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9 **BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION**

10 **DOCKET NO. UG-021584**

11
12 **REBUTTAL TESTIMONY OF MICHAEL D'ARIENZO (MED-2T)**

13 **REPRESENTING AVISTA CORPORATION**
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2 **Q. Please state your name, employer and business address.**

3 A. My name is Michael D'Arienzo. I am employed as Vice President of Natural
4 Gas Marketing and Trading by Avista Energy, Inc. at 201 W. North River Drive, Suite
5 610, Spokane, Washington

6 **Q. Have you previously submitted testimony in this Docket?**

7 A. Yes. I have provided prepared direct testimony marked for identification as
8 (MED-1T).

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

10 A. In response to Staff and Public Counsel's testimony I will clarify how the
11 Benchmark Mechanism is managed as part of Avista Energy's business. I will also
12 respond to assertions made by Staff and Public Counsel with respect to the benefits to
13 customers and auditability of the mechanism, risks and rewards for Avista Energy, as well
14 as clarify where Staff and Public Counsel's analysis do not reflect the actual value and
15 daily operation of the Mechanism.

16 **Q. Do you agree with the WUTC Staff that customers would receive more**
17 **benefits if the Benchmark Mechanism was moved back into the Utility?**

18 A. No. I believe that the Staff and Public Counsel have significantly understated
19 the value Avista Energy brings to the Utility's customers and have not recognized or
20 understood the risks borne by Avista Energy through the Benchmark Mechanism. In
21 reviewing the testimony submitted by Mr. Parvinen and Ms. Elder we were able to identify
22 several areas where in their analysis they were either using inconsistent data or incorrect
23 assumptions with respect to the natural gas market.

1 **Q. Can you provide examples where the Staff or Public Counsel have**
2 **errors in their analysis?**

3 A. Yes. With respect to recovery on unutilized pipeline capacity Mr. Parvinen
4 and Ms. Elder propose that Avista Energy has little if any risk with respect to recovery of
5 transportation costs. I disagree with their conclusion. Today's natural gas market is
6 significantly different than two years ago and the rules and regulation's associated with
7 capacity release have been modified which makes it more difficult to recover costs. What
8 they both do not seem to appreciate is that the market sets the value of the capacity based
9 on what is traded at the receipt and delivery points of the transportation corridors. As long
10 as there is a positive differential between the two points, then the transport has value. That
11 value is determined by taking the difference between the two points, minus the variable
12 cost to move the natural gas. The market is extremely efficient and will not pay above that
13 level, which is contrary to what Mr. Parvinen and Ms. Elder propose.

14 In fact when reviewing Ms. Elder's testimony pages 12-14 she makes several
15 errors in her analysis with respect to capacity release. First, in her calculation of the
16 revenues on recovery of capacity she proposes that Avista Energy should be able to achieve
17 \$10 million annually on capacity releases. In order to recover a \$10 million level, Avista
18 Energy would need to have the ability to release the excess capacity at \$0.69 per MMBtu.
19 Unfortunately, this is impossible due to FERC guidelines, which state that transportation
20 cannot be released above full rate, which is \$0.27 per MMBtu. When you take into
21 consideration that Avista Utilities has excess transportation at times when all the other
22 Pacific Northwest utilities are also in excess, it is very unlikely that Avista Energy could
23 recover the full rate. Moreover, due to the Pacific Northwest utilities' poor annual load

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1 factors (approximately 35%), which is due to their heating loads dropping off in the
2 summer, Ms. Elder proposes that a 30% discount should be made to adjust for poor market
3 conditions. This adjustment for poor market conditions reduces her estimate on capacity
4 release recovery from \$13.9 million down to \$10 million. Utilizing Ms. Elder's own
5 methodology and the FERC approved maximum rates of \$0.27/MMBtu, Ms. Elder's \$10
6 million estimate would be reduced to approximately \$4.0 million, which is significantly
7 closer to the \$3 million proposed in the Benchmark Mechanism, and much less than the
8 \$7.5 million of Mr. Parvinen. Please refer to Exhibit __ (MED-3), for a derivation of these
9 numbers.

10 **Q. Are there other areas of the capacity release that you believe the Staff or**
11 **Public Counsel have errors in their analysis, with respect to how revenues should be**
12 **recovered?**

13 A. Yes. With respect to the auditability of capacity release, both parties have
14 indicated that there is not enough detail to complete their analysis of transportation
15 revenues. I respectfully disagree and would point to the quarterly reports, which provides a
16 full accounting of the recovery of costs for each of the transportation agreements, including
17 what volumes flowed on the respective pipeline contracts from the receipt point to the
18 delivery point. The report is concise and is generated directly from the pipeline invoices,
19 which are billed directly to Avista Utilities. An excerpt of the pages from the June 30, 2003
20 quarterly report is attached as Exhibit ____ (MED-4). I believe where the confusion comes
21 in is that the Staff and Public Counsel appear to want a detail description of what happens
22 to the natural gas once it is dropped off at the delivery point, and the terms and conditions
23 of Avista Energy's downstream sales. In their testimonies, they suggest that Avista

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1 Utilities' customers should be entitled to value above and beyond the value of Avista
2 Utilities transportation. It is irrelevant, however, what the details are of Avista Energy's
3 deals because Avista Utilities' transportation is being compensated at the full market price.
4 In addition, there is no valid reason for Avista Energy to credit to Avista Utilities'
5 customers a rate for transportation that is above market. The industry is extremely
6 competitive and will not provide value for transportation that is above what the market will
7 dictate. It is this efficiency that helps keep natural gas prices competitive with other energy
8 sources, which customers ultimately benefit from in their rates.

