Exhibit BGM-1T
Dockets UE-190334/UG-190335/ UE-190222
Witness: Bradley G. Mullins

BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION	)	DOCKETS UE-190334, UG-190335, and UE-190222 (*Consolidated*)
Complainant,	)	
v.	)	
AVISTA CORPORATION	)	
Respondent.	)	

RESPONSE TESTIMONY OF BRADLEY G. MULLINS

ON BEHALF OF

THE ALLIANCE OF WESTERN ENERGY CONSUMERS

October 3, 2019

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TESTIMONY OF BRADLEY G. MULLINS

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I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Bradley G. Mullins, and my business address is 1750 SW Harbor Way, Ste 450, Portland, Oregon 97201.

Q. PLEASE STATE YOUR OCCUPATION AND ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am an independent energy and utilities consultant representing energy consumers before state regulatory commissions, primarily in the Western United States. I am appearing in this docket on behalf of the Alliance of Western Energy Consumers ("AWEC"). AWEC is a non-profit trade association whose members are large energy users served by electric and gas utilities located throughout the West, including customers of Avista Corporation ("Avista"). AWEC was formed as a result of the merger of the Northwest Industrial Gas Users ("NWIGU") into the Industrial Customers of Northwest Utilities ("ICNU") on April 1, 2018.

Q. PLEASE SUMMARIZE YOUR EDUCATION AND WORK EXPERIENCE.

A. I have a Master of Accounting degree from the University of Utah. After obtaining my master's degree, I worked at Deloitte in San Jose, California, where I specialized in performing research and development tax credit studies. I later worked at PacifiCorp as an analyst involved in power cost forecasting. I have been performing independent energy and utilities consulting services for approximately six years, and provide services to utility customers on matters such as revenue requirement, power cost forecasting, and rate development. I have sponsored testimony in several regulatory jurisdictions around the United States, including before the Washington Utilities and Transportation

Commission (the "Commission"). A list of cases where I have submitted testimony can be found in Mullins, Exh. No. BGM-2.

Q. WHAT IS THE PURPOSE OF YOUR RESPONSE TESTIMONY?

A. In Opening Testimony, Avista has proposed April 1, 2020 revenue requirement increases of $45,755.488, or 9.12%, for electric services and $12,930,000, or 13.8%, for gas services. In addition to the test period rate increase discussed above, Avista has requested additional second-year rate increases, effective April 1, 2021, of $18,926,827 or 3.46% for electric services and $6,456,633 or 6.05% for gas services.

The purpose of this Response Testimony is to provide AWEC's overall revenue requirement recommendation, and discuss several adjustments to Avista's proposed revenue requirements. I also discuss Avista's request for a rate plan and present an alternative revenue growth study.

Q. ARE OTHER WITNESSES FILING TESTIMONY ON BEHALF OF AWEC IN THIS MATTER?

A. Yes. AWEC witness Kaufman is also filing testimony on revenue requirement issues and rate spread/rate design issues. AWEC witness Gorman is filing testimony on cost of capital and capital structure. The revenue impacts of the recommendations of AWEC witnesses Gorman and Kaufman have been incorporated into my overall revenue requirement recommendation below.

Q. PLEASE SUMMARIZE AWEC'S TEST PERIOD REVENUE REQUIREMENT RECOMMENDATION.

A. Based on AWEC's review and analysis, AWEC is recommending an overall test period revenue requirement reduction of (-)$2,654,931, or -0.52%, for electric services and an

increase of $2,902,296 for gas services. The specific adjustments AWEC is proposing relative to Avista's initial filing may be found in Mullins, Exh. No. BGM-3 for electric services and Mullins, Exh. No. BGM-4 for gas services. I have also summarized AWEC's adjustments in Table 1, below:

TABLE 1
AWEC Test Period Revenue Requirement Recommendations ($000)

