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

**BEFORE THE**

**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

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

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

# I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.

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

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

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

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Q. WHAT TOPICS WILL YOUR TESTIMONY ADDRESS?

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

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

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

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

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**Table 1**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rate Spread Comparison - Overall Percent** | | | |
|  | **Avista** | **NWIGU** | **Difference** |
| **Sch 101** | 7.0% | 7.7% | 0.7% |
| **Sch 111** | 7.0% | 5.2% | -1.8% |
| **Sch 121** | 7.0% | 4.2% | -2.8% |
| **Sch 131** | 7.0% | 1.5% | -5.5% |
| **Sch 146** | 7.0% | 7.0% | 0.0% |
| **Total:** | 7.0% | 7.0% | 0.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Rate Spread Comparison - Margin Percent** | | | |
|  | **Avista** | **NWIGU** | **Difference** |
| **Sch 101** | 15.7% | 17.1% | 1.5% |
| **Sch 111** | 22.9% | 17.1% | -5.7% |
| **Sch 121** | 28.7% | 17.1% | -11.6% |
| **Sch 131** | 33.3% | 7.1% | -26.2% |
| **Sch 146** | 7.1% | 7.1% | 0.0% |
| **Total:** | 16.8% | 16.8% | 0.0% |

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.

# II. COST-OF-SERVICE

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

**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.

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

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

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

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

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

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

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Table 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Avista's 15CP Peak Day** | | | |
|  |  | **Peak** | **Percent of** |
| **Date** | **HDD** | **Therms** | **Maximum HDD** |
| 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% |
| **Average:** | **55** | **1,678,934** | **89%** |
| **2008 Avg:** | **55** | **1,755,564** | **93%** |
| **2009 Avg:** | **53** | **1,737,433** | **92%** |
| **2010/11Avg:** | **56** | **1,543,803** | **82%** |

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

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

**Table 3**

|  |  |
| --- | --- |
| **Planning HDD** | |
| **Day** | **HDD** |
| 1 | 62 |
| 2 | 72 |
| 3 | 82 |
| 4 | 67 |
| 5 | 57 |
| Average: | 68 |

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

There is another aspect of the Company’s approach that understates the test period peak demand responsibility. The 15CP allocator uses actual customer counts from the historical period in estimating class contribution levels. Table 4 presents the number of customers the Company has used in its peak demand estimation process.

**Table 4**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Customer Counts** | | |  | |
| **Class** | **Dec 08** | **Dec 09** | **Dec10/Jan11** | **Difference** | |
| 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 |

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

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

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

**Table 5**

|  |  |  |  |
| --- | --- | --- | --- |
| **Peak Demand Comparison** | | | |
| **(Therms)** | | | |
|  | **Avista** | **NWIGU** |  |
| **Schedule** | **15CP** | **CP** | **Difference** |
| 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 |

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

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

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**Table 6**

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| --- | --- | --- |
| **Margin Parity Ratio** | | |
| **Current Rates** | | |
|  | **Avista** | **NWIGU** |
| **Schedule** | **Study** | **Study** |
| 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**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Current** | **Proposed** | **Percent** |
| **Schedule** | **Margin** | **Increase** | **Increase** |
| 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% |

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

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

**Table 8**

|  |  |  |
| --- | --- | --- |
| **Margin to Cost Ratio Comparison** | | |
| **Avista Rate Spread** | | |
| **Class** | **Current** | **Proposed** |
| Sch 101 | 99% | 98% |
| Sch 111 | 107% | 110% |
| Sch 121 | 108% | 118% |
| Sch 131 | 104% | 118% |
| Sch 146 | 100% | 93% |

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

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

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

**Table 9**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NWIGU Rate Spread Proposal**  **($000s)** | | | | |
|  | **Current** | **NWIGU** | **Margin** | **Percent of** | |
| **Schedule** | **Margin** | **Increase** | **Increase** | **Overall** | |
| 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% | |

Q. HOW WOULD NWIGU’S RATE SPREAD RECOMMENDATION CHANGE IN THE INSTANCE THAT THE COMPANY IS NOT GRANTED ITS FULL REQUESTED INCREASE?

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

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# IV. SCHEDULE 146 RATE DESIGN

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

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

**Table 10**

|  |  |  |  |
| --- | --- | --- | --- |
| **Schedule 146 Rate Comparison** | | | |
|  |  |  | **Percent** |
|  | **Current** | **Proposed** | **Increase** |
| 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% |

Q. IS THE COMPANY’S SCHEDULE 146 RATE DESIGN REASONABLE?

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

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

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

**A.** Yes, it does.