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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)	CASE NO. AVU-G-15-01
OF AVISTA CORPORATION FOR THE)	
AUTHORITY TO INCREASE ITS RATES)	
AND CHARGES FOR ELECTRIC AND)	
NATURAL GAS SERVICE TO ELECTRIC)	DIRECT TESTIMONY
AND NATURAL GAS CUSTOMERS IN THE)	OF
STATE OF IDAHO)	JODY MOREHOUSE
)	

FOR AVISTA CORPORATION

(NATURAL GAS ONLY)

1 I. INTRODUCTION

2 Q. Please state your name, business address, and
3 present position with Avista Corp.

4 A. My name is Jody Morehouse and I am employed as
5 Director of Gas Supply for Avista Utilities (Avista or
6 Company). In my current role I am responsible for
7 Avista's natural gas supply and upstream pipeline
8 transportation resources. My business address is 1411
9 East Mission Avenue, Spokane, Washington.

10 Q. Would you please describe your education and
11 business experience?

12 A. Yes. I graduated from Montana State University
13 with a Bachelor of Science Degree in Mechanical
14 Engineering and hold a professional engineering license in
15 the State of Washington. I joined the Company in 1989 and
16 have held staff and management positions in our natural
17 gas engineering, natural gas operations, natural gas
18 planning, and natural gas measurement departments.
19 Additionally, I held the position of Manager of Pipeline
20 Integrity and Compliance prior to my current role.

21 Q. What is the purpose of your testimony in this
22 proceeding?

23 A. The purpose of my testimony is to describe
24 Avista's natural gas resource planning process, provide an

1 overview of the Jackson Prairie storage facility, and
2 provide an update on the Company's 2014 Natural Gas
3 Integrated Resource Plan. A table of contents for my
4 testimony is as follows:

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10

11 **Q. Are you sponsoring an exhibit in this**
12 **proceeding?**

13 A. Yes. I am sponsoring Exhibit No. 7, Schedule 1,
14 which is a copy of the Company's 2014 Natural Gas
15 Integrated Resource Plan acknowledged by this Commission
16 on December 22, 2014.

17 **Q. Is the Company proposing any changes to the cost**
18 **of natural gas for its retail natural gas customers in**
19 **this case?**

20 A. No, Avista is not proposing changes in this
21 filing related to the commodity cost of natural gas or
22 upstream pipeline transportation resource costs. Changes
23 in the commodity cost of natural gas, and the cost of
24 natural gas pipeline transportation included in customers'
25 rates are addressed in the Company's annual Purchased Gas

1 Cost Adjustment (PGA) filing. The Company filed its
2 annual PGA on September 12, 2014, with new rates effective
3 November 1, 2014.

