Exh. CRM-1T
Dockets UE-170485/UG-170486
Witness: Chris R. McGuire

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION,** **Respondent.**	**DOCKETS UE-170485 and UG-170486** **(*Consolidated*)**

TESTIMONY OF

Chris R. McGuire

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Interest Rate Hedging Losses

October 27, 2017

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Chris R. McGuire. My business address is The Richard Hemstad Building, 1300 S. Evergreen Park Drive S.W., Olympia, WA 98504.

Q. By whom are you employed and in what capacity?

A. I am employed by the Washington Utilities and Transportation Commission ("Commission") as an Energy Policy Strategist in the Energy Section of the Regulatory Services Division.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since May 2012.

Q. Would you please state your educational and professional background?

A. I earned a Bachelor of Science degree in Cell and Molecular Biology from the University of Washington in 2002. I earned a Master of Business Administration degree and a Master of Science degree in Environmental Studies from the University of Colorado in 2010. Prior to my employment with the Commission, I held various research and analysis positions at the University of Washington, the University of Colorado and the National Renewable Energy Laboratory's Strategic Energy Analysis Center.

Q. Have you previously testified before the Commission?

A. Yes. I testified on Staff's attrition studies in Avista's 2014 general rate case, Dockets UE-140188/UG-140189. I testified as Staff's policy witness and on Staff's attrition studies in Avista's 2015 general rate case, Dockets UE-150204/UG-150205. I testified on Staff's pro forma capital additions to rate base in Pacific Power's 2013 general rate case, Docket UE-130043. Most recently I testified as Staff's depreciation witness, including depreciation for the moribund Colstrip Units 1 and 2, in Dockets UE-170033/UG-170034.

II. SCOPE AND SUMMARY OF TESTIMONY

Q. Please describe the scope of your testimony.

A. My testimony focuses on the hedge losses associated with Avista's 3.54 percent series of debt issued December 2016. Although Avista issued $175 million in debt in December 2016, the net proceeds from that issuance were only $121 million as Avista suffered $54 million in hedging losses on that single issuance.

Q. What has Staff concluded in its analysis?

A. Staff has concluded that the $54 million in hedging losses should not be included in the calculation of Avista's cost of debt. Staff bases its conclusion on the following:

1. Avista's interest rate hedging practices are not risk-responsive. Avista's programmatic hedges are executed regardless of whether underlying risk conditions

warrant execution. As a result, Avista exposes ratepayers to unacceptable and excessive hedge loss risk.

2. Avista's interest rate hedges are not executed for the purpose of managing risk to ratepayers; they are executed for the explicit purpose of managing the Company's cash flows and increasing the certainty of its future level of expense.

Q. What is the effect of Staff's recommendation?

A. Upon removal of the $54 million hedge loss, Avista's overall cost of debt is reduced by 21 basis points, from 5.62 percent to 5.41 percent. Relative to Avista's requested cost of debt, Staff's recommendation reduces revenue requirement by $1.6 million for electric operations and $0.3 million for gas operations.

Testimony on Staff's recommended overall cost of capital, including cost of debt, is sponsored by Mr. David Parcell. Mr. Parcell's overall cost of debt includes the effect of my recommendation to remove the $54 million in hedging losses from the cost of debt calculation.

III. INTEREST RATE HEDGING LOSSES

A. Background

Q. Has Staff considered Avista's interest rate hedging practices in any previous cases?

A. Yes. In Avista's 2016 general rate case, Avista presented testimony on rebuttal concerning a debt issuance that it expected to complete later that year. The Company

recalculated its cost of debt to include the new issuance, but did not actually request that the new cost of debt be included in its proposed revenue requirement. At that time, Staff identified concerns with that debt issuance because the interest rate was high relative to the average rates of corporate bonds.

Q. In the 2016 GRC, did Staff pursue a disallowance of hedging costs or an adjustment to Avista's cost of debt to correct for hedging losses?

A. No. In that case, the $53.9 million (actually $54.0 million) in hedging losses were captured only in Avista's updated cost of debt presented on rebuttal. Because Avista did not at that time seek a higher revenue requirement associated with the increased cost of debt, Staff elected not to incorporate the updated cost of debt into its own revenue requirement analysis.

Q. In the 2016 GRC, did the Commission take an interest in the increased cost of debt associated with the $54.0 million in hedging losses?

A. Yes. At hearing, the Commission issued Bench Request No. 5 in Dockets UE-160228/UG-160229, asking for specific information with respect to the updated cost of debt related to the $175 million First Mortgage Bond issuance, to which the $54 million in hedging losses is directly related. In Staff's view, this bench request indicated a level of potential concern with the Company's hedging practices.