9 **Q. With respect to Avista Energy's size do you believe that the WUTC Staff**
10 **and Public Counsel value the benefit correctly?**

11 A. No. With respect to the WUTC Staff, I believe that it discounts the value of
12 Avista Energy and in fact has an over-inflated view of the value of the Avista Utility's
13 assets to Avista Energy. Mr. Parvinen states on page 52 of his direct testimony that:
14 "Access to these valuable assets provides economies of scale and market presence to
15 Avista Energy." It is actually Avista Utilities that benefits from the size of Avista Energy,
16 since Avista Utilities is approximately 3% of Avista Energy's business. I would agree and
17 have stated in my testimony that Avista Energy receives intrinsic value by incrementally
18 increasing the size of the business. However, I believe that there are benefits to both
19 companies, which have been described in Mr. Norwood's testimony and in the pre-filed
20 direct testimony.

21 **Q. Do you agree with Public Counsel that the Benchmark Mechanism does**
22 **not provide a true benchmark against which gas costs are measured and that the**

1 **additional decisions for which Avista Energy can receive an award are biased in its**
2 **favor?**

3 A. No. The Benchmark Mechanism includes a distinct benchmark against which
4 gas costs are measured. As Mr. Norwood explained in his testimony, it is Avista Utilities'
5 intention that the Tier 1 fixed price purchases that are made in advance to provide a level
6 of price stability for Avista Utilities' customers, remain fixed. Therefore, no sharing or
7 incentive has been designed around that element. Tier 2 purchases at FOM index prices,
8 however, are used as a measure to determine Avista Energy's performance for the Tier 3
9 intra-month daily transactions. The incentive is set up such that if the costs of these daily
10 transactions differ from the Tier 2 FOM index costs, this difference, up or down, is shared
11 80% to customers and 20% to Avista Energy. Therefore, Avista Energy clearly has an
12 incentive to meet or beat the benchmark, otherwise it absorbs 20% of the difference in
13 costs.

14 The Benchmark Mechanism is designed with symmetrical sharing (80%/20%) in
15 all components (Commodity, Transportation and Storage.) Avista Energy provides
16 significant value for Avista Utilities customers and an ability to transact in the market place
17 in a manner which would not occur within the Utility.

18 **Q. Are there other areas of concern with respect to Public Counsel or Staff**
19 **testimony?**

20 A. Yes. With respect to the "basin optimization," both WUTC Staff and Public
21 Counsel do not adequately take into consideration the physical limitations of the system.
22 Staff and Public Counsel suggest that there should be more flexibility in setting the supply
23 basin percentage weightings, which in theory seems like a good idea, however, in practice

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1 switching supply contracts could create supply reliability issues. Avista Energy is
2 extremely sensitive to making any modifications to the Benchmark Mechanism that could
3 jeopardize reliability of service. While the Benchmark Mechanism has been in place,
4 Avista Energy has never failed to perform and Avista Utilities has not had to curtail
5 customers due to lack of supply. In Staff and Public Counsel's proposed modifications to
6 the mechanism they assume that there is 100% liquidity and the flexibility to economically
7 perform such changes. They fail to consider at least two major factors in their
8 recommendation.

9 First, the selection of the supply basin weighting percentages, is the starting point
10 or foundation for the upcoming operating year upon which many other transactions are
11 layered on top in order to optimize all the assets of the Utility. Some of these transactions
12 include the following:

- 13 1. Once the basin weighting percentages are established for the upcoming
14 operating year, it sets the initial estimated volumes that will be delivered from
15 each supply basin to serve Avista Utilities' load, and it provides a guide for the
16 amount of excess pipeline transportation that is available from each supply
17 basin.
- 18 2. Based on that foundation, additional transactions are layered on top to further
19 optimize the price differentials between the supply basins, which has been
20 referred to as "basin optimization" in the Benchmark Mechanism proposal.
- 21 3. More transactions are layered on top related to pipeline capacity release and
22 off-system sales.

1 4. In addition, pipeline transportation flexibility must be reserved for the use of
2 JP Storage transactions, to serve Avista Utilities' load under a range of load
3 conditions.

4 Some of these transactions will be longer-term transactions, e.g. for the full
5 upcoming operating year, because in many cases the longer-term transactions will yield a
6 higher value. All of these elements are extremely interrelated and a proposal to change the
7 basin weightings mid-way through the operating year would undermine the opportunity to
8 fully optimize the value of all of the assets.

9 Second, the layers of transactions I have outlined immediately above shows that
10 the value that Staff and Public Counsel want to capture by changing basin weighting
11 percentages is already being captured through other elements of the Benchmark
12 Mechanism. For example, if prices change in the course of the year where one supply
13 basin is significantly less expensive than the other two basins, the value of the
14 transportation will increase from that region which will be recovered in the off-system
15 sales transactions. Both the "basin optimization" value as well as the value from pipeline
16 capacity release and off system sales are shared 80% customers and 20% Avista Energy.
17 Therefore, customers will receive 80% of the value from a change in the supply basin price
18 differentials, irrespective of whether it comes through the "basin optimization" or through
19 the pipeline transportation optimization. Since the market is so intertwined it is imperative
20 that the Mechanism incentives be symmetrical, hence the 80%/20% sharing in all areas of
21 the Mechanism. This symmetry properly motivates Avista Energy to optimize all of the
22 assets on behalf of Avista Utilities' customers.

1 **Q. Are there other issues to consider with respect to moving the basin**
2 **weightings?**

3 A. Yes. In the management of the capacity release section of the Mechanism,
4 Avista Utilities/Avista Energy will and have released capacity for terms that extend beyond
5 one year. Those longer-term, non-recallable releases have historically recovered greater
6 value than short-term recallable releases. If Avista were to implement the changes
7 proposed by Staff and Public Counsel, some of those long-term releases would need to be
8 modified to provide for the flexibility to change the basin weightings. It is difficult to
9 determine the full impact that modifying those capacity releases would have when
10 compared to the possible value you would gain in the event that prices are lower at the
11 different basins. One thing that we do know for certain is that the market will pay less for
12 an interruptible (recallable) product, which makes it more difficult to recover value on the
13 excess capacity.

