

AVISTA UTILITIES

2018 Washington Natural Gas Hedge Report

Exhibit A – Independent Evaluator Report

Independent Evaluation of the Avista Risk Management and Hedging Program

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Introduction

Kenneth Skinner, Ph.D. and Dr. Eric Woychik of Willdan Corporation (Consultants) were engaged by Avista Corporation (Company) to review specific company policies and algorithms, to understand the execution of hedges, hedge policy and the outcomes produced, in response to current regulatory rulings and guidance. Specifically, Avista seeks an independent assessment regarding how the Company meets or accedes regulatory guidance. This report summarizes the results of this assessment.

It is our view that Avista is active in improving its hedging program in response to stakeholder comments and Commission rulings and is compliant in its Risk-Responsive Hedging program. Both increased price risk and hedge loss risk are addressed in the Avista hedging program. After having examined the Avista program, it is our opinion that Avista is pursuing best practice, hedging in accordance with industry norms, and has a hedging plan which incorporates both programmatic and risk responsive hedge techniques in accordance with guidance provided by the Washington Utilities and Transportation Commission.¹

Decision in Commission Docket UG-132019

The Commission in its decision in Docket UG-132019 states that it is evident that, at any given moment, some level of hedging is justified, and the level of hedging is informed largely by an assessment of market volatility.² Avista's current hedging activities include assessing market volatility through the use of VaR metrics, stop-loss (for upward price spikes), trigger bands (for significant downward price movements), effectively tying hedges to market volatility. Avista has developed a plan which incorporates risk responsive hedge metrics into the overall procurement strategy in accordance with guidance provided by the WUTC. These strategies are continuously reviewed for further refinements in an effort to develop hedge loss risk metrics and systems which best accomplish the Procurement Plan goal while pursuing least-cost.

STATEMENT OF COMMISSION POLICY Commission Docket UG-132019³

In response to the Commission's selected key paragraphs noted below:

A. Comments Related to Docket Preliminary Remarks

39... Avista is active in continuously improving its hedging program in response to stakeholder comments and Commission rulings. Both increased price risk and hedge loss risk are addressed in the Avista hedging program.

41... It is our opinion that Avista's hedging practices are not speculative in nature. Avista Risk Policy specifically notes that hedging is an activity designed to reduce price uncertainty, not an attempt to realize profits based on predictions of anticipated market movements. Specifically, Avista assures non-speculative hedging through the systematic use of its Programmatic Hedging program, risk policy driven and focused on reducing uncertainty. Consistent with the uncertainty reduction focus, Avista does not currently sell hedges in anticipation of softening markets.

¹ BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, DOCKET UG-132019, "In the Matter of the Commission Inquiry into Local Distribution Companies' Natural Gas Hedging Practices", Service Date: March 13, 2017, p.13, Section 48.

² Ibid. DOCKET UG-132019, p.11, Section 36.

³ Ibid. DOCKET UG-132019, referenced sections are noted.



42... As Avista notes, “all financial hedges should be associated with a physical index priced transaction, thus equalizing the physical and economic effects of both physical and financial hedges. Specifically, Avista only buys hedges if needed for, and matched with, physical supply obligations. This practice is indicative of and further assures non-speculative hedging.

43... In an effort to provide the best procurement strategy, and in response to Commission guidance, Avista has instituted a risk responsive hedging strategy and continues to build this strategy. Avista complies with generally accepted and overarching hedging principles focused on controlling price uncertainty.

B. Comments Related to Docket Risk-responsive Hedging Strategy

44... While, the [Getting’s] White Paper may serve as a foundational document for the Commission’s policy position on natural gas utility hedging practices, Avista was already in the process of developing systems and models consistent with the related logic found in the Getting’s paper, specifically the use of quantitative methods, risk tolerances around both upside price risk and hedge loss risk and market volatility focused hedge ratios in development of a risk-responsive hedging strategy.⁴

45... While it is the Commission’s explicit policy preference that the Companies employ risk-responsive hedge strategies, the Commission declines to be formulaic in suggesting how those methods are incorporated.⁵ Avista’s hedging program addresses both upside cost risk and hedge loss risk. Although Avista uses a “programmatic” risk model, the model employs both time based traunchs, and upper and lower price bands to systematically layer on hedges as the delivery month approaches. The traunching and bands effectively layer in hedges in response to market conditions as recommended by the Commission’s risk-responsive hedge strategy noted above. Additionally, Avista is actively using market data to adjust its hedge ratios.

46... Avista has developed a framework for risk mitigation informed by quantitative metrics⁶.

Comments Related to Docket Regulatory Review

Avista actively and collaboratively participates in updates and reviews with the commission staff and other stakeholders. During updates, Avista shares results of past hedging plan performances, proposed changes, and market activity, as well as engages in dialog on new ideas or concepts to improve hedging strategies. Avista considers and utilizes feedback from these interactive stakeholder meetings to continuously improve its hedging program.

