

BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION d/b/a AVISTA UTILITIES,

Respondent.

DOCKET NOS UE-090134 & UG-090135 (*consolidated*)

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In the Matter of the Petition of

AVISTA CORPORATION, D/B/A AVISTA UTILITIES,

For an Order Authorizing Implementation of a Natural Gas Decoupling Mechanism  
and to Record Accounting Entries Associated With the Mechanism

Docket No. UG-060518 (*consolidated*)

CROSS-ANSWERING TESTIMONY OF GLENN A. WATKINS (GAW-3T)

ON BEHALF OF

PUBLIC COUNSEL

AND

THE ENERGY PROJECT

**SEPTEMBER 11, 2009**

1 **I. INTRODUCTION AND SUMMARY**

2 **Q: Please state your name, employer, and present position and role in the case?**

3 A: My name is Glenn A. Watkins. My business address is James Center III, 1051 East  
4 Cary Street, Suite 601, Richmond, VA 23219.

5 **Q: Have you previously pre-filed testimony in this proceeding?**

6 A: Yes. I previously pre-filed direct testimony on August 17, 2009.

7 **Q: What is the purpose of your cross-answering testimony?**

8 A: The purpose of this testimony is to respond to the Direct Testimony of Staff witness  
9 Ms. Deborah Reynolds as it relates to her recommendation to increase Avista's  
10 natural gas residential customer charge as an alternative regulatory approach to the  
11 current decoupling mechanism.

12 **Q: Please explain Ms. Reynolds' recommendation as it relates to the residential  
13 customer charge.**

14 A: Even though Avista's initial filing proposed an increase to the residential natural gas  
15 customer charge from \$5.75 to \$6.00 (which I supported in my direct testimony),  
16 Ms. Reynolds recommends that this fixed monthly charge be increased to \$8.00 for  
17 one year beginning in January 2010, and then automatically increased again to  
18 \$10.00 effective January 1, 2011. Ms. Reynolds' recommendation to increase the  
19 residential customer charge is far above the level recommended by Avista in its  
20 original filing, and is made in conjunction with her proposal to eliminate the  
21 Company's current decoupling mechanism.

22 **Q: Do you agree with Ms. Reynolds alternative regulatory proposal?**

1 A: No. As I will discuss later in this testimony, Ms. Reynolds’ proposal to move toward  
2 a so-called “straight-fixed variable” residential rate design is perhaps the worst form  
3 of guaranteed revenue recovery (decoupling) possible, in terms of accepted  
4 economic theory and practice and in terms of the public interest.

5 **Q: What reasons does Ms. Reynolds provide in support of her recommendation to**  
6 **dramatically increase the fixed residential customer charge?**

7 A: Ms. Reynolds provides two policy reasons in support of her alternative regulatory  
8 proposal. First, on page 27 of her testimony, she cites the Commission’s observation  
9 that:

10 “... a rate design that increases the recovery of fixed costs in fixed  
11 charges can promote rate stability while tempering the need for higher  
12 returns by reducing the risk the Company faces in terms of overall rate  
13 recovery”<sup>1</sup>

14  
15 Second, she appears to opine that a straight-fixed variable rate design is in the public  
16 interest because she believes it will help reduce the alleged disincentive for Avista to  
17 promote its conservation programs, also an asserted benefit of decoupling.<sup>2</sup>

18 **Q: Please comment on Ms. Reynolds’ first point in support of her alternative**  
19 **regulatory proposal.**

20 A: As a matter of simple arithmetic, Ms. Reynolds is correct that a rate design based on  
21 a fixed monthly charge will increase revenue stability. However, there is no  
22 correlation or evidence suggesting that reasonable returns are not achievable under

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<sup>1</sup> Order 5, Dockets UE-070804, et. al., at ¶ 29.

<sup>2</sup> Direct Testimony of Deborah J. Reynolds on behalf of Staff, Exhibit No. \_\_\_\_ (DJR-1T), p. 9, ll. 1-7.