14 **Q. Do you agree with Mr. Parvinen's conclusion that there is no additional**
15 **cost associated with managing the load volatility of the Utility that occurs in Tier 3?**

16 A. No. I disagree with his conclusions based on the actual experience Avista
17 Energy has had in the Management of the existing Benchmark Mechanism.

18 **Q. Can you please briefly describe the nature of daily load volatility in**
19 **Tier 3 and what drives the cost to serve this load?**

20 A. Yes. As Mr. Gruber explained in his rebuttal testimony (RHG-3T), prior to
21 entering a month, the Company has already purchased a sufficient amount of natural gas to
22 equal the expected average load for the month. Daily purchases or sales, together with the
23 use of storage, are used to balance total supply with total load on a daily basis. The costs

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1 associated with this daily load balancing is not zero, however, as suggested by Mr.
2 Parvinen. To complete an analysis of the costs of daily load volatility, there are
3 functionally two moving variables, price and load. With these two variables (price and
4 load) there are four possible scenarios that can occur any day during the month. The four
5 possible scenarios are detailed below.

- 6 1) Load and price decrease: Excess gas must be sold at the market, which is less than
7 the benchmark FOM index price.
- 8 2) Load decreases and price increases: Excess gas must be sold at the market, which is
9 more than the benchmark FOM index price.
- 10 3) Load increases and price decreases: Additional gas must be purchased at the
11 market, which is less than the benchmark FOM index price.
- 12 4) Load and price increase: Additional gas must be purchased at the market, which is
13 more than the benchmark FOM index price.

14
15 Given this information, the valuation of Tier 3 daily load volatility is really a
16 straightforward calculation. Evaluating the operation of the Benchmark Mechanism from
17 September 1999 to February 2003, Avista has reviewed the number of occurrences of each
18 of these scenarios and the cost of the occurrences. The results of this analysis are presented
19 in the table below and are also shown on Mr. Gruber's Exhibit ____ (RHG-5C).

Scenario	Occurrences	(Benefit)/Cost
1	444	\$(1,088,105)
2	233	\$882,126
3	294	\$1,351,515
4	299	\$(9,061,470)
Total	1270	\$(7,915,934)
1 & 4	743	\$(10,149,575)
2 & 3	527	\$2,233,641

20
21 This detailed analysis demonstrates that the costs of scenarios 1 and 4 (protection
22 from daily price volatility) drastically out weigh the benefits to of scenarios 2 and 3. It also
23 shows that the positive occurrences do not offset the negative occurrences and Mr.

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1 Parvinen's judgment in his response to Avista Corp. Data Request No. 1 (provided as
2 Exhibit ____ (RHG-6)) is incorrect, and unsupported by any analysis.

3 **Q. Do you agree with Mr. Parvinen's statement on Page 45 of his**
4 **testimony that states, "The Benchmark Mechanism contains very little risk for Avista**
5 **Energy, other than the small amount of potential risk around the price volumes of**
6 **Tier 3, Avista Energy can insulate itself from any risks"?**

7 A. No. Mr. Parvinen is suggesting that Avista Energy has the ability to hedge
8 all risk. Contrary to Mr. Parvinen's understanding of the natural gas market, Avista Energy
9 is unable to hedge changes in weather, customer usage, pipeline reliability, nomination
10 errors, wellhead deliverability, financial viability of counter-parties, and a host of other
11 business issues that impact the delivery of natural gas. Public Counsel's witness also
12 downplays in her testimony the risks associated with providing the services required under
13 the Benchmark Mechanism.

14 **Q. What is Avista Energy's response with respect to Public Counsel's**
15 **recommendation that Avista Energy should lock in forward prices when withdrawal**
16 **of gas from storage occurs earlier than the synthetic schedule?**

17 A. We would agree and in fact have discussed purchasing hedges with WUTC
18 Staff. However, we would not stop with just hedging the price, but would recommend
19 purchasing the physical volumes to insure reliability of supply. Should the Commission
20 approve continuation of the Benchmark Mechanism, we would propose that as part of the
21 storage optimization, that Avista Utilities / Avista Energy purchase financial and physical
22 products to insure the value is captured for customers.

1 **Q. With respect to Mr. Parvinen's testimony does he give an accurate**
2 **depiction of mark to market accounting?**

3 A. No. Mr. Parvinen's understanding of Avista Energy's utilization of "mark
4 to market" accounting is confusing at best. In his testimony he seems to imply that since
5 Avista Energy uses pools of supply to serve loads, that Avista Energy does not have any
6 idea of what its costs are to serve customers. Where the confusion may lie is that Avista
7 Energy does not assign or link specific purchases to sales for its portfolio. However,
8 Avista Energy does value every sale against the daily value of that gas to the sale. For
9 example, if Avista Energy had an obligation (sale) to provide 10,000 MMBtu of gas to the
10 Utility, a position would go in Avista Energy's book that shows an obligation of 10,000
11 MMBtu priced at the current market on the day. If the price moves \$0.10/MMBtu up the
12 next day, Avista Energy would re-value the obligation at the new price. If Avista Energy
13 had not purchased the gas for the sale it would show a loss; if they had purchased the gas it
14 would show a gain. So Avista energy does value daily positions, but not with respect to
15 coloring the actual molecules, but from an overall view at each hub and for each term.

16 With respect to the Benchmark Mechanism Avista Energy's utilization of mark to
17 market accounting is immaterial, since the Utility's purchase of supplies are not based on
18 mark to market, but rather are tied back to fixed purchases (Tier 1), First of Month Index
19 (Tier 2) and Avista Energy's average sales on the day for Tier 3.

