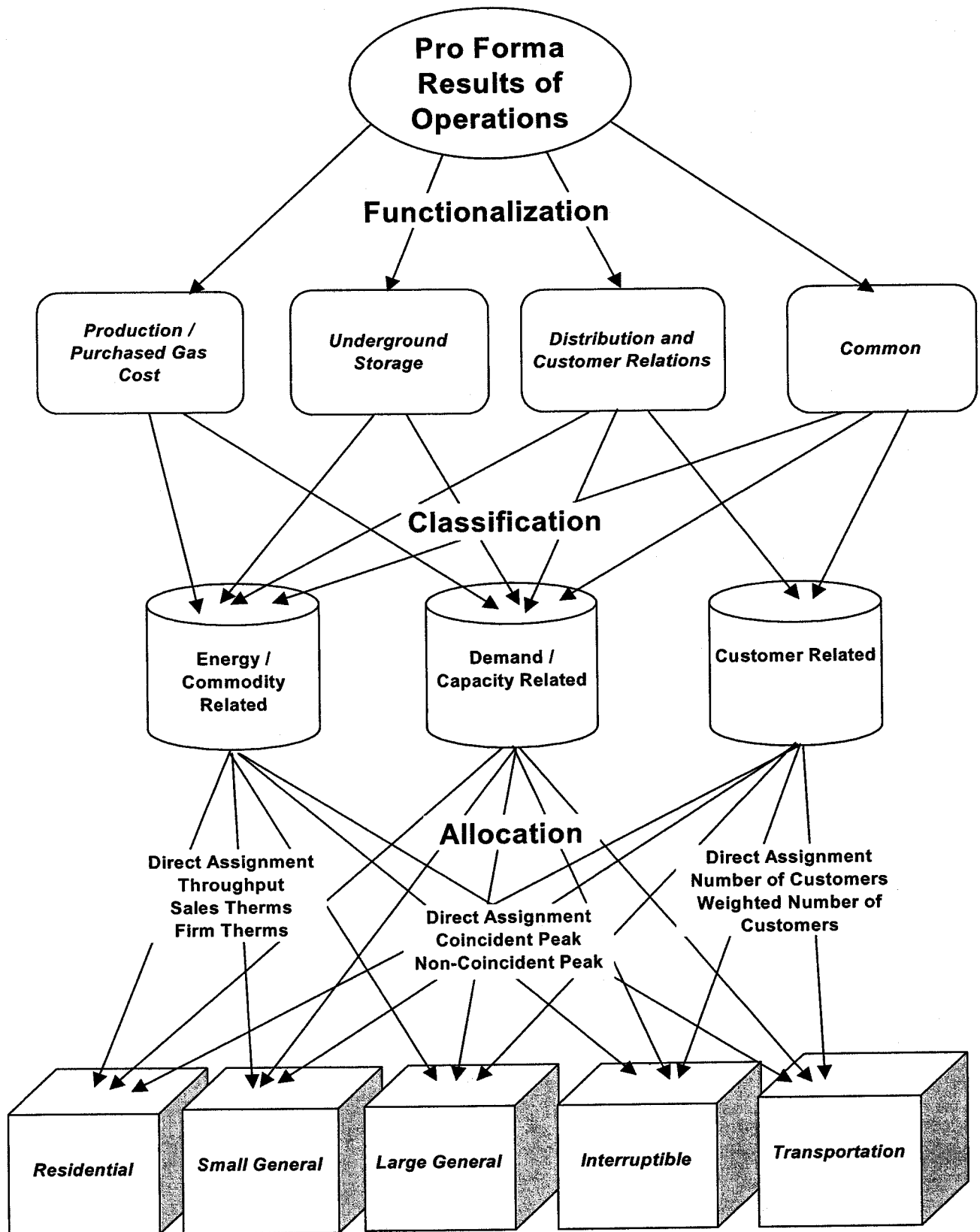
A cost of service study is an engineering-economic study, which apportions the revenue, expenses, and rate base associated with providing natural gas service to designated groups of customers. It indicates whether the revenue provided by the customers recovers the cost to serve those customers. The study results are used as a guide in determining the appropriate rate spread among the groups of customers.

There are three basic steps involved in a cost of service study: functionalization, classification, and allocation. See flow chart.

First, the expenses and rate base associated with the natural gas system under study are assigned to functional categories. The uniform system of accounts provides the basic segregation into production, underground storage, and distribution. Traditionally customer accounting, customer information, and sales expenses are included in the distribution function and administrative and general expenses and general plant rate base are allocated to all functions. In this study I have created a separate functional category for common costs. Administrative and general costs that cannot be directly assigned to the other functions have been placed in this category.

