

**EXHIBIT NO. \_\_\_(MCD-10T)  
DOCKET NOS. UE-120436 and UG-120437  
WITNESS: Michael C. Deen**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,	)	Docket No. UE-120436
	)	Docket No. UG-120437
Complainant,	)	<i>(Consolidated)</i>
	)	
v.	)	
AVISTA CORPORATION d/b/a	)	
AVISTA UTILITIES,	)	
Respondent.	)	
	)	
_____	)	

**DIRECT TESTIMONY OF MICHAEL C. DEEN  
ON BEHALF OF  
THE NORTHWEST INDUSTRIAL GAS USERS**

**September 19, 2012**

**AVISTA CORPORATION d/b/a AVISTA UTILITIES**

**Docket Nos. UE-120436 and UG-120437 (*Consolidated*)**

**DIRECT TESTIMONY OF  
MICHAEL C. DEEN**

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1                                   **DIRECT TESTIMONY OF MICHAEL C. DEEN**

2                                   **I. INTRODUCTION AND SUMMARY**

3   **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

4   **A.**                   My name is Michael C. Deen. I am a member of Regulatory & Cogeneration  
5                   Services, Inc. (“RCS”), a utility rate and economic consulting firm. My business address  
6                   is 900 Washington Street, Suite 780, Vancouver, Washington 98660.

7   **Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.**

8   **A.**                   I have been involved in the utility industry for about 6 years. During that time, I  
9                   have served as an analyst and expert on a variety of matters including revenue  
10                  requirement, cost-of-service, rate spread and rate design, primarily regarding the  
11                  Bonneville Power Administration and other utilities in the Pacific Northwest. I have  
12                  testified before the Washington Utilities and Transportation Commission (“WUTC”) in  
13                  proceedings related to Puget Sound Energy, Avista Utilities, and PacifiCorp. A further  
14                  description of my educational background and work experience can be found in Exhibit  
15                  No. \_\_\_\_ (MCD-11) in this proceeding.

16 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

17 **A.**                   I am testifying on behalf of the Northwest Industrial Gas Users (“NWIGU”).  
18                   NWIGU is a non-profit trade association whose members are large volume customers  
19                   served by local distribution utilities throughout the Pacific Northwest, including Avista  
20                   Utilities (“Avista” or “Company”).

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1 **Q. WHAT TOPICS WILL YOUR TESTIMONY ADDRESS?**

2 **A.** I will discuss the gas cost-of-service study presented as Exhibit No. \_\_\_\_ (TLK-6),  
3 the Company’s proposed rate spread presented in Exhibit No. \_\_\_\_ (PDE-7) and Schedule  
4 146 rate design. This testimony will not address revenue requirement issues.

5 **Q. PLEASE BRIEFLY SUMMARIZE YOUR FINDINGS AND**  
6 **RECOMMENDATIONS ADDRESSED IN THIS TESTIMONY.**

7 **A.** NWIGU supports the allocation of distribution mains used in the Company’s cost-  
8 of-service study. The Company’s segregation of distribution mains by size and in  
9 conjunction with class specific direct assignment is appropriate and consistent with past  
10 studies performed by the Company. However, the demand allocation factor used in the  
11 Company’s cost study should be modified to more accurately assign cost responsibility.  
12 Specifically, the three year-five day coincident peak demand factor (“15CP”) for  
13 assigning demand-related costs should be replaced with a peak factor that takes into  
14 account the current number of customers and peak weather conditions.

15 The Company’s rate spread proposal assigns every customer class an equal  
16 percentage revenue increase. NWIGU recommends a more appropriate rate spread  
17 focusing on margin revenue (total revenue less gas costs) and the results of the NWIGU  
18 cost-of-service study. Table 1 illustrates the Company and NWIGU rate spreads based  
19 upon the Company’s full request in this proceeding showing both the overall percent  
20 increase using total revenue and percent increase in margin revenue for each rate  
21 schedule.

