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IDAHO PUBLIC
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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)	CASE NO. AVU-E-09-01
OF AVISTA CORPORATION FOR THE)	CASE NO. AVU-G-09-01
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 and the
23 Northwest Pricing and Regulatory Forum, which are
24 discussion groups made up of technical professionals from
25 regional utilities and utilities throughout the United

1 States and Canada concerned with cost of service issues.

2 **Q. What is the scope of your testimony in these**
3 **proceedings?**

4 A. My testimony and exhibits will cover the
5 Company's electric and natural gas cost of service studies
6 performed for this proceeding. Additionally, I am
7 sponsoring the electric and natural gas revenue
8 normalization adjustments to the test year results of
9 operations and the proposed retail revenue credit rate to
10 be used in the Power Cost Adjustment mechanism.

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25 **Q. Are you sponsoring any Exhibits with your pre-**
26 **filed testimony?**

27 A. Yes. I am sponsoring Exhibit No. 11 composed of
28 six schedules as follows: Schedule 1, retail revenue credit
29 rate calculation; Schedule 2, electric cost of service
30 study process description; Schedule 3, electric cost of
31 service study summary results; Schedule 4, Demand

1 Sensitivity Results summary; Schedule 5, natural gas cost
2 of service study process description; and Schedule 6,
3 natural gas cost of service summary results.

4 Q. Were these exhibits prepared by you or under your
5 direction?

6 A. Yes.

7 II. REVENUE NORMALIZATION

8 Electric Revenue Normalization

9 Q. Would you please describe the electric revenue
10 adjustment included in Company witness Ms. Andrews pro
11 forma results of operations?

12 A. Yes. The electric revenue normalization
13 adjustment represents the difference between the Company's
14 actual recorded retail revenues during the twelve months
15 ended September 2008 test period and retail revenues on a
16 normalized (pro forma) basis. The total revenue
17 normalization adjustment increases Idaho net operating
18 income by \$14,065,000 as shown in column (u) on page 6 of
19 Ms. Andrews Exhibit No.10, Schedule 1. The revenue
20 normalization adjustment consists of three primary
21 components: 1) re-pricing customer usage (adjusted for any
22 known and measurable changes) at present base tariff rates
23 in effect, 2) adjusting customer loads and revenue to a
24 12-month calendar basis (unbilled revenue adjustment), and
25 3) weather normalizing customer usage and revenue.

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

10 **Q. How are normal heating and cooling degree days**
11 **defined?**

12 A. Normal heating and cooling degree days are based
13 on a rolling 30-year average of heating and cooling degree-
14 days reported for each month by the National Weather
15 Service for the Spokane Airport weather station. For
16 heating, the 30 years are included on a heating season
17 basis, July through June, so, for example, the October
18 average reflects all the Octobers beginning in 1978 and
19 through 2007, whereas the May average reflects all of the
20 Mays beginning in 1979 and through 2008. For cooling, the
21 30 years reflect the cooling season calendar years
22 beginning in 1979 and through 2008². Each year the normal

² The National Climatic Data Center publication used to acquire the final quality controlled data for the Spokane Airport weather station did not include cooling degree day information prior to 1980. Consequently, the 30 year average is actually a 29 year average including the years 1980 through 2008. As a rolling average, in all future years it would contain a full 30 years of data. Heating degree day information was available for all the desired years.

1 values will be adjusted to capture the next heating and
2 cooling season with the oldest data dropping off, thereby
3 encapsulating the most recent information available at the
4 end of each calendar year.

5 **Q. Are there any changes in the weather adjustment**
6 **methodology since the company's last general rate case in**
7 **Idaho?**

8 A. Yes. In Case No. AVU-E-08-01 the Company used a
9 twenty-five year rolling average to determine normal
10 heating and cooling degree days for each month. As
11 mentioned above, in this case an additional five years have
12 been included in the rolling average calculation.
13 Otherwise, the process is the same³ as the method
14 introduced in Case No. AVU-E-08-01.

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

17 A. In response to concerns in another jurisdiction
18 that twenty-five years may be insufficient to determine
19 "normal," I performed additional analysis on how the
20 rolling averages change over time. Specifically, I
21 compared twenty-five year rolling averages to thirty year
22 rolling averages for all data available from the NOAA
23 published Annual Climatological Summary for the Spokane

³ The regression analysis presented in Case No. AVU-E-08-01 used ten years of data for Schedule 1 and five years for all other schedules. In the updated analysis Schedule 1 no longer met all the statistical tests with ten years of data. The five year analysis passed all the tests and was used in this analysis.

1 Airport weather station. This analysis revealed that while
2 both a thirty-year average and a twenty-five year average
3 captures the long term trend in regional temperatures, the
4 thirty-year averages showed less variability.

5 The proposed averaging process maintains the advantage
6 of reflecting current weather trends by updating the values
7 annually, while providing a less volatile statistic through
8 the use of additional years of data.

9 **Q. What was the impact of electric weather**
10 **normalization on the twelve months ended September 2008**
11 **test year?**

12 A. Weather was colder than normal during the winter
13 and spring, and warmer than normal during the summer of the
14 test year. The adjustment to normal required the deduction
15 of 294 heating degree-days and 45 cooling degree-days. The
16 total adjustment to Idaho sales volumes was a reduction of
17 24,948,329 kWhs which is approximately 0.7 percent of
18 billed usage.

19 **Natural Gas Revenue Normalization**

20 **Q. Would you please describe the natural gas revenue**
21 **adjustment included in Ms. Andrews pro forma results of**
22 **operations?**

23 A. Yes. The natural gas revenue normalization
24 adjustment is similar to the electric adjustment and
25 represents the difference between the Company's actual

1 recorded retail revenues during the twelve months ended
2 September 2008 test period and retail revenues on a
3 normalized (pro forma) basis. The adjustment includes the
4 re-pricing of pro forma sales and transportation volumes at
5 present rates (effective October 1, 2008) using pro forma
6 sales volumes that have been adjusted for unbilled sales,
7 abnormal weather, and any material customer load or
8 schedule changes. The rates used exclude: 1) Temporary
9 Gas Rate Adjustment Schedule 155, which reflects the
10 approved amortization rate for deferred gas costs approved
11 in the Company's last PGA filing and 2) Public Purposes
12 Rider Adjustment Schedule 191.

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

15 A. Yes. Purchase gas costs are normalized using the
16 gas costs approved by the Commission in Case No. AVU-G-08-
17 03, the Company's 2008 PGA filing⁴, as set forth under
18 Schedule 150. Those gas costs are then applied to the pro
19 forma retail sales volumes so that there is a matching of
20 revenues and gas costs.

21 The total net amount of the natural gas revenue
22 normalization, which includes the purchase gas cost
23 adjustment, is an increase to net operating income of

⁴ The January 6, 2009 gas cost reduction to customer charges was accomplished through Schedule 155 which is excluded from base revenues.

1 \$2,359,000, as shown in column (i), page 5 of Ms. Andrews
2 Exhibit No.10, Schedule 2.

3 **Q. Would you please briefly discuss natural gas**
4 **weather normalization?**

5 A. Yes. The natural gas weather adjustment is
6 developed from a regression analysis of ten years of billed
7 usage per customer and billing period heating degree-day
8 data. The resulting seasonal weather sensitivity factors
9 (use per customer per heating degree day) are applied to
10 monthly test period customers and the difference between
11 normal heating degree-days and monthly test period observed
12 heating degree-days. This calculation produces the change
13 in therm usage required to adjust existing loads to the
14 amount expected if weather had been normal.

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

16 A. Normal heating degree-days are based on a rolling
17 30-year average of heating degree-days reported for each
18 month by the National Weather Service for the Spokane
19 Airport weather station. The 30 years are included on a
20 heating season basis, July through June, so, for example,
21 the October average reflects all the Octobers beginning in
22 1978 and through 2007 whereas the May average reflects all
23 of the Mays beginning in 1979 and through 2008. Each year
24 the normal values will be adjusted to capture the next
25 heating season with the oldest data dropping off, thereby

1 encapsulating the most recent information available at the
2 end of each calendar year.

3 **Q. Other than the change from a 25-year rolling**
4 **average to a 30-year rolling average discussed with regards**
5 **to electric weather normalization, were any changes made to**
6 **the gas weather normalization methodology?**

7 A. No, the process for determining the weather
8 sensitivity factors and the monthly adjustment calculation
9 are the same as the method introduced in Case No. AVU-G-08-
10 01.

11 **Q. What was the impact of natural gas weather**
12 **normalization on the twelve months ended September 2008**
13 **test year?**

14 A. Weather was colder than normal during the
15 2007/2008 heating season. The adjustment to normal
16 required the deduction of 352 heating degree-days from
17 October through June. Warmer than normal weather that
18 occurred during the summer months did not impact gas usage
19 as customers are at baseload during that time. The
20 adjustment to sales volumes was a reduction of 2,827,731
21 therms which is approximately 2.3 percent of billed usage.
22 The margin impact (revenue less gas cost) of the weather
23 adjustment was a reduction of \$834,000.

24

25

1 **III. PROPOSED RETAIL REVENUE CREDIT RATE**

2 **Q. Company witness Mr. Johnson discusses using the**
3 **average cost of production and transmission for the retail**
4 **revenue credit rate in the Power Cost Adjustment (PCA).**
5 **How is that rate determined?**

6 A. The retail revenue credit rate is determined by
7 computing the proposed revenue requirement on the
8 production and transmission subset of Ms. Andrews Idaho
9 Electric Pro forma Total Results of Operations. The
10 production/transmission revenue requirement amount is then
11 divided by the Idaho Normalized Retail Load used to set
12 rates in order to arrive at the average production and
13 transmission cost per kwh embedded in proposed rates.

14 **Q. Is this process illustrated in an Exhibit?**

15 A. Yes. Exhibit No. 11, Schedule 1 begins with the
16 identification of the production and transmission revenue,
17 expense and rate base amounts included in each of Ms.
18 Andrews actual, restating, and pro forma adjustments to
19 results of operations. The "Pro Forma Total" at the bottom
20 of page 1 shows the resulting subset of these components.

21 Page 2 shows the revenue requirement calculation on
22 the production and transmission cost components. The rate
23 of return and debt cost percentages on line 2 are inputs
24 from the proposed cost of capital. The normalized retail
25 load on Line 10 comes from the workpapers to the revenue

1 normalization adjustment. The proposed retail revenue
2 credit rate is shown on Line 11 and represents the average
3 Production and Transmission cost per kWh proposed to be
4 embedded in Idaho customer retail rates.

5 **IV. ELECTRIC COST OF SERVICE**

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

8 A. I believe the Base Case cost of service study
9 presented in this case is a fair representation of the
10 costs to serve each customer group. The Base Case study
11 shows Residential Service Schedule 1, Extra Large General
12 Service Schedule 25 and 25P, and Street and Area Lighting
13 provide less than the overall rate of return under present
14 rates. General Service Schedule 11, Large General Service
15 Schedule 21 and Pumping Service Schedule 31 provide more
16 than the overall rate of return under present rates but
17 less than the requested return.

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

20 A. An electric cost of service study is an
21 engineering-economic study, which separates the revenue,
22 expenses, and rate base associated with providing electric
23 service to designated groups of customers. The groups are
24 made up of customers with similar load characteristics and
25 facilities requirements. Costs are assigned in relation to

1 each group's characteristics, resulting in an evaluation of
2 the cost of the service provided to each group. The rate
3 of return by customer group indicates whether the revenue
4 provided by the customers in each group recovers the cost
5 to serve those customers. The study results are used as a
6 guide in determining the appropriate rate spread among the
7 groups of customers. Exhibit No. 11, Schedule 2 explains
8 the basic concepts involved in performing an electric cost
9 of service study. It also details the specific methodology
10 and assumptions utilized in the Company's Base Case cost of
11 service study.

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

14 A. The electric cost of service study provided by
15 the Company as Exhibit No.11, Schedule 3 is based on the
16 twelve months ended September 2008 test year pro forma
17 results of operations presented by Company witness Ms.
18 Andrews in Exhibit No.10, Schedule 1.

19 **Q. Would you please explain the cost of service**
20 **study presented in Exhibit No. 11, Schedule 3?**

21 A. Yes. Exhibit No. 11, Schedule 3 is composed of a
22 series of summaries of the cost of service study results.
23 The summary on page 1 shows the results of the study by
24 FERC account category. The rate of return by rate schedule
25 and the ratio of each schedule's return to the overall

1 return are shown on Lines 39 and 40. This summary was
2 provided to Mr. Hirschhorn for his work on rate spread and
3 rate design. The results will be discussed in more detail
4 later in my testimony.

5 Pages 2 and 3 are both summaries that show the revenue
6 to cost relationship at current and proposed revenue.
7 Costs by category are shown first at the existing schedule
8 returns (revenue); next the costs are shown as if all
9 schedules were providing equal recovery (cost). These
10 comparisons show how far current and proposed rates are,
11 from rates that would be in alignment with the cost study.
12 Page 2 shows the costs segregated into production,
13 transmission, distribution, and common functional
14 categories. Page 3 segregates the costs into demand,
15 energy, and customer classifications.

16 The Excel model used to calculate the cost of service
17 and supporting schedules have been included in their
18 entirety both electronically and hard copy in the
19 workpapers accompanying this case.

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

23 A. Yes. The Base Case cost of service study was
24 prepared using the methodology accepted by the Idaho

1 commission in Case No. AVU-E-04-01 and used in Case No.
2 AVU-E-08-01.