4

5 **II. PLANNING FOR COMMODITY RESOURCE PROCUREMENT**

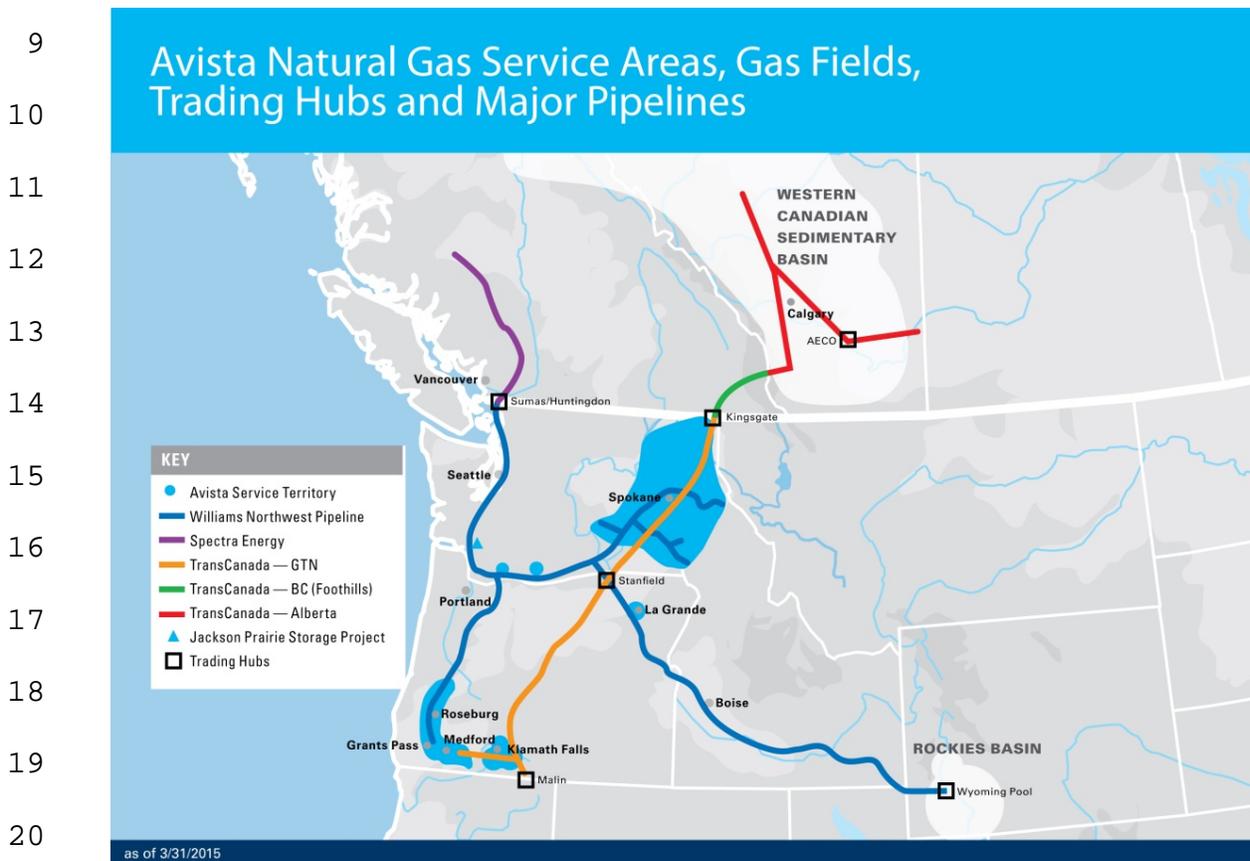
6 **Q. Please describe Avista's natural gas portfolio**
7 **as it relates to the procurement of the natural gas**
8 **commodity for its local distribution company ("LDC")**
9 **customers?**

10 A. Avista purchases natural gas for its
11 distribution customers in wholesale markets at multiple
12 supply basins in the western United States and western
13 Canada. Purchased natural gas can be transported through
14 six connected pipelines on which Avista holds firm
15 contractual transportation rights. These contracts
16 provide access to both US and Canadian-sourced supply.
17 The US-sourced gas represents 25% of the contractual
18 rights and provides transportation from the Rocky
19 Mountains. The remaining 75% provides access to Alberta
20 and British Columbia supply basins. This diverse
21 portfolio of natural gas resources allows the Company to
22 make natural gas procurement decisions based on the
23 reliability and economics that provide the most benefit to
24 our customers. As natural gas prices in the Pacific

1 Northwest can be affected by global energy markets, as
2 well as supply and demand factors in other regions of the
3 United States and Canada, future prices and delivery
4 constraints may cause the source mix to vary.

5 Illustration No. 1 below is a map showing our service
6 territory, natural gas trading hubs, interstate pipelines,
7 and natural gas storage facilities:

8 **Illustration No. 1**



21 Future natural gas prices cannot be accurately
22 predicted. Market conditions, analysis, and experience
23 shape our overall procurement approach. The Company's
24 goal is to provide reliable supply at competitive prices,

1 with some level of price certainty, in a volatile
2 commodity market. To that end, the Company utilizes a
3 Procurement Plan which includes hedging (on both a short-
4 term and long-term basis), storage utilization, and index
5 purchases. This approach is diversified by transaction
6 time, term, counterparty, and supply basin. The
7 Procurement Plan is disciplined, yet flexible, and layers
8 in fixed-price purchases over time and term to provide a
9 level of price certainty to customers. A copy of the
10 Company's Natural Gas Procurement Plan is included as
11 Company witness Mr. Kinney's Exhibit No. 4, Confidential
12 Schedule 3C, Avista's Energy Resources Risk Policy.

