BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UG-19_____

EXH. JDM-8

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REPRESENTING AVISTA CORPORATION

NATURAL GAS COST OF SERVICE STUDY

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

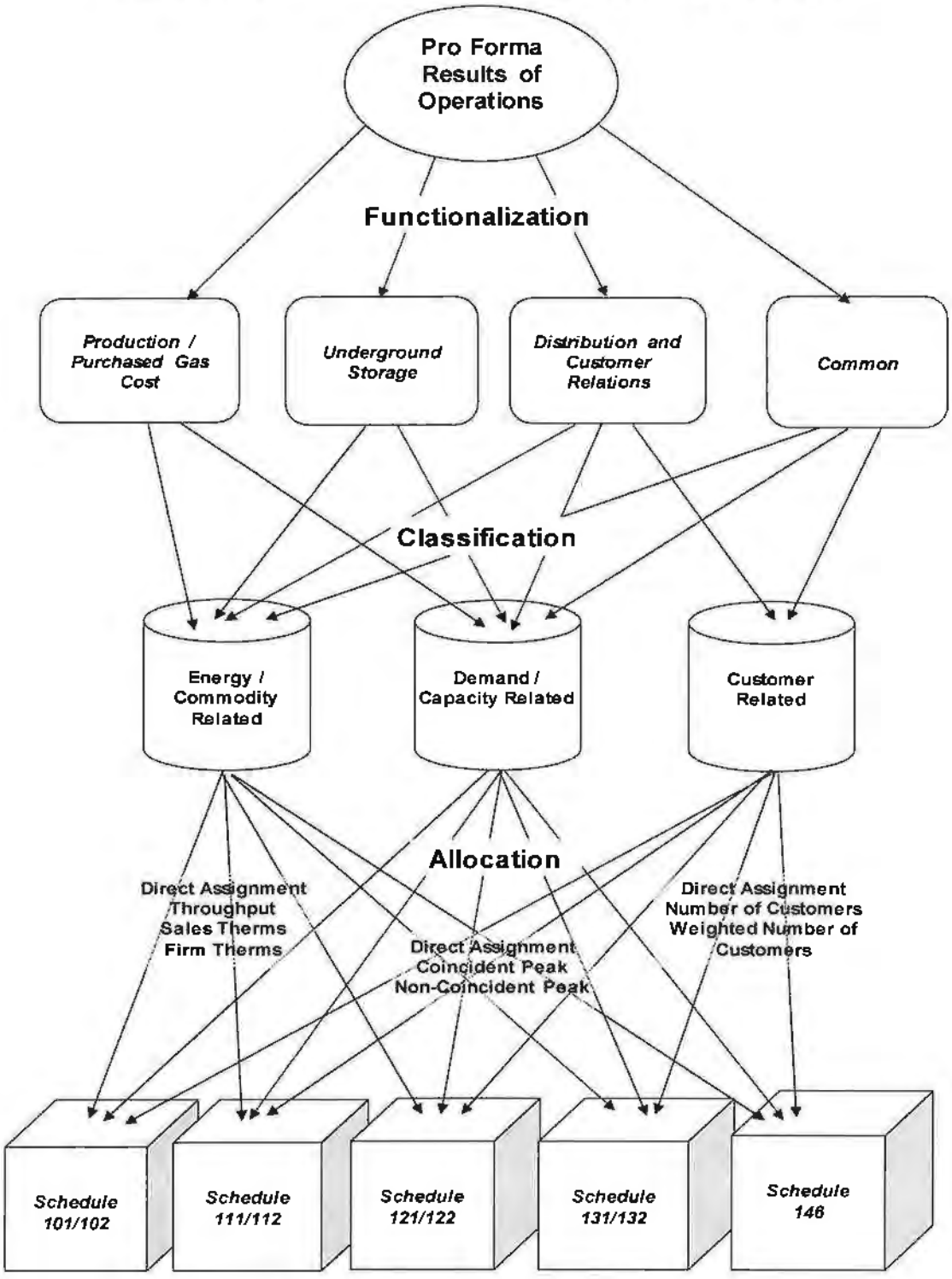
As shown in the flowchart below, there are three basic steps involved in a cost of service study: functionalization, classification, and allocation.