3 **Q. Given that the specific details of this**
4 **methodology are described in Exhibit No. 11, Schedule 2,**
5 **would you please give a brief overview of the key elements**
6 **and the history associated with those elements?**

7 A. Yes. Production and transmission costs are
8 classified to energy and demand by a peak credit analysis.
9 Avista has been using the peak credit classification
10 process for cost of service studies in both Washington and
11 Idaho jurisdictions since the 1980's. Distribution costs
12 are classified and allocated by the basic customer theory⁵
13 accepted by the Idaho commission in Case No. WWP-E-98-11.
14 Additional direct assignment of demand related distribution
15 plant has been incorporated to reflect improvements
16 accepted by the commission in Case No. AVU-E-04-01.
17 Administrative and general costs are first directly
18 assigned to production, transmission, distribution, or
19 customer relations functions. The remaining administrative
20 and general costs are categorized as common costs and have
21 been assigned to customer classes by the four-factor
22 allocator accepted by the Idaho commission in Case No. AVU-
23 E-04-01.

⁵ Basic customer theory classifies only meters, services and the direct assignment of street light fixtures as customer-related plant; all other distribution facilities are considered demand-related.

1 Q. What are the results of the Company's Base Case
2 cost of service study?

3 A. The following table shows the rate of return and
4 the relationship of the customer class return to the
5 overall return (relative return ratio) at present rates for
6 each rate schedule:

7 **Illustration 1:**

<u>Customer Class</u>	<u>Rate of Return</u>	<u>Return Ratio</u>
Residential Service Schedule 1	4.56%	0.85
General Service Schedule 11	7.89%	1.48
Large General Service Schedule 21	6.74%	1.26
Extra Large General Service Schedule 25	3.15%	0.59
Ex. Lg. Gen. Service Potlatch Schedule 25P	3.93%	0.73
Pumping Service Schedule 31	7.64%	1.43
Lighting Service Schedules 41 - 49	<u>4.89%</u>	<u>0.92</u>
Total Idaho Electric System	<u>5.34%</u>	<u>1.00</u>

8 As can be observed from the above table, residential,
9 extra large general service, and lighting service schedules
10 (1, 25, 25P, and 41-49) show under-recovery of the costs to
11 serve them, while the general, large general, and pumping
12 service schedules (11, 21, and 31) show over-recovery of
13 the costs to serve them. However, all customer groups are
14 currently providing a rate of return lower than the rate of
15 return requested in this case. The summary results of this
16 study were provided to Mr. Hirschhorn as an input into
17 development of the proposed rates.

1 V. DEMAND STUDY

2 Q An issue was raised in Case No. AVU-E-08-01
3 regarding the load data used to develop demand allocations
4 in the electric cost of service. Please elaborate on this
5 issue.

6 A. In the last rate case, the Company indicated
7 that, while the estimation process used to create the
8 demand allocators in the cost of service study provides a
9 reasonable assignment of cost to the existing customer
10 groups, the Company's load data was in the process of being
11 updated. Accordingly, the Commission provided the
12 following directive on page 13 of its Order No. 30647:

13 In this case the Commission finds the Company-filed
14 cost of service study to be sufficient to determine
15 rate design in this case. We direct the Company in its
16 next general rate case to provide updated load data as
17 part of its COS study or, in the alternative, show how
18 the lack of such an update affects COS-based revenue
19 allocations to customer classes. (emphasis added)
20

21 Q Has the Company provided updated load data as
22 part of the cost of service study in this case?

23 A. No. While an electric demand study is currently
24 underway, with nearly all sample meters in place collecting
25 data (and the last few expected to be in place shortly), a
26 full year of hourly load data is necessary to make use of
27 the information in the cost of service demand allocations.
28 The first full year of sample data will be collected over
29 the calendar year 2009. Consequently, the earliest that a

1 general rate filing could incorporate updated load study
2 data would be sometime in 2010.

3 **Q. Have you performed a sensitivity analysis to**
4 **determine the potential impact of updated load information**
5 **on cost of service based revenue allocations to customer**
6 **classes?**

7 A. Yes. There are two types of demand allocations,
8 namely **coincident** peak and **non-coincident** peak. The
9 **coincident** peak allocations are applied to demand-related
10 production and transmission costs. The **non-coincident** peak
11 allocations are applied to demand-related distribution
12 costs.

13 I ran two sensitivity cases to determine how changes
14 in non-coincident demand for each customer class, i.e.,
15 from a new load study, would affect the allocation of
16 demand costs. I also ran two sensitivity cases to
17 determine how changes in coincident demand for each
18 customer class would affect the allocation of demand costs.

19 Before I walk through the four sensitivity studies, it
20 is important to have some context for what we are trying to
21 test with the studies. Column (a) in the table below shows
22 the relative rates of return for each customer class from
23 our Base Case cost of service study under present retail
24 rates. Column (b) shows the relative rates of return by
25 schedule after application of the proposed rate increase in

1 this case. As Mr. Hirschhorn explains in his testimony,
2 the spread of the revenue increase to each customer class
3 was designed to move each customer class closer to unity
4 (with the exception of Street and Area Lights).

5		Present	Proposed
6		<u>Relative ROR</u>	<u>Relative ROR</u>
7		(a)	(b)
8	Residential Sch. 1	0.85	0.86
9	General Srv. Sch. 11	1.48	1.27
10	Lg. Gen. Srv. Sch. 21	1.26	1.17
11	Ex. Lg. Gen. Srv. Sch. 25	0.59	0.84
12	Potlatch-Lewiston Sch. 25P	0.73	0.99
13	Pumping Srv. Sch. 31	1.43	1.28
14	Street & Area Lgt. Schs.	<u>0.92</u>	<u>0.73</u>
15	Overall	1.00	1.00

16 The table shows that the relative rate of return for
17 some customer schedules is above unity (1.0) for both
18 present rates and proposed rates, and others are below
19 unity. The purpose of the sensitivity studies is to
20 determine whether demand data from a new load study would
21 likely cause us to spread the revenue increase to customer
22 classes differently than that proposed by the Company in
23 this case.

24 **Q. What was your conclusion after running the four**
25 **sensitivity studies?**

26 A. The results of each of the studies, that I will
27 explain below, show that while an updated load study may
28 fine tune the cost relationships among the customer groups,

1 we can expect relatively small changes in the overall cost
2 of service results. Therefore, we believe the current cost
3 of service study provides a sound foundation for rate
4 spread purposes.

5 **Scenario 1**

6 **Q. What did you test in the first sensitivity run,**
7 **and what did the results show?**

8 A. The first sensitivity run, which I will refer to
9 as Scenario 1, was designed to examine how a change in the
10 **non-coincident** peak for each customer class would affect
11 the allocation of demand-related **distribution** costs. For
12 this scenario I simply took the non-coincident peak demand
13 for each customer class embedded in the cost of service
14 study, and doubled the demand for each class, with the
15 exception of Schedules 25 and 25P. By doubling the demand
16 for each class, we will see what happens to demand
17 allocations if a new load study were to show that the non-
18 coincident peak demand for each class were to increase in
19 the same proportion.

20 **Q. Why did you not double the peak demand for**
21 **Schedules 25 and 25P?**

22 A. We already have hourly metering, and hourly data,
23 for Schedules 25 and 25P, so we already know what their
24 actual non-coincident peak demand is without a new load
25 study.

1 Therefore, if a new load study were to show a
2 significant increase in non-coincident peak demand across
3 all schedules, it would result in very little change in our
4 cost of service results.

5 Scenario 2

6 Q. What did you test in Scenario 2, and what did the
7 results show?

8 A. The first scenario explored what would happen if
9 the non-coincident peak demand was higher for all schedules
10 than our Base Case demand data. In Scenario 2 I wanted to
11 test what would happen if a new load study were to indicate
12 that some schedules have higher non-coincident peak demand
13 than our Base Case, and other schedules have lower demand.

14 For Scenario 2 I made the following adjustments to the
15 Base Case non-coincident peak demand data:

- 16
17 1. For customer classes that have a relative rate of
18 return above unity (1.0) in the Base Case study, I
19 increased the non-coincident peak demand for the class
20 by 15%.
21
22 2. For customer classes that have a relative rate of
23 return below unity (1.0), I decreased the non-
24 coincident peak demand for the class by 15%.
25

26 Q. What were you trying to measure by making these
27 adjustments?

28 A. In this filing we are proposing a rate spread
29 that is designed to move each customer class closer to

1 unity. For example, for those customer classes that are
2 above unity, we are proposing a lower percentage base rate
3 increase in order to accomplish this movement. If a new
4 load study were to show an increased non-coincident peak
5 demand for these customer classes (above unity), and a
6 lower non-coincident peak demand for the customer classes
7 below unity, it would result in the following changes to
8 the cost of service study:

- 9
- 10 1. The increase in non-coincident peak demand for
11 customer classes above unity would result in an
12 increased allocation of demand-related distribution
13 costs to these customer classes, which would lower the
14 relative rate of return for these classes (move them
15 closer to unity).
16
 - 17 2. The decrease in non-coincident peak demand for
18 customer classes below unity would result in a
19 decreased allocation of demand-related distribution
20 costs to these customer classes, which would increase
21 the relative rate of return for these classes (move
22 them closer to unity).
23

24 The purpose of this Scenario was to determine how much
25 movement toward unity would occur for each customer class
26 if the new load study were to show a significant increase
27 in non-coincident peak demand for classes above unity, and
28 a significant decrease for those below unity. As mentioned
29 above, we increased the non-coincident peak demand for
30 classes above unity by 15%, and reduced the demand for
31 classes below unity by 15%.

32 **Q. What were the results for Scenario 2?**

1 A. The results of Scenario 2 are shown on Exhibit
2 No. 11, Schedule 4, lines 9 through 12. Illustration 3
3 below highlights the rates of return produced by this
4 scenario compared to the base case.

5 Illustration 3:

<u>Customer Class</u>	<u>Base Case</u>		<u>Scenario 2</u>	
	<u>Rate of Return</u>		<u>Rate of Return</u>	
Residential Service Schedule 1	4.56%	0.85	5.19%	0.97
General Service Schedule 11	7.89%	1.48	7.09%	1.33
Large General Service Schedule 21	6.74%	1.26	5.89%	1.10
Extra Large General Service Schedule 25	3.15%	0.59	3.15%	0.59
Ex. Lg. Gen. Service Potlatch Schedule 25P	3.93%	0.73	3.93%	0.73
Pumping Service Schedule 31	7.64%	1.43	6.85%	1.28
Lighting Service Schedules 41 - 49	4.89%	0.92	5.02%	0.94
Total Idaho Electric System	5.34%	1.00	5.34%	1.00

6
7 Costs did shift in this scenario, but not enough to
8 change the rate spread implications. Schedules 11, 21 and
9 31 are still above unity, and Schedules 1 and Lighting
10 service are improved but remain less than unity.
11 Therefore, even if this Scenario were to occur, there would
12 still be a need for a rate spread proposal to move relative
13 rates of return for customer classes closer to unity,
14 similar to what Mr. Hirschhorn has proposed in this case.

15 Q. Would you expect the new load study to show
16 higher non-coincident peak demands for only the customer
17 classes above unity, and lower non-coincident peak demands
18 for only the customer classes below unity, as you tested in
19 Scenario 2?

1 A. No. It is unlikely that such a scenario would
2 actually occur. However, for my sensitivity analysis I
3 wanted to test a scenario that is probably beyond what
4 would likely occur.

5 **Scenario 3**

6 **Q. Lets move on to the two sensitivity studies**
7 **related to coincident peak. How are the class**
8 **contributions to system peak demand determined in the Base**
9 **Case?**

10 A. The coincident peak allocation factor is based on
11 the electric system hourly peak for each month of the
12 twelve-month test period (12 hourly coincident peaks). The
13 total Idaho peak load is known for the twelve peak hours.

14 With regard to each customer class, the peak demand
15 for each class, for each of the 12 monthly peak hours
16 (contribution to the system peak), is based on an analysis
17 of monthly billing data, weather sensitivity statistics,
18 and hourly load shapes from prior load studies.

19 **Q. Are the twelve hourly coincident peaks for**
20 **Schedules 25 and 25P estimated in the same manner?**

21 A. No. As I mentioned earlier, we have actual,
22 hourly load data for Schedules 25 and 25P, and therefore,
23 we know what their usage is at the time of the twelve
24 monthly system peaks. Thus, with regard to the use of peak
25 demand data in cost of service studies to allocate demand-

1 related production and transmission costs, the current cost
2 of service study already includes the actual, metered
3 contribution to the system peak for these schedules.

4 **Q. What change did you make to the coincident peak**
5 **demand data in Scenario 3, and what were you trying to**
6 **measure?**

7 A. In Scenario 3, I made one change from the Base
8 Case in the determination of the hourly coincident peak
9 contribution for each schedule. Rather than use hourly
10 load shapes from prior load studies to determine the hourly
11 peak for each customer class on the peak day, I used one-
12 sixteenth, or 6.25%, of the daily energy use on the peak
13 day for each class to represent the hourly peak demand at
14 the time of the system coincident peak.

15 The use of 6.25% of daily energy to represent a peak
16 hour demand for the peak day has been used historically in
17 the natural gas industry to determine the appropriate size
18 of natural gas delivery service equipment. Although the
19 6.25% may not be perfectly transferrable to the electric
20 industry, it provided a reasonable basis to achieve my
21 objective in this Scenario.

22 My objective in Scenario 3 was to adjust the peak
23 demand data such that the peak hour for each customer class
24 occurred at the time of the system peak, i.e., all customer

1 classes peak at the time of the system peak in each of the
2 twelve months.