Q. Did Staff address the Company's Response to Bench Request No. 5 in Avista's last general rate case?

A. Yes. In its post-hearing briefing to the Commission in Dockets UE-160228/UG-160229, Staff articulated concerns with the magnitude of the Company's interest rate hedging losses:

> In August 2016, Avista committed to issue $175 million in debt at an "all-in-rate" of 5.63 percent, "[i]ncluding the cost of hedges." The cost of hedges is approximately $53.9 million, which amounts to over 31 percent of the amount of debt sold, and is the significant factor driving the all-in rate up to 5.63 percent from a coupon rate of $*[sic]*3.54 percent.[1]

Within this context, Staff stated that it "will review Avista's cost of debt in the Company's next general rate proceeding."[2] That next general rate proceeding is now before the Commission and is the first general rate case wherein the $54 million in hedging losses are included in the Company's revenue requirement request. Staff herein is following through on its commitment to examine Avista's hedging losses.

B. Introduction to Avista's Interest Rate Hedging

Q. What is interest rate hedging?

A. Companies that have significant capital requirements, such as electric and gas utilities, fund those capital requirements with a combination of equity and debt. In order to fund capital projects with the latter, debt, a company must access capital markets. Capital markets, like other markets, are exposed to volatility. For example, the market rate for a future debt issuance is uncertain and outside of a utility's control. The purpose of interest

[1] Post-Hearing Brief on Behalf of Commission Staff, Dockets UE-160228/UG-160229, ¶ 47 (November 7, 2016).
[2] *Id.* at ¶ 48.

rate hedging, broadly, is to reduce a company's exposure to future fluctuations in market interest rates.

As a more concrete example, a company can anticipate a future, significant capital requirement and, therefore, know it will need to access the debt market at that time. However, as the capital requirement is in the future (often several years), the market rate for debt on the date the company needs the funds is unknown, even as the company knows it must access those markets on that future date. In an effort to avoid upside price risk (i.e., the risk that market interest rates will increase significantly between when the capital requirement is known and when the debt is issued), a company will engage in interest rate hedging.

An interest rate hedge essentially amounts to a utility entering into an arrangement with a counterparty (often a bank), whereby the counterparty takes on the risk of future interest rate movement (commonly called an interest rate "swap"). In effect, a utility will lock in an interest rate for a portion of the future debt issuance. If interest rates rise substantially, previously executed hedges provide some protection against high debt prices. If interest rates fall substantially, a utility will be exposed to hedging losses, as it will have locked itself into a rate that is higher than what it could have gotten had it not hedged.

Q. How does Avista's embedded cost of debt compare to market debt rates?

A. The following chart shows Avista's embedded cost of debt, as requested over its last four rate cases, as compared to the market debt rates over that same time period.[3]

Figure 1. Avista embedded cost of debt versus market spot rates.