Second, the expenses and rate base items are classified into three primary cost components: Demand, commodity or customer related. Demand (capacity) related costs are allocated to rate schedules on the basis of each schedule's contribution to system peak demand. Commodity (energy) related costs are allocated based on each rate schedule's share of commodity consumption. Customer related items are allocated to rate schedules based on the number of customers within each schedule. The number of customers may be weighted by appropriate factors such as relative cost of metering equipment. In addition to these three cost components, any revenue related expense is allocated based on the proportion of revenues by rate schedule.

# NATURAL GAS COST OF SERVICE STUDY FLOWCHART



**Pro Forma Results of Operations by Customer Group**

The final step is allocation of the costs to the various rate schedules utilizing the allocation factors selected for each specific cost item. These factors are derived from usage and customer information associated with the test period results of operations.

### **BASE CASE COST OF SERVICE STUDY**

#### **Production - Purchased Gas Costs**

The Company has no natural gas production facilities serving the Idaho jurisdiction. The natural gas costs included in the production function include the cost of gas purchased to serve sales customers, pipeline transportation to get it to our system, and expenses of the gas supply department.

The demand and commodity components of account 804 have been determined directly from the weighted average cost of gas (WACOG) approved in the most recent purchased gas adjustment (PGA) filing effective November 1, 2007. The allocation of these costs agrees with the gas costs computation used to determine pro forma results of operations.

The expenses of the gas supply department recorded in account 813 are classified as commodity related costs. The gas scheduling process includes transportation customers, so estimated scheduling dispatch labor expenses are allocated by throughput. The remaining gas supply department expenses are allocated by sales volumes.

#### **Underground Storage**

Underground storage rate base, operating and maintenance expenses are classified as commodity related and allocated to customer groups by winter throughput. This approach was proposed by commission Staff and accepted by the Idaho Public Utilities Commission in Case No. AVU-G-04-01.

### **Distribution Facilities Classification (Peak and Average)**

Distribution mains and regulator station equipment (both general use and city gate stations) are classified Demand and Commodity using the peak and average ratio for the distribution system. Peak demand is defined as the average of the five-day sustained peaks from the most recent three years. Average daily load is calculated by dividing annual throughput by 365 (days in the year). The average daily load is divided by peak load to arrive at the system load factor of 38%. This proportion is classified as commodity related. The remaining 62% is classified as demand related. Meters, services and industrial measuring & regulating equipment are classified as customer related distribution plant. Distribution operating and maintenance expenses are classified (and allocated) in relation to the plant accounts they are associated with.

### **Customer Relations Distribution Cost Classification**

Customer service, customer information and sales expenses are the core of the customer relations functional unit which is included with the distribution cost category. For the most part these costs are classified as customer related. Exceptions include uncollectible accounts expense, which is considered separately as a revenue conversion item, and Demand Side Management amortization expense recorded in Account 908. The demand side management investment costs and amortization expense are included with the distribution function and classified to demand and commodity by the peak and average ratio.

### **Distribution Cost Allocation**

Demand related distribution costs are allocated to customer groups (rate schedules) by each groups' contribution to the three year average five-day sustained peak. Commodity related distribution costs are allocated to customer groups by annual throughput. Distribution main investment has been segregated into large and small mains. Small mains are defined as less than four inches, with large mains being four inches or greater. The small main costs use the same

demand and commodity data, but large usage customers (Schedules 121, 131, and 146) that connect to large system mains have been excluded from the allocations.

Most customer related costs are allocated by the annualized number of customers billed during the test period. Meter investment costs are allocated using the number of customers weighted by the relative current cost of meters in service at December 31, 2007. Services investment costs are allocated using the number of customers weighted by the relative current cost of typical service installations. Industrial measuring and regulating equipment investment costs are allocated by number of customers excluding the small usage customer groups (Schedules 101 and 111).

#### **Administrative and General Costs**

General and intangible rate base items are allocated by the sum of Underground Storage and Distribution plant. Administrative and general expenses are segregated into plant related, labor related, revenue related and other. The plant related items are allocated based on total plant in service. Labor related items are allocated by operating and maintenance labor expense. Revenue related items are allocated by pro forma revenue. Other administrative and general expenses are allocated 50% by annual throughput (classified commodity related) and 50% by the sum of operating and maintenance expenses not including purchased gas cost or administrative & general expenses. Whenever costs are allocated by sums of other items within the study, classifications are imputed from the relationship embedded in the summed items.