3 **Q. What were the results of Scenario 3?**

4 A. Scenario 3 results are shown on Exhibit 11,
5 Schedule 4, lines 13 through 16. Illustration 4 below
6 highlights the rates of return produced by this Scenario
7 compared to the Base Case.

8 **Illustration 4:**

<u>Customer Class</u>	<u>Base Case</u>		<u>Scenario 3</u>	
	<u>Rate of Return</u>		<u>Rate of Return</u>	
Residential Service Schedule 1	4.56%	0.85	4.66%	0.87
General Service Schedule 11	7.89%	1.48	7.96%	1.49
Large General Service Schedule 21	6.74%	1.26	6.55%	1.23
Extra Large General Service Schedule 25	3.15%	0.59	3.15%	0.59
Ex. Lg. Gen. Service Potlatch Schedule 25P	3.93%	0.73	3.93%	0.73
Pumping Service Schedule 31	7.64%	1.43	6.77%	1.27
Lighting Service Schedules 41 - 49	<u>4.89%</u>	<u>0.92</u>	<u>4.89%</u>	<u>0.92</u>
Total Idaho Electric System	<u>5.34%</u>	<u>1.00</u>	<u>5.34%</u>	<u>1.00</u>

9

10 The rate of return and return ratios for Schedules 1
11 and 11 rise slightly, while they fall somewhat for
12 Schedules 21 and 31, but the rate spread implications
13 remain unchanged.

14 **Scenario 4**

15 **Q. What did you test in the fourth scenario?**

16 A. In Scenario 4 I wanted to test what would happen
17 if a new load study were to indicate that some schedules
18 have a higher contribution to the system coincident peak

1 than the Base Case, and other schedules have a lower
2 contribution.

3 For Scenario 4 I made the following adjustments to the
4 Base Case coincident demand data:

- 5
6 1. For customer classes that have a relative rate of
7 return above unity (1.0), I increased the demand for
8 the class at the time of the system coincident peak by
9 approximately 10%.⁶
10
11 2. For customer classes that have a relative rate of
12 return below unity (1.0), I decreased the demand for
13 the class at the time of the system coincident peak by
14 approximately 10%.
15

16 **Q. What were you trying to measure by making these**
17 **adjustments?**

18 A. As I explained earlier related to Scenario 2, in
19 this filing we are proposing a rate spread that is designed
20 to move each customer class closer to unity. If a new load
21 study were to show an increased contribution to the system
22 coincident peak for the customer classes above unity, and a
23 lower contribution to the system coincident peak for the
24 customer classes below unity, it would result in the
25 following changes to the cost of service study:

- 26
27 1. The increased contribution to the system coincident
28 peak for customer classes above unity would result in
29 an increased allocation of demand-related production
30 and transmission costs to these customer classes,

⁶ In order to preserve the same level of Idaho peak demand as the Base Case, it was necessary to adjust the percentage increase to Schedules 11, 21 and 31 to 11.6%, and reduce the percentage decrease for Schedules 1 and Lighting service to 9.4%.

1 which would lower the relative rate of return for
2 these classes (move them closer to unity).
3
4 2. The decreased contribution to the system coincident
5 peak for customer classes below unity would result in
6 a decreased allocation of demand-related production
7 and transmission costs to these customer classes,
8 which would increase the relative rate of return for
9 these classes (move them closer to unity).
10

11 The purpose of this Scenario was to determine how much
12 movement toward unity would occur for each customer class
13 if the new load study were to show a significant increase
14 in contribution to the system coincident peak for classes
15 above unity, and a significant decrease for those below
16 unity.

17 **Q. What were the results of Scenario 4?**

18 A. Scenario 4 results are shown on Exhibit 11,
19 Schedule 4, lines 17 through 20. Illustration 5 below
20 highlights the rates of return produced by this scenario
21 compared to the Base Case.

22 **Illustration 5:**

<u>Customer Class</u>	<u>Base Case</u>		<u>Scenario 4</u>	
	<u>Rate of Return</u>		<u>Rate of Return</u>	
Residential Service Schedule 1	4.56%	0.85	5.06%	0.95
General Service Schedule 11	7.89%	1.48	7.26%	1.36
Large General Service Schedule 21	6.74%	1.26	6.09%	1.14
Extra Large General Service Schedule 25	3.15%	0.59	3.15%	0.59
Ex. Lg. Gen. Service Potlatch Schedule 25P	3.93%	0.73	3.93%	0.73
Pumping Service Schedule 31	7.64%	1.43	7.08%	1.32
Lighting Service Schedules 41 - 49	4.89%	0.92	4.95%	0.93
Total Idaho Electric System	5.34%	1.00	5.34%	1.00

23

1 The rate of return and return ratios for Schedules 1
2 and Lighting service improve, but are still below unity and
3 the return ratios for Schedules 11, 21 and 31 each drop by
4 about one-tenth but are still well above unity. The rate
5 spread implications remain essentially unchanged.

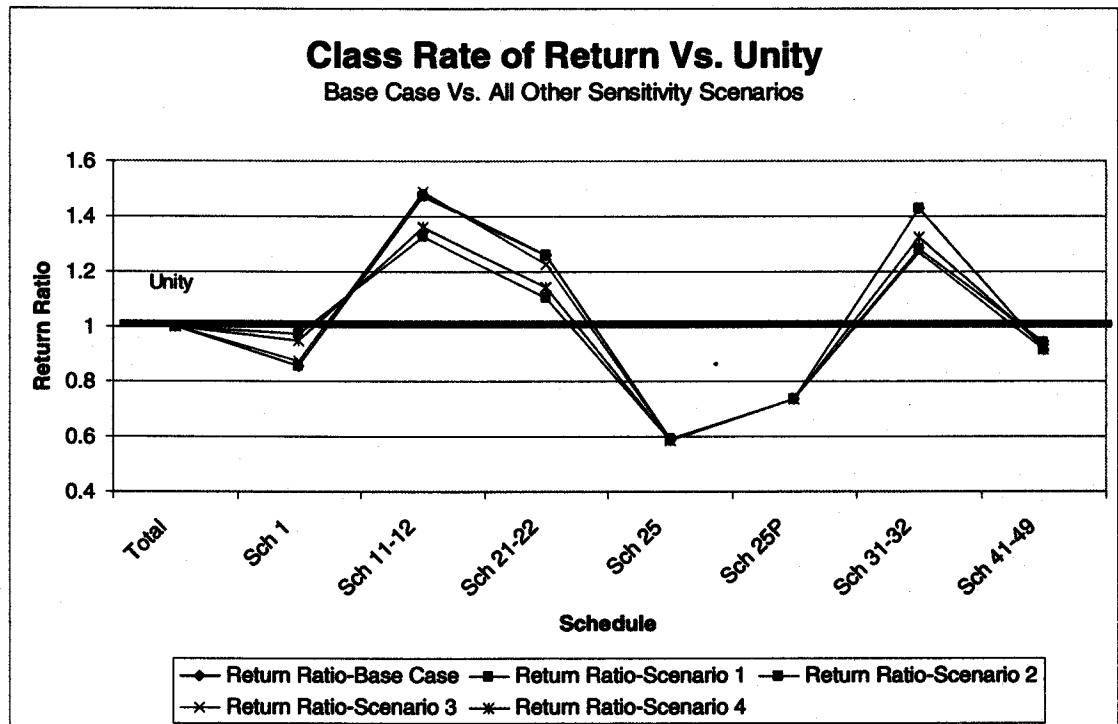
6 **Q. Would you expect the new load study to show a**
7 **higher contribution to the system coincident peak for only**
8 **the customer classes above unity, and a lower contribution**
9 **to the system coincident peak for only the customer classes**
10 **below unity, as you tested in Scenario 4?**

11 A. No. As with Scenario 2, it is unlikely that such
12 a scenario would actually occur. However, again, for my
13 sensitivity analysis I wanted to test a scenario that is
14 probably beyond what would likely occur.

15 **Q. What conclusions do you draw from these demand**
16 **allocation sensitivity studies?**

17 A. The following chart illustrates the return ratios
18 for the Base Case and all four sensitivity scenarios:

1 **Illustration 6:**



2

3 As can be seen in Illustration 6 above, the

4 sensitivity analyses demonstrate that, while an updated

5 load study may fine tune the cost relationships among the

6 customer groups, we can expect only relatively small

7 changes in results. The schedules that are well above

8 unity will continue to be above unity, and the schedules

9 that are well below unity will continue to be below unity.

10 (There will be little or no change to Schedules 25 and 25P,

11 which already have actual, hourly demand data and receive

12 direct assignment of most distribution plant.) Therefore,

13 the Company believes that the existing cost of service

14 study, even absent new load study information, provides a

15 sound foundation for rate spread purposes.

1 VI. NATURAL GAS COST OF SERVICE

2 Q. Please describe the natural gas cost of service
3 study and its purpose.

4 A. A natural gas cost of service study is an
5 engineering-economic study which separates the revenue,
6 expenses, and rate base associated with providing natural
7 gas service to designated groups of customers. The groups
8 are made up of customers with similar usage characteristics
9 and facility requirements. Costs are assigned in relation
10 to each groups' characteristics, resulting in an evaluation
11 of the cost of the service provided to each group. The
12 rate of return by customer group indicates whether the
13 revenue provided by the customers in each group recovers
14 the cost to serve those customers. The study results are
15 used as a guide in determining the appropriate rate spread
16 among the groups of customers. Exhibit No.11, Schedule 5
17 explains the basic concepts involved in performing a
18 natural gas cost of service study. It also details the
19 specific methodology and assumptions utilized in the
20 Company's Base Case cost of service study.

21 Q. What is the basis for the natural gas cost of
22 service study provided in this case?

23 A. The cost of service study provided by the Company
24 as Exhibit No.11, Schedule 6 is based on the twelve months
25 ended September 2008 test year pro forma results of

1 operations presented by Ms. Andrews in Exhibit No.10,
2 Schedule 2.

3 **Q. Would you please explain the cost of service**
4 **study presented in Exhibit No. 11, Schedule 6?**

5 A. Yes. Exhibit No. 11, Schedule 6 is composed of a
6 series of summaries of the cost of service study results.
7 Page 1 shows the results of the study by FERC account
8 category. The rate of return and the ratio of each
9 schedule's return to the overall return are shown on lines
10 38 and 39. This summary is provided to Mr. Hirschhorn for
11 his work on rate spread and rate design. The results will
12 be discussed in more detail later in my testimony. The
13 additional summaries show the costs organized by functional
14 category (page 2) and classification (page 3), including
15 margin and unit cost analysis at current and proposed
16 rates.

17 The Excel model used to calculate the cost of service
18 and supporting schedules have been included in their
19 entirety both electronically and hard copy in the
20 workpapers accompanying this case.

21 **Q. Does the Natural Gas Base Case cost of service**
22 **study utilize the methodology from the Company's last**
23 **natural gas case in Idaho?**

1 and one-half based on throughput. A detailed description
2 of the methodology is included in Exhibit No.11, Schedule
3 5.

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 general service Schedule 111 is providing
10 slightly less than the overall return (unity), while all
11 other schedules are providing slightly more than unity to
12 varying degrees. The return for all of the Schedules are
13 relatively close to the overall return indicating the
14 current rate spread is fair.

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

18 **Illustration 7:**

<u>Customer Class</u>	<u>Rate of</u> <u>Return</u>	<u>Return Ratio</u>
Residential Service Schedule 101	6.97%	1.02
Small Firm Service Schedule 111	6.24%	0.91
Interruptible Service Schedule 131	7.44%	1.08
Transportation Service Schedule 146	<u>8.78%</u>	<u>1.28</u>
Total Idaho Natural Gas System	<u>6.87%</u>	<u>1.00</u>

19

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.

