

RECEIVED

DAVID J. MEYER
VICE PRESIDENT AND CHIEF COUNSEL FOR
REGULATORY & GOVERNMENTAL AFFAIRS
AVISTA CORPORATION
P.O. BOX 3727
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220-3727
TELEPHONE: (509) 495-4316
FACSIMILE: (509) 495-8851
DAVID.MEYER@AVISTACORP.COM

2011 JUL -5 AM 11:45

IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)	CASE NO. AVU-E-11-01
OF AVISTA CORPORATION FOR THE)	CASE NO. AVU-G-11-01
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 Regulatory Analyst in the State and
7 Federal Regulation Department.

8 **Q. Would you briefly describe your duties?**

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

13 **Q. What is your educational background and**
14 **professional experience?**

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

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

3 A. My testimony and exhibits will cover the
4 Company's electric and natural gas cost of service studies
5 performed for this proceeding. Additionally, I am
6 sponsoring the electric and natural gas revenue
7 normalization adjustments to the test year results of
8 operations and the proposed Load Change Adjustment Rate
9 (LCAR) to be used in the Power Cost Adjustment (PCA). A
10 table of contents for my testimony is as follows:

11	<u>Table of Contents</u>	<u>Page</u>
12	I. Introduction	1
13	II. Revenue Normalization	3
14	Electric	3
15	Natural Gas	8
16	III. Proposed Load Change Adjustment Rate	12
17	IV. Electric Cost of Service	15
18	Illustration 1 Base Case Results	26
19	Illustration 2 Impact of Changes	27
20	V. Natural Gas Cost of Service	28
21	Illustration 3 Base Case Results	32

22 **Q. Are you sponsoring any exhibits in this case?**

23 A. Yes. I am sponsoring Exhibit 12 composed of six
24 schedules as follows. Schedule 1, which illustrates the
25 proposed Load Change Adjustment Rate calculation; Schedule
26 2, the electric cost of service study process description;
27 Schedule 3, the electric cost of service study summary
28 results; Schedule 4, the cost of service workshop
29 presentation; Schedule 5, the natural gas cost of service
30 study process description; and Schedule 6, the natural gas
31 cost of service study summary results.

1 (before taxes and revenue related expenses) of each
2 component?

3 A. Yes. The re-pricing of billed usage comprises
4 the majority of the change in test year revenue. The
5 combined impact of the rate increase effective October 1,
6 2010², and the elimination of revenue and amortization
7 expense from adder schedules (Schedule 59 Residential
8 Exchange, Schedule 91 Public Purpose Tariff Rider, and
9 Schedule 95 Optional Renewable Power³), is an increase in
10 net revenue of \$16,612,000. Re-pricing of unbilled
11 calendar usage and elimination of unbilled adder schedule
12 revenue and expense results in a net revenue reduction of
13 \$1,229,000⁴. Finally, the weather normalization adjustment
14 increases revenue by \$2,649,000. The combined impact of
15 these elements is an increase of \$18,032,000 which, after
16 revenue-related expenses and income tax, results in the
17 increase to net operating income of \$11,504,000.

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

20 A. Yes. The Company's electric weather
21 normalization adjustment calculates the change in kWh usage
22 required to adjust actual loads during the twelve months
23 ended December 2010 test period to the amount expected if
24 weather had been normal. This adjustment incorporates the

² IPUC Case No. AVU-E-10-1.

³ Municipal Franchise Fee and Power Cost Adjustment revenues are eliminated in separate adjustments.

⁴ The unbilled adjustment consists of removing December 2009 usage billed in January 2010 from the 2010 test year, adding December 2010 usage billed in January 2011 to the 2010 test year, and re-pricing the net adjustment to usage at October 1, 2010 rates.

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

11 **Q. Have the seasonal weather sensitivity factors**
12 **been updated since the last rate case?**

13 A. Yes. The factors used in the weather adjustment
14 are based on regression analysis of monthly billed usage
15 per customer from January 2000 through December 2009 which
16 is the most recent completed analysis. Autoregressive
17 terms were included in the regressions in order to correct
18 for autocorrelation in the data.

19 **Q. What data did you use to determine "normal"**
20 **heating and cooling degree days?**

21 A. Normal heating and cooling degree days are based
22 on a rolling 30-year average of heating and cooling degree-
23 days reported for each month by the National Weather
24 Service for the Spokane Airport weather station. Each year
25 the normal values are adjusted to capture the most recent
26 year with the oldest year dropping off, thereby reflecting

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

3 **Q. Is this proposed weather adjustment methodology**
4 **consistent with the methodology utilized in the Company's**
5 **last general rate case in Idaho?**

6 A. Yes, the process for determining the weather
7 sensitivity factors and the monthly adjustment calculation
8 is generally consistent with the methodology presented in
9 Case No. AVU-E-10-1.⁵

10 **Q. What was the impact of electric weather**
11 **normalization on the twelve months ended December 2010 test**
12 **year?**

13 A. Weather was warmer than normal during the winter,
14 and cooler than normal during the spring and summer of
15 2010. The adjustment to normal required the addition of
16 334 heating degree-days during the heating season⁶ and 59
17 cooling degree-days. The total adjustment to Idaho sales
18 volumes was an addition of 31,023,829 kWhs which is
19 approximately 0.9% of billed usage.

20

21

22

23

Natural Gas Revenue Normalization

⁵ One difference may be observed between the cases. Due to the addition of autoregressive terms in the regression analysis, it was possible to include the desired ten years of data in this case, whereas in the prior case only five years of data had been used for Idaho electric customer groups in order to pass the Durbin Watson test for autocorrelation without autoregressive terms.

⁶ The heating season includes the months of January through June and October through December.

1 **Q. Have you determined the impact of each of the**
2 **components of this adjustment?**

3 A. Yes. The re-pricing of billed revenue and gas
4 costs increased margin⁸ by \$1,263,000. Re-pricing unbilled
5 revenue and gas costs decreased margin by \$463,000, and the
6 weather adjustment at present rates increased margin by
7 \$1,088,000.

8 The total net amount of the natural gas revenue
9 normalization adjustment, which includes the related
10 purchase gas cost normalization, is an increase to net
11 operating income of \$1,189,000, as shown in column (i),
12 page 8 of Ms. Andrews Exhibit No. 10, Schedule 2.

13 **Q. Would you please briefly discuss natural gas**
14 **weather normalization?**

15 A. Yes. The natural gas weather normalization
16 adjustment is developed from a regression analysis of ten
17 years of billed usage per customer and billing period
18 heating degree-day data. The resulting seasonal weather
19 sensitivity factors (use-per-customer-per-heating-degree
20 day) are applied to monthly test period customers and the
21 difference between normal heating degree-days and monthly
22 test period observed heating degree-days. This calculation
23 produces the change in therm usage required to adjust
24 existing loads to the amount expected if weather had been
25 normal.

⁸ The term "margin" in this context consists of revenues less gas costs and adder schedule amortization expenses but does not include the effect of revenue related expenses or income taxes.

1 Q. In your discussion of electric weather
2 normalization you indicated that the adjustment utilized
3 sensitivity factors from the ten year period January 2000
4 through December 2009. Is this true for natural gas as
5 well?

6 A. Yes, the natural gas weather adjustment utilized
7 updated weather sensitivity factors.

8 Q. What data did you use to determine "normal"
9 heating degree days?

10 A. Normal heating degree-days are based on a rolling
11 30-year average of heating degree-days reported for each
12 month by the National Weather Service for the Spokane
13 Airport weather station. Each year the normal values are
14 adjusted to capture the most recent year with the oldest
15 year dropping off, thereby reflecting the most recent
16 information available at the end of each calendar year.

17 Q. Is this proposed weather adjustment methodology
18 consistent with the methodology utilized in the Company's
19 last general rate case in Idaho?

20 A. Yes. The process for determining the weather
21 sensitivity factors and the monthly adjustment calculation
22 are consistent with the methodology presented in Case No.
23 AVU-G-10-01.

24 Q. What was the impact of natural gas weather
25 normalization on the twelve months ended December 2010 test
26 year?

1 A. Weather was warmer than normal during the 2010
2 winter months, somewhat offset by a cooler than normal
3 spring and fall. The adjustment to normal required the
4 addition of 334 heating degree-days from January through
5 June and October through December.⁹ The adjustment to
6 sales volumes was an addition of 3,225,558 therms which is
7 approximately 2.8 percent of billed usage.

8

9

III. PROPOSED LOAD CHANGE ADJUSTMENT RATE

10

Q. What is the Load Change Adjustment Rate?

11

12

A. The Load Change Adjustment Rate (LCAR) is part of
the PCA mechanism that prices the change in actual retail
loads from the retail loads that were used to set the PCA
base costs.

13

14

15

**Q. In prior cases, wasn't this called the "Retail
Revenue Credit Rate"?**

16

17

18

19

20

21

22

23

24

A. Yes. September of last year, the Idaho
Commission opened Case No. GNR-E-10-03 titled IN THE MATTER
OF THE COMMISSION'S INQUIRY INTO LOAD GROWTH ADJUSTMENTS
THAT ARE PART OF POWER COST ADJUSTMENT MECHANISMS. This
proceeding resulted in a modified calculation methodology
of the "Load Change Adjustment Rate" (LCAR) to be used
beginning April 1, 2011 by all of the investor-owned
electric utilities in their various power cost adjustment
mechanisms.

25

⁹ Heating degree days that occur during July through September do not impact the natural gas weather normalization adjustment as the seasonal sensitivity factor is zero for summer months.

1 **Q. How is the new LCAR different from the former**
2 **Retail Revenue Credit Rate?**

3 A. The new LCAR includes only the proportion of
4 production and transmission costs that are classified as
5 energy-related in the Company's cost of service study to
6 determine the rate. The former retail revenue credit rate
7 used all production and transmission costs to determine the
8 rate.

9 **Q. How is the rate determined?**

10 A. The proposed LCAR in this case is determined by
11 computing the proposed revenue requirement on the
12 production and transmission costs contained within Ms.
13 Andrews' Idaho electric pro forma total results of
14 operations. The production/transmission revenue
15 requirement amount is then divided by the Idaho normalized
16 retail load used to set rates in order to arrive at the
17 average production and transmission cost-per-kWh embedded
18 in proposed rates. This amount is then multiplied by the
19 proportion of production and transmission costs classified
20 as energy-related in the cost of service study.

21 **Q. Do you have an exhibit schedule that shows the**
22 **calculation of the proposed LCAR?**

23 A. Yes. Exhibit No. 12, Schedule 1 begins with the
24 identification of the production and transmission revenue,
25 expense and rate base amounts included in each of Ms.
26 Andrews' actual, restating, and pro forma adjustments to
27 results of operations. The "Pro Forma Total Production and

1 Transmission Costs" at the bottom of page 1 shows the
2 resulting production and transmission cost components.

3 Page 2 shows the revenue requirement calculation on
4 the production and transmission cost components. The rate
5 of return and debt cost percentages on Line 2 are inputs
6 from the proposed cost of capital. The normalized retail
7 load on Line 10 comes from the workpapers supporting the
8 revenue normalization and energy efficiency load
9 adjustments. Line 11 represents the average total
10 production and transmission cost-per-kWh proposed to be
11 embedded in Idaho customer retail rates. Lines 12 and 13
12 are values taken from the cost of service study supporting
13 report titled Functional Cost Summary by Classification at
14 Uniform Requested Return representing total costs at unity.
15 Line 12 shows the amount of production and transmission
16 costs classified as energy related, while Line 13 shows the
17 total production and transmission costs in the study.

18 The resulting load change adjustment rate on Line 14
19 is \$0.02633 per kWh or \$26.33 per MWh. The calculation of
20 the load change adjustment rate will be revised based on
21 the final production and transmission costs and rate of
22 return that are approved by the Commission in this case.

23

24

IV. ELECTRIC COST OF SERVICE

25 Q. Please briefly summarize your testimony related
26 to the electric cost of service study.

1 A. I believe the Base Case cost of service study
2 presented in this case is a fair representation of the
3 costs to serve each customer group. The Base Case study
4 shows Residential Service Schedule 1, Extra Large General
5 Service Schedule 25, Pumping Service Schedule 31 and the
6 Street and Area Lighting Schedules provide moderately less
7 than the overall rate of return under present rates.
8 General Service Schedule 11, Large General Service Schedule
9 21 and Extra Large General Service to Clearwater Paper
10 Schedule 25P provide more than the overall rate of return
11 under present rates.

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

14 A. An electric cost of service study is an
15 engineering-economic study, which separates the revenue,
16 expenses, and rate base associated with providing electric
17 service to designated groups of customers. The groups are
18 made up of customers with similar load characteristics and
19 facilities requirements. Costs are assigned or allocated
20 to each group based on (among other things), test period
21 load and facilities requirements, resulting in an
22 evaluation of the cost of the service provided to each
23 group. The rate of return by customer group indicates
24 whether the revenue provided by the customers in each group
25 recovers the cost to serve those customers. The study
26 results are used as a guide in determining the appropriate
27 rate spread among the groups of customers. Exhibit No. 12,

1 Schedule 2 explains the basic concepts involved in
2 performing an electric cost of service study. It also
3 details the specific methodology and assumptions utilized
4 in the Company's Base Case cost of service study.

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

7 A. The electric cost of service study provided by
8 the Company as Exhibit No. 12, Schedule 3 is based on the
9 twelve months ended December 2010 test year pro forma
10 results of operations presented by Ms. Andrews in Exhibit
11 No. 10, Schedule 1.

12 **Q. Would you please explain the cost of service**
13 **study presented in Exhibit No. 12, Schedule 3?**

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

23 Pages 2 and 3 are both summaries that show the
24 revenue-to-cost relationship at current and proposed
25 revenue. Costs by category are shown first at the existing
26 schedule returns (revenue); next the costs are shown as if
27 all schedules were providing equal recovery (cost). These

1 comparisons show how far current and proposed rates are
2 from rates that would be in alignment with the cost study.
3 Page 2 shows the costs segregated into production,
4 transmission, distribution, and common functional
5 categories. Line 44 on page 2 shows the target change in
6 revenue which would produce unity in this cost study. Page
7 3 segregates the costs into demand, energy, and customer
8 classifications. Page 4 is a summary identifying specific
9 customer related costs embedded in the study.

10 The Excel model used to calculate the cost of service
11 and supporting schedules has been included in its entirety
12 both electronically and in hard copy in the workpapers
13 accompanying this case.