20 **Q. Should the Commission be concerned about utilizing Avista Energy's**
21 **average sales on the day?**

22 A. No. Avista Energy is able to provide the WUTC Staff with all of its daily
23 transactions to audit the deals. Also, by utilizing Avista Energy's sales it is a good

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1 representation of the market. Further, Avista Energy did an analysis of its performance
2 (purchases & sales) with respect to Gas Daily, daily prices for the year of 2002 and there
3 were no significant variances between Gas Daily published indices and Avista Energy's
4 purchases and sales. Please refer to Exhibit__(MED-5), which provides an analysis of
5 Avista Energy's Daily gas purchases and sales at the three basins from which Avista
6 Utilities purchases its natural gas. The analysis showed that Avista Energy transacted
7 essentially at market.

8 **Q. Have you reviewed Staff's recommended Alternatives to the proposed**
9 **Benchmark Mechanism?**

10 A. Yes.

11 **Q. What is Avista Energy's response to Alternative 2, which consists of**
12 **increasing the guaranteed level of capacity release/off-system sales to \$7 million and**
13 **dropping the \$900,000 management fee that is paid to Avista Energy? This**
14 **alternative also includes changing the basin weightings every 6 months, on October 1**
15 **and April 1 of each year.**

16 A. With respect to Alternative 2, Mr. Parvinen proposes that Avista Energy
17 take on more risk with respect to capacity release/off-system sales, while at the same time
18 eliminating the \$900,000 management fee. By eliminating the \$900,000 fee, Mr. Parvinen
19 is discounting the costs associated with credit, currency, scheduling, etc. and replacing it
20 with "so called" benefits Avista Energy receives by managing the assets. These costs of
21 doing business, however are not outweighed by theoretical benefits related to managing the
22 assets of Avista Utilities, which as I explained earlier in my testimony are currently less
23 than 3% of Avista Energy's total gas business.

1 Also, Mr. Parvinen's calculation provides no analysis which supports how
2 transportation assets are valued in today's natural gas market. He relies on historic data that
3 may or may not be valid in the future. The value of transportation will be ultimately
4 dictated by market factors (weather, supply availability, power prices, legislation, etc.) that
5 are beyond Avista Energy's control. In fact, historically Avista Energy has stated that the
6 value they bring to the Mechanism is the liquidity to transact when opportunities arise
7 versus some ability to predict prices that ultimately set the value of transportation. Based
8 on our analysis and expertise, Alternative 2 is unacceptable.

9 **Q. Do you have any concerns with respect to changing the basin**
10 **weightings every six months as proposed in this Alternative?**

11 A. Yes. As I explained earlier in my testimony I am concerned that a change
12 mid-stream on the basin weightings will devalue the long term capacity releases, increase
13 reliability concerns and may create uncertainty, in order to capture value that is already
14 covered in other areas of the Mechanism. As I explained earlier the change in prices
15 between the supply basins will be captured either through "basin optimization" transactions
16 or the capacity release/off-system sales transactions based on the available transportation.
17 These transactions will capture the majority of the value that Staff is focusing on, while
18 preserving the value from long-term capacity releases discussed earlier, as well as
19 preserving reliability of supply. As Mr. Norwood stated in his testimony, the design of the
20 benchmark mechanism is well structured and thoughtfully developed. It has been refined
21 over time, based on experience and input from multiple state jurisdictions. It has aligned
22 Avista Energy's interests with those of Avista Utilities' customers such that Avista Energy
23 only benefits if Avista Utilities' customers benefit.

1 **Q. What is Avista Energy's response to Alternative 3, which calls**
2 **for the Utility to assign all transportation to Avista Energy and then have the Utility**
3 **pay for only the transportation it needs? This alternative also calls for the \$900,000**
4 **management fee to remain.**

5 A. Alternative 3 further increases Avista Energy's risk associated with capacity
6 release/off system sales, which is unacceptable even with the \$900,000 management fee.
7 Staff's Alternative 3 assumes that Avista Energy could recover 100% of the tariff rate
8 when the Utility does not require the transportation. Unfortunately, when the Utility does
9 not require the transportation, the Pacific Northwest has an oversupply of transportation.
10 Also, Mr. Parvinen fails to consider that, in order to provide that level of service, Avista
11 Energy would have to hold transportation available to meet the fluctuations in Avista
12 Utility's daily load, which can be substantial. This Alternative is simply unworkable given
13 today's market conditions.

14 **Q. Does that conclude your prepared rebuttal testimony?**

15 A. Yes it does.

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BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

DOCKET NO. UG-021584

EXHIBIT ____ (MED-4)