13 The Procurement Plan provides a process for the
14 upcoming or "prompt" year that fixes future gas prices for
15 a targeted portion of the portfolio through the use of
16 hedge windows. The hedge windows are "open" for a
17 predetermined time period and have upper and lower pricing
18 levels which are determined by the market at the time the
19 window becomes effective. In a rising market, this
20 reduces exposure to extreme price spikes. In a declining
21 market, it can facilitate locking in lower prices. These
22 windows can be executed, or "closed" if certain pricing
23 levels are met, or upon time expiration if no pricing
24 events occur. The Company always maintains some level of

1 discretion and may choose not to execute within a window
2 or to change some aspect of a window given market
3 conditions.

4 In addition, a portion of the portfolio that is
5 separate from the defined hedge windows is designated as
6 discretionary. This opportunistic portion of the
7 portfolio allows the Company to hedge additional volumes
8 in gas years beyond the prompt year at targeted pricing
9 levels. In the event those pricing levels are not
10 reached, the unexecuted volumes designated as
11 discretionary hedges will then become part of the prompt
12 year hedging program.

13 The Gas Supply Department continuously monitors the
14 results of the Procurement Plan, evolving market
15 conditions, variation in demand profiles, new supply
16 opportunities, and regulatory conditions. Although
17 various windows and targets are established in the initial
18 design phase of the portfolio, the plan provides
19 flexibility to exercise judgment to revise and/or adjust
20 the Procurement Plan in response to changing conditions.
21 Material changes to the Procurement Plan are communicated
22 to Avista's Senior Management and periodically to
23 Commission Staff.

1 **Q. What delivery period does the natural gas**
2 **Procurement Plan include?**

3 A. The Procurement Plan includes four complete
4 natural gas operating years (November through October) and
5 whole months remaining from the current month until the
6 next October 31 period (the current natural gas operating
7 year). The four complete upcoming natural gas operating
8 years are designated "Prompt", "Second", "Third", and
9 "Fourth" years.

10 **Q. Please describe the components of the natural**
11 **gas Procurement Plan.**

12 A. Each year a review of the previous year's plan
13 is performed. The review includes analysis of historical
14 and forecasted market trends, fundamental market analysis,
15 demand forecasting, and transportation, storage and other
16 resource considerations. The plan includes the following
17 components:

18 1. **Previous Year(s) Hedges** - longer-term fixed-
19 price purchases executed as a part of a previous
20 year's Procurement Plan.

21 2. **Prompt Year Hedges** - the portion of the
22 portfolio addressed through the utilization of
23 hedge windows. In each window, fixed price
24 purchases are made for various prompt year

1 delivery periods (i.e., November to March winter
2 purchase, April to October summer purchase, or
3 individual months). Prior to the execution of
4 each window, market conditions, fundamental
5 market knowledge, and other information are
6 considered to determine if execution will occur.

7 3. **Storage Withdrawals** - utilizing the capacity and
8 deliverability from the Jackson Prairie natural
9 gas storage facility, Avista is able to, among
10 other transactions, inject natural gas during
11 the summer months and withdraw it to serve
12 customers during the higher demand winter
13 months.

14 4. **Discretionary Long-term Hedges** - opportunistic
15 purchases based on a set of price levels, or
16 targets, which trigger possible execution. At
17 the time the triggers are reached, evaluation of
18 market conditions, fundamental market knowledge,
19 and other information are considered. These
20 hedges will generally be executed when they can
21 be done at or below the established targets.

22 5. **Index Purchases** - physical index-based natural
23 gas purchases are procured prior to or
24 throughout the delivery month. These purchases

1 are usually associated with daily pricing. The
2 amount of index purchases planned is the
3 difference between the forecasted demand less
4 the sum of the previous year hedges, prompt year
5 hedges, and storage withdrawals.