1 traditional rate designs in which the majority of natural gas distribution companies’  
2 revenues are collected from volumetric-based rates.

3 **Q: Has the natural gas local distribution company (LDC) industry been able to**  
4 **remain financially viable over the years absent a fixed charge rate design?**

5 A: Yes. The notion of a so called “straight-fixed variable” rate design for retail rates is  
6 a very recent phenomenon in the natural gas industry. For decades the pricing  
7 structure of natural gas local distribution companies (LDCs) has been largely  
8 volume-based. The natural gas LDC industry has remained viable and has achieved  
9 at the very least, reasonable returns on its investments with this volumetric-based  
10 rate structure. The risks confronted and returns realized are clearly reflected in the  
11 historical performance of the industry under traditional volumetric-based rates. The  
12 Value Line group of natural gas utility companies has achieved the following  
13 average rates of return on common equity each year since 1999:

14 //

15 ///

16 ////

17 /////

18 /////

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20 /////

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23

**Table 1 – Value Line Natural Gas Utility Group Rate of Return on Common Equity**

Year	Value Line Natural Gas Utility Rate of Return on Common Equity (a)/
1999	11.4%
2000	12.4%
2001	12.8%
2002	12.3%
2003	12.1%
2004	11.2%
2005	12.0%
2006	12.4%
2007	11.6%
<u>2008</u>	<u>11.8%</u>
10-yr Avg	12.0%

(a)/ Calculated per Exhibit No. \_\_\_\_ (GAW-4).

As Public Counsel witness Michael Brosch points out, average usage per customer has declined steadily for several decades due to improvements in appliance efficiency, building codes, and other factors.<sup>3</sup> Nevertheless, LDCs have achieved a high level of earnings with revenue generated largely from volumetric-based prices. Furthermore, LDC costs of equity have not increased during the last several years.

**Q: Please comment on Ms. Reynolds’ second point in support of her alternative regulatory proposal to significantly increase residential customer charges.**

A: As the regulator of utility prices, this Commission can best serve the public interest by establishing prices that efficiently utilize our scarce resources, thereby promoting conservation. A pricing structure or policy that is devoted solely to alleviate an

<sup>3</sup> Direct Testimony of Michael L. Brosch on behalf of Public Counsel, Exhibit No. \_\_\_\_ (MLB-1T), pp. 31-32.

1 LDC's purported disincentive to promote conservation programs, at the expense of  
2 efficient and effective price signals, is akin to throwing the baby out with the bath  
3 water.

4 Economic theory and practice dictate that the most efficient utilization of our  
5 scarce resources is achieved with proper pricing signals. In this regard, a  
6 fundamental tenet of competition is that prices determined through a competitive  
7 market ensure the most efficient allocation of society's resources. Public utilities,  
8 however, are generally afforded monopoly status under the belief that resources are  
9 better utilized without the duplication of the facilities required to serve consumers.  
10 Accordingly, a fundamental goal of regulatory policy is that regulation should serve  
11 as a surrogate for competition to the greatest extent practical.<sup>4</sup> As such, the pricing  
12 policy for a regulated public utility should mirror those of competitive firms to the  
13 extent possible.

14 **Q: Please briefly discuss how prices are generally structured in competitive**  
15 **markets.**

16 A: Economic theory tells us that efficient price signals result when prices are equal to  
17 long-run marginal costs. It is well known that in the long-run all costs are variable  
18 and therefore, efficient pricing results from the incremental variability of costs, even  
19 though a firm's short-run cost structure may include a high level of sunk or "fixed"  
20 costs or may be reflective of excess capacity. Indeed, competitive market-based  
21 prices are generally structured based on usage, i.e. volume-based pricing.

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<sup>4</sup> James C. Bonbright, et. al., *Principles of Public Utility Rates*, (2<sup>nd</sup> ed. 1988), p. 141.