Capacity Releases - Month of June 2003

Washington/Idaho Releases	Contract	MMBtu	Rate	Basis	Volumetric	Volumes	
						Moved	Value
Page 1 of 2							
100010 release to IGI	110203	10,000	\$ 0.27760	100.00%	NO		(\$83,280.00)
100010	190203	2,841	\$ 0.27760	100.00%	NO		(\$23,659.85)
190203 contract for retained segment	100010	2,841	\$ 0.27760	100.00%	NO		\$23,659.85
190203 release to IPES	115151	2,841	\$ 0.27760	100.00%	NO		(\$23,659.85)
190203	195151	2,841	\$ 0.27760	100.00%	NO		(\$23,659.85)
195151 contract for retained segment	190203	2,841	\$ 0.27760	100.00%	NO		\$23,659.85
195151 release to Avista Energy	129240	2,841	\$ 0.27760	100.00%	NO		(\$23,659.85)
115161 contract for returned segment	115151	2,841	\$ 0.27760	100.00%	NO		\$23,659.85
100010	190204	7,159	\$ 0.27760	100.00%	NO		(\$59,620.15)
190204 contract for retained segment	100010	7,159	\$ 0.27760	100.00%	NO		\$59,620.15
190204 release to IPES	115152	7,159	\$ 0.27760	100.00%	NO		(\$59,620.15)
190204	195152	7,159	\$ 0.27760	100.00%	NO		(\$59,620.15)
195152 contract for retained segment	190204	7,159	\$ 0.27760	100.00%	NO		\$59,620.15
195152 release to Avista Energy	129239	6,709	\$ 0.27760	100.00%	NO		(\$55,872.55)
115163 contract for returned segment	115152	7,159	\$ 0.27760	100.00%	NO		\$59,620.15
115163 release to Duke	122642	7,000	\$ 0.13880	50.00%	NO		(\$29,148.00)
100010 release to GP Bell	110215	1,750	\$ 0.27760	100.00%	NO		(\$14,574.00)
100010	190215	1,750	\$ 0.27760	100.00%	NO		(\$14,574.00)
190215 contract for retained segment	100010	1,750	\$ 0.27760	100.00%	NO		\$14,574.00
100010 release to WA State - Eastern/Lakeland	124463	260	\$ 0.27760	100.00%	NO		(\$2,165.28)
100010 release to WA State - Eastern/Lakeland	124464	190	\$ 0.27760	100.00%	NO		(\$1,582.32)
100010 release to Washington Natural Gas	193649	8,056	\$ 0.27760	100.00%	NO		(\$67,090.37)
193649 contract for retained segment	100010	8,056	\$ 0.27760	100.00%	NO		\$67,090.37
114115 Tonasket swap	113922	8,056	\$ 0.22208	80.00%	NO		\$53,672.30
114115 release to Avista Energy	129259	8,056	\$ 0.27760	100.00%	NO		(\$67,090.37)
100010	113649	8,056	\$ 0.27760	100.00%	NO		(\$67,090.37)
100010 release to Duke/PanEnergy	113650	9,094	\$ 0.27760	100.00%	NO		(\$75,734.83)
113665 contract for retained segment	113650	9,094	\$ 0.27760	100.00%	NO		\$75,734.83
113665 release to Avista Energy	129237	9,094	\$ 0.27760	100.00%	NO		(\$75,734.83)
100010	193650	9,094	\$ 0.27760	100.00%	NO		(\$75,734.83)
193650 contract for retained segment	100010	9,094	\$ 0.27760	100.00%	NO		\$75,734.83
100010	193651	4,594	\$ 0.27760	100.00%	NO		(\$38,258.83)
193651 contract for retained segment	100010	4,594	\$ 0.27760	100.00%	NO		\$38,258.83
100010	193652	4,500	\$ 0.27760	100.00%	NO		(\$37,476.00)
193652 contract for retained segment	100010	4,500	\$ 0.27760	100.00%	NO		\$37,476.00
100010 release to Duke/PanEnergy	113651	15,850	\$ 0.27760	100.00%	NO		(\$131,998.80)
113664 contract for returned segment	113651	15,850	\$ 0.27760	100.00%	NO		\$131,998.80
113664 release to Avista Energy	129236	11,300	\$ 0.27760	100.00%	NO		(\$94,106.40)
100010	193653	15,850	\$ 0.27760	100.00%	NO		(\$131,998.80)
193653 contract for retained segment	100010	15,850	\$ 0.27760	100.00%	NO		\$131,998.80
100010	193654	200	\$ 0.27760	100.00%	NO		(\$1,665.60)
193654 contract for retained segment	100010	200	\$ 0.27760	100.00%	NO		\$1,665.60
100010	193655	61	\$ 0.27760	100.00%	NO		(\$508.01)
193655 contract for retained segment	100010	61	\$ 0.27760	100.00%	NO		\$508.01
100010	193656	1,226	\$ 0.27760	100.00%	NO		(\$10,210.13)
193656 contract for retained segment	100010	1,226	\$ 0.27760	100.00%	NO		\$10,210.13
100010	193657	7,400	\$ 0.27760	100.00%	NO		(\$61,627.20)
193657 contract for retained segment	100010	7,400	\$ 0.27760	100.00%	NO		\$61,627.20
193657 release to IPES	115154	4,000	\$ 0.27760	100.00%	NO		(\$33,312.00)
115165 contract for returned segment	115154	4,000	\$ 0.27760	100.00%	NO		\$33,312.00
193657	195154	4,000	\$ 0.27760	100.00%	NO		(\$33,312.00)
195154 contract for retained segment	193657	4,000	\$ 0.27760	100.00%	NO		\$33,312.00
100010	193658	305	\$ 0.27760	100.00%	NO		(\$2,540.04)
193658 contract for retained segment	100010	305	\$ 0.27760	100.00%	NO		\$2,540.04
100010	193659	68	\$ 0.27760	100.00%	NO		(\$566.30)
193659 contract for retained segment	100010	68	\$ 0.27760	100.00%	NO		\$566.30
100010	193660	6,000	\$ 0.27760	100.00%	NO		(\$49,968.00)
193660 contract for retained segment	100010	6,000	\$ 0.27760	100.00%	NO		\$49,968.00
115166 contract for returned segment	115156	6,000	\$ 0.27760	100.00%	NO		\$49,968.00
115166 release to Duke	130122	-3,000	\$ 0.15268	100.00%	NO		(\$13,741.20)
193660 release to IPES	115156	6,000	\$ 0.27760	100.00%	NO		(\$49,968.00)
193660	195156	1,500	\$ 0.27760	100.00%	NO		(\$12,492.00)

Exhibit (MED-4)
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Capacity Releases - Month of June 2003