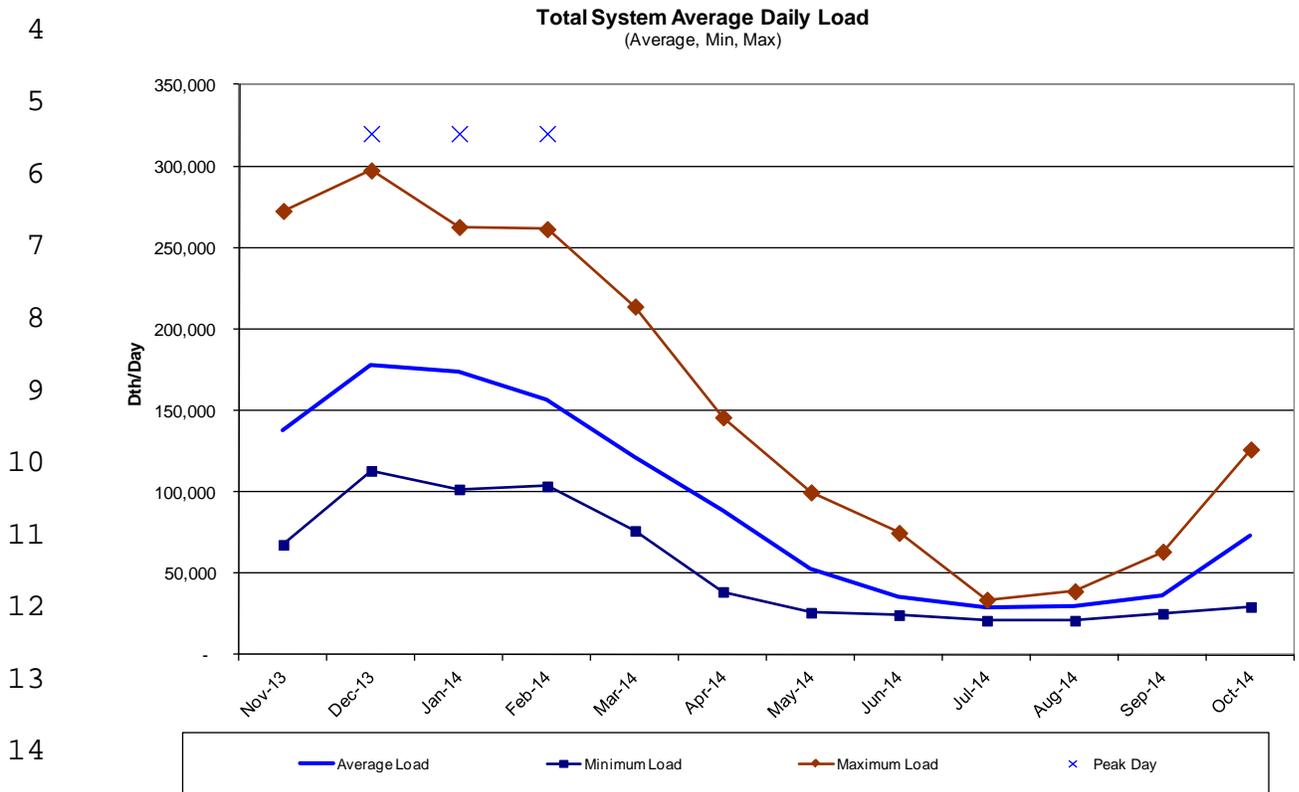
6 **Q. Please describe how the Procurement Plan manages**
7 **supply to meet the volatility in customer demand, as well**
8 **as manages the impact to customers from volatility in**
9 **market prices.**

10 A. The Procurement Plan focuses on managing the
11 costs associated with serving varying retail load from a
12 wholesale market with price volatility. For example,
13 system-wide average daily demand can fluctuate between
14 27,000 dekatherms (Dth) per day during a summer month and
15 180,000 Dth/day during a winter month. Further,
16 December's system-wide daily demand volatility has ranged
17 from a low of 99,000 Dth/day to a high of 300,000 Dth/Day.
18 Finally, from Avista's 2014 IRP, system-wide peak day
19 demand for the 2015-2016 heating season is forecasted to
20 be approximately 339,000 Dth per day.