#### **Special Contract Customer Revenue**

Three special contract customers receive transportation service from the Company. Rates for these customers were individually negotiated to cover any incremental costs and retain some contribution to margin. The rates for these customers are not being adjusted in this case. The revenue from these special contract customers has been segregated from general rate revenue and

allocated back to all the other rate classes by relative rate base. In treating these revenues like other operating revenues their system contribution reduces costs for all rate schedules.

### **Revenue Conversion Items**

In this study uncollectible accounts and commission fees have been classified as revenue related and are allocated by pro forma revenue. These items vary with revenue and are included in the calculation of the revenue conversion factor. Income tax expense items are allocated to schedules by net income before income tax less interest expense.

For the functional summaries on pages 2 and 3 of the cost of service study, these items are assigned to the component cost categories. The revenue related expense items have been reduced to a percent of all other costs and loaded onto each cost category by that ratio. Similarly, income tax items have been assigned to cost categories by relative rate base (as is net income).

The following matrix outlines the methodology applied in the Company Base Case natural gas cost of service study.



IPUC Case No. AVU-G-08-01 Methodology Matrix  
 Avista Utilities Idaho Jurisdiction  
 Natural Gas Cost of Service Methodology

Account	Functional Category	Classification	Allocation
<b>Underground Storage Plant</b>			
350 - 357 Underground Storage	Underground Storage	Commodity	E08 Winter throughput
<b>Distribution Plant</b>			
374 Land	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
375 Structures	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
376(S) Small Mains	Distribution	Demand/Commodity by Peak & Average	D02/E06 Coincident peak, annual therms (both excl lg use cust)
376(L) Large Mains	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
378 M&R General	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
379 M&R City Gate	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
380 Services	Distribution	Customer	C02, Customers weighted by current typical service cost
381 Meters	Distribution	Customer	C03, Customers weighted by average current meter cost
385 Industrial M&R	Distribution	Customer	C06, Large use customers
387 Other	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
<b>General Plant</b>			
389-399 All General Plant	Common	Demand/Commodity/Customer from UG & D Plant	S03 Sum of Underground Storage and Distribution Plant in Service
<b>Intangible Plant</b>			
303 Misc Intangible Plant	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
303 Computer Software	Common	Demand/Commodity/Customer from UG & D Plant	S03 Sum of Underground Storage and Distribution Plant in Service
<b>Reserve for Depreciation</b>			
Underground Storage	Underground Storage	Commodity same as related plant	Allocations linked to related plant accounts
Distribution	Distribution	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
General	Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
Intangible	Distribution/Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
<b>Other Rate Base</b>			
Accumulated Deferred FTT	All	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
Construction Advances	Distribution	Customer	C10 Residential only
Gas Inventory	Underground Storage	Commodity from Underground Storage Plant	S14 Sum of Underground Storage Plant in Service
Gain on Sale of Office Bldg	Common	Demand/Commodity/Customer from UG & D Plant	S03 Sum of Underground Storage and Distribution Plant in Service
DSM Investment	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
<b>Purchased Gas Expenses</b>			
804 Purchased Gas Cost	Production	Demand/Commodity from PGA Tracker WACOG	D05/E07 PGA Demand / PGA Commodity
813 Other Gas Expenses	Production	Commodity	E01/E04 Annual Throughput / Annual Sales Therms
<b>Underground Storage O&amp;M</b>			
814 - 837 Underground Storage Exp	Underground Storage	Commodity	E08 Winter throughput

IPUC Case No. AVU-G-08-01 Methodology Matrix  
 Avista Utilities Idaho Jurisdiction  
 Natural Gas Cost of Service Methodology