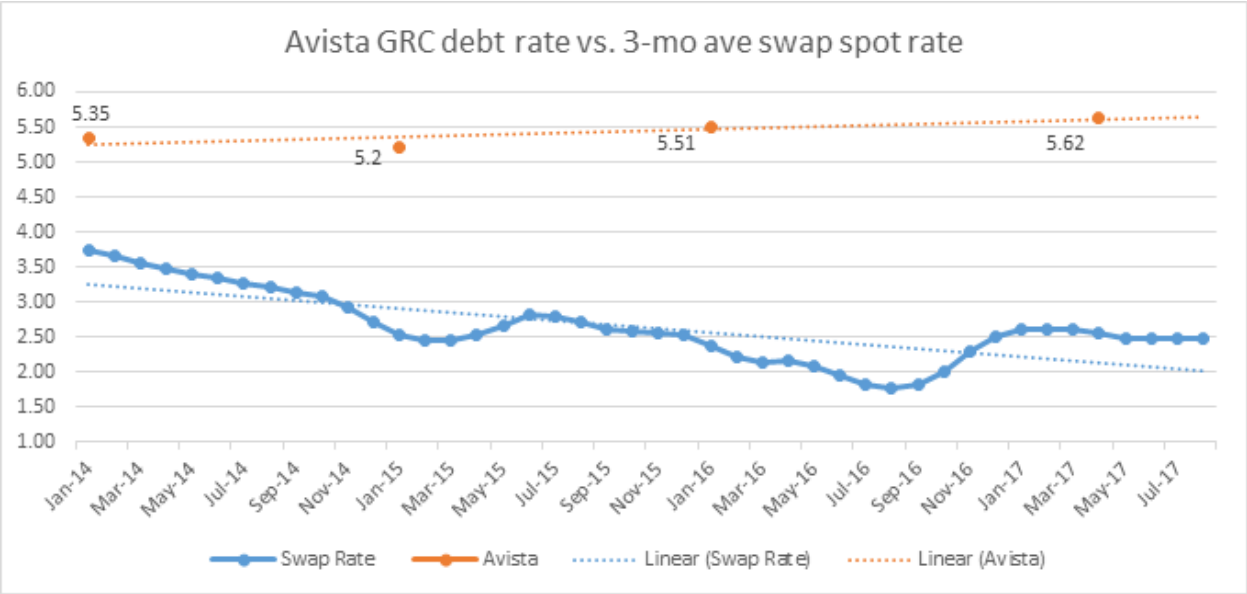


Figure 1 shows that, over the last four years, Avista's cost of debt has risen while market rates steadily fell.

[3] Cost of debt for the 2014, 2015, 2016, and 2017 GRCs are plotted on the most recently completed month prior to the GRC (i.e., if the GRC was filed in Feb 2014, the data point is plotted on January 2014). Swap spot rates are calculated as the 3-month running average (of the monthly average) of daily swap spot rates. (So, June 2016 is calculated as the average of all dates in June 2016, and the data point plotted for June 2016 is the average of May-June-July 2016. It is a 3-month AMA for swap spot rates.)

C. Avista's Hedging Losses

Q. What are the specific interest rate hedging losses at issue in this case?

A. At issue in this case are the $54.0 million in hedging losses, and the associated increase in the Company's cost of debt, related to the 3.54 percent series of debt issued in December 2016, shown in Avista witness Mr. Thies' Exh. MTT-2 on page 3, at line 19.

Q. Can you please provide additional detail on the 3.54 percent series of debt, and the hedging losses associated with that series of debt?

A. Yes. In response to Bench Request No. 5 in Dockets UE-160228/UG-160229, Avista provided the Commission with a description of the 3.54 percent series of debt. Avista's response to that bench request is provided here as Exh. CRM-2.

To summarize, in August 2016 Avista priced $175,000,000 of First Mortgage Bonds due in 2051 (35 years) with an effective coupon rate of 3.54 percent, through a private placement offering with the bonds to be funded and issued in December 2016. Including hedging losses, the net proceeds of this issue were just $120 million of the $175 million issued; the swap loss was 31 percent of the principal amount of this debt issue. The all-in yield to maturity (i.e., the effective rate Avista pays on the $120 million in proceeds) is 5.6 percent over the 35-year period.

The specific hedging losses associated with the 3.54 percent series of debt was $53,966,197 as shown in Mr. Thies' Exh. MTT-2.[4] Avista now seeks recovery of those hedging losses through a higher cost of debt.

[4] Thies, Exh. MTT-2 at 3, column g, line 19.

Q. What is the total impact of Avista's interest rate hedging program on its cost of debt?

A. Column g on page three of Mr. Thies' Exh. MTT-2 shows the hedging gains/losses associated with several series of outstanding debt. The Company's net hedging losses since 2005 total $91.9 million.[5] The Company's cost of debt, including hedging losses, is 5.62 percent.[6] In response to discovery, Avista reported that its cost of debt without the effect of hedges (in other words, removing the $91.9 million in hedge losses) would be 5.20 percent.[7]

As the 3.54 percent series of debt was issued in the test year of this rate case, and remains the only series of debt yet to be incorporated into the Company's cost of debt via a general rate proceeding, Staff's focus in this case is on the hedges associated with the 3.54 percent series. The hedge losses associated with that single series of debt were $54 million. Removal of $54 million in hedge losses associated with the 3.54 percent series results in an overall cost of debt of 5.41 percent, 21 basis points less than the Company's proposed cost of debt.

Q. How did Avista execute its hedges related to the 3.54 percent series of debt?

A. Avista began to execute hedges associated with the 3.54 percent series of debt roughly 44 months prior to the debt issuance in December 2016. Avista's first hedge was on April 5, 2013. Between April 5, 2013, and July 27, 2016, Avista entered into seven separate interest rate swaps, the notional amount of each varying from $10 million to $20 million.

[5] Thies, Exh. MTT-2 at 3, column g. The total ($91.9 million) is the sum of all gains/losses in column g.
[6] Thies, Exh. MTT-2 at 3, column J, line 32.
[7] McGuire, Exh. CRM-3, Avista Response to UTC Staff Data Request No. 100, at 2 (see column j, line 32).