			Electric		Gas	
			Adj. #	($000)	Adj. #	($000)
1	**Avista Initial Filing**			**45,775**		**12,935**
	Adjustments/ Witness					
2	Cost of Capital	Gorman		(14,506)		(3,386)
3	Hydro One	Kaufman	2.12E.A1	(590)	2.12G.A1	(147)
4	Director Fees	Mullins	2.12E.A2	(104)	2.12G.A2	(32)
5	IT Allocation	Kaufman	2.12E.A3	(1,039)	2.12G.A3	(321)
6	WNP-3 Settlement	Mullins	2.18E.A4	(4,052)		
7	GTN Pipeline	Mullins	2.18E.A5	(662)		
8	Gas Optimization	Mullins	2.18E.A6	(12,856)		
9	Production Factor	Mullins	3.01E.A7	(8,772)	3.01G.A7	(4,339)
10	Pole Attachment Revs.	Kaufman	3.01E.A8	(21)		
11	AWEC Labor Esc.	Kaufman	3.04E.A9	(99)	3.04G.A9	(33)
12	AWEC P.F. Benefits	Kaufman	3.05E.A10	(2,270)	3.05G.A10	(689)
13	AvistaUtilities.com	Kaufman	3.10E.A11	(918)	3.10G.A11	(595)
14	Retirements	Mullins	3.10E.A12	(2,167)	3.10G.A12	(377)
15	Corporate Aircraft	Mullins	3.10E.A13	(110)	3.10G.A13	(32)
16	Customer Advances	Mullins	3.10E.A14	(266)	3.10G.A14	(82)
17	**Total Adjustments**			**(48,430)**		**(10,033)**
18	**AWEC Adjusted**			**(2,655)**		**2,902**
19	*Percentage Increase / (Reduction)*			*-0.52%*		*2.96%*

x

As can be seen, Table 1 details the adjustment number and the AWEC witness supporting each adjustment, along with the corresponding revenue requirement impact of each adjustment.

Q. WHAT IS AWEC'S RECOMMENDATION ON THE RATE PLAN AVISTA HAS PROPOSED?

A. As discussed more thoroughly later in my testimony, AWEC is generally opposed to the adoption of a rate plan in this case on the basis that Avista has failed to adequately support its revenue growth studies that form the basis for its requested second-year increases. Notwithstanding, if the Commission is to approve a rate plan, AWEC recommends second-year revenue requirement increase of $6,829,132 or 1.34% for electric services and $1,182,365 or 1.17% for gas services. These percentages are based on alternative revenue growth models presented in Mullins, Exh. No. BGM-9 for electric services and Mullins, Exh. No. BGM-10 for gas service. Relative to the revenue growth models in Avista witness Andrews' testimony, AWEC's analysis includes a more detailed review of each of the categories of costs included in revenue growth rates and makes adjustments to the growth rates based on analysis of available historical data over the period 2000 through 2018. Further, AWEC's analysis uses linear interpolation, rather than a compound growth rate when calculating the rates.

II. REVENUE REQUIREMENT

Q. PLEASE PROVIDE AN OVERVIEW OF THIS SECTION OF TESTIMONY.

A. In this section of testimony, I discuss revenue requirement adjustments related to net power costs, revenues, rate base, and directors fees. I have identified the specific pro

forma adjustment by the numbers Avista used in Opening Testimony. I have also added an "E" for electric or "G" gas depending on whether the adjustment applies to electric services or gas services.

a. Net Power Supply Expense (2.18E)

Q. WHAT HAS AVISTA PROPOSED WITH RESPECT TO POWER COSTS IN THIS DOCKET?

A. A key issue with Avista's overall revenue requirement is the baseline level of net power costs embedded in rates. In Direct Testimony, however, Avista recommends making no change to the level of power costs embedded in rates in Docket UE-170485.[1/]

Q. WHY HAS AVISTA PROPOSED NOT TO UPDATE POWER COSTS?

A. Mr. Kalich cites to the Commission decision in Order 07, paragraph 160, where the Commission stated that "[g]oing forward, the Commission will consider carefully any adjustments to the power cost baseline and change it only in extraordinary circumstances…"

Q. DID YOU REQUEST AVISTA PROVIDE A POWER COST FORECAST FOR THE RATE PERIOD?

A. Yes. In AWEC Data Request ("DR") 13, AWEC requested Avista to provide its latest power cost forecast for 2020 in a format similar to Exhibit WGJ-2 in Docket UE-170485. In response, Avista stated that it had "not performed any such analysis."

[1/] Kalich, Exh. No. CGK-1T at 2:19-22.