14 **Q. Does the Company's electric Base Case cost of**
15 **service study follow the methodology filed in the Company's**
16 **last electric general rate case in Idaho?**

17 A. In most respects, yes. The Base Case cost of
18 service study was prepared using the methodology applied to
19 the study presented in Case No. AVU-E-04-01 through Case
20 No. AVU-E-09-01 except that the peak credit classification
21 of production and transmission costs has been revised.
22 While a revision to the peak credit classification of
23 production and transmission costs was also proposed in Case
24 No. AVU-E-10-01, only the classification of transmission
25 costs as 100% demand-related was accepted as part of the
26 settlement in that case. Therefore the "Prior Methodology"
27 refers to the study methodology last presented in Case No.

1 AVU-E-09-01 modified only to reflect the transmission costs
2 classification change.

3 **Q. Given that the specific details of this**
4 **methodology are described in Exhibit No. 12, 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 costs are classified to energy
8 and demand in this case based on the system load factor.
9 This is a new proposal due to the discussions at the cost
10 of service workshop arising from the Settlement in Case No.
11 AVU-E-10-01. Transmission costs are classified as 100%
12 demand and allocated by weighted 12 month coincident peaks.
13 While the transmission demand classification was accepted
14 in the Settlement in Case No. AVU-E-10-01, the weighted 12
15 month coincident peak allocation is a new proposal
16 discussed at the cost of service workshop required by the
17 Settlement Stipulation in Case No. AVU-E-10-01.

18 Distribution costs are classified and allocated by the
19 basic customer theory¹⁰ accepted by the Idaho Commission in
20 Case No. WWP-E-98-11. Additional direct assignment of
21 demand related distribution plant has been incorporated to
22 reflect improvements accepted by the Commission in Case No.
23 AVU-E-04-01.

24 Administrative and general costs are first directly
25 assigned to production, transmission, distribution, or
26 customer relations functions. The remaining administrative

¹⁰ Basic customer theory classifies only meters, services and street lights as customer-related plant; all other distribution facilities are considered demand-related

1 and general costs are categorized as common costs and have
2 been assigned to customer classes by the four-factor
3 allocator accepted by the Idaho Commission in Case No. AVU-
4 E-04-01.

5 **Q. You mentioned a cost of service workshop arising**
6 **from the settlement in Case No. AVU-E-10-01. Please**
7 **explain.**

8 A. In Order No. 32070 from Case No. AVU-E-10-01 and
9 AVU-G-10-01, the Commission approved an all-party
10 Settlement Stipulation. In Section 11 of the Settlement
11 Stipulation, beginning on page 5 it states:

12 The Parties have otherwise agreed to exchange
13 information and convene a public workshop, prior
14 to the Company's next general rate case, with
15 respect to the possible use of a revised peak
16 credit method for classifying production costs, as
17 well as consideration of the use of a 12 CP
18 (whether "weighted" or not) versus a 7 CP or other
19 method for allocating transmission costs.

20 The workshop was convened on February 8, 2011 at the
21 Idaho Public Utilities Commission, and was attended by the
22 key stakeholders regarding cost of service issues.¹¹ The
23 Company's presentation and handouts from the workshop have
24 been included as Schedule 4 of Exhibit No. 12.

25 **Q. Regarding production cost classification, the**
26 **workshop presentation emphasizes the benefits of the IRP**
27 **based methodology Avista proposed in Case No. AVU-E-10-01.**
28 **Why are you moving away from that approach in this case?**

¹¹ Parties attending the workshop included Avista, IPUC Staff, Idaho Forest Group, Clearwater Paper, Idaho Conservation League, and Idaho Power Company.

1 entirely to energy, and peaking plant related costs were
2 classified entirely to demand.

3 **Q. What are the benefits of using the system load**
4 **factor to determine the peak credit ratio?**

5 A. There are several benefits to the system load
6 factor approach for identifying the demand-related
7 proportion of production costs: 1) it is simple and
8 straightforward to calculate, 2) it is directly related to
9 the electric system and test year under evaluation, and 3)
10 the relationship should remain relatively stable from year
11 to year (i.e., not vary with changes in natural gas costs).

12 **Q. What is the net effect of the proposed change in**
13 **the peak credit method?**

14 A. The net effect of this change is to slightly
15 increase the overall level of production costs that are
16 classified as demand-related. Using the prior method,
17 approximately 31.97% of total production costs were
18 classified as demand-related. Under the proposed method,
19 36.41% of total production costs are classified as demand-
20 related. This change shifts costs away from high load
21 factor customer groups (Schedules 21, 25, and 25P) as well
22 as customer groups which have a limited contribution to
23 system peak usage (pumping and street lighting).

24 **Q. You also mentioned a change to the allocation of**
25 **transmission costs, what are you proposing in this case?**

26 A. All transmission costs are allocated to customer
27 classes in this case by their weighted 12-month coincident

1 peak demand. The peak demand by schedule at the time of
2 each monthly system peak in the test year is weighted by
3 the amount that the electric system peak demand in that
4 month exceeded the annual average system demand as a
5 proportion of the twelve month total excess system demand.

6 The weighting process is illustrated in Exhibit No.
7 12, Schedule 4, page 15. In this example, January system
8 peak demand of 1,779 MW exceeded annual average demand
9 (energy) of 1,134 aMW by 645 MW. 645 MW was 12.4% of the
10 sum of each month's excess demand of 5,188 MW. Therefore,
11 12.4% of January coincident peak demand by schedule was
12 included in the weighted 12CP allocation factor.

13 **Q. In Case No. AVU-E-10-01 you had proposed a 7CP**
14 **allocation factor for transmission costs, while in prior**
15 **cases demand-related transmission costs were allocated by**
16 **an unweighted 12 CP allocation factor. Why are you**
17 **proposing the weighted 12 CP in this case?**

18 A. The 7CP allocation was proposed in the last case
19 to acknowledge that lower customer demands in the off-peak
20 fall and spring seasons do not impose the same capacity
21 utilization of the transmission facilities as the high
22 demand winter and summer seasons. The weighted 12 CP
23 allocation (developed for the workshop) is a more robust
24 method to capture the seasonal impacts on transmission
25 capacity utilization. As such, the Company considers this
26 allocation to be a better representation of the demands on
27 the transmission system than either the straight average of

1 all monthly demands which does not recognize any seasonal
2 differences, or the average of the seven highest months
3 which ignores shoulder month demand entirely.

4 **Q What is the impact on the study of moving from**
5 **the 12CP (per the settlement in AVU-E-10-01) to the**
6 **weighted 12CP in this case?**

7 A. The net effect of this change is that more costs
8 are assigned to both residential and street and area light
9 customers, while all other customer classes benefit to
10 varying degrees. Street and area lights only contribute to
11 the system peak if that peak occurs after dark. This
12 generally only happens during the winter months which
13 naturally have more weight (i.e., more excess demand) than
14 the spring and summer months. Similarly, due to heating
15 loads, residential customers have their highest relative
16 demand during winter months which have more weight than
17 other times of the year.

18 **Q. What are the results of the Company's electric**
19 **cost of service study presented in this case?**

20 A. The following table shows the rate of return and
21 the relationship of the customer class return to the
22 overall return (relative return ratio) at present rates for
23 each rate schedule:

24 **Illustration 1**

<u>Customer Class</u>	<u>Rate of</u> <u>Return</u>	<u>Return</u> <u>Ratio</u>
Residential Service Schedule 1	6.27%	0.83
General Service Schedule 11/12	10.48%	1.38

<u>Customer Class</u>	<u>Rate of Return</u>	<u>Return Ratio</u>
Large General Service Schedule 21/22	8.65%	1.14
Extra Large General Service Schedule 25	6.38%	0.84
Extra Large General Service Clearwater Paper Schedule 25P	8.34%	1.10
Pumping Service Schedule 31/32	7.21%	0.95
Lighting Service Schedules 41 - 49	<u>6.76%</u>	<u>0.89</u>
Total Idaho Electric System	<u>7.57%</u>	<u>1.00</u>

1 As can be observed from the above table, residential,
2 extra large general service, pumping service and lighting
3 service schedules (1, 25, 31 and 41-49) show moderate
4 under-recovery of the costs to serve them. The general
5 service, large general service, and extra large Clearwater
6 Paper schedules (11, 21, 25P) show moderate over-recovery
7 of the costs to serve them. The summary results of this
8 study were provided to Mr. Ehrbar as an input into
9 development of the proposed rates.

10 **Q. Can you illustrate how the changes to the**
11 **methodology applied to production and transmission costs**
12 **impacted the cost of service study results?**

13 A. Yes. The following table contains the
14 progression in rate of return and relative return ratio
15 from the model run of the study using the prior method to
16 the proposed Base Case method.

17 **Illustration 2**

<u>Customer Class</u>	<u>AVU-E-10-01 Settlement Prior Method</u>	<u>Proposed Add Load Factor Peak Credit</u>	<u>Proposed Add Transmission Weighted 12CP</u>
-----------------------	--	---	--

<u>Customer Class</u>	<u>AVU-E-10-01</u>		<u>Proposed</u>		<u>Proposed</u>	
	<u>Settlement</u>		<u>Add Load Factor</u>		<u>Add Transmission</u>	
	<u>Prior Method</u>		<u>Peak Credit</u>		<u>Weighted 12CP</u>	
Schedule 1	6.48%	0.86	6.39%	0.84	6.27%	0.83
Schedule 11/12	10.49%	1.39	10.48%	1.38	10.48%	1.38
Schedule 21/22	8.49%	1.12	8.52%	1.12	8.65%	1.14
Schedule 25	6.19%	0.82	6.28%	0.83	6.38%	0.84
Schedule 25P	7.96%	1.05	8.18%	1.08	8.34%	1.10
Schedule 31/32	6.97%	0.92	7.06%	0.93	7.21%	0.95
Schedules 41 - 49	<u>6.78%</u>	<u>0.90</u>	<u>6.84%</u>	<u>0.90</u>	<u>6.76%</u>	<u>0.89</u>
Total Idaho	<u>7.57%</u>	<u>1.00</u>	<u>7.57%</u>	<u>1.00</u>	<u>7.57%</u>	<u>1.00</u>

1 This illustration shows the incremental impact of each
2 change to the electric cost of service methodology. It
3 also shows that the proposed electric cost of service
4 changes had a relatively minor impact on the rate spread
5 implications of the study.

6

7

8

V. NATURAL GAS COST OF SERVICE

9

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

10

11

A. A natural gas cost of service study is an engineering-economic study which separates the revenue, expenses, and rate base associated with providing natural gas service to designated groups of customers. The groups are made up of customers with similar usage characteristics and facility requirements. Costs are assigned in relation to each group's test year load and facilities requirements,

12

13

14

15

16

17

1 resulting in an evaluation of the cost of the service
2 provided to each group. The rate of return by customer
3 group indicates whether the revenue provided by the
4 customers in each group recovers the cost to serve those
5 customers. The study results are one of the key inputs in
6 determining the appropriate rate spread among the groups of
7 customers. Exhibit No. 12, Schedule 5 explains the basic
8 concepts involved in performing a natural gas cost of
9 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 natural gas cost of**
13 **service study provided in this case?**

14 A. The cost of service study provided by the Company
15 as Exhibit 12, Schedule 6 is based on the twelve months
16 ended December 2010 test year pro forma results of
17 operations presented by Ms. Andrews in Exhibit 10, Schedule
18 2.

19 **Q. Would you please explain the cost of service**
20 **study presented in schedule 6?**

21 A. Yes. Exhibit 12, Schedule 6 is composed of a
22 series of summaries of the cost of service study results.
23 Page 1 shows the results of the study by FERC account
24 category. The rate of return and the ratio of each
25 schedule's return to the overall return are shown on lines
26 38 and 39. This summary is provided to Mr. Ehrbar for his
27 work on rate spread and rate design. The results will be

1 presented later in my testimony. Additional summaries show
2 the costs organized by functional category (page 2) and
3 classification (page 3), including margin and unit cost
4 analysis at current and proposed rates. Finally, page 4 is
5 a summary identifying specific customer related costs
6 embedded in the study.

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

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

14 A. Yes. The Base Case cost of service study was
15 prepared using the methodology accepted by the Idaho
16 Commission in Case No. AVU-G-04-01, and presented in AVU-G-
17 08-01, AVU-G-09-01 and AVU-G-10-01.

18 **Q. What are the key elements that define the cost of**
19 **service methodology?**

20 A. Allocations of gas costs reflect the current
21 purchased gas tracker methodology. Underground storage
22 costs are allocated by normalized winter throughput.
23 Natural gas main investment has been segregated into large
24 and small mains. Large usage customers that take service
25 from large mains do not receive an allocation of small
26 mains. Meter installation and services investment is
27 allocated by number of customers weighted by the relative

1 current cost of those items. System facilities that serve
2 all customers are classified by the peak and average ratio
3 that reflects the system load factor, then allocated by
4 coincident peak demand and throughput, respectively.
5 Demand side management costs (if any) are treated in the
6 same way as system facilities. General plant is allocated
7 by the sum of all other plant. Administrative & general
8 expenses are segregated into labor-related, plant-related,
9 revenue-related, and "other". The costs are then allocated
10 by factors associated with labor, plant in service, or
11 revenue, respectively. The "other" A&G amounts get a
12 combined allocation that is one-half based on O&M expenses
13 and one-half based on throughput. A detailed description
14 of the methodology is included in Schedule 5.

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

17 A. I believe the Base Case cost of service study
18 presented in this filing is a fair representation of the
19 costs to serve each customer group. The study indicates
20 that the General Service (primarily residential) Schedule
21 (101) is providing slightly less than the overall return
22 (unity), and Large General, Interruptible and
23 Transportation Service Schedules (111, 131 and 146) are
24 providing slightly more than unity. All schedules are
25 currently providing return ratios that are relatively close
26 to unity.