Account	Functional Category	Classification	Allocation
<b>Distribution O&amp;M</b>			
870 OP Super & Engineering	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
871 Load Dispatching	Distribution	Commodity	E01 Annual throughput
874 Mains & Services	Distribution	Demand/Commodity/Customer from related plant	S06 Sum of Mains and Services Plant in Service
875 M&R Station - General	Distribution	Demand/Commodity from related plant	S08 Sum of Meas & Reg Station - General Plant in Service
876 M&R Station - Industrial	Distribution	Customer from related plant	S19 Sum of Meas & Reg Station - Industrial Plant in Service
877 M&R Station - City Gate	Distribution	Demand/Commodity from related plant	S09 Sum of Meas & Reg Station - City Gate Plant in Service
878 Meter & House Regulator	Distribution	Customer from related plant	S07 Sum of Meter and Installation Plant in Service
879 Customer Installations	Distribution	Customer	C05, Customers weighted by average current meter cost
880 Other OP Expenses	Distribution	Demand/Commodity/Customer from other dist expense	S04 Sum of Accounts 870 - 879 and 881 - 894
881 Rents	Distribution	Demand/Commodity/Customer from other dist expense	S04 Sum of Accounts 870 - 879 and 881 - 894
885 MT Super & Engineering	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
886 MT of Structures	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
887 MT of Mains	Distribution	Demand/Commodity from related plant	S21 Sum of Distribution Mains Plant in Service
889 MT of M&R General	Distribution	Demand/Commodity from related plant	S08 Sum of Meas & Reg Station - General Plant in Service
890 MT of M&R Industrial	Distribution	Customer from related plant	S19 Sum of Meas & Reg Station - Industrial Plant in Service
891 MT of M&R City Gate	Distribution	Demand/Commodity from related plant	S09 Sum of Meas & Reg Station - City Gate Plant in Service
892 MT of Services	Distribution	Customer from related plant	S20 Sum of Services Plant in Services
893 MT of Meters & Hs Reg	Distribution	Customer from related plant	S07 Sum of Meter and Installation Plant in Service
894 MT of Other Equipment	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
<b>Customer Accounting Expenses</b>			
901 Supervision	Customer Relations	Customer	C01 All customers (unweighted)
902 Meter Reading	Customer Relations	Customer	C01 All customers (unweighted)
903 Customer Records & Collections	Customer Relations	Customer	C01 All customers (unweighted)
904 Uncollectible Accounts	Revenue Conversion	Revenue	R03 Retail Sales Revenue
905 Misc Cust Accounts	Customer Relations	Customer	C01 All customers (unweighted)
<b>Customer Service &amp; Info Expenses</b>			
907 Supervision	Customer Relations	Customer	C01 All customers (unweighted)
908 Customer Assistance	Customer Relations	Customer	C01 All customers (unweighted)
908 DSM Amortization	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
909 Advertising	Customer Relations	Customer	C01 All customers (unweighted)
910 Misc Cust Service & Info	Customer Relations	Customer	C01 All customers (unweighted)
<b>Sales Expenses</b>			
911 - 916 Sales Expenses	Customer Relations	Customer	C01 All customers (unweighted)

IPUC Case No. AVU-G-08-01 Methodology Matrix  
 Avista Utilities Idaho Jurisdiction  
 Natural Gas Cost of Service Methodology

Account	Functional Category	Classification	Allocation
<b>Admin &amp; General Expenses</b>			
920 Salaries	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
921 Office Supplies	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
923 Outside Services	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
924 Property Insurance	Common	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
925 Injuries & Damages	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
926 Pensions & Benefits	Common	Demand/Commodity/Customer from Labpr O&M	S13 O&M Labor Expense
927 Franchise Requirements	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
928 Regulatory Commission	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
928 Commission Fees	Revenue Conversion	Revenue	R01 Retail Sales Revenue
930 Miscellaneous General	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
931 Rents	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
935 MT of General Plant	Common	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
<b>Depreciation Expense</b>			
Underground Storage	Underground Storage	Commodity same as related plant	Allocations linked to related plant accounts
Distribution	Distribution	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
General	Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
Intangible	Distribution/Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
<b>Taxes</b>			
Property Tax	All	Demand/Commodity/Customer from related plant	S14/S15/S16 Sum of UG Plant/Sum of Dist Plant/Sum of Gen Plant
Miscellaneous Dist Tax	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
State Income Tax	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
Federal Income Tax	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
Deferred FIT	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
ITC	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
<b>Operating Revenues</b>			
Revenue from Rates	Revenue	Revenue	Pro Forma Revenue per Revenue Study
Special Contract Revenue	All	Demand/Commodity/Customer from Rate Base	S01 Sum of Rate Base
Off System Sales	Production	Commodity from PGA Tracker	E04 Sales Thermus
Miscellaneous Service Revenue	Customer Relations	Customer	C01 All customers (unweighted)
Rent From Gas Property	All	Demand/Commodity/Customer from Rate Base	S01 Sum of Rate Base
Other Gas Revenue	Underground Storage	Commodity from Underground Storage Plant	S14 Sum of Underground Storage Plant in Service