Q. DO YOU AGREE WITH AVISTA'S DECISION NOT TO UPDATE THE POWER COST BASELINE AND ITS INTERPRETATION OF THE COMMISSION'S ORDER IN UE-170485?

A. No. Given recent ERM activity and the language in the Commission's Order 07 in UE-170485, I recommend making certain changes to baseline net power costs. Specifically, I discuss the effects of the following three changes to Avista's power costs since the Commission last considered power costs in Docket UE-170485:

- WNP-3 Contract Expiration (Adj. 2.18E.A4): This legacy settlement agreement expired on June 30, 2019.
- GTN Pipeline Rates (Adj. 2.18E.A5): As a result of a tax reform settlement, GTN Pipeline rates will be reduced by approximately 17.5% from UE-170485 levels.
- Pipeline Optimization (Adj. 2.18E.A6): Increased congestion value on Avista's pipeline rights into Canada has resulted in increased profits for Avista.

Other than these three known and measurable changes, I am not contesting or addressing any other aspect of Avista's proposed power costs.

Q. WHAT DID THE COMMISSION DECIDE IN DOCKET UE-170485 FOR POWER COSTS?

A. The current level of baseline net power costs was established in Docket No UE-170485. In that docket, Avista filed to increase net power costs by $16,004,000.[2/] Due to parties' concerns over the modeling methodology Avista employed in Aurora, the Commission did not accept or reject Avista's Aurora power cost modeling, and ordered parties to engage in stakeholder discussions about how power cost modeling may be simplified and

[2/] Docket UE-170485, Johnson Exh. No. WGJ-1T at 3:18.

improved.[3/] Notwithstanding, the Commission authorized Avista to increase baseline power costs by $14,500,00, to address specific increased costs associated with 1) the Portland General Electric Contract expiration, and 2) reduced transmission revenues from expiring agreements.[4/] In accepting these adjustments, the Commission stated "we find that the end of the PGE contract is a significant change to Avista's power costs that justifies a change in the baseline, and Avista's representation of how the revenue loss impacts the baseline is the only representation we have in the record."[5/] With respect to the PGE contract in particular, the Commission found that the "expiration of the PGE contract is a finite, known event with a measurable impact, and adjusting the ERM baseline based on how that event would impact power costs during a normalized year is appropriate."[6/]

Q. BASED ON THE COMMISSION'S FINAL ORDER IN UE-170485, DO YOU BELIEVE IT IS APPROPRIATE TO CHANGE AVISTA'S POWER COST BASELINE IN THIS DOCKET?

A. Yes. I have identified three adjustments that I believe meet the Commission's requirements for changing Avista's baseline. I discuss each of those adjustments in the following subsections.

3/ Docket UE-170485, Order 07 ¶ 161 (Apr. 26, 2018).
4/ Id. at ¶ 159.
5/ Id. at ¶ 162.
6/ Id. at ¶ 158.

i. Washington Nuclear Project 3 Settlement Expiration (2.18E.A4)

Q. PLEASE PROVIDE SOME BACKGROUND ON THE WASHINGTON NUCLEAR PROJECT 3 ("WNP-3") CONTRACT?

A. The WNP-3 Contract is a legacy agreement between Avista and the Bonneville Power Administration ("BPA"), related to the abandonment of the WNP-3 power plant, to be located near Aberdeen Washington. In May of 1983, BPA announced its recommendation to indefinitely delay construction activities at WNP-3. Through its net billing relationship with Energy Northwest, BPA had control over 70% of the partially developed nuclear project. The remaining 30% of the WNP-3 development was owned by Portland General Electric (10%), Pacific Power (10%), Avista Corporation (5%), and Puget Sound Energy (5%). Dramatic cost overruns, and Energy Northwest's eventual default—at the time the largest municipal default in history—were among the reasons BPA decided to temporarily cease development of the project.

Q. HOW DID THE MINORITY OWNERS RESPOND TO BPA'S DECISION TO CEASE CONSTRUCTION?

A. The minority group of investor-owned utilities were not supportive of BPA's 1983 decision to cease construction of WNP-3. The group had collectively invested significant sums with respect to the project and wished to keep investing, even though the cost was expected to be several multiples of the original projection. Accordingly, BPA was subsequently sued by the four minority WNP-3 owners, including Avista, with respect to BPA's decision to cease construction.