1 The following table shows the rate of return and the
2 relative return ratio at present rates for each rate
3 schedule:

4 **Illustration 3**

<u>Customer Class</u>	<u>Rate of Return</u>	<u>Return Ratio</u>
General Firm Service Schedule 101	7.09%	0.97
Large Firm Service Schedule 111/112	8.37%	1.15
Interruptible Service Schedule 131/132	7.87%	1.08
Transportation Service Schedule 146	<u>7.57%</u>	<u>1.04</u>
Total Idaho Natural Gas System	<u>7.31%</u>	<u>1.00</u>

5 The summary results of this study were provided to Mr.
6 Ehrbar as an input into development of the proposed rates.

7 **Q. Does this conclude your pre-filed direct**
8 **testimony?**

9 A. Yes.

DAVID J. MEYER
VICE PRESIDENT AND CHIEF COUNSEL FOR
REGULATORY & GOVERNMENTAL AFFAIRS
AVISTA CORPORATION
P.O. BOX 3727
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220-3727
TELEPHONE: (509) 495-4316
FACSIMILE: (509) 495-8851
DAVID.MEYER@AVISTACORP.COM

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION) CASE NO. AVU-E-11-01
OF AVISTA CORPORATION FOR THE) CASE NO. AVU-G-11-01
AUTHORITY TO INCREASE ITS RATES)
AND CHARGES FOR ELECTRIC AND)
NATURAL GAS SERVICE TO ELECTRIC) EXHIBIT NO. 12
AND NATURAL GAS CUSTOMERS IN THE)
STATE OF IDAHO) TARA L. KNOX
_____)

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

AVISTA UTILITIES

**AVERAGE PRODUCTION AND TRANSMISSION COST
IDAHO ELECTRIC
TWELVE MONTHS ENDED DECEMBER 31, 2010**

Column	Description of Adjustment	(000's)	Production/Transmission		
			Revenue	Expense	Rate Base
b	Results Report		132,780	246,222	367,353
c	Deferred FIT Rate Base			-	(56,171)
d	Deferred Gain on Office Building			-	-
e	Colstrip 3 AFUDC Elimination			191	1,493
f	Colstrip Common AFUDC			-	774
g	Kettle Falls & Boulder Park Disallow.			-	(1,880)
h	Customer Advances			-	-
i	Weatherizn and DSM Investment			-	65
j	Restating CDA Settlement			29	(317)
k	Restating CDA Settlement Deferral			18	166
l	Restating CDA/SRR CDR			348	(68)
m	Restating Spokane River Deferral			3	31
n	Restating Spokane River PM&E Deferral			20	145
o	Restating Montana Lease			46	996
p	Working Capital			-	-
	Actual		132,780	246,877	312,587
q	Eliminate B & O Taxes			-	-
r	Property Tax			297	-
s	Uncollect. Expense			-	-
t	Regulatory Expense			-	-
u	Injuries and Damages			-	-
v	FIT			-	-
w	Idaho PCA			(3,227)	-
x	Nez Perce Settlement Adjustment			(17)	-
y	Eliminate A/R Expenses			-	-
z	Revenue Normalization Adjustment			6,058	-
aa	Misc A&G Restating Adj			(1)	-
ab	Restating Incentive Adj			-	-
ac	Restating CS2 Levelized Adj			280	-
ad	Colstrip Stlmnt Exp			(230)	-
ae	Removal CCX Revenue			342	-
af	O&M Savings			(99)	-
ag	Restate Debt Interest			-	-
	Restated Total		132,780	250,280	312,587
PF1	Pro Forma Power Supply		(114,526)	(105,403)	-
PF2	Pro Forma Energy Efficiency Load Adjustment		1,201	(1,157)	-
PF3	Pro Forma Labor Non-Exec			371	-
PF4	Pro Forma Labor Exec			2	-
PF5	Pro Forma Transmission Rev/Exp		(355)	832	-
PF6	Pro Forma Capital Add 2010			115	2,477
PF7	Pro Forma Capital Add 2011			552	(134)
PF8	Pro Forma Capital Add 2012			138	(2,438)
PF9	Pro Forma Noxon Gen 2011 & 2012			217	4,650
PF10	Pro Forma Employee Benefits			52	-
PF11	Pro Forma Insurance			-	-
PF12	Pro Forma Vegetation Management			-	-
	Pro Forma Total		19,100	145,999	317,142

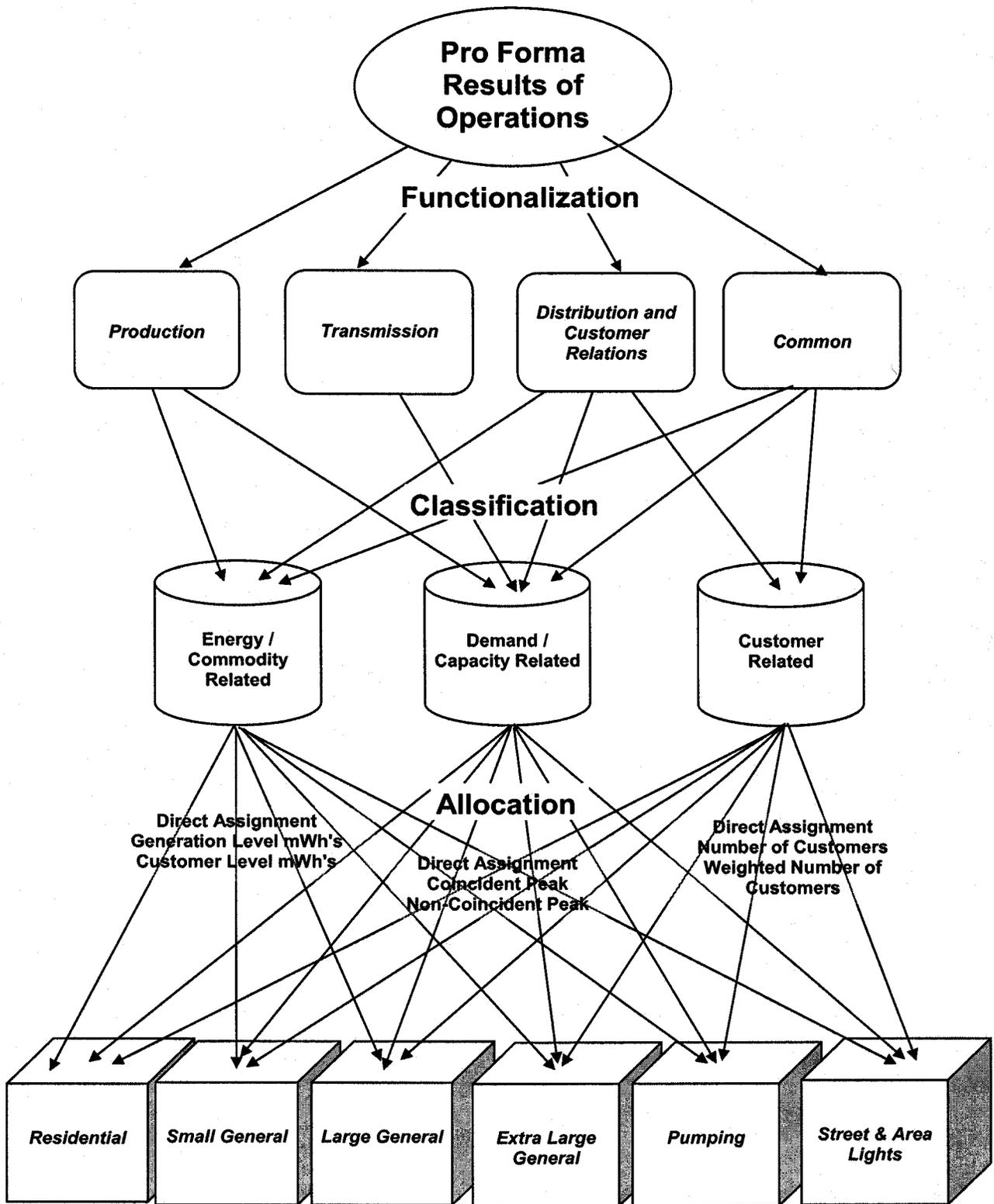
AVISTA UTILITIES

AVERAGE PRODUCTION AND TRANSMISSION COST
IDAHO ELECTRIC
TWELVE MONTHS ENDED DECEMBER 31, 2010

Proposed Production and Transmission Revenue Requirement
Calculation of Load Change Adjustment Rate at Proposed Return

Line			(\$000's)	Debt Cost
1	Prod/Trans	Pro Forma Rate Base	\$317,142	
2		Proposed Rate of Return	8.490%	3.020%
3	Rate Base	Net Operating Income Requirement	\$26,925	
4	Tax Effect	Net Operating Income Requirement (Rate Base x Debt Cost x -35%)	(\$3,352)	
5	Net Expense	Net Operating Income Requirement (Expense - Revenue)	126,899	
6	Tax Effect	Net Operating Income Requirement (Net Expense x -35%)	(\$44,415)	
7	Total Prod/Trans	Net Operating Income Requirement	\$106,058	
8	1 - Tax Rate	Conversion Factor (Excl. Rev. Rel. Exp.)	0.65	
9	Prod/Trans	Revenue Requirement	\$163,165	
10	ID Test Year Normalized Retail Load MWh		3,358,927	
11	Prod/Trans Rev Requirement per kWh		\$ 0.04858	
12	Cost of Service Energy Classified Production/Transmission Costs		\$ 89,949	
13	Cost of Service Total Production/Transmission Costs		\$ 165,977	
14	Load Change Adjustment Rate per kWh (Line 11 * Line 12 / Line 13)		\$ 0.02633	

ELECTRIC COST OF SERVICE STUDY FLOWCHART



Pro Forma Results of Operations by Customer Group ¹

¹ Customer classes shown in this flowchart are illustrative and may not match the Company's actual rate schedules.

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 Classification (Load Factor Peak Credit)**

6 This study utilizes a Peak Credit methodology to classify production costs into demand and
7 energy classifications. The Peak Credit method acknowledges that all energy production costs
8 contain both capacity and energy components as they provide energy throughout the year as well as
9 capacity during system peaks. The peak credit ratio (the proportion of total production cost that is
10 capacity related) is determined using the electric system load factor inherent in the test year. The
11 share of production costs attributable to demand is one minus the load factor (average MW divided
12 by peak MW) which is 36.41% for the 2010 test year, The same classification ratio is applied to
13 all production costs.

14 **Production Allocation**

15 Production demand related costs are allocated to the customer classes by class contribution
16 to the average of the twelve monthly system coincident peak loads. Although the Company is
17 usually technically a winter peaking utility, it experiences high summer peaks and careful
18 management of capacity requirements is required throughout the year. The use of the average of
19 twelve monthly peaks recognizes that customer capacity needs are not limited to the heating
20 season. Energy related costs are allocated to class by pro forma annual kilowatthour sales adjusted
21 for losses to reflect generation level consumption.

22 **Transmission Classification and Allocation**

23 Transmission costs are classified as 100% demand related due in part to the fact that the
24 facilities are designed for meeting system peak loads. These costs are then allocated to the

1 customer classes by class contribution to the monthly system coincident peak loads weighted by
2 the proportion the electric system peak demand exceeded annual average demand in each month.
3 This method recognizes that lower customer demands in the off-peak fall and spring seasons do not
4 impose the same capacity utilization of the transmission facilities as the high demand winter and
5 summer seasons.

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

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

14 **Customer Relations Distribution Cost Classification**

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

21 Any demand side management investment and amortization included in base rates would
22 be classified implicitly to demand and energy by the sum of production plant in service, then
23 allocated to rate schedules by coincident peak demand and energy consumption respectively. At
24 this point in time, the Company's demand side management investments in base rates have been

1 fully amortized except for some minor outstanding loan balances that will remain on the books
2 until satisfied. All current demand side management costs are managed through the Schedule 91
3 Public Purpose Tariff Rider balancing account which is not included in this cost study.

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 Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
2 Hydro Production	P = Production	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
3 Other Production (Coyote Springs)	P = Production	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
4 Other Production	P = Production	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Transmission Plan			
5 All Transmission	T = Transmission	Demand	D02 Weighted 12 Month Coincident Peak Demand (Excess Peak Percentage)
Distribution Plan			
6 360 Land	D = Distribution	Demand	D03 Non-coincident Peak Demand (NCP)
7 361 Structures	D = Distribution	Demand	D04/D05/D06 Direct Assign Large / Non-coincident Peak Demand Excl DA
8 362 Station Equipment	D = Distribution	Demand	D04/D05/D06 Direct Assign Large / Non-coincident Peak Demand Excl DA
9 364 Poles Towers & Fixtures	D = Distribution	Demand	D04/D05/D07 Direct Assign Large & Lights / NCP Excl DA / NCP Secondary
10 365 Overhead Conductors & Devices	D = Distribution	Demand	D04/D05/D07 Direct Assign Large / NCP Excl DA / NCP Secondary
11 366 Underground Conduit	D = Distribution	Demand	D04/D05/D07 Direct Assign Large / NCP Excl DA / NCP Secondary
12 367 Underground Conductors & Devices	D = Distribution	Demand	D04/D05/D07 Direct Assign Large / NCP Excl DA / NCP Secondary
13 368 Line Transformers	D = Distribution	Demand	D07 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 Plan			
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 Plan			
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 Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
20 303 Misc Intangible Plant - Transmission Agreements	T = Transmission	Demand	D02 Weighted 12 Month Coincident Peak Demand (Excess Peak Percentage)
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	D02 Weighted 12 Month Coincident Peak Demand (Excess Peak Percentage)
25 Distribution	D = Distribution	Follows Related Plant	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 Relicensing Related Settlements	P = Production	Demand/Energy by Load Factor 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
32 Working Capital	P/T/D/G	Demand/Energy/Customer as in related Plant	S06 Sum of Production, Transmission, Distribution, and General Plant
Production O&M			
33 Thermal	P = Production	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
34 Thermal Fuel (501)	P = Production	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
35 Hydro	P = Production	Demand/Energy by Load Factor 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)	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
2	Other (Coyote Springs)	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
3	Other Fuel (547)	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
4	Other	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
5	Purchased Power and Other Expenses (555 and 557)	Demand/Energy from Production Plant	S01 Sum of Production Plant
6	System Control & Misc (556)	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Transmission O&M			
7	All Transmission	Demand	D02 Weighted 12 Month Coincident Peak Demand (Excess Peak Percentage)
Distribution O&M			
8	580 OP Super & Engineering	Demand/Customer from Other Dist Op Exp	S16 Sum of Other Distribution Operating Expenses
9	581 Load Dispatching	Demand	D03 Non-coincident Peak Demand
10	582 Station Expenses	Demand	S09 Sum of Account 362 Station Equipment
11	583 Overhead Lines	Demand	S10 Sum of Accounts 364 and 365 Poles, Towers, Fixtures & Overhead Conductors
12	584 Underground Lines	Demand	S11 Sum of Accounts 366 and 367 Underground Conduit & Underground Conductors
13	585 Street Lights	Customer	S15 Sum of Account 373 Street Light and Signal Systems
14	586 Meters	Customer	S14 Sum of Account 370 Meters
15	587 Customer Installations	Customer	S13 Sum of Account 369 Services
16	588 Misc Operating Expense	Demand/Customer from Other Dist Op Exp	S16 Sum of Other Distribution Operating Expenses
17	589 Rents	Demand	D03 Non-coincident Peak Demand
18	590 MT Super & Engineering	Demand/Customer from Other Dist Mt Exp	S17 Sum of Other Distribution Maintenance Expenses
19	591 MT of Structures	Demand	S08 Sum of Account 361 Structures & Improvements
20	592 MT of Station Equipment	Demand	S09 Sum of Account 362 Station Equipment
21	593 MT of Overhead Lines	Demand	S10 Sum of Accounts 364 and 365 Poles, Towers, Fixtures & Overhead Conductors
22	594 MT of Underground Lines	Demand	S11 Sum of Accounts 366 and 367 Underground Conduit & Underground Conductors
23	595 MT of Line Transformers	Demand	S12 Sum of Account 368 Line Transformers
24	596 MT of Street Lights	Customer	S15 Sum of Account 373 Street Light and Signal Systems
25	597 MT of Meters	Customer	S14 Sum of Account 370 Meters
26	598 Misc Maintenance Expense	Demand/Customer from Other Dist Mt Exp	S17 Sum of Other Distribution Maintenance Expenses
Customer Accounts Expense:			
27	901 Supervision	Customer	S18 Sum of Other Customer Accounts Expenses Excluding Uncollectibles
28	902 Meter Reading	Customer	C03 Customers Weighted by Estimated Meter Reading Time
29	903 Customer Records & Collections	Customer	C01/C06 All Customers unweighted / Direct Assign Handbilled Cust
30	904 Uncollectible Accounts	Revenue	R01 Retail Sales Revenue
31	905 Misc Cust Accounts	Customer	C01 All Customers unweighted
Customer Service & Info Expense:			
32	907 Supervision	Customer	C01 All Customers unweighted
33	908 Customer Assistance	Customer	C01 All Customers unweighted
34	908 DSM Amortization Expenses	DSM	S01 Sum of Production Plant
35	909 Advertising	Customer	C01 All Customers unweighted
36	910 Misc Cust Service & Info	Customer	C01 All Customers unweighted
Sales Expenses			
37	911 - 916	Energy	E02 Annual Generation Level Consumption