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**Table 1**

**Rate Spread Comparison - Overall Percent**

	<b>Avista</b>	<b>NWIGU</b>	<b>Difference</b>
<b>Sch 101</b>	7.0%	7.7%	0.7%
<b>Sch 111</b>	7.0%	5.2%	-1.8%
<b>Sch 121</b>	7.0%	4.2%	-2.8%
<b>Sch 131</b>	7.0%	1.5%	-5.5%
<b>Sch 146</b>	7.0%	7.0%	0.0%
<b>Total:</b>	7.0%	7.0%	0.0%

**Rate Spread Comparison - Margin Percent**

	<b>Avista</b>	<b>NWIGU</b>	<b>Difference</b>
<b>Sch 101</b>	15.7%	17.1%	1.5%
<b>Sch 111</b>	22.9%	17.1%	-5.7%
<b>Sch 121</b>	28.7%	17.1%	-11.6%
<b>Sch 131</b>	33.3%	7.1%	-26.2%
<b>Sch 146</b>	7.1%	7.1%	0.0%
<b>Total:</b>	16.8%	16.8%	0.0%

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The Company’s Schedule 146 rate design proposal increases every volumetric charge by the same percent (6.8%) while increasing the basic charge from \$250 to \$275 per month (10% increase). NWIGU recommends that the basic charge be increased to \$300 per month and that any remaining increase (or decrease) be collected from applying an equal percentage increase (or decrease) to all volumetric charges.

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**II. COST-OF-SERVICE**

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**Q. HAS THE COMPANY USED THE SAME METHODS IN DETERMINING CLASS COST RESPONSIBILITY AS IT HAS DONE IN PRIOR PROCEEDINGS?**

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**A.** Yes. As explained in Exhibit No. \_\_\_\_ (TLK-1T) page 20, the Company’s cost study uses the same methods as the last rate case. Further, the Company’s segregation and allocation of distribution mains—a primary cost component—has been done in this same consistent manner for many years based on my review of previous natural gas filings by the Company.

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1 **Q. DO YOU AGREE WITH THE COMPANY’S METHOD OF SEGMENTING**  
2 **DISTRIBUTION MAINS?**

3 **A.** Yes. I agree with the Company’s segregation of main investment into two groups  
4 based upon the diameter of the main: mains less than four inches and mains that are four  
5 inches or larger. Larger customers are not assigned the cost of the smaller mains except  
6 through a direct assignment. This approach is appropriate and cost based as large  
7 customer loads cannot be met through smaller mains.

8 **Q. ARE THERE ASPECTS OF THE COST-OF-SERVICE STUDY WHERE YOU**  
9 **DISAGREE WITH THE COMPANY’S METHOD?**

10 **A.** Yes. The Company’s peak demand allocation factor is based upon the estimated  
11 class contributions to a “five-day sustained peak” for the last three heating seasons. I will  
12 refer to this demand allocator as a fifteen day coincident peak (“15CP”).

13 **Q. HOW HAS AVISTA CALCULATED THE 15CP CLASS DEMANDS USED IN**  
14 **ITS COST-OF-SERVICE STUDY?**

15 **A.** Avista first identifies the five day period in each of the last three heating seasons  
16 that contained the highest average load. Table 2 presents the Washington loads for these  
17 fifteen days along with the associated heating degree days (“HDD”). HDD indicate how  
18 the average daily temperature differs from 65 degrees Fahrenheit. The average weather  
19 experienced during the fifteen day historical period was just 55 HDD, indicating an  
20 average temperature of 10 degrees.