Q. HOW WAS THE SUIT AGAINST BPA RESOLVED?

A. In 1985, a settlement was reached between BPA and the minority owners, including Avista, that provided replacement power at cost-based rates through June 2019.[7/]

Q. WHEN DID THE WNP-3 SETTLEMENT AGREEMENT WITH BPA EXPIRE?

A. The WNP-3 Settlement with BPA expired on June 30, 2019.[8/]

Q. HOW WAS AVISTA'S UNRECOVERED INVESTMENT IN WNP-3 RESOLVED?

A. Avista was authorized to amortize its share of unrecovered WNP-3 investment through the June 2019 term of the power purchase agreement. While this amortization expense has been included in past cases, I confirmed that Avista did remove this amortization expense as a pro forma adjustment in Adjustment 3.02.

Q. HOW IS THE WNP-3 CONTRACT STRUCTURED?

A. As described in BPA's 1985 Annual Report: "the private utilities [] purchase about the same amount of power from BPA that they would have received from their share of the investment in WNP-3. And they [] pay to BPA about the same amount of money for the power that they would have paid for WNP-3 power."[9/]

7/ A discussion of the WNP-3 settlement may be noted on page 25 of BPA's 1985 Annual Report (Bonneville Power Administration, 1985 Annual Report, 25, accessible at: https://www.bpa.gov/Finance/FinancialInformation/AnnualReports/Pages/Prior-Fiscal-Years.aspx (Feb. 1986). (accessed September 2019)).

8/ Mullins, Exh. No. BGM-11 at 13 (Avista Resp. to AWEC Data Request ("DR") 130).

9/ Bonneville Power Administration, 1985 Annual Report, 25, accessible at: https://www.bpa.gov/Finance/FinancialInformation/AnnualReports/Pages/Prior-Fiscal-Years.aspx (Feb. 1986).

Q. WHAT WAS THE RATE FOR WNP-3 PURCHASES IN THE UE-170485?

A. A cost of $44.325/MWh for WNP-3 power purchases is currently embedded in rates based on Docket UE-170485. In response to AWEC Data Request 130, Avista described this rate as being "the average of the floor and ceiling price in the contract."

Based on Avista's public workpapers in the Docket UE-170485, baseline power costs include 396,914 MWhs of WNP-3 power, shaped seasonally, for a total cost of $17,593,213.

Q. HOW WILL THE EXPIRATION OF THE WNP-3 CONTRACT IMPACT AVISTA'S POWER SUPPLY COSTS?

A. Given the high price of the settlement contract, its expiration will benefit Avista. Based on a comparison to current forward market prices at the mid-Columbia market hub, I calculate ratepayers will save $5,921,986 on a system basis as a result of the WNP-3 expiration. On a Washington-allocated basis, the savings equates to $3,872,387. I have detailed these calculations in Mullins, Exh. No. BGM-5. In developing this estimate, I relied on the forward market prices Avista provided in response to AWEC Data Request 14.[10/]

Q. IS YOUR ADJUSTMENT CONSISTENT WITH THE COMMISSION'S FINAL ORDER IN UE-170485?

A. Yes. Just like the effects of the PGE contract expiration the Commission authorized Avista to include in the power cost baseline, the expiration of the WNP-3 Settlement "is a finite, known event with a measurable impact."[11/] Further, the expiration of the WNP-3

[10/] Mullins Exh. No. BGM-11 at 2 (Avista's Resp. to AWEC DR 14).
[11/] Docket UE-170485, Order 07 ¶ 158 (Apr. 26, 2018).

Settlement will result in a material reduction to Avista's power costs and is, therefore, "a significant change that justifies a baseline adjustment."[12/] As Avista testified with respect to the PGE contract, "[i]t is important that retail rates reflect the reality that Avista is no longer receiving the net benefits from this expired contract."[13/] The same reasoning applies to the expiration of the WNP-3 Settlement contract. Ratepayers have been waiting for the WNP-3 settlement agreement to expire for a long time, and accordingly, should not have to wait any longer to recognize the benefits from its expiration.

ii. GTN Pipeline (2.18E.A5)