Line Account	Functional Category	Classification	Allocation
Admin & General Expenses			
1	920 - 927 & 930 - 935 Assigned to Production	Demand/Energy from Production Plant	S01 Sum of Production Plant
2	920 - 927 & 930 - 935 Assigned to Transmission	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
3	920 - 927 & 930 - 935 Assigned to Distribution	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
4	920 - 927 & 930 - 935 Assigned to Customer Relations	Customer	C01 All Customers unweighted
5	920 - 935 Assigned to 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	Demand/Energy from Production Plant	S01 Sum of Production Plant
7	928 IPUC Commission Fees	Revenue	R01 Retail Sales Revenue
Depreciation & Amortization Expenses			
8	Intangible	Demand/Energy/Customer as in related Plant	S01/S02/S23 Sum of Production Plant / Sum of Transmission Plant / Corp Cost Allocator
9	Production	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
10	Transmission	Demand	D02 Weighted 12 Month Coincident Peak Demand (Excess Peak Percentage)
11	Distribution	Demand/Customer as in related Plant	D03/D04/D05/D06/D07/D08/C02/C04/C05 - See Related Plant
12	General	Demand/Energy/Customer by Corp Cost Allocator	S23 25% direct O&M, 25% direct labor, 25% net direct plant, 25% number of customers
Taxes			
13	Property Tax	Demand/Energy/Customer from Related Plant	S01/S02/S03/S04 Sums of Production / Transmission / Distribution / General Plant
14	State kWh Generation Taxes	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
15	Misc Production Taxes	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
16	Misc Distribution Taxes	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
17	Idaho State Income Tax	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
18	Federal Income Tax	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
19	Deferred FIT	Revenue	R03 Revenue less Expenses Before Income Taxes less Interest Expense
Other Income Related Items			
20	CS2 Levelized Return and Boulder Write-off Amort.	Demand/Energy by Load Factor Peak Credit	D01/E02 Coincident Peak Demand/Annual Generation Level Consumption
Operating Revenue			
21	Sales of Electricity- Retail	Revenue	Input Pro Forma Revenue per Revenue Study
22	Sales for Resale (447)	Demand/Energy from Production Plant	S01 Sum of Production Plant
23	Misc Service Revenue (451)	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
24	Sales of Water & Water Power (453)	Demand/Energy from Production Plant	S01 Sum of Production Plant
25	Rent from Production Property (454)	Demand/Energy from Production Plant	S01 Sum of Production Plant
26	Rent from Transmission Property (454)	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
27	Rent from Distribution Property (454)	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
28	Other Electric Revenues - Generation (456)	Demand/Energy from Production Plant	S01 Sum of Production Plant
29	Other Electric Revenues - Wheeling (456)	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
30	Other Electric Revenues - Energy Delivery (456)	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
Salaries & Wages (allocation factor input			
Operation & Maintenance Expenses			
31	Production Total	Demand/Energy from Production Plant	S01 Sum of Production Plant
32	Transmission Total	Demand/Energy from Transmission Plant	S02 Sum of Transmission Plant
33	Distribution Total	Demand/Customer from Distribution Plant	S03 Sum of Distribution Plant
34	Customer Accounts Total	Customer	S18 Sum of Other Customer Accounts Expenses Excluding Uncollectibles
35	Customer Service Total	Customer	C01 All Customers unweighted
36	Sales Total	Energy	E02 Annual Generation Level Consumption
37	Admin & General Total	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-11-01 Proposed Method
Prod by LF PC & Trans By Demand W12 CP

AVISTA UTILITIES
Cost of Service Basic Summary
For the Twelve Months Ended December 31, 2010

Idaho Jurisdiction
Electric Utility

06-15-11

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Description	System Total	Residential Sch 1	General Service Sch 11-12	Large Gen Service Sch 21-22	Extra Large Gen Service Sch 25	Extra Large Service CP Sch 25P	Pumping Service Sch 31-32	Street & Area Lights Sch 41-49				
1 Plant In Service												
2 Production Plant	391,411,000	145,064,243	36,927,840	78,806,700	29,717,500	93,659,118	5,883,417	1,352,181				
3 Transmission Plant	184,064,000	79,659,536	17,814,655	34,126,837	12,717,014	37,087,424	2,134,684	523,851				
4 Distribution Plant	440,482,000	221,637,409	60,593,493	110,013,429	10,501,372	2,220,959	15,074,108	20,441,230				
5 Intangible Plant	50,759,000	21,983,423	5,339,188	9,351,787	3,192,978	9,654,515	817,015	420,094				
6 General Plant	80,147,000	43,795,365	10,038,458	12,267,439	3,126,263	8,075,112	1,461,306	1,383,058				
6 Total Plant In Service	1,146,863,000	512,139,975	130,713,634	244,566,191	59,255,127	150,697,128	25,370,530	24,120,414				
7 Accum Depreciation												
7 Production Plant	(166,852,000)	(61,838,474)	(15,741,724)	(33,593,986)	(12,668,076)	(39,925,325)	(2,508,003)	(576,412)				
8 Transmission Plant	(63,228,000)	(27,363,923)	(6,119,529)	(11,722,942)	(4,368,433)	(12,739,936)	(733,287)	(179,949)				
9 Distribution Plant	(143,547,000)	(71,484,271)	(18,514,037)	(35,974,582)	(3,369,089)	(706,067)	(4,812,648)	(8,686,305)				
10 Intangible Plant	(10,413,000)	(5,286,112)	(1,231,174)	(1,705,027)	(492,500)	(1,370,137)	(181,397)	(146,653)				
11 General Plant	(29,933,000)	(16,356,528)	(3,749,125)	(4,581,597)	(1,167,585)	(3,015,862)	(545,763)	(516,539)				
12 Total Accumulated Depreciation	(413,973,000)	(182,329,308)	(45,355,590)	(87,578,134)	(22,065,683)	(57,757,327)	(8,781,099)	(10,105,859)				
13 Net Plant	732,890,000	329,810,667	85,358,044	156,988,058	37,189,443	92,939,801	16,589,431	14,014,556				
14 Accumulated Deferred FIT	(114,339,000)	(51,142,446)	(12,995,780)	(24,091,553)	(5,957,508)	(15,350,408)	(2,484,578)	(2,316,728)				
15 Miscellaneous Rate Base	8,450,000	3,337,688	896,214	1,966,304	515,668	1,374,473	187,425	172,229				
16 Total Rate Base	627,001,000	282,005,909	73,258,479	134,862,809	31,747,603	78,963,866	14,292,278	11,870,057				
17 Revenue From Retail Rates	246,379,000	100,409,000	30,018,000	51,853,000	14,027,000	42,128,000	4,599,000	3,345,000				
18 Other Operating Revenues	20,603,000	8,099,885	2,028,573	4,173,542	1,447,568	4,378,837	330,481	144,114				
19 Total Revenues	266,982,000	108,508,885	32,046,573	56,026,542	15,474,568	46,506,837	4,929,481	3,489,114				
20 Operating Expenses												
20 Production Expenses	114,095,000	42,285,743	10,764,342	22,971,890	8,662,552	27,301,320	1,714,997	394,156				
21 Transmission Expenses	10,627,000	4,599,171	1,028,535	1,970,325	734,221	2,141,256	123,247	30,245				
22 Distribution Expenses	10,241,000	4,863,111	1,322,689	2,483,533	284,251	85,895	333,217	868,308				
23 Customer Accounting Expenses	3,722,000	2,856,699	572,227	124,044	45,399	72,043	43,221	8,368				
24 Customer Information Expenses	531,000	434,087	84,326	6,259	35	4	5,751	539				
25 Sales Expenses	18,000	6,243	1,670	3,683	1,415	4,621	293	75				
26 Admin & General Expenses	21,915,000	11,645,885	2,712,434	3,529,446	898,767	2,338,996	408,648	380,823				
27 Total O&M Expenses	161,149,000	66,690,939	16,486,223	31,089,181	10,626,640	31,944,135	2,629,368	1,682,514				
28 Taxes Other Than Income Taxes	8,715,000	3,694,921	942,886	1,844,164	510,968	1,404,462	175,820	141,778				
29 Other Income Related Items	238,000	88,207	22,454	47,919	18,070	56,950	3,577	822				
30 Depreciation Expense												
30 Production Plant Depreciation	10,283,000	3,811,072	970,154	2,070,379	780,727	2,460,577	154,567	35,524				
31 Transmission Plant Depreciation	3,770,000	1,631,587	364,880	698,986	260,470	759,625	43,723	10,730				
32 Distribution Plant Depreciation	11,935,000	5,875,355	1,624,697	3,178,847	325,280	51,534	425,451	453,835				
33 General Plant Depreciation	6,425,000	3,510,864	804,735	983,422	250,617	647,343	117,146	110,873				
34 Amortization Expense	1,054,000	392,932	99,530	211,623	79,771	250,809	15,716	3,619				
35 Total Depreciation Expense	33,467,000	15,221,811	3,863,996	7,143,257	1,696,866	4,169,888	756,602	614,581				
36 Income Tax	15,927,000	5,119,437	3,050,422	4,235,905	595,595	2,344,306	333,915	247,421				
37 Total Operating Expenses	219,496,000	90,815,314	24,365,982	44,360,426	13,448,138	39,919,741	3,899,283	2,687,116				
38 Net Income	47,486,000	17,693,571	7,680,592	11,666,116	2,026,429	6,587,096	1,030,198	801,998				
39 Rate of Return	7.57%	6.27%	10.48%	8.65%	6.38%	8.34%	7.21%	6.76%				
40 Return Ratio	1.00	0.83	1.38	1.14	0.84	1.10	0.95	0.89				
41 Interest Expense	18,935,000	8,516,385	2,212,356	4,072,764	958,756	2,384,655	431,617	358,468				

Sumcost
 Scenario: Company Base Case
 AVU-E-11-01 Proposed Method
 Prod by LF PC & Trans By Demand W12 CP

AVISTA UTILITIES
 Revenue to Cost by Functional Component Summary
 For the Twelve Months Ended December 31, 2010