RECEIVED

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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)	CASE NO. AVU-E-09-01
OF AVISTA CORPORATION FOR THE)	CASE NO. AVU-G-09-01
AUTHORITY TO INCREASE ITS RATES)	
AND CHARGES FOR ELECTRIC AND)	
NATURAL GAS SERVICE TO ELECTRIC)	EXHIBIT NO. 11
AND NATURAL GAS CUSTOMERS IN THE)	
STATE OF IDAHO)	TARA L. KNOX
)	

FOR AVISTA CORPORATION

(ELECTRIC AND GAS)

AVISTA UTILITIES

**AVERAGE PRODUCTION AND TRANSMISSION COST
IDAHO ELECTRIC
TWELVE MONTHS ENDED SEPTEMBER 30, 2008**

Column	Description of Adjustment	(000's)	Production/Transmission		
			Revenue	Expense	Rate Base
b	Per Results Report		87,662	196,202	337,543
c	Deferred FIT Rate Base			-	(47,411)
d	Deferred Gain on Office Building			-	
e	Colstrip 3 AFUDC Elimination		-	202	1,956
f	Colstrip Common AFUDC		-	-	925
g	Kettle Falls & Boulder Park Disallow.		-	-	(2,233)
h	Customer Advances			-	
i	Weatherizn and DSM Investment		-	-	1,669
	Actual		87,662	196,404	292,449
j	Depreciation True-up		-	(377)	-
k	Eliminate B & O Taxes			-	
l	Property Tax			1,143	
m	Uncollect. Expense			-	
n	Regulatory Expense			-	
o	Injuries and Damages			-	
p	FIT			-	
q	Idaho PCA			5,603	
r	Nez Perce Settlement Adjustment			(12)	
s	Eliminate A/R Expenses			-	
t	Misc Restating Adj			-	
u	Revenue Normalization Adjustment		59	1,358	
v	Clark Fork PM&E			1,010	
w	Restate Debt Interest			-	
	Restated Total		87,721	205,129	292,449
PF1	Pro Forma Power Supply		(55,375)	(45,585)	-
PF2	Pro Forma Production Property Adj		(1,332)	(6,528)	(10,202)
PF3	Pro Forma Labor Non-Exec			399	
PF4	Pro Forma Labor Exec			5	
PF5	Pro Forma Transmission Rev/Exp		13	5	-
PF6	Pro Forma Capital Add 2008			(39)	3,427
PF7	Pro Forma Capital Add 2009			661	2,929
PF8	Pro Forma Information Services			-	-
PF9	Pro Forma Asset Management			240	-
PF10	Pro Forma Spokane Rvr Relicensing			2,100	12,184
PF11	Pro Forma CDA Tribe Settlement			401	7,861
PF12	Pro Forma Montana Lease			1,917	1,583
PF13	Pro Forma Colstrip Mercury Emiss. O&M			596	-
PF14	Pro Forma Incentives			-	
PF16	Pro Forma ID AMR			-	
PF15	Pro Forma CS2 Levelized Adj			199	
PF16	Pro Forma ID AMR			-	
PF17	Pro Forma O&M Plant Expense			1,400	
PF18	Pro Forma Employee Benefits			368	
PF19	Pro Forma Insurance			-	
PF20	Pro Forma Chicago Climate (CCX)		425	-	
PF21	Pro Forma Wartsila Amortization			185	
PF22	Pro Forma Colstrip Lawsuit Stlmnt			369	
	Pro Forma Total		31,452	161,822	310,231

AVISTA UTILITIES

AVERAGE PRODUCTION AND TRANSMISSION COST IDAHO ELECTRIC TWELVE MONTHS ENDED SEPTEMBER 30, 2008

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

Line			(\$000's)	Debt Cost
1	Prod/Trans	Pro Forma Rate Base	\$310,231	
2		Proposed Rate of Return	8.800%	3.300%
3	Rate Base	Net Operating Income Requirement	\$27,300	
4	Tax Effect	Net Operating Income Requirement (Rate Base x Debt Cost x -35%)	(\$3,583)	
5	Net Expense	Net Operating Income Requirement (Expense - Revenue)	130,370	
6	Tax Effect	Net Operating Income Requirement (Net Expense x -.35%)	(\$45,629)	
7	Total Prod/Trans	Net Operating Income Requirement	\$108,457	
8	1 - Tax Rate	Conversion Factor (Excl. Rev. Rel. Exp.)	0.65	
9	Prod/Trans	Revenue Requirement	\$166,857	
10	12ME Sept 2008 ID Normalized Retail Load MWh		3,487,446	
11	Prod/Trans Rev Requirement per kWh (Retail Revenue Credit Rate)		\$ 0.04785	

1. ELECTRIC COST OF SERVICE

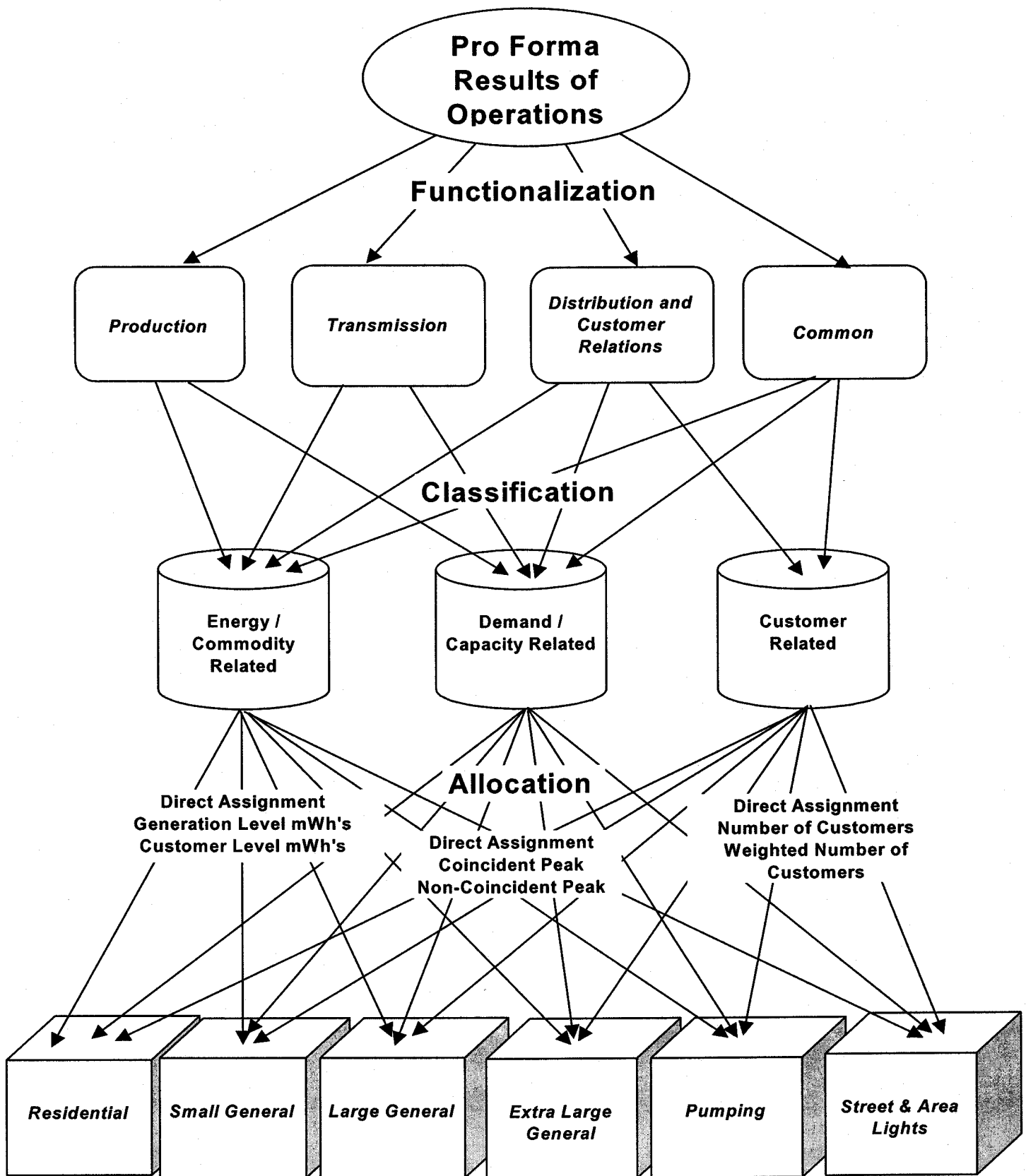
A cost of service study is an engineering-economic study, which apportions the revenue, expenses, and rate base associated with providing electric service to designated groups of customers. It indicates whether the revenue provided by the customers recovers the cost to serve those customers. The study 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

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

4 **BASE CASE COST OF SERVICE STUDY**

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

6 This study utilizes a Peak Credit methodology to classify production and transmission costs
7 into demand and energy classifications. The Peak Credit method acknowledges that baseload
8 production facilities provide energy throughout the year as well as capacity during system peaks
9 and likewise the transmission system is built not only for peak use, but also for everyday delivery
10 of energy. The demand/energy ratio is determined by the relationship of the current replacement
11 cost per kW generating capacity of the Company's peaking units to the current replacement cost
12 per kW generating capacity of the Company's thermal or hydro plant. The peak credit ratio for
13 thermal plant is 37.16% to demand and 62.84% to energy. The peak credit ratio for hydro plant is
14 36.49% to demand and 63.51% to energy. As an intermediate resource (between peaking and
15 baseload), Coyote Springs II has been included with the thermal plant costs, whereas all other
16 plants in the 340 to 349 FERC plant accounts are considered peaking units.

17 Transmission costs are classified by fifty-fifty weighting of the thermal and hydro peak
18 credit ratios resulting in the transmission peak credit ratio of 36.49% to demand and 63.51% to
19 energy. Fuel and load dispatching expenses are classified entirely to energy. Peaking plant related
20 costs are classified entirely to demand. Purchased Power and Other Power Supply expenses are
21 classified to demand and energy by the relative amounts of assigned and allocated Production Plant
22 in Service.

1 **Production and Transmission Allocation**

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

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

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

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

18 **Customer Relations Distribution Cost Classification**

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

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

4 **Distribution Cost Allocation**

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

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

17 **Administrative and General Costs**

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

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

4 **Revenue Conversion Items**

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

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

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

Line Account	Functional Category	Classification	Allocation
Production Plant			
1 Thermal Production	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
2 Hydro Production	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
3 Other Production (Coyote Springs)	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
4 Other Production	P = Production	Demand	D01 Coincident Peak Demand
Transmission Plant			
5 All Transmission	T = Transmission	Demand/Energy by Trans Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Distribution Plant			
6 360 Land	D = Distribution	Demand	D02 Non-coincident Peak Demand (NCP)
7 361 Structures	D = Distribution	Demand	D03/D04/D05 Direct Assign Large / Non-coincident Peak Demand Excl DA
8 362 Station Equipment	D = Distribution	Demand	D03/D04/D05 Direct Assign Large / Non-coincident Peak Demand Excl DA
9 364 Poles Towers & Fixtures	D = Distribution	Demand	D03/D04/D06/D07 Direct Assign Large & Lights / NCP Excl DA / NCP Secondary
10 365 Overhead Conductors & Devices	D = Distribution	Demand	D03/D04/D06 Direct Assign Large / NCP Excl DA / NCP Secondary
11 366 Underground Conduit	D = Distribution	Demand	D03/D04/D06 Direct Assign Large / NCP Excl DA / NCP Secondary
12 367 Underground Conductors & Devices	D = Distribution	Demand	D03/D04/D06 Direct Assign Large / NCP Excl DA / NCP Secondary
13 368 Line Transformers	D = Distribution	Demand	D06 Non-coincident Peak Demand Secondary
14 369 Services	D = Distribution	Customer	C02 Secondary Customers unweighted Excl Lighting
15 370 Meters	D = Distribution	Customer	C04 Customers weighted by Current Typical Meter Cost
16 373 Street and Area Lighting Systems	D = Distribution	Customer	C05 Direct Assignment to Street and Area Lights
General Plant			
17 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
Intangible Plant			
18 301 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
19 302 Franchises & Consents - Hydro Relicensing	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
20 303 Misc Intangible Plant - Transmission Agreements	T = Transmission	Demand/Energy by Trans Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
21 303 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
Reserve for Depreciation/Amortization			
22 Intangible	P/T/O	Follows Related Plant	S01/S02/S23 Sum of Production Plant / Sum of Transmission Plant / Corp Cost Allocator
23 Production	P = Production	Follows Related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
24 Transmission	T = Transmission	Follows Related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
25 Distribution	D = Distribution	Follows Related Plant	D02/D03/D04/D05/D06/D07/D08/C02/C04/C05 - See Related Plant
26 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
Other Rate Base			
27 252 Customer Advances for Construction	D = Distribution	Customer	S13 Sum of Account 369 Services Plant
28 282/190 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
29 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
30 Hydro Related Deferred Balances	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
31 Demand Side Management Investment	DSM	Demand/Energy from Production Plant	S01 Sum of Production Plant
Production O&M			
32 Thermal	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
33 Thermal Fuel (501)	P = Production	Energy	E02 Annual Generation Level Consumption
34 Hydro	P = Production	Demand/Energy by Hydro Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption

Line Account	Functional Category	Classification	Allocation
Production O&M (continued)			
1 Water for Power (536)	P = Production	Energy	E02 Annual Generation Level Consumption
2 Other (Coyote Springs)	P = Production	Demand/Energy by Thermal Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
3 Other Fuel (547)	P = Production	Energy	E02 Annual Generation Level Consumption
4 Other	P = Production	Demand	D01 Coincident Peak Demand
5 Purchased Power and Other Expenses (555 and 557)	P = Production	Demand/Energy from Production Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
6 System Control & Misc (556)	P = Production	Energy	E02 Annual Generation Level Consumption
Transmission O&M			
7 All Transmission	T = Transmission	Demand/Energy by Trans Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Distribution O&M			
8 580 OP Super & Engineering	D = Distribution	Demand/Customer from Other Dist Op Exp	S16 Sum of Other Distribution Operating Expenses
9 581 Load Dispatching	D = Distribution	Demand	D02 Non-coincident Peak Demand
10 582 Station Expenses	D = Distribution	Demand	S09 Sum of Account 362 Station Equipment
11 583 Overhead Lines	D = Distribution	Demand	S10 Sum of Accounts 364 and 365 Poles, Towers, Fixtures & Overhead Conductors
12 584 Underground Lines	D = Distribution	Demand	S11 Sum of Accounts 366 and 367 Underground Conduit & Underground Conductors
13 585 Street Lights	D = Distribution	Customer	S15 Sum of Account 373 Street Light and Signal Systems
14 586 Meters	D = Distribution	Customer	S14 Sum of Account 370 Meters
15 587 Customer Installations	D = Distribution	Customer	S13 Sum of Account 369 Services
16 588 Misc Operating Expense	D = Distribution	Demand/Customer from Other Dist Op Exp	S16 Sum of Other Distribution Operating Expenses
17 589 Rents	D = Distribution	Demand	D02 Non-coincident Peak Demand
18 590 MT Super & Engineering	D = Distribution	Demand/Customer from Other Dist Mt Exp	S17 Sum of Other Distribution Maintenance Expenses
19 591 MT of Structures	D = Distribution	Demand	S08 Sum of Account 361 Structures & Improvements
20 592 MT of Station Equipment	D = Distribution	Demand	S09 Sum of Account 362 Station Equipment
21 593 MT of Overhead Lines	D = Distribution	Demand	S10 Sum of Accounts 364 and 365 Poles, Towers, Fixtures & Overhead Conductors
22 594 MT of Underground Lines	D = Distribution	Demand	S11 Sum of Accounts 366 and 367 Underground Conduit & Underground Conductors
23 595 MT of Line Transformers	D = Distribution	Demand	S12 Sum of Account 368 Line Transformers
24 596 MT of Street Lights	D = Distribution	Customer	S15 Sum of Account 373 Street Light and Signal Systems
25 597 MT of Meters	D = Distribution	Customer	S14 Sum of Account 370 Meters
26 598 Misc Maintenance Expense	D = Distribution	Demand/Customer from Other Dist Mt Exp	S17 Sum of Other Distribution Maintenance Expenses
Customer Accounts Expenses			
27 901 Supervision	C = Customer Relations	Customer	S18 Sum of Other Customer Accounts Expenses Excluding Uncollectibles
28 902 Meter Reading	C = Customer Relations	Customer	C03 Customers Weighted by Estimated Meter Reading Time
29 903 Customer Records & Collections	C = Customer Relations	Customer	C01/C06 All Customers unweighted / Direct Assign Handbilled Cust
30 904 Uncollectible Accounts	R = Revenue Conversion	Revenue	R01 Retail Sales Revenue
31 905 Misc Cust Accounts	C = Customer Relations	Customer	C01 All Customers unweighted
Customer Service & Info Expenses			
32 907 Supervision	C = Customer Relations	Customer	C01 All Customers unweighted
33 908 Customer Assistance	C = Customer Relations	Customer	C01 All Customers unweighted
34 908 DSM Amortization Expenses	DSM	Demand/Energy from Production Plant	S01 Sum of Production Plant
35 909 Advertising	C = Customer Relations	Customer	C01 All Customers unweighted
36 910 Misc Cust Service & Info	C = Customer Relations	Customer	C01 All Customers unweighted
Sales Expenses			
37 911 - 916	C = Customer Relations	Energy	E02 Annual Generation Level Consumption