Avista locked in rates that ranged from 1.81 percent (on July 27, 2016) to 4.33 percent (on January 15, 2014). In August 2016, Avista priced the bond at 1.77 percent and, as a result, Avista suffered a loss on all seven swaps.

The following table, provided by Avista in response to discovery,[8] shows the schedule of transactions, the corresponding interest rate Avista locked in, and the hedge loss for each transaction (there were no gains):

Table 1. Swap losses associated with Avista's 3.54 percent series of debt.

Trade Date	Fixed Swap Rate	Notional Amount	Counterparty	Swap Gain (Loss)
04/05/13	3.20%	$20,000,000	JP Morgan	($7,244,472)
11/08/13	4.32%	$20,000,000	UBS AG	($12,740,009)
01/15/14	4.33%	$20,000,000	Wells Fargo	($12,776,728)
04/25/14	3.81%	$20,000,000	BNY Mellon	($10,255,390)
08/15/14	3.39%	$15,000,000	Wells Fargo	($6,132,842)
01/09/15	2.66%	$20,000,000	JP Morgan	($4,595,844)
07/27/16	1.81%	$10,000,000	Wells Fargo	($228,222)
				($53,973,506)

D. Interest Rate Risk Mitigation

Q. Does Avista have a plan in place to mitigate interest rate risk?

A. Ostensibly, yes. Avista has a document it calls an "Interest Rate Risk Mitigation Plan" which was submitted as Mr. Thies' Exh. MTT-3C.

[8] McGuire, Exh. CRM-4, Avista Response to UTC Staff Data Request No. 98, at 3. The column in Table 1 that I titled "Swap Gain (Loss)" was titled "Estimated Benefit" in Avista's response to this data request.

Q. Is Avista's Interest Rate Risk Mitigation Plan helpful in explaining how Avista responds to changing market risk conditions?

A. I suppose so. Specifically, it is helpful because it explains that Avista does not respond to changing risk conditions. Avista's Interest Rate Mitigation Plan indicates that a "risk" assessment (that is, a measurement of market volatility) is not a primary consideration when determining whether to execute a hedge.

Q. Does Avista measure interest rate risk?

A. Not in any meaningful sense. Avista does perform what it calls "VaR" calculations and it attempts to use these calculations to claim that it does measure and respond to market risk. However, there are two problems with Avista's claim:

1. the VaR calculations are performed on purely historical data from the time period prior to Avista's hedge windows;[9] and
2. Avista does not even use the VaR calculations for making hedging decisions.[10]

Q. Why does it matter that the VaR calculations are performed on historical data?

A. Ignoring for the moment the fact that Avista does not use its VaR calculations for making hedging decisions, if performed on purely historical data all that a VaR calculation would measure is historical risk. Historical risk is not a relevant factor when determining whether current market conditions warrant a hedge. Current risk is what is relevant.

[9] McGuire, Exh. CRM-5, Avista Response to UTC Staff Data Request No. 271, at 1.
[10] *Id.*

Q. Can you prove that Avista does not use its own VaR calculations for making hedging decisions?

A. Yes. In fact, Avista admits quite freely that it does not use VaR calculations for making hedging decisions. In its response to UTC Staff Data Request No. 271, and referring specifically to its VaR calculation, the Company stated:

> It was not used to inform hedge decisions.[11]

Q. What are Avista's VaR calculations used for, if not for informing hedging decisions?

A. It appears Avista uses VaR calculations *post hoc*, and in a severely flawed attempt to quantify the value of the hedge. Basically, Avista uses historical data to claim that future rates are likely (at 98 percent confidence) to stay below a certain upper-boundary rate, and then uses that upper boundary to calculate a benefit *had that upper boundary been reached* (never mind that rates declined substantially).

For example, in response to discovery,[12] Avista shows how it calculates the "benefit"[13] of its hedges. Avista calculates the value of the hedge to be the difference between what Avista paid and what Avista would have paid had market rates risen so far that they reached the unlikely upper boundary. Had market rates reached that 98th percentile outer boundary, Avista claims that it would have paid $178.8 million. The Company represents that by entering into hedges, its payments are "only" $106.5 million.

[11] *Id.* (emphasis added).
[12] McGuire, Exh. CRM-4, Avista Response to UTC Staff Data Request No. 98, at 2. In its narrative response, Avista explains that "the potential impact from interest rates moving higher could have resulted in approximately $72 million of increased interest costs to customers. Entering into these hedges protected customers from this interest rate variability."
[13] McGuire, Exh. CRM-6, Avista Response to UTC Staff Data Request No. 102. In response to Staff's request for a cost/benefit analysis of the swaps, Avista reported in bold and underlined text that the benefit of the swaps was $72 million.