Idaho Jurisdiction
 Electric Utility

06-15-11

	(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 CP Sch 25P	Pumping Service Sch 31-32	Street & Area Lights Sch 41-49				
Functional Cost Components at Current Return by Schedule												
1 Production	138,711,985	49,691,178	13,970,021	28,585,483	10,207,062	33,727,506	2,062,011	468,724				
2 Transmission	23,000,162	9,046,463	2,688,413	4,594,919	1,456,464	4,892,063	260,108	61,732				
3 Distribution	53,896,661	25,457,038	9,191,343	13,746,595	1,190,148	304,966	1,716,155	2,290,416				
4 Common	30,770,193	16,214,321	4,168,223	4,926,003	1,173,326	3,203,464	560,726	524,129				
5 Total Current Rate Revenue	246,379,000	100,409,000	30,018,000	51,853,000	14,027,000	42,128,000	4,599,000	3,345,000				
Expressed as \$/kWh												
6 Production	\$0.04130	\$0.04324	\$0.04546	\$0.04207	\$0.03841	\$0.03792	\$0.03823	\$0.03391				
7 Transmission	\$0.00685	\$0.00787	\$0.00875	\$0.00676	\$0.00548	\$0.00550	\$0.00482	\$0.00447				
8 Distribution	\$0.01605	\$0.02215	\$0.02991	\$0.02023	\$0.00448	\$0.00034	\$0.03182	\$0.16571				
9 Common	\$0.00916	\$0.01411	\$0.01356	\$0.00725	\$0.00442	\$0.00360	\$0.01040	\$0.03792				
10 Total Current Melded Rates	\$0.07335	\$0.08737	\$0.09768	\$0.07631	\$0.05279	\$0.04736	\$0.08527	\$0.24200				
Functional Cost Components at Uniform Current Return												
11 Production	138,396,052	51,292,167	13,057,035	27,864,664	10,507,586	33,116,218	2,080,273	478,107				
12 Transmission	23,024,572	9,964,614	2,228,436	4,268,927	1,590,772	4,639,267	267,028	65,529				
13 Distribution	54,062,933	28,076,744	7,537,586	12,671,480	1,304,906	289,050	1,766,763	2,416,405				
14 Common	30,895,443	16,804,253	3,861,110	4,777,380	1,214,690	3,134,828	566,594	536,587				
15 Total Uniform Current Cost	246,379,000	106,137,779	26,684,168	49,582,452	14,617,953	41,179,363	4,680,658	3,496,627				
Expressed as \$/kWh												
16 Production	\$0.04120	\$0.04463	\$0.04249	\$0.04101	\$0.03954	\$0.03723	\$0.03857	\$0.03459				
17 Transmission	\$0.00685	\$0.00867	\$0.00725	\$0.00628	\$0.00599	\$0.00522	\$0.00495	\$0.00474				
18 Distribution	\$0.01610	\$0.02443	\$0.02453	\$0.01865	\$0.00491	\$0.00032	\$0.03276	\$0.17482				
19 Common	\$0.00920	\$0.01462	\$0.01256	\$0.00703	\$0.00457	\$0.00352	\$0.01050	\$0.03882				
20 Total Current Uniform Melded Rates	\$0.07335	\$0.09236	\$0.08683	\$0.07297	\$0.05501	\$0.04630	\$0.08678	\$0.25297				
21 Revenue to Cost Ratio at Current Rates	1.00	0.95	1.12	1.05	0.96	1.02	0.98	0.96				
Functional Cost Components at Proposed Return by Schedule												
22 Production	141,940,496	50,716,869	14,270,729	29,186,793	10,467,952	34,722,455	2,099,362	476,336				
23 Transmission	24,556,998	9,634,635	2,839,902	4,866,841	1,573,050	5,303,498	274,259	64,812				
24 Distribution	57,347,513	27,135,233	9,735,994	14,643,384	1,289,764	330,870	1,819,651	2,392,616				
25 Common	31,542,993	16,592,262	4,269,375	5,049,982	1,209,234	3,315,177	572,727	534,235				
26 Total Proposed Rate Revenue	255,388,000	104,079,000	31,116,000	53,747,000	14,540,000	43,672,000	4,766,000	3,468,000				
Expressed as \$/kWh												
27 Production	\$0.04226	\$0.04413	\$0.04644	\$0.04295	\$0.03939	\$0.03904	\$0.03892	\$0.03446				
28 Transmission	\$0.00731	\$0.00838	\$0.00924	\$0.00716	\$0.00592	\$0.00596	\$0.00508	\$0.00469				
29 Distribution	\$0.01707	\$0.02361	\$0.03168	\$0.02155	\$0.00485	\$0.00037	\$0.03374	\$0.17310				
30 Common	\$0.00939	\$0.01444	\$0.01389	\$0.00743	\$0.00455	\$0.00373	\$0.01062	\$0.03865				
31 Total Proposed Melded Rates	\$0.07603	\$0.09057	\$0.10125	\$0.07910	\$0.05472	\$0.04910	\$0.08836	\$0.25090				
Functional Cost Components at Uniform Requested Return												
32 Production	141,451,580	52,424,603	13,345,311	28,479,865	10,739,574	33,847,363	2,126,202	488,663				
33 Transmission	24,525,072	10,614,003	2,373,662	4,547,131	1,694,441	4,941,606	284,430	69,799				
34 Distribution	57,732,025	29,929,606	8,059,717	13,588,986	1,393,486	308,085	1,894,030	2,558,115				
35 Common	31,679,323	17,221,528	3,958,080	4,904,223	1,246,620	3,216,920	581,351	550,601				
36 Total Uniform Cost	255,388,000	110,189,739	27,736,769	51,520,205	15,074,121	42,313,975	4,886,013	3,667,178				
Expressed as \$/kWh												
37 Production	\$0.04211	\$0.04562	\$0.04343	\$0.04191	\$0.04041	\$0.03805	\$0.03942	\$0.03535				
38 Transmission	\$0.00730	\$0.00924	\$0.00772	\$0.00669	\$0.00638	\$0.00556	\$0.00527	\$0.00505				
39 Distribution	\$0.01719	\$0.02604	\$0.02623	\$0.02000	\$0.00524	\$0.00035	\$0.03512	\$0.18507				
40 Common	\$0.00943	\$0.01499	\$0.01288	\$0.00722	\$0.00469	\$0.00362	\$0.01078	\$0.03983				
41 Total Uniform Melded Rates	\$0.07603	\$0.09589	\$0.09025	\$0.07582	\$0.05673	\$0.04757	\$0.09059	\$0.26531				
42 Revenue to Cost Ratio at Proposed Rates	1.00	0.94	1.12	1.04	0.96	1.03	0.98	0.95				
43 Current Revenue to Proposed Cost Ratio	0.96	0.91	1.08	1.01	0.93	1.00	0.94	0.91				
44 Target Revenue Increase	9,009,000	9,781,000	(2,281,000)	(333,000)	1,047,000	186,000	287,000	322,000				

Sumcost		AVISTA UTILITIES					Idaho Jurisdiction			06-15-11	
Scenario: Company Base Case		Revenue to Cost By Classification Summary					Electric Utility				
AVU-E-11-01 Proposed Method		For the Twelve Months Ended December 31, 2010									
Prod by LF PC & Trans By Demand W12 CP		(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	94,714,876	31,711,603	9,376,466	19,824,937	7,205,637	24,686,946	1,523,248	386,038		
2	Demand	127,473,558	52,209,821	15,922,721	31,239,225	6,778,357	17,434,969	2,730,854	1,157,811		
3	Customer	24,190,566	16,487,575	4,718,813	788,838	43,005	6,086	345,098	1,801,151		
4	Total Current Rate Revenue	246,379,000	100,409,000	30,018,000	51,853,000	14,027,000	42,128,000	4,599,000	3,345,000		
Expressed as Unit Cost											
5	Energy	\$/kWh	\$0.02820	\$0.02760	\$0.03051	\$0.02918	\$0.02712	\$0.02776	\$0.02824	\$0.02793	
6	Demand	\$/kW/mo	\$17.46	\$19.22	\$21.74	\$17.83	\$14.03	\$12.84	\$12.50	\$27.97	
7	Customer	\$/Cust/mo	\$16.46	\$13.72	\$20.21	\$45.53	\$447.97	\$507.14	\$21.67	\$1,208.02	
Cost Classifications at Uniform Current Return											
8	Energy	94,407,441	32,745,695	8,756,967	19,319,309	7,420,355	24,234,357	1,536,899	393,859		
9	Demand	127,413,173	55,967,498	13,807,180	29,531,685	7,153,076	16,939,069	2,791,199	1,223,465		
10	Customer	24,558,386	17,424,586	4,120,021	731,458	44,521	5,938	352,560	1,879,303		
11	Total Uniform Current Cost	246,379,000	106,137,779	26,684,168	49,582,452	14,617,953	41,179,363	4,680,658	3,496,627		
Expressed as Unit Cost											
12	Energy	\$/kWh	\$0.02811	\$0.02849	\$0.02849	\$0.02843	\$0.02792	\$0.02725	\$0.02849	\$0.02849	
13	Demand	\$/kW/mo	\$17.45	\$20.60	\$18.85	\$16.86	\$14.81	\$12.48	\$12.78	\$29.55	
14	Customer	\$/Cust/mo	\$16.71	\$14.50	\$17.65	\$42.21	\$463.76	\$494.82	\$22.14	\$1,260.43	
15	Revenue to Cost Ratio at Current Rates		1.00	0.95	1.12	1.05	0.96	1.02	0.98	0.96	
Cost Classifications at Proposed Return by Schedule											
16	Energy	96,960,526	32,374,105	9,580,509	20,246,734	7,392,037	25,423,591	1,551,167	392,383		
17	Demand	133,311,347	54,617,047	16,619,467	32,663,565	7,103,641	18,242,082	2,854,475	1,211,069		
18	Customer	25,116,127	17,087,848	4,916,024	836,701	44,321	6,326	360,359	1,864,548		
19	Total Proposed Rate Revenue	255,388,000	104,079,000	31,116,000	53,747,000	14,540,000	43,672,000	4,766,000	3,468,000		
Expressed as Unit Cost											
20	Energy	\$/kWh	\$0.02887	\$0.02817	\$0.03117	\$0.02980	\$0.02782	\$0.02858	\$0.02876	\$0.02839	
21	Demand	\$/kW/mo	\$18.26	\$20.10	\$22.69	\$18.65	\$14.70	\$13.44	\$13.07	\$29.25	
22	Customer	\$/Cust/mo	\$17.08	\$14.22	\$21.06	\$48.29	\$461.68	\$527.19	\$22.63	\$1,250.54	
Cost Classifications at Uniform Requested Return											
23	Energy	96,516,243	33,477,144	8,952,573	19,750,849	7,586,105	24,775,685	1,571,229	402,657		
24	Demand	133,304,580	58,625,264	14,475,118	30,988,930	7,442,324	17,532,175	2,943,458	1,297,312		
25	Customer	25,567,177	18,087,332	4,309,077	780,426	45,692	6,115	371,326	1,967,209		
26	Total Uniform Cost	255,388,000	110,189,739	27,736,769	51,520,205	15,074,121	42,313,975	4,886,013	3,667,178		
Expressed as Unit Cost											
27	Energy	\$/kWh	\$0.02873	\$0.02913	\$0.02913	\$0.02907	\$0.02855	\$0.02786	\$0.02913	\$0.02913	
28	Demand	\$/kW/mo	\$18.26	\$21.58	\$19.76	\$17.69	\$15.40	\$12.92	\$13.47	\$31.34	
29	Customer	\$/Cust/mo	\$17.39	\$15.05	\$18.46	\$45.04	\$475.95	\$509.55	\$23.32	\$1,319.39	
30	Revenue to Cost Ratio at Proposed Rates		1.00	0.94	1.12	1.04	0.96	1.03	0.98	0.95	
31	Current Revenue to Proposed Cost Ratio		0.96	0.91	1.08	1.01	0.93	1.00	0.94	0.91	
32	Annual Consumption (mWh's)	3,358,927	1,149,177	307,317	679,496	265,733	889,447	53,936	13,822		
33	Monthly Average NCP Demand (kW)	608,472	226,417	61,038	145,985	40,262	113,115	18,205	3,450		
34	Monthly Average Number of Customers	122,507	100,148	19,455	1,444	8	1	1,327	124		

Sumcost
 Scenario: Company Base Case
 AVU-E-11-01 Proposed Method
 Prod by LF PC & Trans By Demand W12 CP

AVISTA UTILITIES
 Customer Cost Analysis
 For the Twelve Months Ended December 31, 2010

Idaho Jurisdiction
 Electric Utility

06-15-11

Description	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
					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 CP Sch 25P	Pumping Service Sch 31-32	Street & Area Lights Sch 41-49
Meter, Services, Meter Reading & Billing Costs by Schedule at Requested Rate of Return												
Rate Base												
1	Services				44,540,000	36,458,642	7,082,504	515,824	0	0	483,030	0
2	Services Accum. Depr.				(16,606,000)	(13,593,000)	(2,640,594)	(192,317)	0	0	(180,090)	0
3	Total Services				27,934,000	22,865,642	4,441,910	323,508	0	0	302,940	0
4	Meters				28,803,000	16,321,800	7,990,151	3,391,026	74,135	11,710	1,014,178	0
5	Meters Accum. Depr.				(2,142,000)	(1,213,807)	(594,206)	(252,181)	(5,513)	(871)	(75,422)	0
6	Total Meters				26,661,000	15,107,993	7,395,945	3,138,845	68,622	10,839	938,757	0
7	Total Rate Base				54,595,000	37,973,635	11,837,855	3,462,353	68,622	10,839	1,241,697	0
8	Return on Rate Base @ 8.49%				4,635,169	3,223,999	1,005,046	293,957	5,826	920	105,421	0
9	Revenue Conversion Factor				0.63778	0.63778	0.63778	0.63778	0.63778	0.63778	0.63778	0.63778
10	Rate Base Revenue Requirement				7,267,639	5,055,017	1,575,845	460,905	9,135	1,443	165,294	0
Expenses												
11	Services Depr Exp				725,000	593,456	115,285	8,396	0	0	7,863	0
12	Meters Depr Exp				686,000	388,736	190,301	80,764	1,766	279	24,155	0
13	Services Operations Exp				415,000	339,702	65,991	4,806	0	0	4,501	0
14	Meters Operating Exp				234,000	132,601	64,913	27,549	602	95	8,239	0
15	Meters Maintenance Exp				26,000	14,733	7,213	3,061	67	11	915	0
16	Meter Reading				454,000	354,576	68,880	5,112	18,430	2,304	4,698	0
17	Billing				2,606,000	2,128,245	413,436	30,685	2,486	311	28,196	2,640
18	Total Expenses				5,146,000	3,952,049	926,020	160,374	23,352	2,999	78,567	2,640
19	Revenue Conversion Factor				0.996296	0.996296	0.996296	0.996296	0.996296	0.996296	0.996296	0.996296
20	Expense Revenue Requirement				5,165,132	3,966,742	929,462	160,970	23,439	3,010	78,859	2,650
21	Total Meter, Service, Meter Reading, and				12,432,770	9,021,759	2,505,307	621,875	32,573	4,453	244,152	2,650
22	Total Customer Bills				1,470,085	1,201,778	233,459	17,327	96	12	15,922	1,491
23	Average Unit Cost per Month				\$8.46	\$7.51	\$10.73	\$35.89	\$339.31	\$371.10	\$15.33	\$1.78
Distribution Fixed Costs per Customer												
24	Total Customer Related Cost				25,567,177	18,087,332	4,309,077	780,426	45,692	6,115	371,326	1,967,209
25	Customer Related Unit Cost per Month				\$17.39	\$15.05	\$18.46	\$45.04	\$475.95	\$509.55	\$23.32	\$1,319.39
26	Total Distribution Demand Related Cost				49,476,832	23,465,005	6,328,510	14,804,775	1,541,039	340,646	1,892,713	1,104,143
27	Dist Demand Related Unit Cost per Month				\$33.66	\$19.53	\$27.11	\$854.43	\$16,052.49	\$28,387.19	\$118.87	\$740.54
28	Total Distribution Unit Cost per Month				\$51.05	\$34.58	\$45.57	\$899.47	\$16,528.45	\$28,896.75	\$142.20	\$2,059.93



Avista Utilities
Cost of Service Workshop

February 8, 2011 IPUC Workshop

Workshop Topics

Item # 1 – Peak Credit Classification Method

Item # 2 – Allocation of Transmission Costs

Item #1 - Peak Credit Classification Method

1. Review Previous Peak Credit Methodology
2. Proposed Peak Credit Methodology
3. Why it is preferable from Avista's viewpoint
4. Is the Proposed Peak Credit Methodology stable over time?