Q. PLEASE PROVIDE SOME BACKGROUND ON THE GAS TRANSMISSION NORTHWEST PIPELINE.

A. The GTN Pipeline delivers gas from Kingsgate on the Canada-Idaho border to Malin on the California-Oregon border. It crosses the Williams pipeline at Stanfield, near Carty and Coyote Springs. Avista reserves approximately 69,338 dth/day on the GTN Pipeline, which Avista uses to fuel its Lancaster and Coyote Springs 2 facilities. Avista's GTN Pipeline rights are also interconnected with Avista's rights on pipelines into Canada, including the Foothills pipeline and the TransCanada pipeline system. With these rights, Avista can access relatively inexpensive gas from Alberta, on the NOVA system, or the AECO market hub, and deliver it as far south as Malin for use in its power plants, or for sale at the Malin market hub.

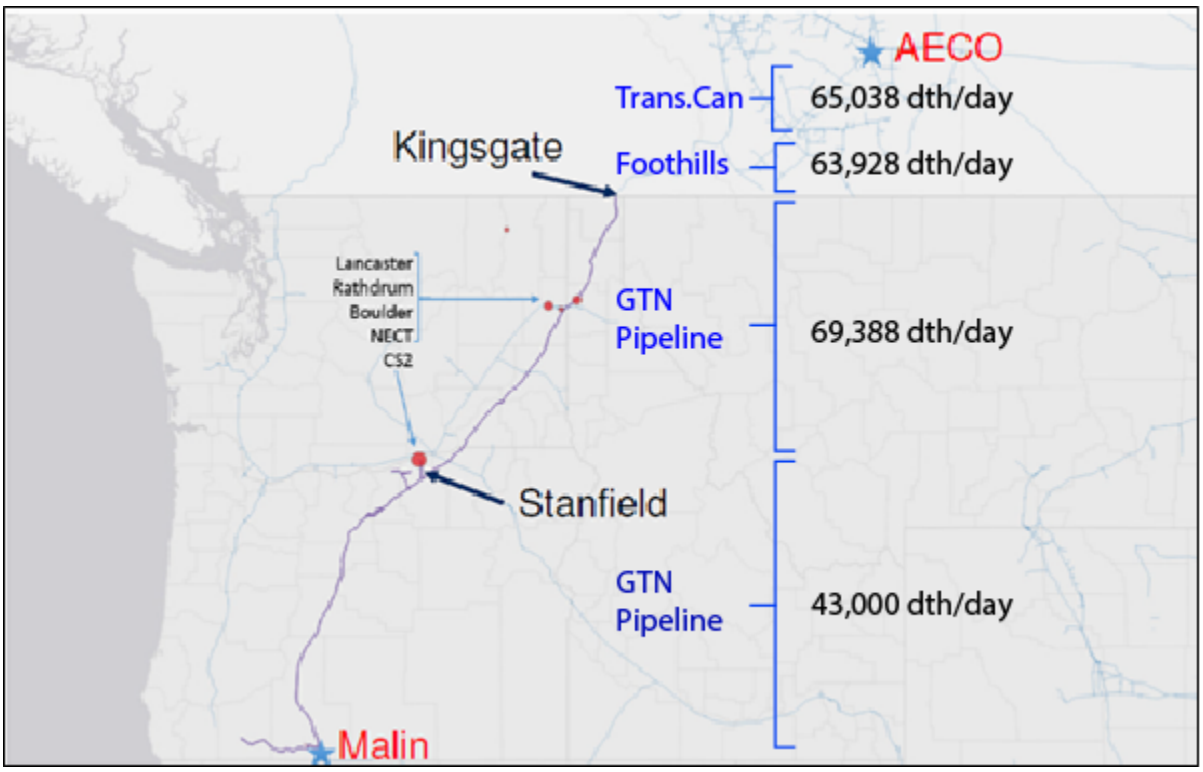
12/ Id. at ¶ 159.

13/ Docket UE-170485, Exh. No. WGJ-1T at 5:21-6:1.

Q. WHAT IS THE EXTENT OF AVISTA'S PIPELINE RIGHTS?

A. Avista maintains extensive pipeline rights throughout the Northwest and into Canada. I have detailed these pipeline rights in Figure 1, below.