21 In order to manage these seasonal, monthly and daily
22 volume swings, Avista shapes the components of the
23 Procurement Plan by month (i.e. more natural gas is hedged
24 for the winter months than for the summer). Illustration

1 No. 2 below includes a chart that shows the demand
2 volatility:

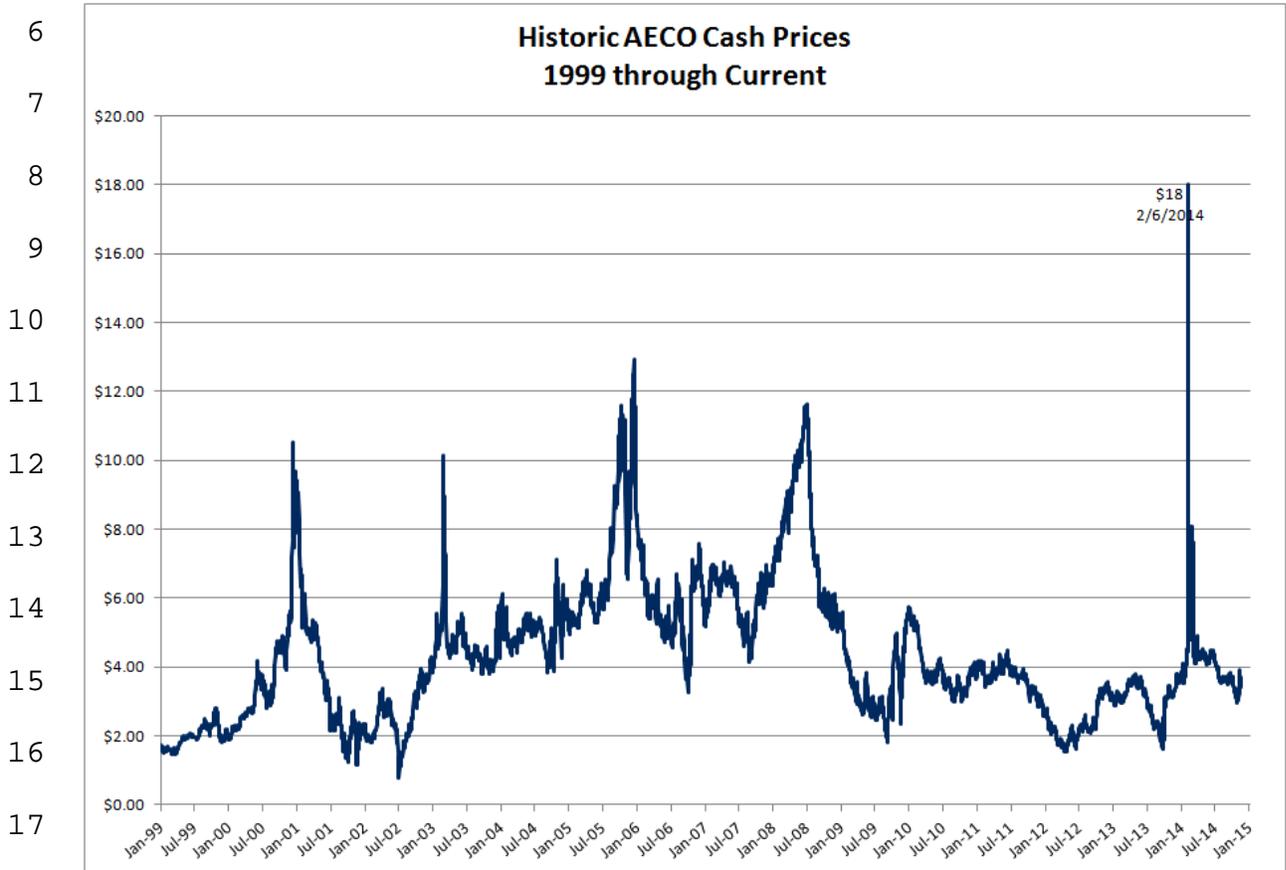
3 **Illustration No. 2**



16 Price volatility can also vary widely by season,
17 month and day. Illustration No. 3 below includes a chart
18 depicting the natural gas price volatility over time.
19 Avista cannot predict with accuracy what natural gas
20 prices may be. Our experience related to market
21 fundamentals guide our procurement decisions. By layering
22 in fixed-price purchases over time, setting upper and
23 lower pricing levels on the hedge windows,
24 opportunistically hedging at pricing levels through the

1 discretionary hedge program, and actively managing storage
2 resources, Avista is able to meet our goal of providing a
3 meaningful measure of price stability and certainty, and
4 competitive prices for our customers.