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Washington/Idaho Releases	Contract	MMBtu	Rate	Basis	Volumetric	Volumes Moved	Value
195156 contract for retained segment	193660	1,500	\$ 0.27760	100.00%	NO		\$12,492.00
193660	195157	500	\$ 0.27760	100.00%	NO		(\$4,164.00)
195157 contract for retained segment	193660	500	\$ 0.27760	100.00%	NO		\$4,164.00
193660	195158	4,000	\$ 0.27760	100.00%	NO		(\$33,312.00)
195158 contract for retained segment	193660	4,000	\$ 0.27760	100.00%	NO		\$33,312.00
100010	193661	590	\$ 0.27760	100.00%	NO		(\$4,913.52)
193661 contract for retained segment	100010	590	\$ 0.27760	100.00%	NO		\$4,913.52
100010 release to IGI	129036	300	\$ 0.27760	100.00%	NO		(\$2,498.40)
100010 release to Avista Energy	129035	4,536	\$ 0.27760	100.00%	NO		(\$37,775.81)
129042 contract for retained segment	129035	4,536	\$ 0.27760	100.00%	NO		\$37,775.81
100010 release to Potlatch	124372	4,000	\$ 0.27760	100.00%	NO		(\$33,312.00)
100010 release to Potlatch	124373	1,040	\$ 0.27760	100.00%	NO		(\$8,661.12)
100010 release to Potlatch	124374	2,900	\$ 0.27760	100.00%	NO		(\$24,151.20)
100010 release to Potlatch	124375	4,060	\$ 0.27760	100.00%	NO		(\$33,811.68)
100164 release to Avista Energy	129043	2,764	\$ 0.27760	100.00%	NO		(\$23,018.59)
129079 contract for retained segment	129043	2,764	\$ 0.27760	100.00%	NO		\$23,018.59
129042	130287	84	\$ 0.27760	100.00%	NO		(\$699.55)
129079	130286	116	\$ 0.27760	100.00%	NO		(\$966.05)
Total WA/ID NWP releases							(\$578,472.86)
Washington/Idaho PGT Releases:							
F-00177 release to IGI	C-08504	1,000		100.00%	Yes	19,010	(\$1,480.67)
F-02591 release to Duke	C-08503	1,650		100.00%	Yes	14,340	(\$1,012.76)
Washington/Idaho Nova Releases:							
None							
Washington/Idaho ANG Releases:							
None							
Total Washington/Idaho releases							(\$580,966.29)
Washington's Share							(\$427,707.38)
Idaho's Share							(\$153,258.91)

Exhibit (MED-4)
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Use of Washington/Idaho Transportation on Nova, ANG, PGT

http://www.pge-nw.com/info_post/

PGT Fuel Rate Starfield to Starr Road 0.00490332

PQT Fuel Rate to Sandpoint: 0.001719 4.0025%

PGT Fuel Rate to Rathdrum: 0.002832 0.0029%

PGT Fuel Rate to Start Rd: 0.003140 0.0029%

P/GT Fuel Rate to Standfield:	0.000044	0.0029%
AMG Fuel Rate A/B to King:	0.000000	0.0000%

PLEASE PRINT NAME AND ADDRESS
U.S. POSTAGE

Delivery Points & Volumes

[illegible]

Total PGT Delivered Volumes and Values:			
AECO-Stan Deliveries	\$ 387,314.63	83,351	
Stanfield Deliveries	\$ 522,972.12	110,063	
Total	\$ 910,286.75	193,414	Dth

ANG Variable Transportation Charge: Washington/Idaho

Based on Volume delivered at Kingsgate	Volume	Cost
ANG Interruptible Transportation	-	\$ -
Volumes priced at Daily Index	38,369	\$ 110.58
Volumes priced at Monthly Index	-	\$ -
Total		\$ 110.58

1.3523

0.739480884

ANG Variable Cost/Dth	\$
0.00288192	

$$0.739480884*((0.00002408778*170.7)+0.000)/1.055056$$
[illegible]WAMID Nova, ANG, PGT Volumes - Page 1 of 2
Agency Off-System June 03.xls WAXID PGT June 03

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Calculation of Off-System Sales Margins