Thus, the Company would like us to believe it created a "benefit" of $72.3 million. But remember, the Company experienced hedge losses of $54 million on these very swaps, which is its justification for a cost of debt of 5.62 percent instead of 5.41 percent.

In other words, Avista attempts to spin a $54 million hedge loss as a $72 million benefit to ratepayers.

Q. Are there any other instances where Avista obfuscates the severity of its hedging losses?

A. Yes. In response to discovery, Avista curiously labels the $53,973,506 in hedge losses as an "estimated benefit."[14] Staff can only assume Avista is referring to the estimated benefit to the counter parties.

Q. Does the Company make any other misleading claims about its VaR calculations?

A. Yes. In its response to discovery, Avista states that the charts (reflecting its VaR calculations) "illustrate the asymmetrical risk that was inherent in the market at the time each swap was transacted."[15] With its response, Avista would like us to believe that "asymmetrical risk" present in the market "at the time each swap was transacted" is evidence that each swap is justified. This is misleading; asymmetrical risk is an inherent property of the market essentially at all times, and so is entirely irrelevant to an individual decision to execute a hedge.[16] If the presence of asymmetric risk were sufficient to

[14] McGuire, Exh. CRM-4, Avista Response to UTC Staff Data Request No. 98, at 3.
[15] McGuire, Exh. CRM-4, Avista Response to UTC Staff Data Request No. 98, at 2.
[16] Given that interest rates have an absolute, natural lower boundary of 0 percent, and that there is no absolute upper boundary, it should be no surprise that risk is asymmetrical; generally, and particularly when interest rates are relatively low (as they were during the period in question) interest rates have more upside potential than downside potential. Interest rates can be thought of as following a log-normal distribution. A log-normal distribution, unlike a normal (Gaussian) distribution, is naturally asymmetrical.

execute individual hedges, Avista would have executed each and every hedge on day 1. Here Avista commits a logical fallacy, intentionally or unintentionally, by representing that an irrelevant truism justifies the Company's individual hedging decisions.

Q. If Avista doesn't execute hedges in response to elevated market risk conditions, how does Avista make the decision to execute a hedge?

A. Avista will execute a hedge when the market interest rate reaches a threshold value, or "trigger." Avista terms these triggers the upper and lower control limits (UCL and LCL).

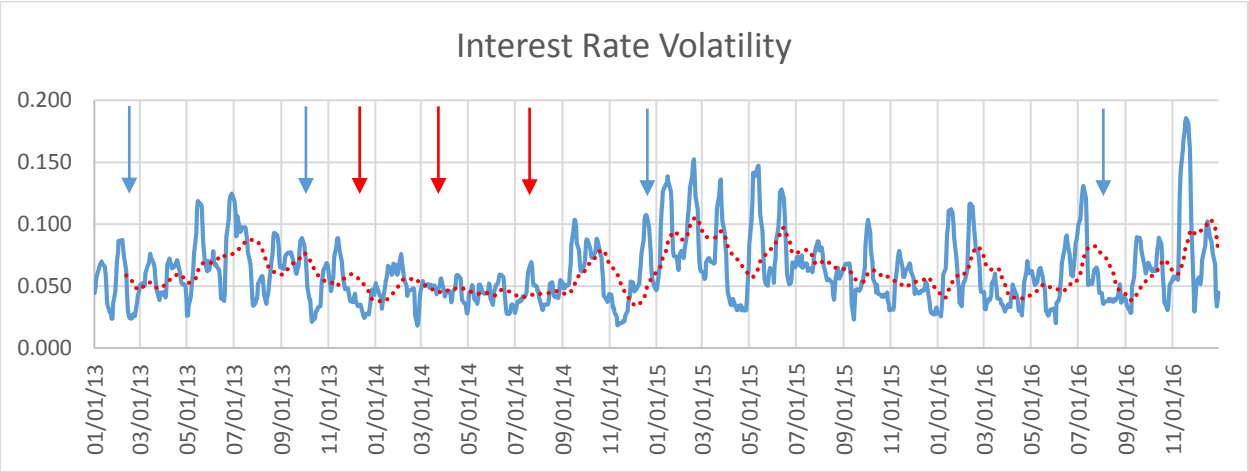
Q. Why is the fact that the trigger is a rate trigger important?