FIGURE 1
Avista Electric System Pipeline Right
Dth/day (Source: AWEC DR 128)



Q. HAVE THE RATES FOR THE GTN PIPELINE CHANGED SINCE UE-170485?

A. Yes. On October 16, 2018, a settlement between shippers and the GTN Pipeline was filed with the Federal Energy Regulatory Commission ("GTN Stipulation"). Avista and AWEC were both parties to the GTN Stipulation. The settlement resulted in material reductions to the GTN Pipeline rates due to the effects of tax reform. I have attached the relevant parts of the GTN Stipulation in Mullins, Exh. No. BGM-6. As can be noted in

this exhibit, relative to the rates assumed in Avista's power cost baseline, GTN Pipeline rates will decline materially based on the terms of the GTN Stipulation. These reductions are detailed in Table 2, below:

TABLE 2
GTN Pipeline Rate Reductions

	Mileage		Non-Mileage	
	Rate	% Δ	Rate	% Δ
January 1, 2018	0.000434		0.034393	
January 1, 2019	0.000391	-9.9%	0.030954	-10.0%
January 1, 2020	0.000362	-7.4%	0.028612	-7.6%

As can be seen, the settlement resulted in GTN Pipeline's rates declining on January 1, 2019 by approximately 10%. In addition, rates are set to decline further by an additional 7.5% on January 1, 2020. Thus, collectively, GTN pipeline rates will decline by approximately 17% as a result of the GTN Stipulation.[14/]

A. WHAT WERE AVISTA'S GTN PIPELINE COSTS BEFORE THE SETTLEMENT REDUCTIONS?

A. Based on Avista's response to AWEC Data Request 128, Avista includes $8,563,745 in GTN Pipeline costs in UE-170485 on a total system basis. The workpapers Avista provided in response to AWEC Data Request 128, however, only appeared to include $6,026,080 in expenses.

[14/] Further, the GTN Stipulation also provided a one-time $10,000,000 credit to shippers in connection with interim period tax savings. This interim period credit was provided on shippers' November 2018 bills, received in December 2018. Based on Avista's response to AWEC DR 126, I confirmed that Avista received this credit on its November 2018 Bill.

Q. HOW WILL AVISTA'S GTN PIPELINE COSTS CHANGE AFTER THE GTN SETTLEMENT?

A. Applying the reduced rates from the GTN Stipulation to the billing determinants used in response to AWEC Data Request 128 results in an expected GTN Pipeline cost of $5,058,945 on a total system basis. These calculations may be found in my workpapers. Relative to the amount included in rates, this is a reduction to Avista's costs of $967,134 on a total system basis or $632,409 on a Washington-allocated basis.

Q. IS YOUR ADJUSTMENT CONSISTENT WITH THE COMMISSION'S REQUIREMENTS IN ITS FINAL ORDER IN UE-170485?

A. Yes. Again, like the expiration of the WNP-3 Settlement contract described above, and the expired PGE contract the Commission reflected in the baseline in UE-170485, the reduction to the GTN Pipeline rates from the settlement is clear and definite. It is a "known event with a measurable impact" and adjusting the ERM baseline to reflect this impact, therefore, "is appropriate."[15/]

iii. Pipeline Optimization (2.18E.A6)

Q. WHAT ARE YOU RECOMMENDING WITH RESPECT TO GAS TRANSPORTATION OPTIMIZATION REVENUES?

A. In UE-170485, Order 07, paragraph 156, the Commission stated that what was "clear in the record is that Avista's power cost forecasts have been consistently unbalanced in the Company's favor over recent years." A key source of Avista's power cost variances in recent years relates to increasing basis spreads between the AECO and Malin market hubs. For the purpose of serving its Coyote Springs 2 and Lancaster power plants, Avista

[15/] Docket UE-170485, Order 07, ¶ 158.

contracts for firm transportation capacity on the GTN Pipeline, the Foothills pipeline and the TransCanada pipeline, giving Avista access in the north to the AECO market hub and in the south to the Malin market hub. These rights were noted in Figure 1, above. Having access to both markets provides material financial benefits to Avista and its ratepayers. In recognition of these financial benefits, Avista's power costs in UE-170485 included a $9,000,000 credit in recognition of the spreads between AECO and Malin market prices.

Since UE-170485, however, the value of Avista's transmission rights and the associated spreads between AECO and Malin, have appreciated materially.