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

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

these three cost components, any revenue-related expense is allocated based on the proportion of revenues by rate schedule.

NATURAL GAS COST OF SERVICE STUDY FLOWCHART



Pro Forma Results of Operations by Customer Group

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

BASE CASE COST OF SERVICE STUDY

Production - Purchased Natural Gas Costs

The Company owns no natural gas production facilities serving the Washington jurisdiction. In addition, the revenue and expenses associated with the natural gas purchased to serve sales customers, and pipeline transportation to get it to our system, have been removed from the Company's filing. The natural gas costs included in the production function in this rate case include the expenses of the gas supply department.

The expenses of the gas supply department recorded in account 813 are classified as commodity-related costs. The gas scheduling process includes transportation customers, so estimated scheduling dispatch labor expenses are allocated by throughput. The remaining gas supply department expenses are allocated 95% by sales volumes (excludes Schedule 146) and 5% on total throughput.

Underground Storage

Underground storage rate base, operating and maintenance expenses are classified as commodity-related. Thirteen percent of underground storage costs are allocated to customer groups by annual throughput, the remaining eighty-seven percent are allocated by sales therms.

Distribution Facilities Classification (Peak and Average)

Distribution mains and regulator station equipment (both general use and city gate stations) are classified as demand and commodity-related using the peak and average ratio for the distribution system. Peak demand is defined as the average of the five-day sustained

peaks from each of the most recent three years. Average daily load is calculated by dividing annual throughput by 365 (days in the year). The average daily load is divided by peak load to arrive at the system load factor of 38.3%. This proportion is classified as commodity-related. The remaining 61.7% is classified as demand-related. Meters, services and industrial measuring & regulating equipment are classified as customer-related distribution plant. Distribution operating and maintenance expenses are classified (and allocated) in relation to the plant accounts they are associated with.

Customer Relations Distribution Cost Classification

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

Distribution Cost Allocation

Demand-related distribution costs are allocated to customer groups (rate schedules) by each group's contribution to the three-year average five-day sustained peak. Commodity-related distribution costs are allocated to customer groups by annual throughput. The throughput allocation for distribution main investment has been segregated into small, medium and large mains. Small mains are defined as less than two inches, medium mains are 2 and 3 inches, and large mains being four inches or greater. Large usage customers (Schedules 131/132 and 146) receive zero allocation of small main and 33.3% of medium main.

Most customer-related costs are allocated by the annualized number of customers billed during the test period. Meter investment costs are allocated using the number of

customers weighted by the relative current cost of meters currently in service. Services investment costs are allocated using the number of customers weighted by the relative current cost of typical service installations. Industrial measuring and regulating equipment investment costs are allocated by number of customers weighted by industrial meters at current cost.

Administrative and General Costs

General and intangible rate base items are allocated by the Company's four-factor allocator. Administrative and general expenses are segregated into plant-related, labor-related, revenue-related and other. The plant-related items are allocated based on total plant in service. Labor-related items are allocated by operating and maintenance labor expense. Revenue-related items are allocated by pro forma revenue. Other administrative and general expenses are allocated by the Company's 4-factor.

Special Contract Customer Revenue

Several special contract customers receive transportation service from the Company. Rates for these customers were individually negotiated to cover any incremental costs as well as some contribution to margin. The rates for these customers are not being adjusted in this case. The revenue from these special contract customers has been segregated from general rate revenue and allocated back to all the other rate classes by relative rate base. In treating these revenues like other operating revenues, their system contribution reduces costs for all rate schedules.

Revenue Conversion Items

In this study uncollectible accounts, state excise tax, and commission fees have been classified as revenue-related and are allocated by pro forma revenue. These items vary with revenue and are included in the calculation of the revenue conversion factor. Income tax

expense items are allocated to schedules by net income before income tax adjusted by interest expense.