Item #1 - Peak Credit Classification Method (continued)

Traditionally, both production and transmission costs have been classified into energy-related and demand-related components by the peak credit ratio method.

In prior cost of service studies, Avista's electric system resource costs were classified to energy and demand using a comparison of the replacement cost-per-kW of the Company's peaking units, to the replacement cost-per-kW of the Company's thermal and hydro plants (separately).

- Created separate peak credit ratios applied to thermal plant and hydro plant
- Transmission costs were assigned to energy and demand by a 50/50 weighting of the thermal and hydro peak credit ratios.
- Fuel and load dispatching expenses were classified entirely to energy
- Peaking plant related costs were classified entirely to demand.

Item #1 - Peak Credit Classification Method (continued)

Proposed Methodology - link the classification methodology to the Integrated Resource Plan (IRP).

- The IRP process is an exercise to meet customer load growth in a least-cost fashion. Central to the equation is the level of our customers' coincident peak demand.
- Use the incremental capacity resource from our latest IRP—a gas-fired CCCT.
- Using IRP models, the Company calculated the costs of capacity and energy from this resource, and used that figure to allocate overall production costs.

Item #1 - Peak Credit Classification Method (continued)

For the IRP the Company models the Western Interconnect wholesale power marketplace using AURORA_{xmp}.

- AURORA_{xmp} dispatches available resources against electricity loads on an hourly basis.
- The IRP uses AURORA_{xmp} to look at costs out 20 years and “mark-to-market” (MTM) each potential resource option reasonably available to the Company in the future.
- The dispatched value of the CCCT (i.e., market sales price less fuel and variable maintenance and operation costs) is tracked hourly over the 20-year IRP timeframe.
- Additionally, for the IRP the Company models the 20-year future over 250 to 500 Monte Carlo iterations to reflect volatility created by various factors including natural gas prices, load variability and forced outage rates.

Item #1 - Peak Credit Classification Method (continued)

For each of the 20 years evaluated for the IRP there are 250 to 500 MTM values for the CCCT.

- The annual average MTM figures represent the energy value generated by the plant.
- Remaining costs not recovered in the wholesale marketplace are defined as capacity.

The ratio of those costs remaining after dispatch into the wholesale marketplace (MTM values) relative to the entire cost of the CCCT plant equals the share of production costs then attributable to demand in the cost of service models.

Item #1 - Peak Credit Classification Method (continued)

Net effect - increases the overall production costs that are classified as demand-related.

- Using the prior method, (with the Settlement power supply costs) approximately 27% of total production costs were classified as demand-related
- 41% of total production costs would be classified as demand-related under the revised method

Item #1 - Peak Credit Classification Method (continued)

Why is this methodology preferable?

- Tied to the Company's IRP
- Market based modeling represents how the system is actually used vs historical replacement cost analysis entirely based on vintage investments
- Less complicated single ratio applied to all production costs vs multiple ratios applied dependent on each cost item's relationship to plant investment
- Overall weighted demand/energy relationship stays the same when power costs are updated – not impacted by swings in the cost of fuel

Item #1 - Peak Credit Classification Method (continued)

Will the new methodology provide a “stable” demand/energy classification over time?

- We believe it will be more consistent over time than the present method.
 - 2007 IRP Result – 40.9% Demand
 - 2009 IRP Result – 40.6% Demand
 - 2011 Draft IRP Result – 46.8% Demand
- Present method overall assignment results vary from 23% to 34% Demand depending on the cost of fuel and shifting proportionate replacement costs

Item #2 – Allocation of Transmission Costs

Historically, transmission costs were included in the production peak credit classification

- 50/50 weighting of thermal and hydro peak credit ratios applied to all transmission costs
- Transmission system considered extension of generation facilities
- Demand classified portion allocated to customer classes by 12 CP (average of the 12 monthly system coincident peak hours)

Item #2 – Allocation of Transmission Costs (continued)

In AVU-E-10-01, Avista proposed to change methodologies and classified transmission costs as 100% demand.

- Consistent with traditional NARUC approach (100% Demand-related)
- Proposed 7 CP (four winter, three summer monthly system coincident peak hours)
 - Based on the rationale that lower customer demands in the off-peak fall and spring seasons do not impose the same capacity utilization of transmission facilities as the higher demand winter and summer months
- Settlement approved transmission classification – 100% demand, but used 12 CP allocation and set up this workshop to discuss alternatives

Item #2 – Allocation of Transmission Costs (continued)

Workshop Discussion – “consideration of the use of a 12 CP (whether “weighted” or not) versus a 7 CP or other method for allocating transmission costs.

1. 12 CP (average of the monthly system coincident peaks)
 - Captures relative contribution to demand throughout the year
 - Aligns with FERC Open Access transmission cost methodology
2. Weighted 12 CP - see Handout
 - Weighted by Relative Monthly Planning Peaks
3. 7 CP (average of 4 winter and 3 summer monthly system coincident peaks)
 - Assumes no transmission demand cost in shoulder months
4. Other

Combined-Cycle Combustion Turbine (from 2009 IRP)

Project Size	250 MW		Discount Rate		7.08%		2.6% annually		1.9% annually		oper. margin from 2009		Col 13 / Col 15			
	Capital Cost	1,617 \$/kW (2010)	Fixed O&M Inflation	Variable O&M Inflation	Col 9 / 250 / 1000	Col 12 / 250 / 1000	Col 12 / 250 / 1000	Col 12 / 250 / 1000	Col 12 / 250 / 1000							
Transmission Cost	-	\$/kW (2010)														
Total Capital Cost	1,617 \$/kW (2010)															
Fixed O&M	42.64 \$/kW-yr (2010)															
Variable O&M	3.38 \$/MWh															
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Annual Generation (MWh)	1,421,996	1,432,163	1,564,110	1,624,399	1,658,096	1,665,372	1,646,626	1,641,165	1,641,626	1,596,935	1,619,380	1,642,987	1,633,936	1,645,964	1,675,118	1,660,949
Capital Recovery Factor	14.6%	15.9%	15.3%	14.7%	14.2%	13.7%	13.2%	12.7%	12.2%	11.7%	11.3%	10.8%	9.8%	9.4%	8.9%	8.4%
Capital Recovery	(\$46.30)	(58.86)	(64.17)	(61.84)	(59.60)	(55.34)	(53.31)	(49.41)	(47.48)	(45.55)	(43.63)	(41.70)	(39.77)	(37.84)	(35.92)	(33.99)
Fuel (\$mil)	(598.17)	(58.89)	(60.29)	(65.56)	(70.16)	(85.67)	(92.91)	(105.91)	(111.81)	(112.08)	(110.14)	(108.96)	(114.01)	(116.58)	(126.23)	(126.88)
Emissions (\$mil)	(31.24)	(0.10)	(0.10)	(4.33)	(8.10)	(15.69)	(21.55)	(32.49)	(36.71)	(39.91)	(42.27)	(45.22)	(51.70)	(55.39)	(59.82)	(64.54)
Fixed O&M (\$mil)	(13.62)	(10.66)	(10.94)	(11.22)	(11.51)	(12.12)	(12.76)	(13.09)	(13.43)	(13.78)	(14.14)	(14.50)	(14.88)	(15.27)	(15.67)	(16.07)
Variable O&M (\$mil)	(6.47)	(4.77)	(4.90)	(5.47)	(5.80)	(6.18)	(6.29)	(6.43)	(6.37)	(6.43)	(6.58)	(6.88)	(7.06)	(7.32)	(7.48)	(7.84)
Total (\$mil)	(195.80)	(133.28)	(140.40)	(148.43)	(155.17)	(175.00)	(190.60)	(207.33)	(213.03)	(214.71)	(214.61)	(220.95)	(226.28)	(232.68)	(239.16)	(254.63)
Total (\$/kW-yr)	(5783.21)	(533.11)	(561.61)	(593.71)	(620.66)	(700.00)	(762.40)	(829.33)	(852.11)	(858.82)	(858.45)	(883.79)	(905.11)	(930.73)	(956.65)	(1,018.52)
Value (\$/kW-yr)	\$685.88	307.61	316.37	371.71	424.20	481.34	547.24	608.80	631.63	731.63	776.94	794.00	887.53	925.60	965.13	1,033.29
Net Value (\$mil)	(597.32)	(225.50)	(245.24)	(222.00)	(196.46)	(170.09)	(152.76)	(137.13)	(124.29)	(96.44)	(81.89)	(64.45)	(43.39)	(21.28)	(8.48)	(39.62)
Fixed Costs (\$mil)	(559.92)	(69.52)	(75.11)	(73.06)	(71.11)	(69.24)	(67.46)	(65.74)	(64.10)	(62.50)	(60.91)	(59.33)	(57.76)	(56.18)	(54.58)	(52.95)
Demand Share (%)	40.6%															
1 2010	1,421,996	14.6%	(\$46.30)	(58.86)	(58.89)	(0.10)	(10.66)	(4.77)	(133.28)	(533.11)	307.61	76.90	(56.38)	(225.50)	(69.52)	
2 2011	1,432,163	15.9%	(64.17)	(60.29)	(60.29)	(0.10)	(10.94)	(4.90)	(140.40)	(561.61)	316.37	79.09	(61.31)	(245.24)	(75.11)	
3 2012	1,564,110	15.3%	(61.84)	(65.56)	(65.56)	(4.33)	(11.22)	(5.47)	(148.43)	(593.71)	371.71	92.93	(55.50)	(222.00)	(73.06)	
4 2013	1,624,399	14.7%	(59.60)	(70.16)	(70.16)	(8.10)	(11.51)	(5.80)	(155.17)	(620.66)	424.20	106.05	(49.12)	(196.46)	(71.11)	
5 2014	1,658,096	14.2%	(57.43)	(76.05)	(76.05)	(11.53)	(11.81)	(6.03)	(162.86)	(651.43)	481.34	120.33	(42.52)	(170.09)	(69.24)	
6 2015	1,665,372	13.7%	(55.34)	(85.67)	(85.67)	(15.69)	(12.12)	(6.18)	(175.00)	(700.00)	547.24	136.81	(38.19)	(152.76)	(67.46)	
7 2016	1,664,088	13.2%	(53.31)	(92.91)	(92.91)	(21.55)	(12.43)	(6.29)	(186.48)	(745.93)	608.80	152.20	(34.28)	(137.13)	(65.74)	
8 2017	1,646,626	12.7%	(51.34)	(97.16)	(97.16)	(23.00)	(12.76)	(6.33)	(190.60)	(762.40)	631.63	159.53	(31.07)	(124.29)	(64.10)	
9 2018	1,641,165	12.2%	(49.41)	(105.91)	(105.91)	(32.49)	(13.09)	(6.43)	(207.33)	(829.33)	731.63	187.91	(24.42)	(97.70)	(62.50)	
10 2019	1,596,935	11.7%	(47.48)	(111.81)	(111.81)	(33.93)	(13.43)	(6.37)	(213.03)	(852.11)	755.67	188.92	(24.11)	(96.44)	(60.91)	
11 2020	1,619,380	11.3%	(45.55)	(112.08)	(112.08)	(36.71)	(13.78)	(6.58)	(214.71)	(858.82)	776.94	194.23	(20.47)	(81.89)	(59.33)	
12 2021	1,642,987	10.8%	(43.63)	(110.14)	(110.14)	(39.91)	(14.14)	(6.80)	(214.61)	(858.45)	794.00	198.50	(16.11)	(64.45)	(57.76)	
13 2022	1,633,936	10.3%	(41.70)	(108.96)	(108.96)	(42.27)	(14.50)	(6.88)	(214.31)	(857.24)	795.81	198.95	(15.36)	(61.42)	(56.20)	
14 2023	1,645,964	9.8%	(39.77)	(114.01)	(114.01)	(45.22)	(14.88)	(7.06)	(220.95)	(883.79)	842.59	210.65	(10.30)	(41.20)	(54.65)	
15 2024	1,675,118	9.4%	(37.84)	(116.58)	(116.58)	(49.26)	(15.27)	(7.32)	(226.28)	(905.11)	887.53	221.88	(4.39)	(17.58)	(53.11)	
16 2025	1,660,949	8.9%	(35.92)	(122.01)	(122.01)	(51.70)	(15.67)	(7.39)	(232.68)	(930.73)	925.60	231.40	(1.28)	(5.13)	(51.58)	
17 2026	1,650,350	8.4%	(33.99)	(126.23)	(126.23)	(55.39)	(16.07)	(7.48)	(239.16)	(956.65)	965.13	241.28	2.12	8.48	(50.06)	
18 2027	1,656,390	7.9%	(32.06)	(126.88)	(126.88)	(59.82)	(16.49)	(7.65)	(242.90)	(971.60)	991.76	247.94	5.04	20.15	(48.55)	
19 2028	1,675,123	7.5%	(30.13)	(128.94)	(128.94)	(64.54)	(16.92)	(7.88)	(248.42)	(993.68)	1,033.29	258.32	9.90	39.62	(47.05)	
20 2029	1,635,914	6.5%	(26.46)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(254.63)	(1,018.52)	1,060.93	265.23	10.60	42.41	(45.57)	
21 2030	1,635,914	6.2%	(25.07)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(252.88)	(1,011.52)	1,060.93	265.23	12.35	49.40	(43.82)	
22 2031	1,635,914	5.9%	(23.86)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(251.49)	(1,005.97)	1,060.93	265.23	13.74	54.96	(42.43)	
23 2032	1,635,914	5.6%	(22.65)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(250.28)	(1,001.14)	1,060.93	265.23	14.95	59.79	(41.22)	
24 2033	1,635,914	5.3%	(21.45)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(249.08)	(996.30)	1,060.93	265.23	16.16	64.63	(40.01)	
25 2034	1,635,914	5.0%	(20.24)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(246.66)	(991.47)	1,060.93	265.23	17.37	69.46	(38.81)	
26 2035	1,635,914	4.7%	(19.03)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(245.45)	(986.63)	1,060.93	265.23	18.57	74.30	(37.60)	
27 2036	1,635,914	4.4%	(17.82)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(244.24)	(981.80)	1,060.93	265.23	19.78	79.13	(36.39)	
28 2037	1,635,914	4.1%	(16.61)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(243.03)	(976.96)	1,060.93	265.23	20.99	83.97	(35.18)	
29 2038	1,635,914	3.8%	(15.40)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(241.82)	(972.13)	1,060.93	265.23	22.20	88.80	(33.97)	
30 2039	1,635,914	3.8%	(15.40)	(133.50)	(133.50)	(67.72)	(17.36)	(7.84)	(241.82)	(967.29)	1,060.93	265.23	23.41	93.64	(32.76)	