Sumcost  
Company Base Case  
AVU-G-04-01 Method

AVISTA UTILITIES  
Cost of Service General Summary  
For the Year Ended December 31, 2007

Natural Gas Utility  
Idaho Jurisdiction

24-Mar-08

	(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
<b>Plant in Service</b>										
1 Production Plant					8,709,000	6,588,047	1,677,480	143,935	34,633	264,905
2 Underground Storage Plant					121,478,000	102,470,164	16,129,186	1,414,545	338,017	1,126,088
3 Distribution Plant					1,281,000	1,074,031	174,572	15,283	3,654	13,461
4 Intangible Plant					10,990,000	9,206,370	1,503,186	131,562	31,458	117,424
5 General Plant					142,458,000	119,338,613	19,484,424	1,705,325	407,762	1,521,877
6 Total Plant In Service										
<b>Accum Depreciation</b>										
7 Production Plant					(3,066,000)	(2,319,319)	(590,556)	(50,672)	(12,192)	(93,260)
8 Underground Storage Plant					(41,788,000)	(35,326,980)	(5,416,809)	(514,266)	(128,603)	(401,342)
9 Distribution Plant					(445,000)	(372,907)	(60,778)	(5,320)	(1,272)	(4,724)
10 Intangible Plant					(3,644,000)	(3,052,595)	(498,418)	(43,623)	(10,431)	(38,935)
11 General Plant					(48,943,000)	(41,071,800)	(6,566,561)	(613,880)	(152,498)	(538,260)
12 Total Accumulated Depreciation										
13 Net Plant					93,515,000	78,266,813	12,917,862	1,091,444	255,263	983,617
14 Accumulated Deferred FIT					(14,155,000)	(11,857,797)	(1,936,023)	(169,446)	(40,516)	(151,218)
15 Miscellaneous Rate Base					6,330,000	4,759,473	1,237,389	108,280	25,729	199,129
16 Total Rate Base					85,690,000	71,168,489	12,219,228	1,030,278	240,476	1,031,529
17 Revenue From Retail Rates					81,860,000	63,207,000	15,950,000	1,919,000	367,000	417,000
18 Other Operating Revenues					252,000	209,451	35,817	3,025	707	3,000
19 Total Revenues					82,112,000	63,416,451	15,985,817	1,922,025	367,707	420,000
<b>Operating Expenses</b>										
20 Purchased Gas Costs					61,321,000	46,178,952	13,140,727	1,676,123	320,330	4,868
21 Underground Storage Expenses					174,000	131,625	33,515	2,876	692	5,293
22 Distribution Expenses					3,535,000	2,938,902	445,279	82,368	12,436	56,015
23 Customer Accounting Expenses					1,770,000	1,710,934	52,761	4,446	830	1,030
24 Customer Information Expenses					232,000	205,050	20,476	2,256	447	3,771
25 Sales Expenses					212,000	209,593	2,359	30	3	15
26 Admin & General Expenses					4,440,000	3,549,883	669,330	88,156	17,327	115,304
27 Total O&M Expenses					71,684,000	54,924,938	14,364,447	1,856,255	352,065	186,295
28 Taxes Other Than Income Taxes					702,000	584,294	98,612	8,615	2,061	8,417
29 Depreciation Expense										
30 Underground Storage Plant Depr					152,000	114,983	29,277	2,512	604	4,623
31 Distribution Plant Depreciation					2,618,000	2,250,371	308,465	31,864	5,173	22,128
32 General Plant Depreciation					683,000	572,152	93,419	8,176	1,955	7,298
33 Amortization of Intangible Plant					234,000	196,046	31,990	2,800	669	2,495
34 Total Depr & Amort Expense					3,687,000	3,133,551	463,151	45,352	8,402	36,543
35 Income Tax					1,572,000	1,178,319	328,573	(13,089)	(1,780)	79,977
36 Total Operating Expenses					77,645,000	59,821,103	15,254,783	1,897,133	360,748	311,233
37 Net Income					4,467,000	3,595,347	731,033	24,893	6,959	108,768
38 Rate of Return					5.21%	5.05%	5.98%	2.42%	2.89%	10.54%
39 Return Ratio					1.00	0.97	1.15	0.46	0.56	2.02
40 Interest Expense					3,051,000	2,636,146	336,763	37,765	6,307	34,020