A. The fact that Avista uses a rate trigger shows that Avista does not use a market volatility trigger. This is an important distinction, as it indicates Avista is not responding to market risk. Rather, Avista will execute a hedge if the market interest rate reaches a pre-determined rate, irrespective of whether market volatility indicates a high risk. Indeed, Avista executed multiple hedges when interest rate volatility was relatively low and market rates continued to fall. In other words, Avista executed hedges associated with the 3.54 percent series of debt when the risk of rates rising was low, exactly when hedges were least valuable.

Q. Can you demonstrate that market volatility was relatively low when Avista executed its 3.54 percent series of hedges?

A. Yes. The following chart was produced from market interest rate data provided by Avista.[17] Arrows indicate dates when the hedges were executed.

Figure 2. Interest rate volatility during Avista's hedging activities.



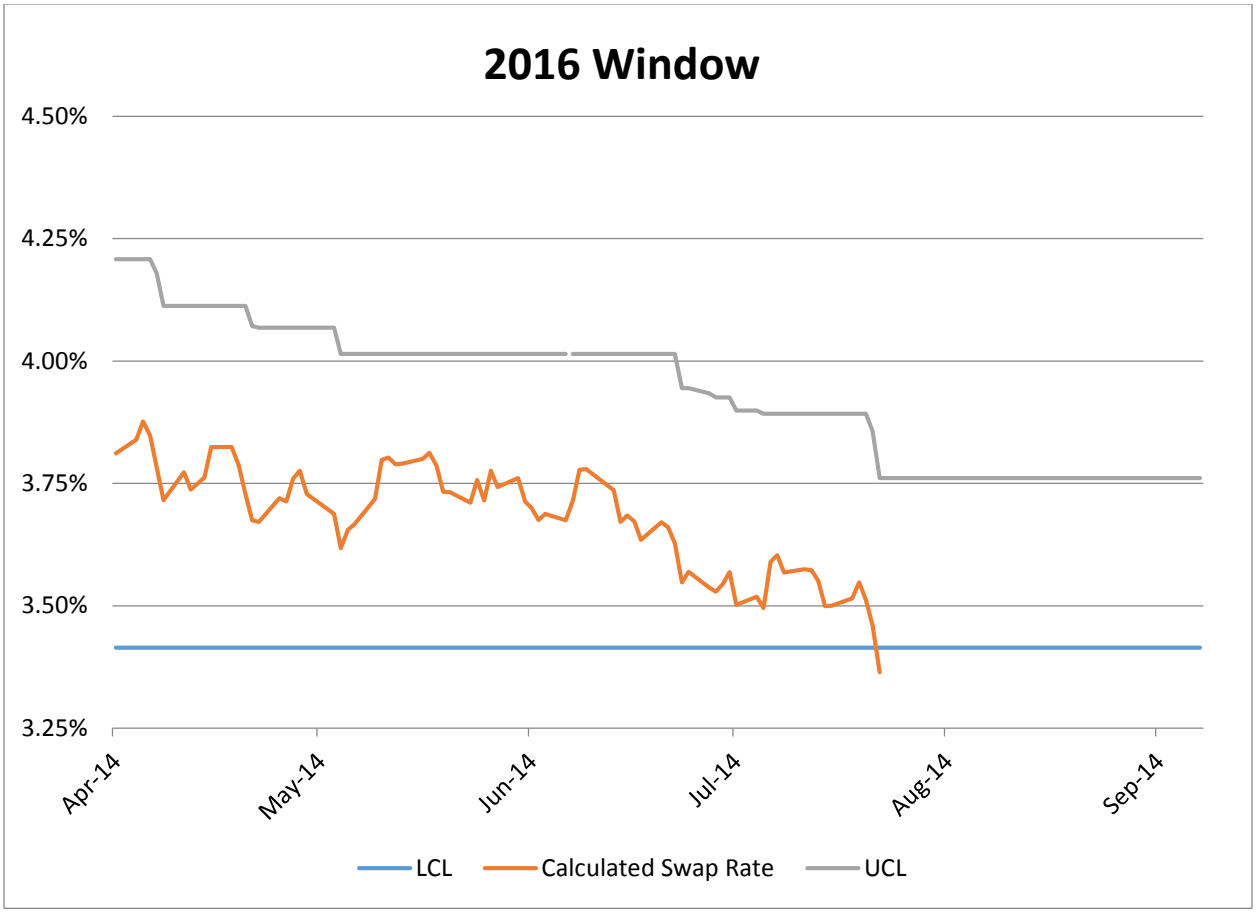
Notably, the third, fourth, and fifth hedges (January 15, 2014, April 25, 2014, and August 15, 2014) were executed when interest rate volatility was relatively low. In fact, interest rate volatility over the entire hedge window appears to be the *least* volatile between January and August 2014, yet Avista continued to execute hedges. This is precisely the opposite of what one might see if the Company were executing hedges in response to increased market risk.