Q. WHAT ARE GAS TRANSPORTATION OPTIMIZATION REVENUES?

A. Similar to electricity prices, natural gas prices differ depending on the location of a transaction. Accordingly, if an entity owns gas transportation rights between two locations, it can buy at one location and sell at the other, earning a margin, or basis, equal to the difference in price between the two locations. These trading activities optimize the cost associated with fueling Avista's thermal power plants.

Q. DOES AVISTA MAINTAIN SEPARATE PIPELINE RIGHTS FOR ITS GAS CUSTOMERS?

A. Yes. Avista maintains separate accounting and enters into separate pipeline contracts for its electric and gas business lines. The optimization revenues on the gas side flow through to gas sales customers through the Purchased Gas Adjustment mechanism, and thus, are not impacted by this adjustment. Note that while Avista has no electric power plant as far south as Malin, it is able to sell gas between its business lines and use the

pipeline rights it reserves for its electric service to serve its gas customers in the Klamath Falls and Medford regions. Thus, establishing proper pricing for gas optimization revenues is necessary for ensuring intercompany gas transfers are valued properly.

Q. ARE OPTIMIZATION REVENUES CAPTURED IN AVISTA'S POWER COST MODELING?

A. Yes. In Avista's power cost modeling, the fuel supply costs are based on the location of each individual plant. For example, the costs for the Coyote Springs 2 plant is calculated at Stanfield prices, even though Avista has the ability to import gas from the AECO market. This is consistent with Avista's actual practice of dispatching its gas plants at local, Stanfield, gas prices, not the AECO market hub. Notwithstanding, Avista's ability to use AECO to serve its power plants—or, in the alternate, to earn margins by remarketing the gas—presents a material benefits to ratepayers that does not get captured in the dispatch cost. Thus, absent the out-of-model adjustment Avista performs, the beneficial aspects of the pipeline system would not get captured in Avista's power cost modeling. In Docket UE-170485, Avista calculated this out-of-model adjustment to be $9,000,000 on a system basis.

Q. HOW DID AVISTA CALCULATE THE OUT-OF-MODEL ADJUSTMENT IN UE-170485?

A. It is not entirely clear. In Public Counsel Data Request 107, Avista was asked to provide its calculation of the gas transportation values used in UE 170485. In a Supplemental Response, Avista stated that it had actually calculated a gas optimization credit in the pro forma period of $13,000,000 in UE-170485.[16/] Notwithstanding, Avista stated that it

[16/] Mullins, Exh. No. BGM-11 at 16-17 (Avista Supplemental Response to PC Data Request 107)

"was not convinced that the spreads would remain wide enough to support a $13 million gas transport value in the pro forma period," and accordingly made a judgement-informed adjustment to reduce the calculation to $9,000,000, although this change in methodology was not discussed in the docket.

Q. HAVE AVISTA'S GAS OPTIMIZATION REVENUE LEVELS CHANGED SINCE UE-170485?

A. Yes. Given volatile energy prices, the value of basis spreads in the West has increased materially over the past two years. In Mullins, Exh. No. BGM-7 (Conf.), I provide calculations of the optimization revenues under two different scenarios: 1) using 2018 actual monthly market prices; and 2) using current forward market prices over the 12-month period ending March 2021.

Q. WHAT LEVEL OF PIPELINE OPTIMIZATION REVENUES DID AVISTA RECOGNIZE IN 2018?

A. From Mullins, Exh. No. BGM-7 (Conf.) it can be noted that in 2018 Avista's total system pipeline benefits were $38,917,804, compared to the $9,000,000 that had been modeled in baseline net power costs. That is a difference of $29,917,804. On a Washington allocated basis, the difference equates to a benefit of $19,532,652 that had not been considered in Avista's UE-170485 rates.

Q. WHAT LEVEL OF GAS OPTIMIZATION REVENUES ARE INDICATED BY CURRENT FORWARD PRICES?

A. In response to AWEC Data Request 14, Avista provided its forward curves for all gas and power markets as of August 13, 2018. Based on those forward curves and Avista's gas pipeline rights, I calculate gas optimization revenues of $16,753,101 on a total system basis for the rate period. This value is $7,753,101 larger on a total system basis the

$9,000,000 of pipeline optimization benefits currently included in rates. On a Washington allocated basis, this variance amounts to $5,039,153.