1 **Q: Please explain how this theory of competitive pricing should be applied to**  
2 **regulated public utilities, such as Avista.**

3 A: Due to Avista's investment in system infrastructure, there is no debate that many of  
4 its short-run costs are fixed in nature. However, as discussed above, efficient  
5 competitive prices are established based on long-run costs, which are entirely  
6 variable in nature.

7 Marginal cost pricing only relates to the efficiency of price signals. This  
8 form of pricing theory does not attempt to always address fairness or equity.  
9 However, to achieve fair and equitable pricing of a regulated monopoly's products  
10 and services, it is generally agreed that payments for a good or service should be in  
11 accordance with the benefits received. In this regard, those that receive more  
12 benefits should pay more in total than those who receive fewer benefits. With  
13 respect to natural gas usage, the volume of consumption is the most direct, and  
14 perhaps best indicator of benefits received, such that volumetric pricing promotes  
15 the fairest pricing mechanism to customers and to the utility.

16 This philosophy has been well established among economists, regulators, and  
17 the marketplace for many years. As an illustration, consider utility industry pricing  
18 in its infancy, in the 1800s. In the beginning, customers paid a fixed monthly fee  
19 and consumed as much of the utility commodity/service as they desired (usually  
20 water). It soon became apparent that the fixed monthly fee rate schedule was  
21 inefficient and unfair. Utilities soon began metering their commodity/service and  
22 charging only for the amount actually consumed. In this way, consumers receiving

1 more benefits from the utility than others paid more in total for the utility service  
2 because they used more of the commodity.

3 Furthermore, virtually every capital intensive industry is faced with a high  
4 percentage of fixed costs in the short-run. This includes the manufacturing and  
5 transportation industries. Prices for competitive products and services in these  
6 industries are invariably established on a volumetric basis, including those that were  
7 once regulated, e.g., airline travel and rail service.

8 Accordingly, the recommendation by Ms. Reynolds that Avista's fixed costs  
9 should be recovered through fixed monthly charges, in my view is incorrect. On the  
10 contrary, to the extent possible, pricing should reflect long-run cost incidence  
11 wherein all costs are variable or volumetric in nature, and users requiring more of  
12 Avista's products and services should pay more than customers who use less of these  
13 products and services.

14 **Q: Does the history of straight-fixed variable pricing raise any warning flags about**  
15 **the Reynolds proposal?**

16 A: Yes. The straight-fixed variable (SFV) term was coined and adopted by the FERC in  
17 its famous Order No. 636, which established that fixed natural gas pipeline costs are  
18 to be recovered through pipeline demand charges. The concepts of demand charges  
19 and customer charges are entirely different. First, demand charges vary by customer,  
20 based on their self-determined contract entitlements to pipeline capacity. Although a  
21 customer's demand charges are fixed during a given year, each pipeline shipper  
22 (often LDCs) determines its own level of contract demand, which can and does vary



1 from year to year. As such, the total pipeline demand charges incurred by individual  
2 customers varies tremendously based on the size and needs of each customer. Such  
3 is not the case with fixed customer charges since small residential customers pay the  
4 same amount as large residential customers, regardless of the demands placed on the  
5 system.

6 Another fundamental difference between a demand charge based rate  
7 structure (i.e., true straight-fixed variable) and a fixed customer charge rate structure  
8 is that customers purchasing pipeline capacity under the SFV method have the ability  
9 to shed unwanted (unneeded) demand charge costs through capacity release to other  
10 users. Obviously, such revenue (cost) shifting is not possible for local distribution  
11 retail customers under a fixed customer charge rate structure.