Line	Account	Functional Category	Classification	Allocation
Admin & General Expenses				
1	920 - 927 & 930 - 935 Assigned to Production	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
2	920 - 927 & 930 - 935 Assigned to Transmission	T = Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
3	920 - 927 & 930 - 935 Assigned to Distribution	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
4	920 - 927 & 930 - 935 Assigned to Customer Relations	C = Customer Relations	Customer	C01 All Customers unweighted
5	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
6	928 FERC Commission Fees	P = Production	Energy	E02 Annual Generation Level Consumption
7	928 IPUC Commission Fees	R = Revenue Conversion	Revenue	R01 Retail Sales Revenue
8	928 CAPAI Intervenor Funding	O=Other	Customer	C07 Direct Assignment to Residential Customers
Depreciation & Amortization Expense				
9	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
10	Production	P = Production	Demand/Energy as in related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
11	Transmission	T = Transmission	Demand/Energy as in related Plant	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
12	Distribution	D = Distribution	Demand/Customer as in related Plant	D02/D03/D04/D05/D06/D07/D08/C02/C04/C05 - See Related Plant
13	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
Taxes				
14	Property Tax	P/T/D/O	Demand/Energy/Customer from Related Plant	S01/S02/S03/S04 Sums of Production / Transmission / Distribution / General Plant
15	State kWh Generation Taxes	P = Production	Demand/Energy by Combo Peak Credits & Energy	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
16	Misc Production Taxes	P = Production	Demand/Energy by Combo Peak Credits & Energy	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
17	Misc Distribution Taxes	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
18	Idaho State Income Tax	R = Revenue Conversion	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
19	Federal Income Tax	R = Revenue Conversion	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
20	Deferred FIT	R = Revenue Conversion	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
Other Income Related Items				
21	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
Operating Revenues				
22	Sales of Electricity- Retail	R = Revenue from Rates	Revenue	Input Pro Forma Revenue per Revenue Study
23	Sales for Resale (447)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
24	Misc Service Revenue (451)	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
25	Sales of Water & Water Power (453)	P = Production	Demand	D01 Coincident Peak Demand
26	Rent from Production Property (454)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
27	Rent from Distribution Property (454)	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
28	Other Electric Revenues - Generation (456)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
29	Other Electric Revenues - Wheeling (456)	T = Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
30	Other Electric Revenues - Energy Delivery (456)	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
31	Optional Renewable Revenue (Sch 95)	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
32	Montana Retail Revenue	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Salaries & Wages (allocation factor input)				
Operation & Maintenance Expenses				
33	Production Total	P = Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
34	Transmission Total	T = Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
35	Distribution Total	D = Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
36	Customer Accounts Total	C = Customer Relations	Customer	S18 Sum of Other Customer Accounts Expenses Excluding Uncollectibles
37	Customer Service Total	C = Customer Relations	Customer	C01 All Customers unweighted
38	Sales Total	C = Customer Relations	Energy	E02 Annual Generation Level Consumption
39	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 Twelve Months Ended September 30, 2008

Idaho Jurisdiction
Electric Utility

01-15-09

	(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
Plant In Service												
1 Production Plant					373,731,000	135,227,560	37,650,169	75,194,994	32,149,197	86,363,517	5,962,243	1,183,321
2 Transmission Plant					160,359,000	57,376,174	15,974,374	32,342,771	13,863,648	37,689,700	2,584,411	527,923
3 Distribution Plant					391,018,000	197,358,427	61,571,178	91,364,302	10,733,997	2,156,602	8,513,166	19,320,328
4 Intangible Plant					39,605,000	15,741,657	4,230,439	7,550,082	3,059,674	8,136,299	635,089	251,761
5 General Plant					61,178,000	32,454,852	8,011,877	9,394,461	2,838,928	6,495,775	964,439	1,017,668
6 Total Plant In Service					1,025,891,000	438,158,669	127,438,037	215,846,610	62,645,443	140,841,892	18,659,348	22,301,001
Accum Depreciation												
7 Production Plant					(146,687,000)	(52,857,182)	(14,716,423)	(29,540,070)	(12,641,759)	(34,111,303)	(2,348,989)	(471,275)
8 Transmission Plant					(55,770,000)	(19,954,410)	(5,555,602)	(11,248,239)	(4,821,529)	(13,107,805)	(898,812)	(183,602)
9 Distribution Plant					(121,422,000)	(60,622,702)	(17,696,227)	(28,258,437)	(3,147,094)	(689,459)	(2,423,039)	(8,585,042)
10 Intangible Plant					(6,504,000)	(3,204,666)	(807,144)	(1,067,179)	(358,755)	(873,971)	(103,044)	(89,241)
11 General Plant					(26,764,000)	(14,198,268)	(3,505,016)	(4,109,865)	(1,241,967)	(2,841,756)	(421,920)	(445,207)
12 Total Accumulated Depreciation					(357,147,000)	(150,837,228)	(42,280,413)	(74,223,790)	(22,211,105)	(51,624,294)	(6,195,804)	(9,774,366)
13 Net Plant					668,744,000	287,321,441	85,157,624	141,622,820	40,434,338	89,217,598	12,463,544	12,526,635
14 Accumulated Deferred FIT					(94,277,000)	(39,954,758)	(11,494,640)	(19,546,335)	(5,961,672)	(13,794,122)	(1,683,524)	(1,841,948)
15 Miscellaneous Rate Base					2,967,000	615,534	238,461	777,855	342,392	931,229	52,419	9,109
16 Total Rate Base					577,434,000	247,982,217	73,901,445	122,854,339	34,815,058	76,354,705	10,832,439	10,693,796
17 Revenue From Retail Rates					220,252,000	86,358,000	27,841,000	46,634,000	14,497,000	37,941,000	4,139,000	2,842,000
18 Other Operating Revenues					32,908,000	12,105,796	3,395,160	6,669,515	2,746,549	7,285,317	533,843	171,820
19 Total Revenues					253,160,000	98,463,796	31,236,160	53,303,515	17,243,549	45,226,317	4,672,843	3,013,820
Operating Expenses												
20 Production Expenses					132,634,000	46,952,246	13,071,925	26,812,020	11,520,641	31,666,824	2,157,965	452,380
21 Transmission Expenses					8,348,000	2,986,900	831,597	1,683,706	721,716	1,962,058	134,540	27,483
22 Distribution Expenses					9,626,000	4,628,565	1,334,788	2,266,359	325,069	68,906	183,439	818,875
23 Customer Accounting Expenses					3,484,000	2,571,225	566,133	159,263	37,127	96,155	44,220	9,878
24 Customer Information Expenses					1,537,000	673,650	169,327	260,612	110,134	295,791	23,169	4,319
25 Sales Expenses					235,000	78,937	21,975	48,021	20,867	60,270	3,995	934
26 Admin & General Expenses					21,605,000	11,157,633	2,813,361	3,480,772	1,040,376	2,391,071	349,065	372,722
27 Total O&M Expenses					177,469,000	69,049,156	18,809,104	34,710,752	13,775,929	36,541,075	2,896,393	1,686,591
28 Taxes Other Than Income Taxes					8,751,000	3,527,601	1,022,110	1,837,350	603,320	1,460,444	154,807	145,368
29 Other Income Related Items					(106,000)	(41,853)	(11,655)	(20,903)	(8,744)	(21,069)	(1,550)	(226)
Depreciation Expense												
30 Production Plant Depreciation					9,335,000	3,397,568	945,964	1,875,801	800,892	2,137,719	148,120	28,936
31 Transmission Plant Depreciation					3,232,000	1,156,404	321,960	651,861	279,419	759,628	52,088	10,640
32 Distribution Plant Depreciation					10,048,000	4,965,162	1,601,384	2,459,029	306,220	51,900	226,182	438,121
33 General Plant Depreciation					4,867,000	2,581,937	637,383	747,374	225,850	516,770	76,726	80,960
34 Amortization Expense					2,256,000	816,171	227,239	453,924	194,079	521,445	35,996	7,147
35 Total Depreciation Expense					29,738,000	12,917,243	3,733,930	6,187,989	1,806,460	3,987,461	539,112	565,805
36 Income Tax					6,445,000	1,704,864	1,851,605	2,307,179	(29,058)	260,845	256,563	93,002
37 Total Operating Expenses					222,297,000	87,157,010	25,405,095	45,022,366	16,147,908	42,228,755	3,845,326	2,490,540
38 Net Income					30,863,000	11,306,786	5,831,065	8,281,149	1,095,641	2,997,562	827,518	523,280
39 Rate of Return					5.34%	4.56%	7.89%	6.74%	3.15%	3.93%	7.64%	4.89%
40 Return Ratio					1.00	0.85	1.48	1.26	0.59	0.73	1.43	0.92
41 Interest Expense					19,055,000	8,183,275	2,438,706	4,054,125	1,148,878	2,519,663	357,464	352,889