Month of June 2003

Use of Washington/Idaho Transportation on Nova, ANG, PGT

Date	Starfield Delivered Value	Use of Washington/Melro Transportation on PGT Daily Pricing Receipt Points and Value										AECO Receipt Value	Standard or AECO Stan Delivery				Total Volume at PGT Fuel				AECO Receipt Value
		AECO Receipt Points King/Stan Daily	AECO Receipt Points Stan Delivery	Total PGT Fuel	NOVA AECO-Gas Daily	AECO Receipt Value	AECO Stan Delivery Receipt Points	Start Road Receipts	Start Road Receipts	Total PGT Fuel	Total Volume at Start		Start Gas	Start Value	Kingsgate Receipts Stan Daily	Kingsgate Receipts AECO Stan Daily	Total PGT Fuel	Volumes at Kingsgate	AECO Gas Daily		
1	-	-	-	-	5,157	\$	-	-	-	-	5,135	\$	-	-	-	-	-	5,080	\$		
2	-	-	-	-	5,157	\$	-	-	-	-	5,135	\$	-	-	-	-	-	5,080	\$		
3	48,338.35	-	-	-	5,316	\$	-	-	-	-	5,368	\$	-	-	-	72	9,007	5,325	\$		
4	64.32	-	-	-	5,356	\$	-	-	-	-	5,333	\$	-	-	0	-	12	5,305	\$		
5	-	-	-	-	5,550	\$	-	-	-	-	5,445	\$	-	-	-	-	-	5,400	\$		
6	-	-	-	-	5,326	\$	-	-	-	-	5,220	\$	-	-	-	-	-	5,185	\$		
7	-	-	-	-	5,435	\$	-	-	-	-	5,188	\$	-	-	-	-	-	5,155	\$		
8	-	-	-	-	5,435	\$	-	-	-	-	5,188	\$	-	-	-	-	-	5,155	\$		
9	-	-	-	-	5,435	\$	-	-	-	-	5,188	\$	-	-	-	-	-	5,155	\$		
10	-	-	-	-	5,344	\$	-	-	-	-	5,185	\$	-	-	-	-	-	5,140	\$		
11	-	-	-	-	5,245	\$	-	-	-	-	5,178	\$	-	-	-	-	-	5,135	\$		
12	-	-	-	-	5,257	\$	-	-	-	-	5,120	\$	-	-	-	-	-	5,085	\$		
13	50,360.00	-	80	60	5,092	\$	10,000	5,092	51,633.06	5,005	5,005	\$	-	-	-	-	-	4,975	\$		
14	-	-	-	-	4,594	\$	-	-	-	4,425	4,425	\$	-	-	-	-	-	4,405	\$		
15	-	-	-	-	4,584	\$	-	-	-	4,425	4,425	\$	-	-	-	-	-	4,405	\$		
16	-	-	-	-	4,584	\$	-	-	-	4,425	4,425	\$	-	-	-	-	-	4,405	\$		
17	19,843.47	-	35	26	4,617	\$	4,366	4,617	20,439.98	4,480	4,480	\$	-	-	-	-	-	4,415	\$		
18	6,710.98	-	-	-	4,804	\$	-	-	-	4,783	4,783	\$	34,904.33	-	-	11	1,399	4,730	\$		
19	39,480.00	-	8	6	4,705	\$	1,000	4,705	4,771.36	4,793	4,793	\$	-	-	-	-	-	4,785	\$		
20	3,965.62	-	7	5	4,679	\$	842	4,679	3,995.28	4,678	4,678	\$	-	-	-	-	-	4,645	\$		
21	-	-	-	-	4,816	\$	-	-	-	4,778	4,778	\$	-	-	-	-	-	4,725	\$		
22	-	-	-	-	4,816	\$	-	-	-	4,778	4,778	\$	-	-	-	-	-	4,725	\$		
23	-	-	-	-	4,816	\$	-	-	-	4,778	4,778	\$	-	-	-	-	-	4,725	\$		
24	-	-	-	-	4,950	\$	-	-	-	4,988	4,988	\$	-	-	-	-	-	4,960	\$		
25	10,030.00	-	-	-	4,950	\$	-	-	-	4,988	4,988	\$	-	-	-	-	-	4,960	\$		
26	30,000.00	-	-	-	4,844	\$	-	-	-	4,940	4,940	\$	-	-	-	-	-	4,900	\$		
27	43,239.00	-	31	59	4,730	\$	9,800	4,730	46,779.90	4,936	4,936	\$	-	-	18	2,016	4,880	4,880	\$		
28	89,213.61	-	50	73	4,505	\$	9,650	4,505	55,287.72	4,608	4,608	\$	-	-	48	6,048	4,580	4,580	\$		
29	90,668.19	-	-	-	4,505	\$	-	-	-	4,508	4,508	\$	-	-	174	20,654	4,470	4,470	\$		
30	90,668.19	-	-	-	4,505	\$	-	-	-	4,508	4,508	\$	-	-	161	20,154	4,470	4,470	\$		
31	-	-	-	-	5,015	\$	-	-	-	5,015	5,015	\$	-	-	234	43,578	4,470	4,470	\$		
31	-	-	-	-	5,015	\$	-	-	-	5,015	5,015	\$	-	-	234	43,578	4,470	4,470	\$		
Total	\$ 522,972.12	19,450	18,707	212	\$ 4,972	\$ 38,698	230	\$ 182,907.29	\$ 1,307,904.33	7,225	58	7,283	\$ 4,917	-	7,225	58	7,283	\$ 4,878	\$ 885,433.77		

Total Received Volumes and Values:	
Starr Road	\$ 34,904.38 7,283
Stanfield	\$ - -
AECO Receipt	\$ 182,907.25 38,598
Kingsgate	\$ 688,433.77 149,892 Dth
Total	\$ 906,245.39 194,775
Total PGT Variable Transportation Cost	\$ 1,294.49