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

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

WUTC Docket No. UG-19 ____ Methodology Matrix
Avista Utilities Washington Jurisdiction
Natural Gas Cost of Service Methodology

Line	Account	Functional Category	Classification	Allocation
	Underground Storage Plant			
1	350 - 357 Underground Storage	Underground Storage	Commodity to match PGA items	E01/E04 Annual Throughput / Annual Sales Therms
	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	D01/E06 Annual throughput excludes Sch 131/132&146
5	376(M) Medium Mains	Distribution	Demand/Commodity by Peak & Average	D01/E01/E06 1/3 annual throughput to all schedules & 2/3's annual throughput excluding Schs. 131/132&146
6	376(L) Large Mains	Distribution	Demand/Commodity by Peak & Average	D01/E01/E06 Annual througput to all schedules
7	378 M&R General	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
8	379 M&R City Gate	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
9	380 Services	Distribution	Customer	C02, Customers weighted by current typical service cost
10	381 Meters	Distribution	Customer	C03, Customers weighted by average current meter cost
11	385 Industrial M&R	Distribution	Customer	C06, Customers weighted by industrial meter cost
12	387 Other	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
	General Plant			
13	389-399 All General Plant	Common	Demand/Commodity/Customer from UG & D Plant	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
	Intangible Plant			
14	303 Misc Intangible Plant	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
15	303 Computer Software	Common	Demand/Commodity/Customer from UG & D Plant	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
	Reserve for Depreciation			
16	Underground Storage	Underground Storage	Commodity same as related plant	Allocations linked to related plant accounts
17	Distribution	Distribution	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
18	General	Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
19	Intangible	Distribution/Common	Demand/Commodity/Customer same as related plant	Allocations linked to related plant accounts
	Other Rate Base			
20	Accumulated Deferred FIT	All	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
21	Constuction Advances	Distribution	Customer	C10 Residential only
22	Gas Inventory	Underground Storage	Commodity from Underground Storage Plant	S14 Sum of Underground Storage Plant in Service
23	DSM Investment	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
24	Working Capital	Common	Demand/Commodity/Customer from UG & D Plant	S17 Sum of Total Plant in Service
25	Other Rate Base	Common	Demand/Commodity/Customer from UG & D Plant	S17 Sum of Total Plant in Service
	Purchased Gas Expenses			
26	804 Purchased Gas Cost	Production	Demand/Commodity from PGA Tracker WACOG	Excluded from Study
27	807 Purchased Gas Expenses	Production	Commodity	Excluded from Study
28	813 Gas Research Contributions	Production	Commodity	E08 GTI Expense (Weighted Annual Sales Therms)
29	813 Other Gas Expenses	Production	Commodity	E01/E04 Annual Throughput / Annual Sales Therms