File: ID 09 Elec Case / Elec COS Base Case / Sumcost Exhibits

	(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	Service	Area Lights
									Sch 25	Sch 25P	Sch 31-32	Sch 41-49
Functional Cost Components at Current Return by Schedule												
1 Production					135,335,369	47,229,312	14,287,020	28,463,985	11,181,180	31,376,910	2,337,896	459,067
2 Transmission					16,053,522	5,466,355	1,988,733	3,700,280	1,149,015	3,381,242	316,054	51,842
3 Distribution					43,588,275	20,418,928	8,098,923	10,485,385	1,038,469	563,555	1,069,584	1,913,431
4 Common					25,274,833	13,243,404	3,466,324	3,984,350	1,128,335	2,619,293	415,466	417,660
5 Total Current Rate Revenue					220,252,000	86,358,000	27,841,000	46,634,000	14,497,000	37,941,000	4,139,000	2,842,000
Expressed as \$/kWh												
6 Production					\$0.03881	\$0.04066	\$0.04419	\$0.04020	\$0.03559	\$0.03456	\$0.03977	\$0.03339
7 Transmission					\$0.00460	\$0.00471	\$0.00615	\$0.00523	\$0.00366	\$0.00372	\$0.00538	\$0.00377
8 Distribution					\$0.01250	\$0.01758	\$0.02505	\$0.01481	\$0.00331	\$0.00062	\$0.01819	\$0.13919
9 Common					\$0.00725	\$0.01140	\$0.01072	\$0.00563	\$0.00359	\$0.00289	\$0.00707	\$0.03038
10 Total Current Melded Rates					\$0.06316	\$0.07435	\$0.08610	\$0.06587	\$0.04614	\$0.04179	\$0.07040	\$0.20674
Functional Cost Components at Uniform Current Return												
11 Production					136,108,108	48,192,991	13,417,365	27,512,989	11,821,235	32,485,592	2,214,048	463,889
12 Transmission					16,382,662	5,861,688	1,631,981	3,304,215	1,416,344	3,850,471	264,030	53,934
13 Distribution					42,444,209	21,896,635	6,553,913	9,265,498	1,273,644	600,669	875,718	1,978,132
14 Common					25,317,020	13,432,535	3,314,993	3,887,051	1,174,634	2,687,691	399,046	421,070
15 Total Uniform Current Cost					220,252,000	89,383,849	24,918,252	43,969,753	15,685,857	39,624,422	3,752,841	2,917,025
Expressed as \$/kWh												
16 Production					\$0.03903	\$0.04149	\$0.04150	\$0.03886	\$0.03763	\$0.03578	\$0.03766	\$0.03374
17 Transmission					\$0.00470	\$0.00505	\$0.00505	\$0.00467	\$0.00451	\$0.00424	\$0.00449	\$0.00392
18 Distribution					\$0.01217	\$0.01885	\$0.02027	\$0.01309	\$0.00405	\$0.00066	\$0.01490	\$0.14390
19 Common					\$0.00726	\$0.01156	\$0.01025	\$0.00549	\$0.00374	\$0.00296	\$0.00679	\$0.03063
20 Total Current Uniform Melded Rates					\$0.06316	\$0.07696	\$0.07707	\$0.06210	\$0.04993	\$0.04365	\$0.06383	\$0.21219
21 Revenue to Cost Ratio at Current Rates					1.00	0.97	1.12	1.06	0.92	0.96	1.10	0.97
Functional Cost Components at Proposed Return by Schedule												
22 Production					147,845,557	51,139,821	15,323,930	30,786,204	12,472,189	35,126,868	2,517,492	479,054
23 Transmission					21,260,938	7,070,669	2,414,124	4,667,478	1,688,248	4,968,408	391,500	60,512
24 Distribution					55,555,541	26,415,660	9,941,193	13,464,381	1,512,844	689,090	1,350,732	2,181,641
25 Common					26,822,964	14,010,850	3,646,753	4,221,937	1,221,720	2,850,635	439,276	431,793
26 Total Proposed Rate Revenue					251,485,000	98,637,000	31,326,000	53,140,000	16,895,000	43,635,000	4,699,000	3,153,000
Expressed as \$/kWh												
27 Production					\$0.04239	\$0.04403	\$0.04739	\$0.04348	\$0.03970	\$0.03869	\$0.04282	\$0.03485
28 Transmission					\$0.00610	\$0.00609	\$0.00747	\$0.00659	\$0.00537	\$0.00547	\$0.00666	\$0.00440
29 Distribution					\$0.01593	\$0.02274	\$0.03075	\$0.01902	\$0.00482	\$0.00076	\$0.02298	\$0.15870
30 Common					\$0.00769	\$0.01206	\$0.01128	\$0.00596	\$0.00389	\$0.00314	\$0.00747	\$0.03141
31 Total Proposed Melded Rates					\$0.07211	\$0.08492	\$0.09688	\$0.07505	\$0.05378	\$0.04806	\$0.07993	\$0.22936
Functional Cost Components at Uniform Requested Return												
32 Production					147,899,815	52,464,728	14,606,708	29,884,869	12,835,036	35,205,453	2,401,957	501,064
33 Transmission					21,280,678	7,614,190	2,119,903	4,292,095	1,839,796	5,001,667	342,968	70,059
34 Distribution					55,407,201	28,447,276	8,666,992	12,308,195	1,646,165	691,720	1,169,879	2,476,973
35 Common					26,897,306	14,270,875	3,521,948	4,129,718	1,247,967	2,855,483	423,959	447,358
36 Total Uniform Cost					251,485,000	102,797,068	28,915,551	50,614,878	17,568,963	43,754,324	4,338,763	3,495,453
Expressed as \$/kWh												
37 Production					\$0.04241	\$0.04517	\$0.04517	\$0.04221	\$0.04085	\$0.03878	\$0.04086	\$0.03645
38 Transmission					\$0.00610	\$0.00656	\$0.00656	\$0.00606	\$0.00586	\$0.00551	\$0.00583	\$0.00510
39 Distribution					\$0.01589	\$0.02449	\$0.02680	\$0.01738	\$0.00524	\$0.00076	\$0.01990	\$0.18018
40 Common					\$0.00771	\$0.01229	\$0.01089	\$0.00583	\$0.00397	\$0.00315	\$0.00721	\$0.03254
41 Total Uniform Melded Rates					\$0.07211	\$0.08850	\$0.08943	\$0.07149	\$0.05592	\$0.04819	\$0.07380	\$0.25427
42 Revenue to Cost Ratio at Proposed Rates					1.00	0.96	1.08	1.05	0.96	1.00	1.08	0.90
43 Current Revenue to Proposed Cost Ratio					0.88	0.84	0.96	0.92	0.83	0.87	0.95	0.81

Exhibit No. 11

Case No. AVU-E-09-01

T. Knox, Avista

Schedule 3, p. 2 of 3

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

AVISTA UTILITIES
Revenue to Cost By Classification Summary
For the Twelve Months Ended September 30, 2008

Idaho Jurisdiction
Electric Utility

01-15-09

	(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
Cost Classifications at Current Return by Schedule												
1 Energy					112,358,195	37,226,967	11,275,647	23,952,392	9,473,564	27,947,486	2,037,651	444,488
2 Demand					88,106,759	35,660,621	12,650,826	22,062,115	5,016,892	9,992,632	1,746,114	977,559
3 Customer					19,787,047	13,470,412	3,914,527	619,493	6,544	882	355,236	1,419,954
4 Total Current Rate Revenue					220,252,000	86,358,000	27,841,000	46,634,000	14,497,000	37,941,000	4,139,000	2,842,000
Expressed as Unit Cost												
5 Energy	\$/kWh				\$0.03222	\$0.03205	\$0.03487	\$0.03383	\$0.03015	\$0.03078	\$0.03466	\$0.03233
6 Demand	\$/kW/mo				\$10.88	\$11.47	\$13.14	\$11.68	\$8.63	\$7.28	\$12.28	\$23.56
7 Customer	\$/Cust/mo				\$13.70	\$11.39	\$17.26	\$35.86	\$45.44	\$73.53	\$23.01	\$951.07
Cost Classifications at Uniform Current Return												
8 Energy					113,127,008	37,999,770	10,578,351	23,116,841	10,045,287	29,013,641	1,923,372	449,747
9 Demand					87,455,196	37,427,884	10,942,955	20,305,813	5,631,907	10,609,724	1,526,930	1,009,983
10 Customer					19,669,795	13,956,195	3,396,945	547,099	8,663	1,057	302,539	1,457,296
11 Total Uniform Current Cost					220,252,000	89,383,849	24,918,252	43,969,753	15,685,857	39,624,422	3,752,841	2,917,025
Expressed as Unit Cost												
12 Energy	\$/kWh				\$0.03244	\$0.03272	\$0.03272	\$0.03265	\$0.03197	\$0.03196	\$0.03272	\$0.03272
13 Demand	\$/kW/mo				\$10.80	\$12.04	\$11.37	\$10.75	\$9.69	\$7.73	\$10.74	\$24.35
14 Customer	\$/Cust/mo				\$13.62	\$11.80	\$14.98	\$31.67	\$60.16	\$88.11	\$19.59	\$976.09
15 Revenue to Cost Ratio at Current Rates					1.00	0.97	1.12	1.06	0.92	0.96	1.10	0.97
Cost Classifications at Proposed Return by Schedule												
16 Energy					123,312,719	40,362,925	12,107,052	25,992,719	10,626,749	31,553,619	2,203,369	466,286
17 Demand					105,383,881	42,832,335	14,687,265	26,351,002	6,257,432	12,079,907	2,063,973	1,111,966
18 Customer					22,788,400	15,441,740	4,531,682	796,279	10,819	1,474	431,657	1,574,748
19 Total Proposed Rate Revenue					251,485,000	98,637,000	31,326,000	53,140,000	16,895,000	43,635,000	4,699,000	3,153,000
Expressed as Unit Cost												
20 Energy	\$/kWh				\$0.03536	\$0.03475	\$0.03744	\$0.03671	\$0.03382	\$0.03476	\$0.03748	\$0.03392
21 Demand	\$/kW/mo				\$13.01	\$13.78	\$15.26	\$13.95	\$10.76	\$8.80	\$14.51	\$26.80
22 Customer	\$/Cust/mo				\$15.78	\$13.06	\$19.98	\$46.10	\$75.13	\$122.84	\$27.96	\$1,054.75
Cost Classifications at Uniform Requested Return												
23 Energy					123,325,286	41,425,408	11,531,978	25,200,799	10,950,859	31,629,189	2,096,762	490,291
24 Demand					105,076,407	45,262,045	13,278,750	24,686,413	6,606,083	12,123,648	1,859,503	1,259,964
25 Customer					23,083,307	16,109,616	4,104,823	727,666	12,021	1,486	382,498	1,745,198
26 Total Uniform Cost					251,485,000	102,797,068	28,915,551	50,614,878	17,568,963	43,754,324	4,338,763	3,495,453
Expressed as Unit Cost												
27 Energy	\$/kWh				\$0.03536	\$0.03567	\$0.03567	\$0.03559	\$0.03486	\$0.03484	\$0.03567	\$0.03567
28 Demand	\$/kW/mo				\$12.97	\$14.56	\$13.79	\$13.07	\$11.36	\$8.83	\$13.08	\$30.37
29 Customer	\$/Cust/mo				\$15.99	\$13.62	\$18.10	\$42.13	\$83.48	\$123.87	\$24.77	\$1,168.92
30 Revenue to Cost Ratio at Proposed Rates					1.00	0.96	1.08	1.05	0.96	1.00	1.08	0.90
31 Current Revenue to Proposed Cost Ratio					0.88	0.84	0.96	0.92	0.83	0.87	0.95	0.81

AVISTA UTILITIES
Demand Allocator Sensitivity Analysis
Case No. AVU-E-09-01

Line No	(b) Description	(c) (d) (e)	(f)	(g) Residential Service Sch 1	(h) General Service Sch 11-12	(i) Large Gen Service Sch 21-22	(j) Extra Large Gen Service Sch 25	(k) Extra Large Service Potlatch Sch 25P	(l) Pumping Service Sch 31-32	(m) Street & Area Lights Sch 41-49
Base Case										
1	Total Rate Base		577,434,000	247,982,217	73,901,445	122,854,339	34,815,058	76,354,705	10,832,439	10,693,796
2	Net Income at Present Rates		30,863,000	11,308,001	5,830,726	8,280,751	1,095,521	2,997,287	827,477	523,237
3	Rate of Return		5.34%	4.56%	7.89%	6.74%	3.15%	3.93%	7.64%	4.89%
4	Return Ratio-Base Case		1.00	0.85	1.48	1.26	0.59	0.73	1.43	0.92
Scenario 1 - Non-Coincident Peak Twice Base Case										
5	Total Rate Base		577,434,000	248,031,850	73,916,813	122,884,497	34,785,870	76,285,802	10,834,709	10,694,458
6	Net Income at Present Rates		30,863,000	11,302,229	5,829,654	8,278,379	1,096,321	3,003,889	827,309	523,219
7	Rate of Return		5.34%	4.56%	7.89%	6.74%	3.16%	3.94%	7.64%	4.89%
8	Return Ratio-Scenario 1		1.00	0.85	1.48	1.26	0.59	0.74	1.43	0.92
Scenario 2 - Over-Unity Non-Coincident Peak Increased and Under-Unity Non-Coincident Peak Decreased										
9	Total Rate Base		577,434,000	234,614,015	78,297,005	131,294,125	34,815,238	76,355,128	11,481,871	10,576,618
10	Net Income at Present Rates		30,863,000	12,165,221	5,550,549	7,737,194	1,095,624	2,997,523	786,072	530,817
11	Rate of Return		5.34%	5.19%	7.09%	5.89%	3.15%	3.93%	6.85%	5.02%
12	Return Ratio-Scenario 2		1.00	0.97	1.33	1.10	0.59	0.73	1.28	0.94
Scenario 3 - Coincident Peaks 6.25% of Peak Days										
13	Total Rate Base		577,434,000	246,912,552	73,726,366	123,742,634	34,815,038	76,354,656	11,188,958	10,693,795
14	Net Income at Present Rates		30,863,000	11,517,044	5,865,479	8,106,542	1,095,645	2,997,571	757,439	523,280
15	Rate of Return		5.34%	4.66%	7.96%	6.55%	3.15%	3.93%	6.77%	4.89%
16	Return Ratio-Scenario 3		1.00	0.87	1.49	1.23	0.59	0.73	1.27	0.92
Scenario 4 - Over-Unity Coincident Peak Increased and Under-Unity Coincident Peak Decreased										
17	Total Rate Base		577,434,000	242,970,806	75,626,997	125,998,803	34,815,038	76,354,656	11,080,570	10,667,130
18	Net Income at Present Rates		30,863,000	12,291,850	5,491,884	7,674,854	1,095,645	2,997,571	782,675	528,521
19	Rate of Return		5.34%	5.06%	7.26%	6.09%	3.15%	3.93%	7.08%	4.95%
20	Return Ratio-Scenario 4		1.00	0.95	1.36	1.14	0.59	0.73	1.32	0.93