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**Table 2**  
**Avista's 15CP Peak Day**

<b>Date</b>	<b>HDD</b>	<b>Peak Therms</b>	<b>Percent of Maximum HDD</b>
12/13/2008	43	1,510,058	80%
12/14/2008	58	1,867,872	99%
12/15/2008	58	1,850,454	98%
12/16/2008	63	1,888,903	100%
12/17/2008	55	1,660,534	88%
12/06/2009	47	1,682,814	89%
12/07/2009	55	1,797,481	95%
12/08/2009	57	1,819,676	96%
12/09/2009	54	1,747,187	93%
12/10/2009	51	1,640,009	87%
12/30/2010	53	1,455,465	77%
12/31/2010	61	1,645,860	87%
1/01/2011	60	1,604,724	85%
1/02/2011	54	1,549,024	82%
1/03/2011	53	1,463,943	78%
<b>Average:</b>	<b>55</b>	<b>1,678,934</b>	<b>89%</b>
<b>2008 Avg:</b>	<b>55</b>	<b>1,755,564</b>	<b>93%</b>
<b>2009 Avg:</b>	<b>53</b>	<b>1,737,433</b>	<b>92%</b>
<b>2010/11Avg:</b>	<b>56</b>	<b>1,543,803</b>	<b>82%</b>

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Avista then estimates the class contributions to these daily demand levels based upon available customer specific load data and peak load equations (using number of customers and heating degree days to project the expected class peak). Any difference between the actual peak experienced and the sum of the class estimated peaks (termed by Avista as a “loss and estimation error”) is assigned to those classes that were estimated using the forecast equations.

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1 **Q. WHY DO YOU DISAGREE WITH THE COMPANY’S USE OF AN**  
2 **HISTORICAL 15CP FACTOR?**

3 **A.** Investment in a distribution delivery system is driven by the ability to serve all  
4 firm loads under peak load or cold weather conditions. For planning purposes, Avista  
5 uses a five day sustained peak that averages 68 HDD or an average temperature of minus  
6 three degrees for the Spokane area as shown by Table 3. (Source: 2012 Natural Gas  
7 Integrated Resource Plan, Appendix 3, 4, page 52). This severe weather condition is  
8 reasonable considering that every winter month has experienced a low temperature of at  
9 least minus 21 degrees (November: -21; December: -25; January: -30; and February: -  
10 24). Under these temperature conditions, little if any interruptible load would be served.

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**Table 3**  
**Planning HDD**

<b>Day</b>	<b>HDD</b>
1	62
2	72
3	82
4	67
5	57
Average:	68

12 The historical temperatures used by the Company for the 15CP allocator averaged 55  
13 degrees or just 81% of the planning value. The HDD during the past three heating  
14 seasons are far too low to use for accurately assigning class peak load cost responsibility.  
15 Consequently, using class load estimates from this historical period dramatically  
16 understates the firm loads and overstates the interruptible loads that would be served  
17 under the peak planning weather conditions.

18 There is another aspect of the Company’s approach that understates the test period  
19 peak demand responsibility. The 15CP allocator uses actual customer counts from the



1 historical period in estimating class contribution levels. Table 4 presents the number of  
2 customers the Company has used in its peak demand estimation process.

3 **Table 4**  
**Customer Counts**

<b>Class</b>	<b>Dec 08</b>	<b>Dec 09</b>	<b>Dec10/Jan11</b>	<b>Difference</b>
Residential 101	131,465	132,409	133,846	2,381
Commercial 101	11,757	11,842	11,925	168
Industrial 101	89	86	82	-7
Residential 111/112	227	228	228	1
Commercial 111/112	1,978	2,027	2,088	110
Industrial 111/112	46	42	43	-3
Commercial 121/122	25	26	22	-3
Industrial 121/122	3	5	4	1
Total:	145,590	146,665	148,238	2,648

4 By using these actual customer counts, the class demand contributions are too low simply  
5 because they do not adjust for the customer growth that has occurred over this three year  
6 period in order to match the test period values.

7 **Q. HAVE YOU PREPARED ALTERNATE CLASS DEMAND LEVELS THAT**  
8 **TAKE INTO ACCOUNT MORE PEAK LIKE CONDITIONS?**

9 **A.** Yes. I have calculated estimated class contributions using the January 2011  
10 customer counts and the five day 68 HDD sustained peak planning measure. As the  
11 sustained peak weather condition would undoubtedly impact the level of interruptible  
12 deliveries, I derived peak demand contributions for Schedule 131 and 146 customers  
13 based on their average class demands. In other words, for these classes the peak demand  
14 value was calculated at a 100% load factor. I believe this approach is very conservative  
15 as there would likely be no interruptible service provided under these peak design  
16 conditions. Table 5 compares the 15CP class demands with the more normalized  
17 demands we calculated.