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	Underground Storage O&M			
1	814 - 837 Underground Storage Exp	Underground Storage	Commodity	E01/E04 Annual Throughput / Annual Sales Therms
	Distribution O&M			
2	870 OP Super & Engineering	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
3	871 Load Dispatching	Distribution	Commodity	E01 Annual throughput
4	874 Mains & Services	Distribution	Demand/Commodity/Customer from related plant	S06 Sum of Mains and Services Plant in Service
5	875 M&R Station - General	Distribution	Demand/Commodity from related plant	S08 Sum of Meas & Reg Station - General Plant in Service
6	876 M&R Station - Industrial	Distribution	Customer from related plant	S19 Sum of Meas & Reg Station - Industrial Plant in Service
7	877 M&R Station - City Gate	Distribution	Demand/Commodity from related plant	S09 Sum of Meas & Reg Station - City Gate Plant in Service
8	878 Meter & House Regulator	Distribution	Customer from related plant	S07 Sum of Meter and Installation Plant in Service
9	879 Customer Installations	Distribution	Customer	C05, Customers weighted by average current meter cost
10	880 Other OP Expenses	Distribntion	Demand/Commodity/Customer from other dist expenses	S04 Sum of Accounts 870 - 879 and 881 - 894
11	881 Rents	Distribntion	Demand/Commodity/Customer from other dist expenses	S04 Sum of Accounts 870 - 879 and 881 - 894
12	885 MT Super & Engineering	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
13	886 MT of Structures	Distribution	Demand/Commodity/Customer from Other Dist Plant	S05 Sum of accounts 376-385
14	887 MT of Mains	Distribution	Demand/Commodity from related plant	S21 Sum of Distribution Mains Plant in Service
15	889 MT of M&R General	Distribution	Demand/Commodity from related plant	S08 Sum of Meas & Reg Station - General Plant in Service
16	890 MT of M&R Industrial	Distribution	Customer from related plant	S19 Sum of Meas & Reg Station - Industrial Plant in Service
17	891 MT of M&R City Gate	Distribution	Demand/Commodity from related plant	S09 Sum of Meas & Reg Station - City Gate Plant in Service
18	892 MT of Services	Distribution	Customer from related plant	S20 Sum of Services Plant in Services
19	893 MT of Meters & Hs Reg	Distribution	Customer from related plant	S07 Sum of Meter and Installation Plant in Service
20	894 MT of Other Equipment	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribntion Plant in Service
	Customer Accounting Expenses			
21	901 Supervision	Customer Relations	Customer	C01 All customers (unweighted)
22	902 Meter Reading	Customer Relations	Customer	C01 All customers (unweighted)
23	903 Customer Records & Collections	Customer Relations	Customer	C01 All customers (unweighted)
24	904 Uncollectible Accounts	Revenue Conversion	Revenue	R03 Retail Sales Revenue
25	905 Misc Cust Accounts	Customer Relations	Customer	C01 All customers (unweighted)
	Customer Service & Info Expenses			
26	907 Supervision	Customer Relations	Customer	C01 All customers (unweighted)
27	908 Customer Assistance	Customer Relations	Customer	C01 All customers (unweighted)
28	908 DSM Amortization	Distribution	Demand/Commodity by Peak & Average	D01/E01 Coincident peak (all), annual throughput (all)
29	909 Advertising	Customer Relatious	Customer	C01 All customers (unweighted)
30	910 Misc Cust Service & Info	Customer Relations	Customer	C01 All customers (unweighted)
	Sales Expenses			
31	911 - 916 Sales Expenses	Customer Relations	Customer	C01 All customers (unweighted)

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Line	Account	Functional Category	Classification	Allocation
	Admin & General Expenses			
1	920 Salaries	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
2	921 Office Supplies	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
3	922 Admin Expenses Transferred	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
4	923 Outside Services	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
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	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
7	926 Pensions & Benefits	Common	Demand/Commodity/Customer from Labpr O&M	S13 O&M Labor Expense
8	927 Franchise Requirements	Revenue Conversion	Revenue	R01 Retail Sales Revenue
9	928 Regulatory Commision	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
10	928 Commission Fees	Revenue Conversion	Revenue	R01 Retail Sales Revenue
11	930 Miscellaneous General	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
12	931 Rents	Common	Demand/Commodity/Customer from Other O&M	4-Factor (O&M less resource & labor, O&M labor, net direct plant, & customers
13	931 CSS Rent	Customer Relations	Customer	C01 All customers (unweighted)
14	935 MT of General Plant	Common	Demand/Commodity/Customer from Plant in Service	S17 Sum of Total Plant in Service
	Depreciation Expense			
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
	Taxes			
19	Property Tax	All	Demand/Commodity/Customer from related plant	S14/S15/S16 Sum of UG Plant/Sum of Dist Plant/Sum of Gen Plant
20	Miscellaneous Dist Tax	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
21	State Excise Tax	Revenue Conversion	Revenue	R01 Retail Sales Revenue
22	Federal Income Tax	Revenue Conversion	Revenue	R02 Net Income before Taxes Less Interest Expense
23	Deferred FIT	Revenue Conversion	Revenue	R02 Net Income before Taxes Less Interest Expense
24	ITC	Revenue Conversion	Revenue	R02 Net Income before Taxes Less Interest Expense
	Operating Revenues			
25	Revenue from Rates	Revenue	Revenue	Pro Forma Revenue per Revenue Study
26	Special Contract Revenue	All	Demand/Commodity/Customer from Rate Base	S01 Sum of Rate Base
27	Off System Sales	Production	Commodity	E04 Sales Therms
28	Miscellaneous Service Revenue	Distribution	Demand/Commodity/Customer from Dist Plant	S15 Sum of Distribution Plant in Service
29	Rent From Gas Property	All	Demand/Commodity/Customer from Rate Base	S01 Sum of Rate Base