Exhibit No. 12
 Case No. AVU-E-11-01 & AVU-G-11-01
 T. Knox, AVista
 Schedule 4, Page 14 of 15

AVU-E-10-01 Transmission Allocation Workshop

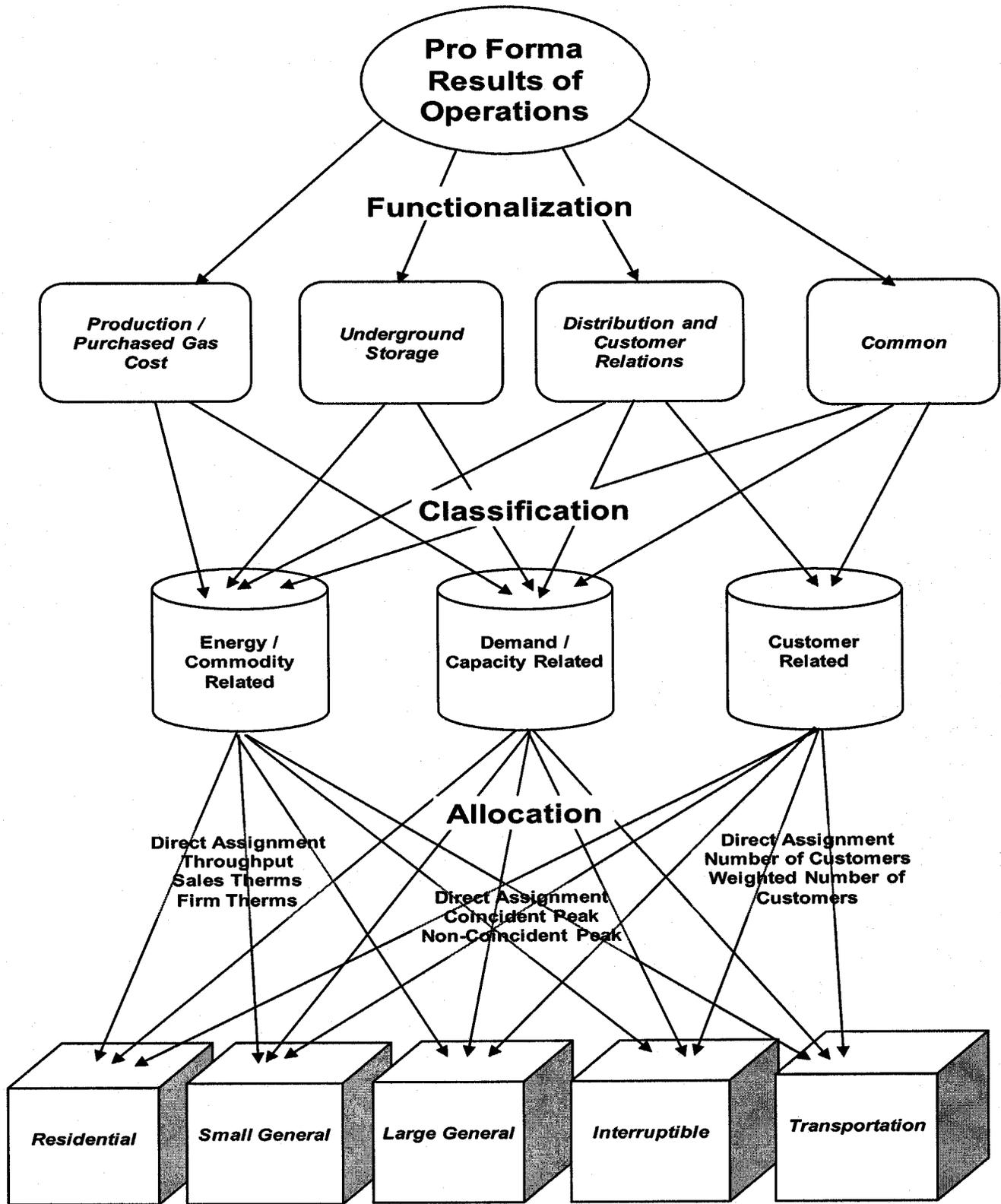
2010 Average Annual Energy (aMW) 1,134
 (From 2009 IRP)

	2010 System Demand (MW)	Excess System Demand vs. Energy aMW	Monthly Peak Weight (Monthly Excess vs. Total Excess)
February	1,745	611	11.8%
March	1,483	348	6.7%
April	1,445	311	6.0%
May	1,389	255	4.9%
June	1,450	315	6.1%
July	1,667	533	10.3%
August	1,659	525	10.1%
September	1,359	225	4.3%
October	1,450	316	6.1%
November	1,595	461	8.9%
December	1,779	644	12.4%
		5,188	100.0%

Total Monthly Peak Demand by Rate Schedule (kW) per AVU-E-10-01 Load Study

	Residential Sch 1		General Service		Large General Service		Extra Large General Service		Extra Large Service		Street & Area Lighting Sch 41-49		Total Idaho
	Sch 1	Sch 11/12	Sch 21/22	Sch 25	Sch 25P	Sch 31/32	Sch 31/32	Sch 31/32	Sch 31/32	Sch 31/32	Sch 31/32	Sch 31/32	
January	281,114	63,675	112,777	37,692	107,004	5,583	409	608,253					
February	212,163	51,910	106,281	35,934	105,850	5,152	0	517,289					
March	242,651	60,216	121,168	36,986	105,647	4,625	237	571,529					
April	172,403	58,667	118,333	37,487	107,782	5,405	0	500,078					
May	122,067	58,175	113,806	34,060	102,621	9,493	0	440,222					
June	153,286	43,390	103,524	36,551	106,638	14,385	0	457,774					
July	190,027	56,401	116,879	37,093	107,196	11,207	0	518,803					
August	216,550	56,660	119,097	34,795	110,248	11,725	0	549,075					
September	188,536	50,068	120,277	38,988	108,723	7,335	0	513,927					
October	215,495	42,200	106,989	36,835	108,605	9,155	0	519,278					
November	214,338	53,988	109,972	37,003	108,348	4,732	3,549	531,929					
December	282,619	61,401	114,858	39,605	100,671	3,853	3,551	606,559					
	2,491,248	656,749	1,363,961	443,029	1,279,331	92,651	7,746	6,334,716					
Unweighted 12 CP Allocator	207,604	54,729	113,663	36,919	106,611	7,721	646	527,893					
	39.33%	10.37%	21.53%	6.99%	20.20%	1.46%	0.12%	100.00%					
Weighted 12 CP Allocator (Monthly Peak Weights)	218,685	55,760	113,440	37,003	106,438	7,386	823	539,535					
	40.53%	10.33%	21.03%	6.86%	19.73%	1.37%	0.15%	100.00%					
Unweighted 7 CP Allocator	230,523	57,190	115,905	37,299	106,477	7,069	600	555,062					
	41.53%	10.30%	20.88%	6.72%	19.18%	1.27%	0.11%	100.00%					

NATURAL GAS COST OF SERVICE STUDY FLOWCHART



Pro Forma Results of Operations by Customer Group ¹

¹ Customer classes shown in this flowchart are illustrative and may not match the Company's actual rate schedules.

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 to serve its retail customers. 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 November 1, 2010. The November 1, 2010 gas cost reduction
13 to customer charges was accomplished through Schedule 155 which is excluded from base
14 revenues. The allocation of these costs agrees with the gas costs computation used to determine
15 pro forma 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 33.01%. This proportion is classified as commodity related. The remaining 66.99% is classified
8 as demand related. Meters, services and industrial measuring & regulating equipment are
9 classified as customer related distribution plant. Distribution operating and maintenance expenses
10 are 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 any Demand Side Management
16 amortization expense recorded in Account 908. Any demand side management investment costs
17 and amortization expense included in base rates would be included with the distribution function
18 and classified to demand and commodity by the peak and average ratio. At this point in time, the
19 Company's demand side management investments in base rates have been fully amortized. All
20 current demand side management costs are managed through the Schedule 191 Public Purpose
21 Tariff Rider balancing account which is not included in this cost study.

22 **Distribution Cost Allocation**

23 Demand related distribution costs are allocated to customer groups (rate schedules) by each
24 groups' contribution to the three year average five-day sustained peak. Commodity related

1 distribution costs are allocated to customer groups by annual throughput. Distribution main
2 investment has been segregated into large and small mains. Small mains are defined as less than
3 four inches, with large mains being four inches or greater. The small main costs use the same
4 demand and commodity data, but large usage customers (Schedules 131, and 146) that connect to
5 large system mains have been excluded from the allocations.

6 Most customer related costs are allocated by the annualized number of customers billed
7 during the test period. Meter investment costs are allocated using the number of customers
8 weighted by the relative current cost of meters in service at December 31, 2010. Services
9 investment costs are allocated using the number of customers weighted by the relative current cost
10 of typical service installations. Industrial measuring and regulating equipment investment costs
11 are allocated by number of turbine meters which effectively excludes small usage customers.

12 **Administrative and General Costs**

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

22 **Special Contract Customer Revenue**

23 Three special contract customers receive transportation service from the Company. Rates
24 for these customers were individually negotiated to cover any incremental costs and retain some

1 contribution to margin. The rates for these customers are not being adjusted in this case. The
2 revenue from these special contract customers has been segregated from general rate revenue and
3 allocated back to all the other rate classes by relative rate base. In treating these revenues like
4 other operating revenues their system contribution reduces costs for all rate schedules.

5 **Revenue Conversion Items**

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

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

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

IPUC Case No. AVU-G-11-01 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 therms (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 cos
9 381 Meters	Distribution	Customer	C03, Customers weighted by average current meter cos
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 Construction 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 Therms
Underground Storage O&M			
26 814 - 837 Underground Storage Exp	Underground Storage	Commodity	E08 Winter throughput

IPUC Case No. AVU-G-11-01 Methodology Matrix
 Avista 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 cos
9 880 Other OP Expenses	Distribution	Demand/Commodity/Customer from other dist expenses	S04 Sum of Accounts 870 - 879 and 881 - 894
10 881 Rents	Distribution	Demand/Commodity/Customer from other dist expenses	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 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 Expense:			
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)

IPUC Case No. AVU-G-11-01 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 Labpr 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 December 31, 2010

Natural Gas Utility
Idaho Jurisdiction

05-Jul-11

Line Description	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
					System Total	Residential Service Sch 101	Large Firm Service Sch 111	Interrupt Service Sch 131	Transport Service Sch 146
Plant In Service									
1 Production Plant									
2 Underground Storage Plant					10,735,000	8,136,564	2,280,462	44,332	273,642
3 Distribution Plant					152,795,000	128,629,327	22,636,021	361,680	1,167,972
4 Intangible Plant					2,596,000	2,172,123	394,779	6,424	22,673
5 General Plant					17,443,000	14,588,194	2,657,728	43,307	153,770
6 Total Plant In Service					183,569,000	153,526,208	27,968,990	455,743	1,618,059
Accum Depreciation									
7 Production Plant									
8 Underground Storage Plant					(3,819,000)	(2,894,601)	(811,279)	(15,771)	(97,349)
9 Distribution Plant					(54,974,000)	(47,046,745)	(7,418,277)	(117,553)	(391,424)
10 Intangible Plant					(1,264,000)	(1,057,309)	(192,452)	(3,134)	(11,104)
11 General Plant					(5,654,000)	(4,728,639)	(861,480)	(14,038)	(49,843)
12 Total Accumulated Depreciation					(65,711,000)	(55,727,294)	(9,283,488)	(150,497)	(549,721)
13 Net Plant					117,858,000	97,798,914	18,685,502	305,247	1,068,338
14 Accumulated Deferred FIT					(23,672,000)	(19,797,855)	(3,606,720)	(58,770)	(208,656)
15 Miscellaneous Rate Base					9,216,000	7,089,075	1,880,208	35,807	210,910
16 Total Rate Base					103,402,000	85,090,134	16,958,990	282,283	1,070,592
17 Revenue From Retail Rates					70,514,000	54,493,548	15,413,796	274,603	332,053
18 Other Operating Revenues					130,000	107,243	21,099	350	1,308
19 Total Revenues					70,644,000	54,600,791	15,434,896	274,953	333,361
Operating Expenses									
20 Purchased Gas Costs					41,884,000	30,760,161	10,917,996	202,857	2,986
21 Underground Storage Expenses					318,000	241,027	67,554	1,313	8,106
22 Distribution Expenses					4,305,000	3,660,598	589,569	7,677	47,156
23 Customer Accounting Expenses					2,008,000	1,953,072	53,717	493	718
24 Customer Information Expenses					373,000	343,522	26,166	415	2,897
25 Sales Expenses					7,000	6,897	102	0	1
26 Admin & General Expenses					5,034,000	4,015,966	893,990	17,569	106,475
27 Total O&M Expenses					53,929,000	40,981,245	12,549,093	230,324	168,338
28 Taxes Other Than Income Taxes					978,000	816,055	150,456	2,468	9,022
29 Depreciation Expense									
30 Underground Storage Plant Depr					182,000	137,946	38,663	752	4,639
31 Distribution Plant Depreciation					3,567,000	3,076,759	458,312	6,544	25,386
32 General Plant Depreciation					1,285,000	1,074,691	195,791	3,190	11,328
33 Amortization of Intangible Plant					425,000	355,464	64,739	1,055	3,742
34 Total Depr & Amort Expense					5,459,000	4,644,860	757,504	11,540	45,095
35 Income Tax					2,724,000	2,127,688	557,987	8,412	29,913
36 Total Operating Expenses					63,090,000	48,569,848	14,015,040	252,744	252,368
37 Net Income					7,554,000	6,030,943	1,419,855	22,209	80,993
38 Rate of Return					7.31%	7.09%	8.37%	7.87%	7.57%
39 Return Ratio					1.00	0.97	1.15	1.08	1.04
40 Interest Expense					3,123,000	2,569,936	512,204	8,526	32,335