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**Table 5**  
**Peak Demand Comparison**  
**(Therms)**

	<b>Avista</b>	<b>NWIGU</b>	
<b>Schedule</b>	<b>15CP</b>	<b>CP</b>	<b>Difference</b>
101	983,461	1,175,341	191,888
111/112	370,770	446,641	75,871
121/122	25,373	32,229	6,856
131/132	5,009	1,761	-3,248
146	131,951	80,681	-51,270
Total	1,678,934	1,736,654	220,097

2 **Q. HAVE YOU PREPARED A COST-OF-SERVICE STUDY INCORPORATING**  
3 **YOUR PEAK DEMAND RECOMMENDATIONS?**

4 **A.** Yes. Attached as Exhibit No. \_\_\_\_ (MCD-12) are the summary results from a  
5 study we prepared with my recommended peak demand allocation factor. Table 6  
6 compares the revenue to cost ratio (or “parity ratio”) from the Company’s study and the  
7 NWIGU recommended study. The parity ratio is the most appropriate yardstick for  
8 determining whether the rate schedule charges are equitable for each customer class. A  
9 ratio less than 1.0 or 100% indicates a class is not paying its fair share of costs.  
10 Conversely, a ratio greater than 100% indicates the class is paying charges in excess of its  
11 cost responsibility.

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**Table 6**  
**Margin Parity Ratio**  
**Current Rates**

<b>Schedule</b>	<b>Avista Study</b>	<b>NWIGU Study</b>
101	99%	98%
111/112	107%	106%
121/122	108%	108%
131/132	104%	124%
146	100%	113%
Total:	100%	100%

As shown by Table 6, the NWIGU peak demand recommendations had a relatively minor impact except for Schedules 131 and 146. For these classes, there was an appreciable change as the parity ratio went from 104% up to 124% for Schedule 131 and from 100% up to 113% for Schedule 146.

**III. RATE SPREAD**

**Q. HOW IS AVISTA PROPOSING TO SPREAD THE RATE INCREASE?**

**A.** As explained in Exhibit No. \_\_\_\_ (PDE-1T), the Company is proposing to spread the increase to the base rates of the various customer classes using an equal percentage approach using total revenue—both gas cost and delivery or “margin” cost. In my view, the more appropriate analysis is to compare the Company’s rate spread proposal to just margin (or delivery) related costs as these are the cost that are the focus of this proceeding. Table 7 presents the Company’s class specific increases as a percentage of margin revenue.

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**Table 7**  
**Avista Rate Spread as a Percent of Margin Revenue**

<b>Schedule</b>	<b>Current Margin</b>	<b>Proposed Increase</b>	<b>Percent Increase</b>
Sch 101	\$47,160	\$7,394	15.7%
Sch 111	\$9,795	\$2,241	22.9%
Sch 121	\$949	\$273	28.7%
Sch 131	\$77	\$26	33.3%
Sch 146	\$2,185	\$154	7.1%
Total:	\$60,165	\$10,088	16.8%

2 **Q. DOES NWIGU SUPPORT THE COMPANY’S RATE SPREAD PROPOSAL?**

3 **A.** No. NWIGU has always advocated that any rate spread determination be  
4 primarily based on cost of service. The Company’s proposal moves all classes further  
5 away from the cost of service under the Company’s own study as shown by Table 8.

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**Table 8**  
**Margin to Cost Ratio Comparison**  
**Avista Rate Spread**

<b>Class</b>	<b>Current</b>	<b>Proposed</b>
Sch 101	99%	98%
Sch 111	107%	110%
Sch 121	108%	118%
Sch 131	104%	118%
Sch 146	100%	93%

7 **Q. HOW SHOULD ANY INCREASE IN MARGIN REVENUE RESULTING FROM**  
8 **THIS PROCEEDING BE SPREAD TO THE VARIOUS CUSTOMER CLASSES?**

9 **A.** The class increases should be determined and assigned using the results from the  
10 NWIGU cost-of-service study. As shown by Table 6, under the NWIGU cost-of-service  
11 study the revenue to cost ratios for the interruptible classes—Schedule 131 and 146—are  
12 beyond a reasonable value. Accordingly, these two classes should receive a below  
13 average margin increase while the remaining classes should receive an above average  
14 margin increase.