5 **Illustration No. 3**



18

19 **III. JACKSON PRAIRIE STORAGE**

20 **Q. Please describe Avista's involvement with the**
21 **Jackson Prairie natural gas storage facility.**

22 A. Avista is one of the three original developers
23 of the underground storage facility at Jackson Prairie,
24 which is located near Chehalis, Washington. Although

1 there have been corporate changes due to mergers,
2 acquisitions and name changes, Avista, Puget Sound Energy
3 and Williams Northwest Pipeline each hold a one-third
4 share (equal, undivided interest) of this underground gas
5 storage facility through a joint ownership agreement.
6 Puget Sound Energy is the operator of the facility.

7 **Q. What type of storage facility is Jackson**
8 **Prairie?**

9 A. Jackson Prairie is an underground aquifer
10 storage facility. Storage and the associated withdrawal
11 and injection capability has been created by a combination
12 of wells, gathering pipelines, compression and dehydration
13 equipment, and the removal and disposal of aquifer water.

14 **Q. Please describe the present level of storage**
15 **that Avista owns at Jackson Prairie.**

16 A. At the present time, Avista Utilities owns a
17 total of 8,528,013 dekatherms (Dth) of capacity. This
18 capacity comes with a withdrawal capability of 398,667 Dth
19 per day (deliverability). Washington/Idaho's current
20 share of that capacity is 7,704,676 Dth and 346,667 Dth
21 per day of deliverability. The remaining amount is
22 allocated to our customers in the Oregon jurisdiction.

23 **Q. What are the benefits of storage to Avista's**
24 **customers?**

1 A. Access to regionally located storage provides
2 several benefits to Avista's customers. It enables the
3 Company to capture seasonal price spreads (differentials)
4 between summer and winter, improves reliability of supply,
5 increases operational flexibility, mitigates peak demand
6 price spikes, and provides numerous other economic
7 benefits.

8

9 **IV. 2014 NATURAL GAS INTEGRATED RESOURCE PLAN**

10 **Q. Please provide an overview of the Company's**
11 **development of its 2014 Natural Gas Integrated Resource**
12 **Plan.**

13 A. The 2014 Integrated Resource Plan ("IRP") was
14 filed with the Commission on August 29, 2014. The IRP
15 includes forecasts of natural gas demand and any supply-
16 side transportation resources and demand-side measures
17 needed for the coming 20 years, which will help Avista
18 continue to reliably provide natural gas to our customers.
19 A copy of the Company's 2014 Natural Gas Integrated
20 Resource Plan is included as Exhibit No. 7, Schedule 1.

21 **Q. What are the summary highlights from the 2014**
22 **IRP?**

23 A. Highlights from the 2014 IRP are as follows:

24 • The Company has sufficient natural gas

1 transportation resources well into the future
2 with resource needs not occurring during the 20
3 year planning horizon in Idaho, Washington, or
4 Oregon;

- 5
- 6 • Natural Gas commodity prices continue to be
7 relatively stable due to robust North American
8 supplies led by shale gas development; and
9
 - 10 • As forecasted demand is relatively flat, the
11 Company will monitor actual demand for signs of
12 increased growth which could accelerate resource
13 requirements.

14 **Q. Has the Company's 2014 Natural Gas IRP been**
15 **acknowledged by this Commission?**

16 A. Yes, on December 22, 2014 the Commission
17 acknowledged the 2014 Natural Gas IRP (Case No. AVU-G-14-
18 03, Order No. 33196), finding that the IRP complies with
19 requirements of Order Nos. 25342, 27024, 27098, and 32698.

20 **Q. When will the Company file its next IRP?**

21 A. The Company will file its next IRP on or before
22 August 31, 2016. A courtesy work plan will be filed on
23 August 31, 2015 detailing Avista's IRP planning process as
24 well as tentative dates and content for meetings with the
25 Technical Advisory Group (TAC). TAC meetings will begin
26 in the first quarter of 2016.

27 **Q. Does this complete your pre-filed direct**
28 **testimony?**

29 A. Yes, it does.