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Month of June 2003

NWP Transportation

Delivery Points & Volumes - Page 1 of 1

Aggregated Training statistics on Northwest Pipeline										
Intra & Volatilities		Senses		Sights		Sights		Senses		
One Daily One Daily One Daily		One Daily One Daily		One Daily One Daily		One Daily One Daily		One Daily One Daily		
Average		Average		Average		Average		Average		
100010 100010		100010 100010		100010 100010		100010 100010		100010 100010		
1	\$ 4,910	\$ 5,190	\$ 5,050						\$ 4,910	\$ -
2	\$ 4,910	\$ 5,190	\$ 5,050						\$ 5,050	\$ -
3	\$ 5,060	\$ 5,410	\$ 5,260						\$ -	\$ -
4	\$ 5,065	\$ 5,390	\$ 5,205						\$ -	\$ -
5	\$ 5,195	\$ 5,490	\$ 5,345						\$ 5,125	\$ -
6	\$ 5,000	\$ 5,295	\$ 5,150	1,100	4,500	5,600	\$ 5,000	\$ 22,000.00	\$ 5,000	\$ 22,000.00
7	\$ 5,000	\$ 5,290	\$ 5,110	1,100	4,500	5,600	\$ 5,000	\$ 20,000.00	\$ 5,000	\$ 20,000.00
8	\$ 5,000	\$ 5,290	\$ 5,110	1,100	4,500	5,600	\$ 5,000	\$ 20,000.00	\$ 5,000	\$ 20,000.00
9	\$ 5,000	\$ 5,290	\$ 5,110	1,100	4,500	5,600	\$ 5,000	\$ 27,000.00	\$ 5,000	\$ 27,000.00
10	\$ 4,995	\$ 5,290	\$ 5,095	1,100	4,500	5,600	\$ 5,000	\$ 20,160.00	\$ 5,000	\$ 20,160.00
11	\$ 5,000	\$ 5,290	\$ 5,125	1,100	4,500	5,600	\$ 5,000	\$ 27,720.00	\$ 5,000	\$ 27,720.00
12	\$ 4,990	\$ 5,195	\$ 5,050					\$ 100	\$ 5,000	\$ 24,940.00
13	\$ 4,990	\$ 5,095	\$ 4,915	5,000	5,000	5,000	\$ 5,000	\$ 20,960.00	\$ 5,000	\$ 20,960.00
14	\$ 4,990	\$ 4,945	\$ 4,995	5,000	5,000	5,000	\$ 5,000	\$ 21,428.00	\$ 5,000	\$ 21,428.00
15	\$ 4,990	\$ 4,945	\$ 4,995	5,000	5,000	5,000	\$ 5,000	\$ 20,160.00	\$ 5,000	\$ 20,160.00
16	\$ 4,990	\$ 4,945	\$ 4,995	5,000	5,000	5,000	\$ 5,000	\$ 20,160.00	\$ 5,000	\$ 20,160.00
17	\$ 4,995	\$ 4,945	\$ 4,915	5,000	5,000	5,000	\$ 5,000	\$ 20,160.00	\$ 5,000	\$ 20,160.00
18	\$ 4,990	\$ 4,895	\$ 4,795	5,000	5,000	5,000	\$ 5,000	\$ 20,160.00	\$ 5,000	\$ 20,160.00
19	\$ 4,940	\$ 4,790	\$ 4,720	811	9,224	994	4,990	\$ 4,505	\$ 22,520.00	\$ 22,520.00
20	\$ 4,905	\$ 4,710	\$ 4,600	2,211	2,759		5,000	\$ 4,500	\$ 20,160.00	\$ 20,160.00
21	\$ 4,990	\$ 4,890	\$ 4,790	2,211	1,935	1,493	4,990	\$ 4,500	\$ 20,160.00	\$ 20,160.00
22	\$ 4,990	\$ 4,890	\$ 4,790	2,211	2,759		5,000	\$ 4,500	\$ 20,160.00	\$ 20,160.00
23	\$ 4,990	\$ 4,890	\$ 4,790	2,211	2,759		5,000	\$ 4,500	\$ 20,160.00	\$ 20,160.00
24	\$ 4,990	\$ 5,015	\$ 4,915	2,211	2,759		5,000	\$ 4,505	\$ 20,794.50	\$ 20,794.50
25	\$ 4,910	\$ 5,015	\$ 4,915	2,112	3,183		5,000	\$ 4,505	\$ 20,794.50	\$ 20,794.50
26	\$ 4,995	\$ 5,000	\$ 4,905	2,712	2,993		5,000	\$ 4,500	\$ 22,960.00	\$ 22,960.00
27	\$ 4,995	\$ 4,970	\$ 4,918	2,712	2,993		5,000	\$ 4,500	\$ 22,960.00	\$ 22,960.00
28	\$ 4,990	\$ 4,945	\$ 4,923	2,211	2,768		5,000	\$ 4,500	\$ 22,960.00	\$ 22,960.00
29	\$ 4,990	\$ 4,945	\$ 4,923	2,211	2,768		5,000	\$ 4,500	\$ 22,960.00	\$ 22,960.00
30	\$ 4,720	\$ 4,545	\$ 4,520	2,211	2,768		5,000	\$ 4,720	\$ 20,800.00	\$ 20,800.00
31	\$ 4,720	\$ 4,590	\$ 4,900					\$ -	\$ -	\$ -
\$ 4,578		\$ 5,121	\$ 5,000	96,647	2,427	####	136,196	\$ 4,545	\$	\$ 635,540.87

[illegible]

[illegible]

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BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

DOCKET NO. UG-021584

EXHIBIT ____ (MED-5)

EXHIBIT ____ (MED-5)**2002 Avista Energy Weighted Average Transaction Price vs. Gas Daily****Summary Description:**

An analysis of all Avista Energy's 2002 purchases and sales transactions (and combined total) is shown below by basin. These transactions equated to 9,944 total day trades during 2002.

(1) The Average lines listed below for each total (Purchases, Sales, and Total Transactions) designates the difference between Avista Energy's average transaction price compared to the public Gas Daily Index price for all transactions in each section by basin. For example, the difference during 2002 between Avista Energy's total transaction price and the Gas Daily index price at the SUMAS basin was (\$0.001).

(2) The Standard Deviation is a measure of how widely values are dispersed from the average value. For example, the Standard Deviation for all transactions at Sumas is \$0.032. Indicating that most transactions fall within plus or minus \$0.032 of the average.

Total Transactions

	ROCKIES	KINGS	MALIN	STAN	SUMAS	
Average	\$ 0.004	\$ (0.013)	\$ 0.006	\$ 0.004	\$ (0.001)	(1)
Stdev	\$ 0.075	\$ 0.093	\$ 0.019	\$ 0.026	\$ 0.032	(2)

Purchase Transactions

	ROCKIES	KINGS	MALIN	STAN	SUMAS
Average	\$ 0.008	\$ 0.002	\$ (0.002)	\$ 0.009	\$ 0.001
Stdev	\$ 0.087	\$ 0.009	\$ 0.013	\$ 0.049	\$ 0.038

Sales Transactions

	KERN	KINGS	MALIN	NWSTA	SUMAS
Average	\$ 0.001	\$ (0.017)	\$ 0.009	\$ 0.003	\$ (0.002)
Stdev	\$ 0.081	\$ 0.081	\$ 0.081	\$ 0.081	\$ 0.081