1 Table 9 presents the NWIGU rate spread recommendation based upon the  
 2 Company's full requested increase. NWIGU recommends the interruptible classes  
 3 receive roughly only 40% of the average margin increase with the remaining classes  
 4 receiving an equal percentage increase in order to meet the overall revenue increase  
 5 targeted amount.

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**Table 9**  
**NWIGU Rate Spread Proposal**  
 (\$000s)

	<b>Current</b>	<b>NWIGU</b>	<b>Margin</b>	<b>Percent of</b>
<b>Schedule</b>	<b>Margin</b>	<b>Increase</b>	<b>Increase</b>	<b>Overall</b>
Sch 101	\$47,160	\$8,086	17.1%	102%
Sch 111	\$9,795	\$1,680	17.1%	102%
Sch 121	\$949	\$163	17.1%	101%
Sch 131	\$77	\$5	7.1%	42%
Sch 146	\$2,185	\$154	7.1%	42%
Total:	\$60,165	\$10,088	16.8%	100%

7 **Q. HOW WOULD NWIGU'S RATE SPREAD RECOMMENDATION CHANGE IN**  
 8 **THE INSTANCE THAT THE COMPANY IS NOT GRANTED ITS FULL**  
 9 **REQUESTED INCREASE?**

10 **A.** The recommended rate spread would be proportionately the same, with the  
 11 interruptible classes receiving roughly 40% of the system average increase and the  
 12 remaining classes receiving an equal percentage increase in order to meet the overall  
 13 authorized increase amount.

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1 **IV. SCHEDULE 146 RATE DESIGN**

2 **Q. HOW IS THE COMPANY PROPOSING TO MODIFY THE SCHEDULE 146**  
3 **CHARGES?**

4 **A.** As shown by Table 10, the Company is proposing to increase the basic charge  
5 from \$250 to \$275 per month and all volumetric charges by the same percent of 6.8%.

6 **Table 10**  
**Schedule 146 Rate Comparison**

	<b>Current</b>	<b>Proposed</b>	<b>Percent Increase</b>
Basic Charge:	\$250.00	\$275.00	10.0%
First 20,000	8.151¢	8.709¢	6.8%
Next 30,000	7.257¢	7.753¢	6.8%
Next 250,000	6.548¢	6.996¢	6.8%
Next 200,000	6.059¢	6.474¢	6.8%
Over 500,000	4.5650¢	4.877¢	6.8%

7 **Q. IS THE COMPANY'S SCHEDULE 146 RATE DESIGN REASONABLE?**

8 **A.** NWIGU recommends a modest change to the Company's Schedule 146 rate  
9 design proposal. We recommend a greater increase in the basic customer charge from the  
10 existing \$250 per month to \$300 per month with the remaining revenue to be collected  
11 from an equal percentage increase applied to all Schedule 146 volumetric charges. This  
12 recommendation is supported by the Company's cost-of-service study as shown by  
13 Exhibit No. \_\_\_(TLK-6), page 4, column k, lines 22 and 24. For Schedule 146, a cost-  
14 based customer charge ranges from \$300 to \$570 per month depending upon the specific  
15 customer costs included in the calculation. As such setting the Schedule 146 customer  
16 charge at the low end of the range is a reasonable cost-based value.

1                    In the instance the Commission grants less than the Company's requested  
2                    increase, NWIGU would recommend the same increase to the basic charge and equal  
3                    percentage increase to the volumetric charges. Even at under the full requested increase,  
4                    \$300 will still be substantially within the cost-based range.

5    **Q.        DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

6    **A.            Yes, it does.**