Comments Related to Docket Prudence Standards

Getting’s paper notes “The management of dual, competing tolerances discussed in this paper constitutes a major change from simple volatility-reduction objectives that are prevalent today, and therefore, hedging methodologies must change accordingly.”⁷ To illustrate the industry convention, Philippe Jorion, the author of the industry standard book on Value at Risk⁸, defines risk as the volatility of unexpected outcomes, and risk management as the process by which various risk exposures are identified, measured, and controlled. With this in mind, it is important to note that the prevailing purpose if risk management activities is not to make money or

⁴ Avista Utilities Natural Gas Procurement Plan and Hedging Framework, submitted as part of its 2017 PGA filing in response to DOCKET UG-132019, Service Date: March 13, 2017, p.13, Section 48.

⁵ Ibid. Gettings, p.12.

⁶ Ibid. Gettings, p13.

⁷ Ibid. Gettings, p3.

⁸ Jorion, Philippe, Value at Risk: The New Benchmark for Managing Financial Risk, 2ed Ed., McGraw Hill.



eliminate cost. “Understanding risk means that financial managers can consciously plan for the consequences of adverse outcomes and, by so doing, be better prepared for the inevitable uncertainty.”⁹ Avista’s Risk Policies, Analytics and Hedging Activities are consistent with these principles and best practice.

Compliance with The Getting’s Recommendations

Avista in general complies with the Getting’s recommendations and complies with generally accepted hedging principles focused on controlling price uncertainty. Avista continuously improves its overall implementation strategy in order to reduce risk in accordance with guidelines established by the Commission.

Avista uses four risk mitigation strategies to assure compliance with the Gettings recommendations. These include:

- 1) Programmatic Hedging
- 2) Defensive Hedging
- 3) Contingent Hedging – Selling, Options
- 4) Discretionary Hedging

Although the Contingent Hedging strategy is implemented at Avista, consistent with the risk management convention noted above by Jorion and others, Avista is not currently active in selling hedges once they are executed. Specifically, once the long hedge is purchased to cover a supply obligation, Avista does not sell the hedge prior to the delivery month in anticipation of lower future prices. This practice is consistent with the management objective of controlling price uncertainty. Avista’s goal is to develop a plan that utilizes customer resources (storage and transportation), layers in pricing over time for stability (time averaging), allows discretion to take advantage of pricing opportunities should they arise, and appropriately manages risk.¹⁰ The risk management initiative within Avista aims to adopt best industry practices, consistent with the Commission’s regulatory concerns and rulings. Avista further seeks to respond to the regulatory oversight provided under the PGA (Purchase Gas Adjustment) process. Specifically, Avista seeks to implement the Commission’s recommended Risk Responsive Hedging Program, as noted above in the Decision in Commission Docket UG-132019.

Author Biography

Kenneth Skinner, Ph.D. -- Vice President of Risk & Evaluation Products, Dr. Skinner has over 20 years’ experience in evaluation and risk measurement, having worked as an energy consultant with PHB Hagler Bailly and Financial Times (FT) Energy, and as the Derivative Structuring Manager for the retail energy supplier Sempra Energy Solutions. He has his Ph.D. from Colorado School of Mines, in Mineral Economics, with an emphasis in Operations Research, an MBA from Regis University and a BS in Engineering from Letourneau University.

Dr. Skinner is a nationally recognized expert in economic evaluation and modelling of energy assets including energy storage, distribution and generation, efficiency and demand response, renewable energy alternatives, financial derivatives and structured contracts using net present value, econometric and statistical methods, optimization principles, and real option valuation

⁹ Ibid. Jorion, p.23

¹⁰ Avista’s Hedge Plan, Power-Point Presentation, November 16, 2017



techniques. Dr. Skinner is widely published and currently the technology columnist for Wiley Natural Gas and Electricity Journal. He is a noted speaker on energy related topics for organizations such as AESP, IAEE, ACEEE, PLMA, IEPEC, INFORMS, Infocast, EUCI, SNL Energy and PGS Energy Training.

Notable risk management projects include:

- Developing the value at risk (VaR) reporting system for the Atmos Energy natural gas trading division
- Assessing risk models for the North American electric supply division of E.ON energy
- Advising Dayton Power and Light on risk adjusted reporting metrics
- Building the natural gas storage valuation model and mark-to-market reporting for a national gas company
- Assessing term risk for structured retail gas and electricity contracts
- Pricing risk associated with complex generation fuel supply and tolling contracts
- Author of a national retail energy supplier's structured pricing model

Dr. Eric C. Woychik, Senior Vice President, Willdan and Executive Consultant, Strategy Integration LLC.

Eric has over 40 years of experience in electricity markets, regulatory policy, energy portfolio assessment, and energy business models. Eric has 40 years of experience and has worked in over 40 countries on energy market formation, gas and electricity resource development, regulatory policy, and risk management. He holds degrees in market management, economics, and environmental policy and planning.

He is an expert in gas and electricity markets, market formation, financial analysis, grid analysis and valuation, advising numerous energy utilities, companies, and policy bodies. This includes work with virtually all energy stakeholder groups on regulatory policy, investment strategy, business models, and transformational energy change. His areas of focus include market structure and protocols, integrated resource planning, distributed resource optimization, strategic behavior, the geospatial business case, business model development, and the utility of the future. Eric has been an expert witness in over 50 regulatory and civil cases on energy resources, markets, and valuation.

Respectfully submitted,
WILLDAN GROUP, INC.