	(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
<b>Functional Cost Components at Current Rates</b>										
1 Production					61,613,790	46,399,443	13,203,470	1,684,126	321,859	4,891
2 Underground Storage					1,189,584	848,332	257,529	8,445	2,472	72,805
3 Distribution					13,397,259	11,392,635	1,649,516	130,672	23,111	201,325
4 Common					5,659,368	4,566,590	839,485	95,757	19,558	137,979
5 Total Current Rate Revenue					<b>81,860,000</b>	<b>63,207,000</b>	<b>15,950,000</b>	<b>1,919,000</b>	<b>367,000</b>	<b>417,000</b>
6 Exclude Cost of Gas w / Revenue Exp.					61,210,875	46,099,857	13,118,219	1,673,252	319,547	0
7 Total Margin Revenue at Current Rates					<b>20,649,125</b>	<b>17,107,143</b>	<b>2,831,781</b>	<b>245,748</b>	<b>47,453</b>	<b>417,000</b>
<b>Margin per Therm at Current Rates</b>										
8 Production					\$0.005292	\$0.005494	\$0.005494	\$0.005494	\$0.005494	\$0.001326
9 Underground Storage					\$0.015624	\$0.015556	\$0.016596	\$0.004267	\$0.005872	\$0.019741
10 Distribution					\$0.175957	\$0.208912	\$0.106297	\$0.066018	\$0.054897	\$0.054590
11 Common					\$0.074329	\$0.083740	\$0.054098	\$0.048378	\$0.046457	\$0.037413
12 Total Current Margin Melded Rate per Therm					<b>\$0.271202</b>	<b>\$0.313702</b>	<b>\$0.182484</b>	<b>\$0.124156</b>	<b>\$0.112720</b>	<b>\$0.113071</b>
<b>Functional Cost Components at Uniform Current Return</b>										
13 Production					61,613,790	46,399,443	13,203,470	1,684,126	321,859	4,891
14 Underground Storage					1,158,755	876,557	223,193	19,151	4,608	35,246
15 Distribution					13,426,260	11,588,246	1,499,465	176,286	31,853	130,410
16 Common					5,661,195	4,585,839	824,467	100,533	20,505	129,851
17 Total Uniform Current Cost					<b>81,860,000</b>	<b>63,450,086</b>	<b>15,750,595</b>	<b>1,980,096</b>	<b>378,825</b>	<b>300,399</b>
18 Exclude Cost of Gas w / Revenue Exp.					61,210,875	46,099,857	13,118,219	1,673,252	319,547	0
19 Total Uniform Current Margin					<b>20,649,125</b>	<b>17,350,229</b>	<b>2,632,376</b>	<b>306,843</b>	<b>59,278</b>	<b>300,399</b>
<b>Margin per Therm at Uniform Current Return</b>										
20 Production					\$0.005292	\$0.005494	\$0.005494	\$0.005494	\$0.005494	\$0.001326
21 Underground Storage					\$0.015219	\$0.016074	\$0.014383	\$0.009675	\$0.010946	\$0.009557
22 Distribution					\$0.176338	\$0.212499	\$0.096627	\$0.089063	\$0.075663	\$0.035361
23 Common					\$0.074353	\$0.084093	\$0.053130	\$0.050791	\$0.048706	\$0.035209
24 Total Current Uniform Margin Melded Rate					<b>\$0.271202</b>	<b>\$0.318159</b>	<b>\$0.169634</b>	<b>\$0.155022</b>	<b>\$0.140808</b>	<b>\$0.081454</b>
25 Margin to Cost Ratio at Current Rates					1.00	0.99	1.08	0.80	0.80	1.39