Q. Can you please provide an example of Avista executing a hedge as a result of reaching an interest rate trigger?

[17] The data plotted are the standard deviation of a rolling 14-day window of daily spot swap rates (blue-solid). Also plotted is the moving 30-day average (red-dotted).

A. Yes. The following chart was provided by Avista in response to discovery.[18] The chart shows the upper and lower control limits as well as the daily swap spot rates relative to the hedge that was eventually executed on August 15, 2014. (Note that the title "2016 Window" refers to the year the bond will be issued.)

Figure 3. Hedge triggers during Avista's April to September 2014 hedge window.



This hedge was executed because market rates dropped below the Company's pre-determined LCL interest rate. Prior to the hedge window, Avista decided that if interest rates were to drop below 3.41 percent, Avista would execute a hedge.

[18] McGuire, Exh. CRM-5, Avista's Response to UTC Staff Data Request No. 271, at 2.

Q. Is there anything particularly notable about the above chart?

A. Yes. Besides the fact that Avista executed this hedge in a declining market when market volatility was relatively low, Avista paradoxically executed a hedge *not* when its UCL was reached but rather when market rates got too low. Avista did not wait to see whether market rates would continue to fall (indeed they did), nor did Avista evaluate the *risk* that rates would begin to climb. Avista mechanically executed a hedge simply because market rates reached an irrelevant lower boundary.

Also, the shape of the UCLs and LCLs further confirms what Avista freely admits: its hedging decisions are made independent of market volatility.[19] The shifting downward of the UCL is strongly correlated with the decline in market price,[20] indicating that the control limits themselves are a function of price rather than a function of market volatility. Perhaps more importantly, the static LCL indicates that the Company's rate trigger is pre-determined – prior to the beginning of the hedge window – and does not evolve across the window as risk conditions evolve. This indicates a programmatic, mechanical, preset hedging protocol that functions independent of any consideration of market risk conditions.

Q. Does Avista actively manage the risk of hedge loss?

A. No, it does not. Avista's strategy to manage hedge loss risk is simply to hedge at less than 100 percent; specifically, Avista limits its hedge ratio to 75 percent.[21]

[19] *See* McGuire, Exh. CRM-5; Avista Response to UTC Staff Data Request No. 271, at 1.
[20] The correlation was observed visually, as the data were not available to Staff.
[21] McGuire, Exh. CRM-7, Avista Response to UTC Staff Data Request No. 267, at 1.

Q. How did Avista arrive at its decision to limit its hedge ratio to 75 percent?

A. There is no satisfying answer to that question, unfortunately. Through discovery Staff sought justification or support for the 75 percent hedge ratio. Avista provided the following explanation:

> [It] was determined by management [to be] a measured approach.[22]

It's not clear what the Company means by "measured," but most assuredly it does not mean it in any quantitative sense of the word.

Q. If the purpose of Avista's hedging activities is not to respond to changing market risk conditions, then what is the purpose?

A. In discovery responses, Avista states that the goal of its interest rate hedging is to reduce cash flow volatility, thereby increasing the certainty of the future level of debt servicing costs. Avista states plainly that:

> The goal of the Company's Interest Rate Risk Management Plan is to reduce cash flow volatility related to future interest rate variability (associated with forecasted debt issuances).[23]

Avista further states that:

> The Company's Interest Rate Risk Mitigation Plan is designed to reduce uncertainty of the effective interest cost of future debt issuances.[24]

In other words, the goal of the Company's hedging practices is to increase the certainty of future costs.

[22] *Id.* at 1.
[23] McGuire, Exh. CRM-4, Avista Response to UTC Staff Data Request No. 98, at 1 (emphasis added).
[24] *Id.* at 1.

Q. Has Avista adequately communicated how reducing cash flow volatility or increasing the certainty of future debt servicing costs benefits customers?

A. No. In response to discovery asking how ratepayers benefit from reducing cash flow volatility, the Company provided the following explanation:

> It benefits customers by protecting them from the rate impact of increasing interest rates.[25]

The irony appears lost on Avista that the Company *causes* the rate impact by purchasing cash flow stability with excessive hedge losses.

Q. Should the Commission reject inclusion of these hedging losses in rates?

A. Yes, it should. Avista has not shown that ratepayers rather than shareholders benefit from the interest rate hedging associated with the 2016 debt issuance, nor has Avista proved that its hedging decisions were reasonable.