NATURAL GAS COST OF SERVICE STUDY

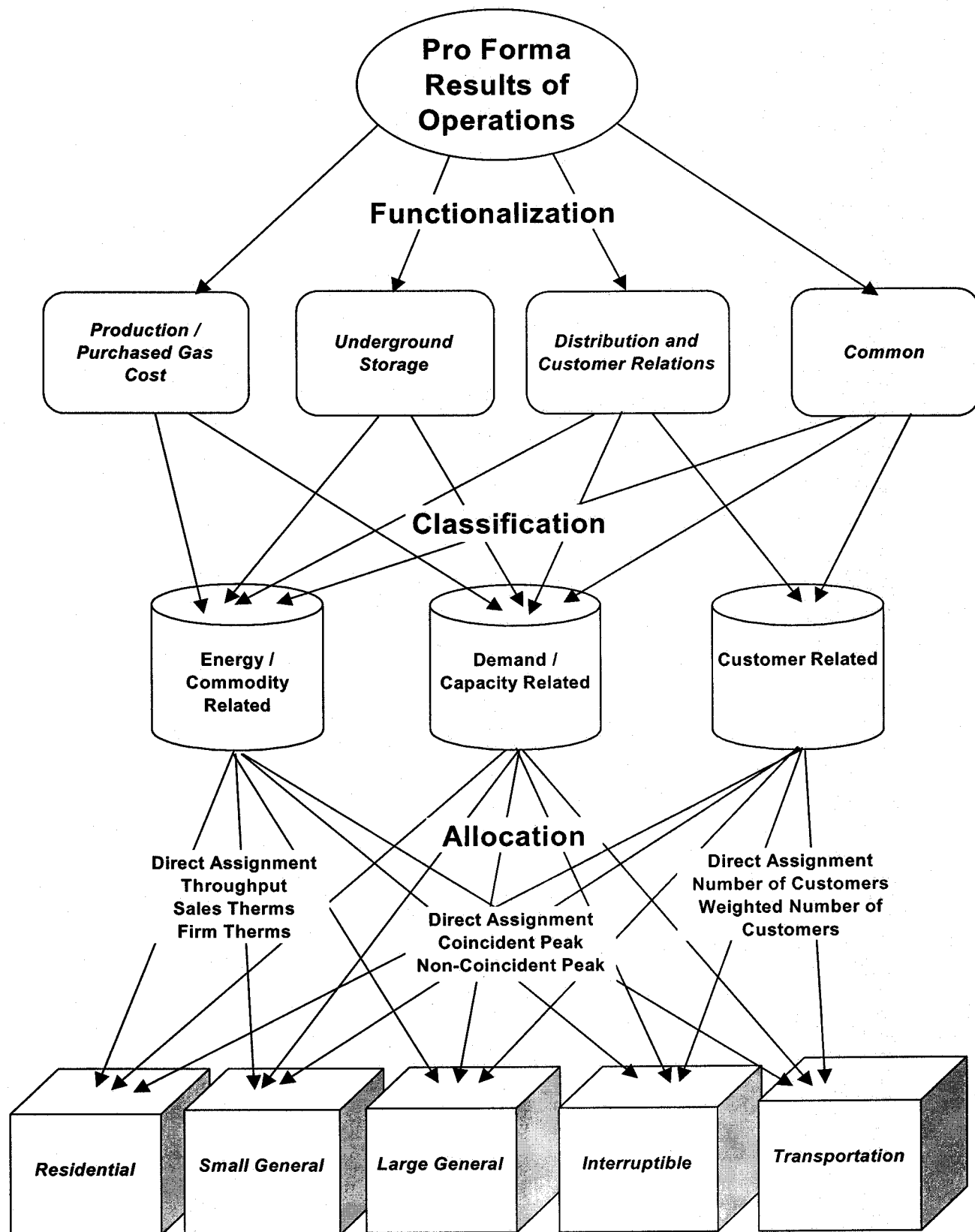
A cost of service study is an engineering-economic study, which apportions the revenue, expenses, and rate base associated with providing natural gas service to designated groups of customers. It indicates whether the revenue provided by the customers recovers the cost to serve those customers. The study 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

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

4 **BASE CASE COST OF SERVICE STUDY**

5 **Production - Purchased Gas Costs**

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

10 The demand and commodity components of account 804 have been determined directly
11 from the weighted average cost of gas (WACOG) approved in the most recent purchased gas
12 adjustment (PGA) filing effective October 1, 2008. The January 6, 2009 gas cost reduction to
13 customer charges was accomplished through Schedule 155 which is excluded from base revenues.
14 The allocation of these costs agrees with the gas costs computation used to determine pro forma
15 results of operations.

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

20 **Underground Storage**

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

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

2 Distribution mains and regulator station equipment (both general use and city gate stations)
3 are classified Demand and Commodity using the peak and average ratio for the distribution
4 system. Peak demand is defined as the average of the five-day sustained peaks from the most
5 recent three years. Average daily load is calculated by dividing annual throughput by 365 (days in
6 the year). The average daily load is divided by peak load to arrive at the system load factor of
7 37%. This proportion is classified as commodity related. The remaining 63% is classified as
8 demand related. Meters, services and industrial measuring & regulating equipment are classified
9 as customer related distribution plant. Distribution operating and maintenance expenses are
10 classified (and allocated) in relation to the plant accounts they are associated with.

11 **Customer Relations Distribution Cost Classification**

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

19 **Distribution Cost Allocation**

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

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

3 Most customer related costs are allocated by the annualized number of customers billed
4 during the test period. Meter investment costs are allocated using the number of customers
5 weighted by the relative current cost of meters in service at December 31, 2007. Services
6 investment costs are allocated using the number of customers weighted by the relative current cost
7 of typical service installations. Industrial measuring and regulating equipment investment costs
8 are allocated by number of turbine meters which effectively excludes small usage customers.

9 **Administrative and General Costs**

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

19 **Special Contract Customer Revenue**

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

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

3 **Revenue Conversion Items**

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

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

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

IPUC Case No. AVU-G-09-01 Methodology Matrix
Avista Utilities Idaho Jurisdiction
Natural Gas Cost of Service Methodology

Line Account	Functional Category	Classification	Allocation
Underground Storage Plant			
1 350 - 357 Underground Storage	Underground Storage	Commodity	E08 Winter throughput
Distribution Plant			
2 374 Land	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
3 375 Structures	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
4 376(S) Small Mains	Distribution	Demand/Commodity by Peak & Average	D02/E06 Coincident peak, annual thermos (both excl lg use cust)
5 376(L) Large Mains	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
6 378 M&R General	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
7 379 M&R City Gate	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
8 380 Services	Distribution	Customer	C02, Customers weighted by current typical service cost
9 381 Meters	Distribution	Customer	C03, Customers weighted by average current meter cost
10 385 Industrial M&R	Distribution	Customer	C06, Large use customers
11 387 Other	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
General Plant			
12 389-399 All General Plant	Common	Demand/Commodity/Customer from UG & D Plant	S03 Sum of Underground Storage and Distribution Plant in Service
Intangible Plant			
13 303 Misc Intangible Plant	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
14 303 Computer Software	Common	Demand/Commodity/Customer from UG & D Plant	S03 Sum of Underground Storage and Distribution Plant in Service
Reserve for Depreciation			
15 Underground Storage	Underground Storage	Commodity same as related plant	Allocations linked to related plant accounts
16 Distribution	Distribution	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
17 General	Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
18 Intangible	Distribution/Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
Other Rate Base			
19 Accumulated Deferred FIT	All	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
20 Constuction Advances	Distribution	Customer	C10 Residential only
21 Gas Inventory	Underground Storage	Commodity from Underground Storage Plant	S14 Sum of Underground Storage Plant in Service
22 Gain on Sale of Office Bldg	Common	Demand/Commodity/Customer from UG & D Plant	S03 Sum of Underground Storage and Distribution Plant in Service
23 DSM Investment	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
Purchased Gas Expenses			
24 804 Purchased Gas Cost	Production	Demand/Commodity from PGA Tracker WACOG	D05/E07 PGA Demand / PGA Commodity
25 813 Other Gas Expenses	Production	Commodity	E01/E04 Annual Throughput / Annual Sales Thermos
Underground Storage O&M			
26 814 - 837 Underground Storage Exp	Underground Storage	Commodity	E08 Winter throughput

IUC Case No. AVU-G-09-01 Methodology Matrix
Arista Utilities Idaho Jurisdiction
Natural Gas Cost of Service Methodology

Line Account	Functional Category	Classification	Allocation
Distribution O&M			
1 870 OP Super & Engineering	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
2 871 Load Dispatching	Distribution	Commodity	E01 Annual throughput
3 874 Mains & Services	Distribution	Demand/Commodity/Customer from related plant	S06 Sum of Mains and Services Plant in Service
4 875 M&R Station - General	Distribution	Demand/Commodity from related plant	S08 Sum of Meas & Reg Station - General Plant in Service
5 876 M&R Station - Industrial	Distribution	Customer from related plant	S19 Sum of Meas & Reg Station - Industrial Plant in Service
6 877 M&R Station - City Gate	Distribution	Demand/Commodity from related plant	S09 Sum of Meas & Reg Station - City Gate Plant in Service
7 878 Meter & House Regulator	Distribution	Customer from related plant	S07 Sum of Meter and Installation Plant in Service
8 879 Customer Installations	Distribution	Customer	C05, Customers weighted by average current meter cost
9 880 Other OP Expenses	Distribution	Demand/Commodity/Customer from other dist expens	S04 Sum of Accounts 870 - 879 and 881 - 894
10 881 Rents	Distribution	Demand/Commodity/Customer from other dist expens	S04 Sum of Accounts 870 - 879 and 881 - 894
11 885 MT Super & Engineering	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
12 886 MT of Structures	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
13 887 MT of Mains	Distribution	Demand/Commodity/Customer from related plant	S21 Sum of Distribution Mains Plant in Service
14 889 MT of M&R General	Distribution	Demand/Commodity from related plant	S08 Sum of Meas & Reg Station - General Plant in Service
15 890 MT of M&R Industrial	Distribution	Customer from related plant	S19 Sum of Meas & Reg Station - Industrial Plant in Service
16 891 MT of M&R City Gate	Distribution	Demand/Commodity from related plant	S09 Sum of Meas & Reg Station - City Gate Plant in Service
17 892 MT of Services	Distribution	Customer from related plant	S20 Sum of Services Plant in Services
18 893 MT of Meters & Hs Reg	Distribution	Customer from related plant	S07 Sum of Meter and Installation Plant in Service
19 894 MT of Other Equipment	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
Customer Accounting Expenses			
20 901 Supervision	Customer Relations	Customer	C01 All customers (unweighted)
21 902 Meter Reading	Customer Relations	Customer	C01 All customers (unweighted)
22 903 Customer Records & Collections	Customer Relations	Customer	C01 All customers (unweighted)
23 904 Uncollectible Accounts	Revenue Conversion	Revenue	R03 Retail Sales Revenue
24 905 Misc Cust Accounts	Customer Relations	Customer	C01 All customers (unweighted)
Customer Service & Info Expenses			
25 907 Supervision	Customer Relations	Customer	C01 All customers (unweighted)
26 908 Customer Assistance	Customer Relations	Customer	C01 All customers (unweighted)
27 908 DSM Amortization	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
28 909 Advertising	Customer Relations	Customer	C01 All customers (unweighted)
29 910 Misc Cust Service & Info	Customer Relations	Customer	C01 All customers (unweighted)
Sales Expenses			
30 911 - 916 Sales Expenses	Customer Relations	Customer	C01 All customers (unweighted)

IUPC Case No. AVU-G-09-01 Methodology Matrix
 Avista Utilities Idaho Jurisdiction
 Natural Gas Cost of Service Methodology

Line Account	Functional Category	Classification	Allocation
Admin & General Expenses			
1 920 Salaries	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
2 921 Office Supplies	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
3 922 Admin Expense Transferred - Credit	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
4 923 Outside Services	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
5 924 Property Insurance	Common	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
6 925 Injuries & Damages	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
7 926 Pensions & Benefits	Common	Demand/Commodity/Customer from Labor O&M	S13 O&M Labor Expense
8 927 Franchise Requirements	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
9 928 Regulatory Commission	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
10 928 Commission Fees	Revenue Conversion	Revenue	R01 Retail Sales Revenue
11 930 Miscellaneous General	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
12 931 Rents	Common	Demand/Commodity/Customer from Other O&M	S02/E01 50% O&M excl Gas Purchases and A&G / 50% throughput
13 935 MT of General Plant	Common	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
Depreciation Expense			
14 Underground Storage	Underground Storage	Commodity same as related plant	Allocations linked to related plant accounts
15 Distribution	Distribution	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
16 General	Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
17 Intangible	Distribution/Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
Taxes			
18 Property Tax	All	Demand/Commodity/Customer from related plant	S14/S15/S16 Sum of UG Plant/Sum of Dist Plant/Sum of Gen Plant
19 Miscellaneous Dist Tax	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
20 State Income Tax	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
21 Federal Income Tax	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
22 Deferred FIT	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
23 ITC	Revenue Conversion	Revenue	R02 Net Income before Taxes less Interest Expense
Operating Revenues			
24 Revenue from Rates	Revenue	Revenue	Pro Forma Revenue per Revenue Study
25 Special Contract Revenue	All	Demand/Commodity/Customer from Rate Base	S01 Sum of Rate Base
26 Off System Sales	Production	Commodity from PGA Tracker	E04 Sales Terms
27 Miscellaneous Service Revenue	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
28 Rent From Gas Property	All	Demand/Commodity/Customer from Rate Base	S01 Sum of Rate Base
29 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 September 30, 2008