<b>Functional Cost Components at Proposed Rates</b>										
26 Production					61,613,466	46,399,199	14,887,518	0	321,858	4,891
27 Underground Storage					1,773,719	1,325,735	368,328	0	5,681	73,974
28 Distribution					17,166,253	14,701,257	2,225,219	0	36,246	203,532
29 Common					6,031,563	4,892,166	980,186	0	20,980	138,231
30 Total Proposed Rate Revenue					<b>86,585,000</b>	<b>67,318,357</b>	<b>18,461,250</b>	<b>0</b>	<b>384,765</b>	<b>420,628</b>
31 Exclude Cost of Gas w / Revenue Exp.					61,210,553	46,099,614	14,791,394	0	319,545	0
32 Total Margin Revenue at Proposed Rates					<b>25,374,447</b>	<b>21,218,742</b>	<b>3,669,857</b>	<b>0</b>	<b>65,220</b>	<b>420,628</b>
<b>Margin per Therm at Proposed Rates</b>										
33 Production					\$0.005292	\$0.005494	\$0.005494	\$0.000000	\$0.005494	\$0.001326
34 Underground Storage					\$0.023296	\$0.024311	\$0.021051	\$0.000000	\$0.013495	\$0.020058
35 Distribution					\$0.225458	\$0.269584	\$0.127175	\$0.000000	\$0.086097	\$0.055188
36 Common					\$0.079217	\$0.089710	\$0.056019	\$0.000000	\$0.049837	\$0.037482
37 Total Proposed Margin Melded Rate per Therm					<b>\$0.333263</b>	<b>\$0.389098</b>	<b>\$0.209738</b>	<b>\$0.000000</b>	<b>\$0.154922</b>	<b>\$0.114054</b>
<b>Functional Cost Components at Uniform Proposed Return</b>										
38 Production					61,613,466	46,399,199	14,887,518	0	321,858	4,891
39 Underground Storage					1,761,141	1,332,240	368,328	0	7,003	53,569
40 Distribution					17,178,223	14,746,343	2,225,219	0	41,656	165,005
41 Common					6,032,170	4,896,602	980,186	0	21,567	133,815
42 Total Uniform Proposed Cost					<b>86,585,000</b>	<b>67,374,384</b>	<b>18,461,250</b>	<b>0</b>	<b>392,084</b>	<b>357,281</b>
43 Exclude Cost of Gas w / Revenue Exp.					61,210,553	46,099,614	14,791,394	0	319,545	0
44 Total Uniform Proposed Margin					<b>25,374,447</b>	<b>21,274,770</b>	<b>3,669,857</b>	<b>0</b>	<b>72,539</b>	<b>357,281</b>
<b>Margin per Therm at Uniform Proposed Return</b>										
45 Production					\$0.005292	\$0.005494	\$0.005494	\$0.000000	\$0.005494	\$0.001326
46 Underground Storage					\$0.023130	\$0.024430	\$0.021051	\$0.000000	\$0.016636	\$0.014525
47 Distribution					\$0.225615	\$0.270411	\$0.127175	\$0.000000	\$0.098950	\$0.044742
48 Common					\$0.079225	\$0.089791	\$0.056019	\$0.000000	\$0.051229	\$0.036284
49 Total Proposed Uniform Margin Melded Rate					<b>\$0.333263</b>	<b>\$0.390126</b>	<b>\$0.209738</b>	<b>\$0.000000</b>	<b>\$0.172308</b>	<b>\$0.096878</b>
50 Margin to Cost Ratio at Proposed Rates					1.00	1.00	1.00	0.00	0.90	1.18
51 Current Margin to Proposed Cost Ratio					0.81	0.80	0.84	0.00	0.65	1.17