The burden of demonstrating that its ratepayers benefit from the Company's interest rate hedging practices is Avista's, alone, and it has failed to do so. Notwithstanding Avista's claim that reducing cash flow volatility does not benefit shareholders,[26] it is the shareholders, and not the ratepayers, who appear to be in a position to benefit from any reduction in cash flow volatility produced by the interest rate swaps. Although it is possible that ratepayers could benefit from Avista's interest rate hedging program, that is not what the evidence shows.

Staff's objection to Avista's hedging practices does not rely solely on the likelihood that interest rate hedging is *not* done primarily to protect ratepayers. In the

[25] McGuire, Exh. CRM-8, Avista Response to UTC Staff Data Request No. 266.
[26] *Id*.

event that the Commission is persuaded that Avista's interest rate hedging could provide some value to ratepayers, the Commission should *still* reject inclusion of the Company's hedging losses in rates because the Company's interest rate swaps have not been executed in a manner that reasonably manages risk to ratepayers.

Q. Is Staff testifying that there are no benefits to ratepayers from interest rate hedging?

A. No. Staff acknowledges that interest rate hedging, if done intelligently, could benefit ratepayers. For example, if market rates are relatively low but rate volatility begins to increase (indicating increased risk of substantial market movement), executing a hedge can add protection against upside market risk. Note, though, that in this example the indicator of increased market risk was price volatility; risk was first measured to be sufficiently high before a hedge was executed. Choosing not to execute a hedge when market risk is low protects ratepayers against excessive hedge losses.

In order to provide adequate protection to ratepayers, a utility should balance upside price risk with hedge loss risk, and engage in hedges only when market volatility indicates the risk of substantial upward price movement is sufficiently high. Avista has not provided any support, explanation, or justification that it did so in this instance.

Q. Has the Commission endorsed the use of a risk-responsive hedging framework?

A. Yes. In its Policy and Interpretive Statement on Local Distribution Companies' Natural Gas Hedging Practices, filed on March 13, 2017, in Docket UG-132019, the Commission

concluded that risk responsive hedging is necessary to mitigate hedge loss exposure. Specifically, the Commission stated:

> 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. Although management of upside price risk is the central function of hedging, deciding when not to hedge (or, perhaps more accurately, when to hedge less) is central to managing ratepayer exposure to hedge losses.[27]

It is very clear that Avista, in failing to consider and respond to market volatility, operates its hedging practices in a manner inconsistent with Commission policy. In doing so, Avista has unnecessarily exposed its ratepayers to excessive hedge loss risk and should not receive a bailout in the form of an increased cost of debt.

Q. Does it matter that the Commission's policy statement addressed natural gas hedging and not interest rate hedging?

A. No. As the Company states through discovery:

> The practice of hedging interest rate risk is not unlike hedging a portion of natural gas commodity costs in the Company's Purchased Gas Adjustment (PGA) - an accepted practice to protect customers from the variability of purchased natural gas costs.[28]

Furthermore, the circumstances that led to the natural gas hedging investigation (namely, large hedge losses incurred by the companies as a result of continuing to hedge blindly in a low risk, downward-trending market) are present with Avista's interest rate hedging practices. The problem with Avista's interest rate hedging practices can be summarized by the following sentence in the Commission's natural gas hedging policy statement:

[27] In the Matter of the Commission Inquiry Into Local Distribution Companies' Natural Gas Hedging Practices, Docket UG-132019, Policy and Interpretive Statement on Local Distribution Companies' Natural Gas Hedging Practices at 11, ¶ 36 (March 13, 2017).
[28] McGuire, Exh. CRM-8, Avista Response to UTC Staff Data Request No. 266.

> Companies failed to respond to changes in underlying market conditions and continued to protect against diminishing upside market risk, resulting in higher exposure to hedging losses.[29]

The striking similarity of circumstances leading to large hedge losses in both of these markets indicates that the natural gas hedging policy statement is an extremely apt guide for correcting Avista's problematic interest rate hedging practices.

Q. Does it matter that the Commission's policy statement was issued subsequent to the execution date of the hedges at issue in this case?

A. No. That the Commission identified the problem in its policy statement in March of 2017 does not mean companies could not have identified the problem themselves prior to that date, or that companies had a free pass to make any unjustifiable error. It seems absurd that the Commission should have to tell risk managers that their job is to manage risk. A company should be held responsible for managing risk both before and after the Commission's policy statement.

Q. Does this conclude your testimony?

A. Yes.

[29] Policy and Interpretive Statement on Local Distribution Companies' Natural Gas Hedging Practices, Docket UG-132019, at 11, ¶ 38 (March 13, 2017).