12 **Q: Please explain why the FERC adopted its straight-fixed variable rate design in**  
13 **its Order No. 636.**

14 A: FERC Order No. 636 had two primary goals. The first goal was to enhance gas  
15 competition at the wellhead by completely unbundling the merchant and  
16 transportation functions of pipelines.<sup>5</sup> The second goal was to encourage the  
17 increased consumption of natural gas in the United States. In the introductory  
18 statement of the Order, the FERC stated:

19 “The Commission’s intent is to further facilitate the unimpeded  
20 operation of market forces to stimulate the production of natural gas . .  
21 . . [and thereby] contribute to reducing our Nation’s dependence upon  
22 imported oil . . . .”<sup>6</sup>  
23

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<sup>5</sup> Federal Energy Regulatory Commission, Docket Nos. RM91-11-001 and RM87-34-065, Order No. 636, p. 7.

<sup>6</sup> *Id.*, p. 8.

1 With specific regard to the SFV rate design adopted in Order No. 636, the FERC  
2 stated:

3 “Moreover, the Commission’s adoption of SFV should maximize  
4 pipeline throughput over time by allowing gas to compete with  
5 alternate fuels on a timely basis as the prices of alternate fuels change.  
6 The Commission believes it is beyond doubt that it is in the national  
7 interest to promote the use of clean and abundant gas over alternate  
8 fuels such as foreign oil. SFV is the best method for doing that.”<sup>7</sup>  
9

10 **Q: How does FERC’s objective to increase natural gas consumption using the SFV**  
11 **rate design comport with the LDC industry’s claimed societal need for revenue**  
12 **decoupling and guaranteed revenue recovery?**

13 A: The FERC’s objective for SFV is diametrically in opposition to a major claimed  
14 need for revenue decoupling and/or guaranteed revenue recovery. That is, the LDC  
15 industry claims that because retail rates have been historically volumetric-based,  
16 there has been a disincentive for LDCs to promote conservation or encourage  
17 reduced consumption of natural gas. As is clearly discussed in the FERC Order, the  
18 price signal that results from SFV pricing is meant to promote additional natural gas  
19 consumption, not reduce consumption.

20 A rate structure, therefore, that places major reliance on a fixed monthly  
21 customer charge sends an even stronger price signal to consumers to use more  
22 natural gas. Indeed, an SFV rate structure comprised of fixed monthly customer  
23 charges is even more at odds with conservation and efficient pricing than a FERC-  
24 style demand charge based SFV rate structure. Whereas a demand charge rate does  
25 recognize relative customer size and allows customers to decide how much service is

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<sup>7</sup> *Id.*, pp.128-129.

1 desired, coupled with the ability to shed revenue responsibility (through capacity  
2 release), such characteristics are not present or possible with the type of fixed  
3 customer charge pricing for retail customers proposed by Staff in this case.

4 **Q: Mr. Watkins, a customer's total gas bill is comprised of a base rate component**  
5 **and a gas commodity cost component. Gas costs are volumetrically priced and**  
6 **represent the majority of a customer's gas bill. Does the volumetric pricing of**  
7 **the gas cost component overshadow the need for a proper primary signal from**  
8 **base rates?**

9 A: No. The rationale of the SFV pricing approach for retail customers, particularly  
10 residential customers, escapes me as an economist and policy advisor. The  
11 implication is that even though marginal rates may be inefficiently structured, this  
12 error is acceptable due to other aspects within a customer's gas bill. To me, this  
13 argument is no more plausible than establishing rates that provide for clearly  
14 excessive monopolistic profits under the notion that the additional cost to consumers  
15 only represents a small portion of their energy bills and/or cost of living.

16 **Q: On page 17 of her direct testimony, Ms. Reynolds quotes objectives to sound**  
17 **rate design set forth by Professor Bonbright in his treatise entitled Principles of**  
18 **Public Utility Rates. What is Dr. Bonbright's opinion regarding the collection**  
19 **of revenue solely (or largely) through a fixed customer charge?**

20 A: Dr. Bonbright's general objectives for public utility rate structure are often cited, and  
21 generally agreed upon. However, these are objectives in the most general sense.