	(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
<b>Cost by Classification at Current Return by Schedule</b>										
1 Commodity					61,244,377	45,912,258	13,138,531	1,600,679	346,154	246,756
2 Demand					10,406,504	7,936,479	2,178,520	202,479	11,637	77,388
3 Customer					10,209,119	9,358,263	632,949	115,842	9,209	92,856
4 Total Current Rate Revenue					81,860,000	63,207,000	15,950,000	1,919,000	367,000	417,000
Revenue per Therm at Current Rates										
5 Commodity					\$0.804372	\$0.841915	\$0.846664	\$0.808690	\$0.822247	\$0.066908
6 Demand					\$0.136677	\$0.145535	\$0.140387	\$0.102296	\$0.027643	\$0.020984
7 Customer					\$0.134085	\$0.171607	\$0.040788	\$0.058525	\$0.021875	\$0.025178
8 Total Revenue per Therm at Current Rates					\$1.075133	\$1.159057	\$1.027839	\$0.969511	\$0.871765	\$0.113071
Cost per Unit at Current Rates										
9 Commodity Cost per Therm					\$0.804372	\$0.841915	\$0.846664	\$0.808690	\$0.822247	\$0.066908
10 Demand Cost per Peak Day Therms					\$18.80	\$18.69	\$21.99	\$18.44	\$5.63	\$4.59
11 Customer Cost per Customer per Month					\$12.10	\$11.22	\$67.43	\$965.35	\$767.41	\$1,547.60
<b>Cost by Classification at Uniform Current Return</b>										
12 Commodity					61,188,875	45,978,165	13,053,131	1,624,233	352,436	180,910
13 Demand					10,390,202	8,000,144	2,107,569	217,356	16,127	49,006
14 Customer					10,280,923	9,471,777	589,895	138,507	10,262	70,483
15 Total Uniform Current Cost					81,860,000	63,450,086	15,750,595	1,980,096	378,825	300,399
Cost per Therm at Current Return										
16 Commodity					\$0.803643	\$0.843124	\$0.841161	\$0.820590	\$0.837171	\$0.049054
17 Demand					\$0.136463	\$0.146702	\$0.135815	\$0.109812	\$0.038307	\$0.013288
18 Customer					\$0.135028	\$0.173689	\$0.038014	\$0.069976	\$0.024375	\$0.019112
19 Total Cost per Therm at Current Return					\$1.075133	\$1.163515	\$1.014989	\$1.000378	\$0.899854	\$0.081454
Cost per Unit at Uniform Current Return										
20 Commodity Cost per Therm					\$0.803643	\$0.843124	\$0.841161	\$0.820590	\$0.837171	\$0.049054
21 Demand Cost per Peak Day Therms					\$18.77	\$18.84	\$21.28	\$19.80	\$7.80	\$2.91
22 Customer Cost per Customer per Month					\$12.18	\$11.35	\$62.84	\$1,154.22	\$855.14	\$1,174.71
23 Revenue to Cost Ratio at Current Rates					1.00	1.00	1.01	0.97	0.97	1.39
<b>Cost by Classification at Proposed Return by Schedule</b>										
24 Commodity					62,618,977	47,026,802	14,987,779	0	355,592	248,804
25 Demand					11,688,465	9,013,303	2,578,508	0	18,383	78,271
26 Customer					12,277,558	11,278,252	894,964	0	10,791	93,552
27 Total Proposed Rate Revenue					86,585,000	67,318,357	18,461,250	0	384,765	420,628
Revenue per Therm at Proposed Rates										
28 Commodity					\$0.822425	\$0.862353	\$0.856575	\$0.000000	\$0.844666	\$0.067464
29 Demand					\$0.153514	\$0.165281	\$0.147366	\$0.000000	\$0.043666	\$0.021223
30 Customer					\$0.161251	\$0.206815	\$0.051149	\$0.000000	\$0.025632	\$0.025367
31 Total Revenue per Therm at Proposed Rate					\$1.137190	\$1.234449	\$1.055089	\$0.000000	\$0.913964	\$0.114054
Cost per Unit at Proposed Rates										
32 Commodity Cost per Therm					\$0.822425	\$0.862353	\$0.856575	\$0.000000	\$0.844666	\$0.067464
33 Demand Cost per Peak Day Therms					\$21.11	\$21.23	\$23.43	\$0.00	\$8.89	\$4.64
34 Customer Cost per Customer per Month					\$14.55	\$13.52	\$94.14	\$0.00	\$899.23	\$1,559.20
<b>Cost by Classification at Uniform Proposed Return</b>										
35 Commodity					62,602,284	47,041,993	14,987,779	0	359,480	213,032
36 Demand					11,690,498	9,027,977	2,578,508	0	21,161	62,852
37 Customer					12,292,218	11,304,415	894,964	0	11,442	81,397
38 Total Uniform Proposed Cost					86,585,000	67,374,384	18,461,250	0	392,084	357,281
Cost per Therm at Proposed Return										
39 Commodity					\$0.822206	\$0.862632	\$0.856575	\$0.000000	\$0.853903	\$0.057764
40 Demand					\$0.153541	\$0.165550	\$0.147366	\$0.000000	\$0.050266	\$0.017042
41 Customer					\$0.161444	\$0.207294	\$0.051149	\$0.000000	\$0.027180	\$0.022071
42 Total Cost per Therm at Proposed Return					\$1.137190	\$1.235476	\$1.055089	\$0.000000	\$0.931349	\$0.096878
Cost per Unit at Uniform Proposed Return										
43 Commodity Cost per Therm					\$0.822206	\$0.862632	\$0.856575	\$0.000000	\$0.853903	\$0.057764
44 Demand Cost per Peak Day Therms					\$21.12	\$21.26	\$23.43	\$0.00	\$10.23	\$3.73
45 Customer Cost per Customer per Month					\$14.57	\$13.55	\$94.14	\$0.00	\$953.53	\$1,356.62
46 Revenue to Cost Ratio at Proposed Rates					1.00	1.00	1.00	0.00	0.98	1.18
47 Current Revenue to Proposed Cost Ratio					0.95	0.94	0.97	0.00	0.94	1.17