Natural Gas Utility
Idaho Jurisdiction

13-Jan-09

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)
					System	Residential	Small Firm	Interrupt	Transport
Description					Total	Sch 101	Sch 111	Sch 131	Sch 146
Plant In Service									
1 Production Plant									
2 Underground Storage Plant					9,089,000	6,886,160	1,958,969	38,051	205,820
3 Distribution Plant					130,352,000	108,934,756	20,079,764	314,421	1,023,059
4 Intangible Plant					1,653,000	1,373,897	260,548	4,158	14,397
5 General Plant					12,589,000	10,456,534	1,989,699	31,822	110,946
6 Total Plant In Service					153,683,000	127,651,347	24,288,980	388,451	1,354,222
Accum Depreciation									
7 Production Plant									
8 Underground Storage Plant					(3,172,000)	(2,403,224)	(683,667)	(13,280)	(71,830)
9 Distribution Plant					(44,780,000)	(37,983,003)	(6,356,878)	(102,649)	(337,470)
10 Intangible Plant					(647,000)	(537,526)	(102,163)	(1,633)	(5,679)
11 General Plant					(4,489,000)	(3,728,603)	(709,489)	(11,347)	(39,561)
12 Total Accumulated Depreciation					(53,088,000)	(44,652,356)	(7,852,197)	(128,908)	(454,539)
13 Net Plant					100,595,000	82,998,991	16,436,783	259,543	899,683
14 Accumulated Deferred FIT					(15,052,000)	(12,502,411)	(2,378,908)	(38,046)	(132,635)
15 Miscellaneous Rate Base					4,948,000	3,723,232	1,086,406	21,178	117,184
16 Total Rate Base					90,491,000	74,219,812	15,144,281	242,676	884,231
17 Revenue From Retail Rates					91,767,000	70,716,433	20,333,806	396,352	320,409
18 Other Operating Revenues					147,000	120,770	24,428	391	1,411
19 Total Revenues					91,914,000	70,837,202	20,358,235	396,743	321,820
Operating Expenses									
20 Purchased Gas Costs					66,637,000	49,715,037	16,583,726	334,703	3,534
21 Underground Storage Expenses					167,000	126,525	35,994	699	3,782
22 Distribution Expenses					4,087,000	3,347,026	677,958	6,596	55,419
23 Customer Accounting Expenses					1,869,000	1,795,913	71,107	1,042	938
24 Customer Information Expenses					244,000	217,182	23,238	433	3,148
25 Sales Expenses					194,000	191,749	2,235	3	14
26 Admin & General Expenses					5,034,000	4,010,109	909,268	16,707	97,916
27 Total O&M Expenses					78,232,000	59,403,542	18,303,526	360,183	164,749
28 Taxes Other Than Income Taxes					906,000	749,676	145,443	2,355	8,526
29 Depreciation Expense									
30 Underground Storage Plant Depr					136,000	103,039	29,312	569	3,080
31 Distribution Plant Depreciation					2,830,000	2,388,256	415,324	5,079	21,341
32 General Plant Depreciation					868,000	720,968	137,188	2,194	7,650
33 Amortization of Intangible Plant					307,000	255,017	48,506	776	2,702
34 Total Depr & Amort Expense					4,141,000	3,467,280	630,329	8,618	34,772
35 Income Tax					2,422,000	2,044,109	334,084	7,537	36,270
36 Total Operating Expenses					85,701,000	65,664,606	19,413,383	378,693	244,318
37 Net Income					6,213,000	5,172,596	944,851	18,050	77,503
38 Rate of Return					6.87%	6.97%	6.24%	7.44%	8.76%
39 Return Ratio					1.00	1.02	0.91	1.08	1.28
40 Interest Expense					2,986,000	2,449,087	499,727	8,008	29,178

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)
					System	Residential	Small Firm	Interrupt	Transport
Description					Total	Sch 101	Sch 111	Sch 131	Sch 146
Functional Cost Components at Current Rates									
1 Production					66,980,783	49,971,519	16,669,282	336,430	3,552
2 Underground Storage					1,326,263	1,019,898	262,857	5,976	37,532
3 Distribution					16,711,333	14,266,690	2,248,957	33,119	162,567
4 Common					6,748,621	5,458,325	1,152,711	20,828	116,757
5 Total Current Rate Revenue					91,767,000	70,716,433	20,333,806	396,352	320,409
6 Exclude Cost of Gas w / Revenue Exp.					66,589,776	49,682,612	16,572,910	334,254	0
7 Total Margin Revenue at Current Rates					25,177,224	21,033,820	3,760,897	62,098	320,409
Margin per Therm at Current Rates									
8 Production					\$0.00501	\$0.00514	\$0.00514	\$0.00514	\$0.00127
9 Underground Storage					\$0.01698	\$0.01816	\$0.01403	\$0.01413	\$0.01346
10 Distribution					\$0.21396	\$0.25404	\$0.12005	\$0.07833	\$0.05831
11 Common					\$0.08641	\$0.09719	\$0.06153	\$0.04926	\$0.04188
12 Total Current Margin Melded Rate per Therm					\$0.32236	\$0.37454	\$0.20076	\$0.14686	\$0.11492
Functional Cost Components at Uniform Current Return									
13 Production					66,980,783	49,971,519	16,669,282	336,430	3,552
14 Underground Storage					1,328,232	1,006,317	286,276	5,561	30,078
15 Distribution					16,710,022	14,156,513	2,379,550	31,282	142,676
16 Common					6,747,963	5,447,026	1,165,745	20,637	114,555
17 Total Uniform Current Cost					91,767,000	70,581,375	20,500,853	393,910	290,861
18 Exclude Cost of Gas w / Revenue Exp.					66,589,776	49,682,612	16,572,910	334,254	0
19 Total Uniform Current Margin					25,177,224	20,898,763	3,927,944	59,656	290,861
Margin per Therm at Uniform Current Return									
20 Production					\$0.00501	\$0.00514	\$0.00514	\$0.00514	\$0.00127
21 Underground Storage					\$0.01701	\$0.01792	\$0.01528	\$0.01315	\$0.01079
22 Distribution					\$0.21395	\$0.25208	\$0.12702	\$0.07398	\$0.05117
23 Common					\$0.08640	\$0.09699	\$0.06223	\$0.04881	\$0.04109
24 Total Current Uniform Margin Melded Rate					\$0.32236	\$0.37213	\$0.20968	\$0.14109	\$0.10433
25 Margin to Cost Ratio at Current Rates					1.00	1.01	0.96	1.04	1.10
Functional Cost Components at Proposed Rates									
26 Production					66,980,740	49,971,487	16,669,271	336,429	3,552
27 Underground Storage					1,627,837	1,239,850	334,732	7,124	46,331
28 Distribution					18,923,444	16,049,439	2,649,757	38,202	186,047
29 Common					6,974,584	5,641,160	1,192,713	21,354	119,357
30 Total Proposed Rate Revenue					94,506,605	72,901,735	20,846,474	403,109	355,287
31 Exclude Cost of Gas w / Revenue Exp.					66,589,733	49,682,580	16,572,899	334,254	0
32 Total Margin Revenue at Proposed Rates					27,916,872	23,219,155	4,273,575	68,855	355,287
Margin per Therm at Proposed Rates									
33 Production					\$0.00501	\$0.00514	\$0.00514	\$0.00514	\$0.00127
34 Underground Storage					\$0.02084	\$0.02207	\$0.01787	\$0.01685	\$0.01662
35 Distribution					\$0.24229	\$0.28579	\$0.14145	\$0.09035	\$0.06673
36 Common					\$0.08930	\$0.10045	\$0.06367	\$0.05050	\$0.04281
37 Total Proposed Margin Melded Rate per Therm					\$0.35744	\$0.41345	\$0.22813	\$0.16284	\$0.12743
Functional Cost Components at Uniform Proposed Return									
38 Production					66,980,740	49,971,487	16,669,271	336,429	3,552
39 Underground Storage					1,626,470	1,232,273	350,556	6,809	36,831
40 Distribution					18,925,094	15,989,593	2,737,994	36,809	160,698
41 Common					6,974,302	5,635,022	1,201,520	21,210	116,550
42 Total Uniform Proposed Cost					94,506,605	72,828,375	20,959,341	401,257	317,632
43 Exclude Cost of Gas w / Revenue Exp.					66,589,733	49,682,580	16,572,899	334,254	0
44 Total Uniform Proposed Margin					27,916,872	23,145,795	4,386,443	67,003	317,632
Margin per Therm at Uniform Proposed Return									
45 Production					\$0.00501	\$0.00514	\$0.00514	\$0.00514	\$0.00127
46 Underground Storage					\$0.02082	\$0.02194	\$0.01871	\$0.01610	\$0.01321
47 Distribution					\$0.24231	\$0.28472	\$0.14616	\$0.08705	\$0.05764
48 Common					\$0.08930	\$0.10034	\$0.06414	\$0.05016	\$0.04180
49 Total Proposed Uniform Margin Melded Rate					\$0.35744	\$0.41215	\$0.23415	\$0.15846	\$0.11393
50 Margin to Cost Ratio at Proposed Rates					1.00	1.00	0.97	1.03	1.12
51 Current Margin to Proposed Cost Ratio					0.90	0.91	0.86	0.93	1.01

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)
Description					System Total	Residential Service Sch 101	Small Firm Service Sch 111	Interrupt Service Sch 131	Transport Service Sch 146
Cost by Classification at Current Return by Schedule									
1 Commodity					66,708,989	49,720,709	16,447,538	373,052	167,690
2 Demand					12,468,929	9,579,188	2,799,599	21,022	69,120
3 Customer					12,589,082	11,416,536	1,086,670	2,278	83,598
4 Total Current Rate Revenue					91,767,000	70,716,433	20,333,806	396,352	320,409
Revenue per Therm at Current Rates									
5 Commodity					\$0.85411	\$0.88535	\$0.87798	\$0.88228	\$0.06015
6 Demand					\$0.15965	\$0.17057	\$0.14944	\$0.04972	\$0.02479
7 Customer					\$0.16119	\$0.20329	\$0.05801	\$0.00539	\$0.02998
8 Total Revenue per Therm at Current Rates					\$1.17494	\$1.25922	\$1.08544	\$0.93738	\$0.11492
Cost per Unit at Current Rates									
9 Commodity Cost per Therm					\$0.85411	\$0.88535	\$0.87798	\$0.88228	\$0.06015
10 Demand Cost per Peak Day Therms					\$21.39	\$21.36	\$24.18	\$10.02	\$4.18
11 Customer Cost per Customer per Month					\$14.60	\$13.40	\$109.42	\$189.80	\$1,393.30
Cost by Classification at Uniform Current Return									
12 Commodity					66,725,488	49,684,882	16,515,738	371,719	153,150
13 Demand					12,480,879	9,539,589	2,861,569	19,992	59,729
14 Customer					12,560,632	11,356,904	1,123,547	2,199	77,982
15 Total Uniform Current Cost					91,767,000	70,581,375	20,500,853	393,910	290,861
Cost per Therm at Current Return									
16 Commodity					\$0.85432	\$0.88472	\$0.88162	\$0.87912	\$0.05493
17 Demand					\$0.15980	\$0.16987	\$0.15275	\$0.04728	\$0.02142
18 Customer					\$0.16082	\$0.20223	\$0.05998	\$0.00520	\$0.02797
19 Total Cost per Therm at Current Return					\$1.17494	\$1.25681	\$1.09435	\$0.93161	\$0.10433
Cost per Unit at Uniform Current Return									
20 Commodity Cost per Therm					\$0.85432	\$0.88472	\$0.88162	\$0.87912	\$0.05493
21 Demand Cost per Peak Day Therms					\$21.41	\$21.27	\$24.72	\$9.53	\$3.61
22 Customer Cost per Customer per Month					\$14.57	\$13.33	\$113.14	\$183.26	\$1,299.71
23 Revenue to Cost Ratio at Current Rates					1.00	1.00	0.99	1.01	1.10
Cost by Classification at Proposed Return by Schedule									
24 Commodity					67,518,814	50,300,380	16,656,837	376,743	184,853
25 Demand					13,313,785	10,219,918	2,989,788	23,872	80,206
26 Customer					13,674,006	12,381,437	1,199,848	2,494	90,227
27 Total Proposed Rate Revenue					94,506,605	72,901,735	20,846,474	403,109	355,287
Revenue per Therm at Proposed Rates									
28 Commodity					\$0.86448	\$0.89568	\$0.88916	\$0.89101	\$0.06630
29 Demand					\$0.17046	\$0.18198	\$0.15960	\$0.05646	\$0.02877
30 Customer					\$0.17508	\$0.22047	\$0.06405	\$0.00590	\$0.03236
31 Total Revenue per Therm at Proposed Rate					\$1.21002	\$1.29813	\$1.11280	\$0.95336	\$0.12743
Cost per Unit at Proposed Rates									
32 Commodity Cost per Therm					\$0.86448	\$0.89568	\$0.88916	\$0.89101	\$0.06630
33 Demand Cost per Peak Day Therms					\$22.84	\$22.79	\$25.82	\$11.38	\$4.85
34 Customer Cost per Customer per Month					\$15.86	\$14.53	\$120.82	\$207.87	\$1,503.79
Cost by Classification at Uniform Proposed Return									
35 Commodity					67,525,892	50,280,920	16,702,918	375,731	166,324
36 Demand					13,321,397	10,198,409	3,031,659	23,091	68,238
37 Customer					13,659,316	12,349,045	1,224,765	2,435	83,070
38 Total Uniform Proposed Cost					94,506,605	72,828,375	20,959,341	401,257	317,632
Cost per Therm at Proposed Return									
39 Commodity					\$0.86457	\$0.89533	\$0.89162	\$0.88861	\$0.05966
40 Demand					\$0.17056	\$0.18160	\$0.16183	\$0.05461	\$0.02448
41 Customer					\$0.17489	\$0.21989	\$0.06538	\$0.00576	\$0.02980
42 Total Cost per Therm at Proposed Return					\$1.21002	\$1.29682	\$1.11883	\$0.94898	\$0.11393
Cost per Unit at Uniform Proposed Return									
43 Commodity Cost per Therm					\$0.86457	\$0.89533	\$0.89162	\$0.88861	\$0.05966
44 Demand Cost per Peak Day Therms					\$22.86	\$22.74	\$26.19	\$11.01	\$4.13
45 Customer Cost per Customer per Month					\$15.85	\$14.49	\$123.33	\$202.92	\$1,384.51
46 Revenue to Cost Ratio at Proposed Rates					1.00	1.00	0.99	1.00	1.12
47 Current Revenue to Proposed Cost Ratio					0.97	0.97	0.97	0.99	1.01