1 With regards to the specific merits of various alternative rate structures, Dr.

2 Bronbright states:

3 . . . there remains a choice as to the unit of service to which  
4 the uniform rate shall be applied. Among a variety of  
5 alternatives, three receive closest consideration: a uniform  
6 charge per customer; a uniform charge per unit of energy  
7 (kilowatt-hour); and a uniform charge per unit of the  
8 customer's maximum monthly kilowatt demand.

9 *Uniformity of charge per customer (say, \$10 per month*  
10 *for any desired quantity of service) has charm in avoiding*  
11 *metering costs. Nevertheless, it is soon rejected because of its*  
12 *utter failure to recognize either cost differences or value-of-*  
13 *service differences between large and small customers.<sup>8</sup>*  
14

15 **Q: On page 18 of her direct testimony, Ms. Reynolds appears to dismiss the**  
16 **traditional wisdom that efficient price signals will cause customers to reduce**  
17 **their use when they see their bills increase because of her assertion that price**  
18 **elasticity is “hard to measure and even harder to predict.”<sup>9</sup> Do you have**  
19 **comments regarding Ms. Reynolds’ assertions regarding the price elasticity of**  
20 **demand for natural gas?**

21 **A:** Yes. While there is no denying the fact that quantitative studies and analyses within  
22 the social sciences (including economics) lack the surgical precision that can be  
23 expected and achieved within the physical and natural sciences, the obstacles in  
24 measuring and quantifying human behavior do not mean that established principles  
25 do not exist, nor should any difficulties in conducting such studies serve as an excuse  
26 for ignoring the reality of consumer behavior.

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<sup>8</sup> Bonbright, et. al., p. 396 (emphasis added).

<sup>9</sup> Direct Testimony of Deborah J. Reynolds on behalf of Staff, Exhibit No. \_\_\_\_ (DJR-1T), p. 18, ll. 11-12.

1                   Several well-regarded studies have been conducted concerning the price  
2                   elasticity of demand for residential natural gas. All studies that I am aware of  
3                   indicate that natural gas is a normal good in that as price increases, consumption  
4                   decreases, all other things being equal. This phenomenon is illustrated and  
5                   confirmed in recent comprehensive studies conducted by the U. S. Department of  
6                   Energy and by the Rand Corporation (publishers of the Rand Journal of  
7                   Economics).<sup>10</sup> Both of these studies quantify the price elasticity of demand for  
8                   residential natural gas. Indeed, the Rand study found that the Pacific Northwest has  
9                   the most elastic demand for residential natural gas in the country.

10   **Q: Do you continue to support a \$6 customer charge for Avista’s Schedule 101**  
11   **customers?**

12   A: Yes. For the reasons set forth in my Direct Testimony as well as this Cross  
13   Answering Testimony, I continue to support as reasonable Avista’s recommendation  
14   that the Schedule 101 customer charge be increased from the current level of \$5.75  
15   to \$6.00. Notably, Avista’s recommendation was not tied in its original filing to the  
16   continuation of decoupling, which was not requested until later. My  
17   recommendation in support of the 25 cent increase is the same whether or not  
18   decoupling is continued.

19       / /

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<sup>10</sup> See Reduced Form Energy Model Elasticities from EIA’s Regional Short-Term Energy Model (RSTEM), Dave Costello, 2006, U. S. Department of Energy [<http://www.doe.gov/emeu/steo/pub/pdf/elasticities.pdf>]; and, Regional Differences in the Price-Elasticity of Demand for Energy, Mark Bernstein, James Griffin, 2005, National Renewable Energy Laboratory, Rand Corporation [[http://www.rand.org/pubs/technicalreports/2005/Rand\\_TR292.pdf](http://www.rand.org/pubs/technicalreports/2005/Rand_TR292.pdf)].

- 1 **Q: Does this complete your testimony?**
- 2 **A: Yes.**