Line	(b) Description	(c) System Total	(d) (e)	(f) Residential Service Sch 101	(g) Large Firm Service Sch 111	(h) Interrupt Service Sch 131	(i) Transport Service Sch 146	(k)
Functional Cost Components at Current Rates								
1	Production	42,042,597		30,876,637	10,959,337	203,625		2,997
2	Underground Storage	1,908,309		1,399,405	450,905	8,317		49,682
3	Distribution	18,697,876		15,857,806	2,655,467	37,972		146,631
4	Common	7,865,217		6,359,699	1,348,087	24,689		132,743
5	Total Current Rate Revenue	70,514,000		54,493,548	15,413,796	274,603		332,053
6	Exclude Cost of Gas w / Revenue Exp.	41,642,086		30,584,995	10,855,822	201,269		0
7	Total Margin Revenue at Current Rates	28,871,914		23,908,553	4,557,974	73,334		332,053
Margin per Therm at Current Rates								
8	Production	\$0.00521		\$0.00538	\$0.00538	\$0.00538		\$0.00100
9	Underground Storage	\$0.02483		\$0.02583	\$0.02345	\$0.01901		\$0.01651
10	Distribution	\$0.24239		\$0.29269	\$0.13809	\$0.08677		\$0.04874
11	Common	\$0.10234		\$0.11738	\$0.07010	\$0.05641		\$0.04412
12	Total Current Margin Melded Rate per Therm	\$0.37566		\$0.44129	\$0.23702	\$0.16757		\$0.11038
Functional Cost Components at Uniform Current Return								
13	Production	42,042,597		30,876,637	10,959,337	203,625		2,997
14	Underground Storage	1,893,142		1,434,902	402,165	7,818		48,257
15	Distribution	18,709,971		16,087,390	2,442,420	36,170		143,991
16	Common	7,868,290		6,394,950	1,316,622	24,418		132,300
17	Total Uniform Current Cost	70,514,000		54,793,879	15,120,545	272,031		327,545
18	Exclude Cost of Gas w / Revenue Exp.	41,642,086		30,584,995	10,855,822	201,269		0
19	Total Uniform Current Margin	28,871,914		24,208,884	4,264,723	70,762		327,545
Margin per Therm at Uniform Current Return								
20	Production	\$0.00521		\$0.00538	\$0.00538	\$0.00538		\$0.00100
21	Underground Storage	\$0.02463		\$0.02648	\$0.02091	\$0.01786		\$0.01604
22	Distribution	\$0.24344		\$0.29693	\$0.12701	\$0.08265		\$0.04786
23	Common	\$0.10238		\$0.11803	\$0.06847	\$0.05580		\$0.04398
24	Total Current Uniform Margin Melded Rate per	\$0.37566		\$0.44683	\$0.22177	\$0.16169		\$0.10888
25	Margin to Cost Ratio at Current Rates	1.00		0.99	1.07	1.04		1.01
Functional Cost Components at Proposed Rates								
26	Production	42,042,454		30,876,532	10,959,300	203,624		2,997
27	Underground Storage	2,139,672		1,621,758	454,537	8,836		54,541
28	Distribution	20,162,728		17,295,903	2,671,339	39,845		155,640
29	Common	8,090,147		6,580,494	1,350,428	24,969		134,255
30	Total Proposed Rate Revenue	72,435,000		56,374,687	15,435,604	277,274		347,435
31	Exclude Cost of Gas w / Revenue Exp.	41,641,944		30,584,890	10,855,785	201,269		0
32	Total Margin Revenue at Proposed Rates	30,793,056		25,789,796	4,579,819	76,006		347,435
Margin per Therm at Proposed Rates								
33	Production	\$0.00521		\$0.00538	\$0.00538	\$0.00538		\$0.00100
34	Underground Storage	\$0.02784		\$0.02993	\$0.02364	\$0.02019		\$0.01813
35	Distribution	\$0.26235		\$0.31924	\$0.13891	\$0.09105		\$0.05174
36	Common	\$0.10526		\$0.12146	\$0.07022	\$0.05706		\$0.04463
37	Total Proposed Margin Melded Rate per Therm	\$0.40066		\$0.47601	\$0.23816	\$0.17368		\$0.11549
Functional Cost Components at Uniform Proposed Return								
38	Production	42,042,454		30,876,532	10,959,300	203,624		2,997
39	Underground Storage	2,139,672		1,621,758	454,536	8,836		54,542
40	Distribution	20,162,728		17,295,908	2,671,334	39,845		155,641
41	Common	8,090,147		6,580,495	1,350,427	24,969		134,256
42	Total Uniform Proposed Cost	72,435,000		56,374,693	15,435,597	277,275		347,436
43	Exclude Cost of Gas w / Revenue Exp.	41,641,944		30,584,890	10,855,785	201,269		0
44	Total Uniform Proposed Margin	30,793,056		25,789,802	4,579,812	76,006		347,436
Margin per Therm at Uniform Proposed Return								
45	Production	\$0.00521		\$0.00538	\$0.00538	\$0.00538		\$0.00100
46	Underground Storage	\$0.02784		\$0.02993	\$0.02364	\$0.02019		\$0.01813
47	Distribution	\$0.26235		\$0.31924	\$0.13891	\$0.09105		\$0.05174
48	Common	\$0.10526		\$0.12146	\$0.07022	\$0.05706		\$0.04463
49	Total Proposed Uniform Margin Melded Rate per	\$0.40066		\$0.47601	\$0.23816	\$0.17368		\$0.11549
50	Margin to Cost Ratio at Proposed Rates	1.00		1.00	1.00	1.00		1.00
51	Current Margin to Proposed Cost Ratio	0.94		0.93	1.00	0.96		0.96

	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
					System	Residential	Large Firm	Interrupt	Transport
Line	Description				Total	Sch 101	Sch 111	Sch 131	Sch 146
Cost by Classification at Current Return by Schedule									
1	Commodity				42,449,821	30,973,589	11,025,802	247,875	202,556
2	Demand				14,994,089	11,246,356	3,651,587	25,425	70,721
3	Customer				13,070,090	12,273,603	736,408	1,304	58,775
4	Total Current Rate Revenue				70,514,000	54,493,548	15,413,796	274,603	332,053
Revenue per Therm at Current Rates									
5	Commodity				\$0.55233	\$0.57169	\$0.57335	\$0.56640	\$0.06733
6	Demand				\$0.19509	\$0.20758	\$0.18989	\$0.05810	\$0.02351
7	Customer				\$0.17006	\$0.22654	\$0.03829	\$0.00298	\$0.01954
8	Total Revenue per Therm at Current Rates				\$0.91749	\$1.00580	\$0.80154	\$0.62748	\$0.11038
Cost per Unit at Current Rates									
9	Commodity Cost per Therm				\$0.55233	\$0.57169	\$0.57335	\$0.56640	\$0.06733
10	Demand Cost per Peak Day Therms				\$23.50	\$22.94	\$27.93	\$12.18	\$4.78
11	Customer Cost per Customer per Month				\$14.68	\$13.99	\$56.80	\$108.69	\$816.32
Cost by Classification at Uniform Current Return									
12	Commodity				42,398,967	31,055,515	10,897,094	246,421	199,937
13	Demand				14,961,942	11,343,446	3,524,781	24,349	69,367
14	Customer				13,153,090	12,394,918	698,671	1,261	58,241
15	Total Uniform Current Cost				70,514,000	54,793,879	15,120,545	272,031	327,545
Cost per Therm at Current Return									
16	Commodity				\$0.55167	\$0.57320	\$0.56666	\$0.56308	\$0.06646
17	Demand				\$0.19468	\$0.20937	\$0.18329	\$0.05564	\$0.02306
18	Customer				\$0.17114	\$0.22878	\$0.03633	\$0.00288	\$0.01936
19	Total Cost per Therm at Current Return				\$0.91749	\$1.01135	\$0.78629	\$0.62160	\$0.10888
Cost per Unit at Uniform Current Return									
20	Commodity Cost per Therm				\$0.55167	\$0.57320	\$0.56666	\$0.56308	\$0.06646
21	Demand Cost per Peak Day Therms				\$23.45	\$23.13	\$26.96	\$11.66	\$4.69
22	Customer Cost per Customer per Month				\$14.77	\$14.13	\$53.89	\$105.06	\$808.90
23	Revenue to Cost Ratio at Current Rates				1.00	0.99	1.02	1.01	1.01
Cost by Classification at Proposed Return by Schedule									
24	Commodity				42,982,919	31,486,684	11,035,359	249,383	211,494
25	Demand				15,617,416	11,854,504	3,661,027	26,542	75,343
26	Customer				13,834,666	13,033,499	739,218	1,349	60,599
27	Total Proposed Rate Revenue				72,435,000	56,374,687	15,435,604	277,274	347,435
Revenue per Therm at Proposed Rates									
28	Commodity				\$0.55927	\$0.58116	\$0.57385	\$0.56985	\$0.07030
29	Demand				\$0.20320	\$0.21880	\$0.19038	\$0.06065	\$0.02504
30	Customer				\$0.18001	\$0.24056	\$0.03844	\$0.00308	\$0.02014
31	Total Revenue per Therm at Proposed Rates				\$0.94248	\$1.04052	\$0.80267	\$0.63358	\$0.11549
Cost per Unit at Proposed Rates									
32	Commodity Cost per Therm				\$0.55927	\$0.58116	\$0.57385	\$0.56985	\$0.07030
33	Demand Cost per Peak Day Therms				\$24.48	\$24.18	\$28.01	\$12.71	\$5.09
34	Customer Cost per Customer per Month				\$15.54	\$14.85	\$57.02	\$112.45	\$841.64
Cost by Classification at Uniform Proposed Return									
35	Commodity				42,982,919	31,486,685	11,035,355	249,384	211,494
36	Demand				15,617,415	11,854,506	3,661,024	26,542	75,343
37	Customer				13,834,666	13,033,501	739,217	1,349	60,599
38	Total Uniform Proposed Cost				72,435,000	56,374,693	15,435,597	277,275	347,436
Cost per Therm at Proposed Return									
39	Commodity				\$0.55927	\$0.58116	\$0.57385	\$0.56985	\$0.07030
40	Demand				\$0.20320	\$0.21880	\$0.19038	\$0.06065	\$0.02504
41	Customer				\$0.18001	\$0.24056	\$0.03844	\$0.00308	\$0.02014
42	Total Cost per Therm at Proposed Return				\$0.94248	\$1.04052	\$0.80267	\$0.63359	\$0.11549
Cost per Unit at Uniform Proposed Return									
43	Commodity Cost per Therm				\$0.55927	\$0.58116	\$0.57385	\$0.56985	\$0.07030
44	Demand Cost per Peak Day Therms				\$24.48	\$24.18	\$28.01	\$12.71	\$5.09
45	Customer Cost per Customer per Month				\$15.54	\$14.85	\$57.02	\$112.45	\$841.65
46	Revenue to Cost Ratio at Proposed Rates				1.00	1.00	1.00	1.00	1.00
47	Current Revenue to Proposed Cost Ratio				0.97	0.97	1.00	0.99	0.96

Line	(b) Description	(c)	(d)	(e)	(f) System Total	(g) Residential Service Sch 101	(h) Large Firm Service Sch 111	(i) Interrupt Service Sch 131	(k) Transport Service Sch 146
Meter, Services, Meter Reading & Billing Costs by Schedule at Requested Rate of Return									
Rate Base									
1	Services				47,354,000	46,636,256	689,043	1,913	26,788
2	Services Accum. Depr.				(22,086,000)	(21,751,243)	(321,371)	(892)	(12,494)
3	Total Services				25,268,000	24,885,013	367,672	1,021	14,294
4	Meters				19,748,000	17,209,262	2,430,764	5,496	102,479
5	Meters Accum. Depr.				(4,844,000)	(4,221,271)	(596,244)	(1,348)	(25,137)
6	Total Meters				14,904,000	12,987,991	1,834,520	4,148	77,342
7	Total Rate Base				40,172,000	37,873,004	2,202,192	5,169	91,636
8	Return on Rate Base @ 8.55%				3,410,603	3,215,418	186,966	439	7,780
9	Revenue Conversion Factor				0.63778	0.63778	0.63778	0.63778	0.63778
10	Rate Base Revenue Requirement				5,347,616	5,041,579	293,151	688	12,198
Expenses									
11	Services Depr Exp				1,359,000	1,338,402	19,775	55	769
12	Meters Depr Exp				673,000	586,481	82,839	187	3,492
13	Services Maintenance Exp				345,000	339,771	5,020	14	195
14	Meters Maintenance Exp				301,000	262,304	37,050	84	1,562
15	Meter Reading				228,000	224,659	3,319	3	18
16	Billing				1,505,000	1,482,948	21,910	20	122
17	Total Expenses				4,411,000	4,234,565	169,913	363	6,158
18	Revenue Conversion Factor				0.996296	0.996296	0.996296	0.996296	0.996296
19	Expense Revenue Requirement				4,427,399	4,250,308	170,545	365	6,181
20	Total Meter, Service, Meter Reading, and				9,775,016	9,291,887	463,696	1,053	18,380
21	Total Customer Bills				890,486	877,438	12,964	12	72
22	Average Unit Cost per Month				\$10.98	\$10.59	\$35.77	\$87.72	\$255.27
Fixed Costs per Customer									
23	Total Customer Related Cost				13,834,666	13,033,501	739,217	1,349	60,599
24	Customer Related Unit Cost per Month				\$15.54	\$14.85	\$57.02	\$112.45	\$841.65
25	Other Non-Gas Costs				16,958,390	12,756,301	3,840,594	74,657	286,837
26	Other Non-Gas Unit Cost per Month				\$19.04	\$14.54	\$296.25	\$6,221.41	\$3,983.85
27	Total Fixed Unit Cost per Month				\$34.58	\$29.39	\$353.27	\$6,333.86	\$4,825.50