Q. WHAT DO YOU RECOMMEND?

A. The level of spreads between AECO and Malin continue to be significantly higher in daily and short-term markets than in long-term forward markets. For example, on September 19, 2019, gas was trading at AECO for $0.25/Dth, compared to $2.34/Dth at Malin.[17/] Given the continuation of these wide market spreads, even following the aftermath of the Enbridge incident,[18/] there is reason to believe that Avista's actual optimization revenues in the rate period will be more in line with the results Avista experienced in 2018 than the spread noted in the forward prices. Accordingly, I recommend applying an adjustment equal to the midpoint between actual 2018 optimization revenues and rate period optimization revenues, using current forward curves. As noted on Page 1 of Mullins, Exh. No. BGM-7, this recommendation produces a $12,285,902 reduction to net power costs relative to UE-170485.

Q. IS THE DIFFERENCE BETWEEN THE LEVEL OF OPTIMIZATION REVENUES INCLUDED IN THE BASELINE AND THE LEVEL AVISTA EXPERIENCES IN ACTUAL OPERATIONS A SIGNIFICANT DRIVER OF THE DIRECTIONAL BIAS THE COMMISSION FOUND IN UE-170485?

A. Yes. As I detail in Table 3, below, the historical ERM deferrals and the associated power cost variances indicate that Avista's baseline net power costs continue to be unbalanced.

17/ Source: Enerfax; Clearing Up, Issue 1921 at 5 (Sep. 27, 2019)

18/ In October 2018, the primary pipeline carrying gas from Canada to the Williams Northwest Pipeline that serves much of the Pacific Northwest ruptured, causing both gas and electric market prices to spike over the several months following the rupture.

TABLE 3
Historical ERM Power Cost Variances

	2016	2017	2018
Total System			
Actual NPC (w/o Gas Opt.)	136,611,634	137,235,359	134,722,818
Gas Opt. Revenues	(13,416,561)	(6,059,188)	(12,165,500)
Actual Net Power Cost	123,195,073	131,176,171	122,557,318
Authorized Net Power Cost	138,670,410	136,830,730	148,453,951
Variance	15,475,337	5,654,559	25,896,633
Variance %	11.16%	4.13%	17.44%
Wa. Variance (incl. load adj.)	8,426,688	6,219,740	15,544,268
ERM Deferral	3,320,016	1,664,805	9,489,841
ERM Ending Balance	17,947,670	22,048,815	31,273,344
Company Benefit	5,106,672	4,554,935	6,054,427

As can be seen from Table 3, notwithstanding the Commission's decision to increase power costs by $14,500,000 in UE-170485, power costs actually declined by $8,618,853 between 2017 and 2018. Further, the power cost variance in 2018 increased to 17.4%.

As Mr. Kalich discusses, the ongoing power cost workshops have been instructive in identifying the source of historical power cost variances. As a part of the workshops, Avista performed several back casts and it was apparent that the model itself can be configured to simulate actuals reasonably well, provided that it is populated with actual inputs for prices and contract deliveries.

As can be seen in Chart 1 on page 7 of Avista Witness Kalich's Direct Testimony, prices and contracts have been a key source of variance that has been driving the historical power cost variances. This is consistent with the findings of Avista's back cast.

That is, the prices and contracts input in the model, particularly related to gas optimization, have not accurately predicted actual market prices and contract deliveries.

Q. IS YOUR ADJUSTMENT TO REFLECT ADDITIONAL PIPELINE OPTIMIZATION REVENUES CONSISTENT WITH THE COMMISSION'S ORDER IN UE-170485?

A. Yes. The difference between the level of optimization revenues Avista has received and the amount included in the baseline forecast represents an "extraordinary circumstance" that warrants a change to the baseline. Additionally, given the results of Avista's back cast analysis and the analysis I present above, the receipt of optimization revenues significantly above what is included in the baseline is sufficiently certain to warrant an adjustment. Setting an accurate baseline "is necessary for the ERM to function as intended,"[19/] and the level of expected gas optimization revenues in the rate period relative to what is reflected in the baseline demonstrates that this baseline will not be accurate.

Q. ARE ANY OF YOUR ADJUSTMENTS DISCUSSED ABOVE RELATED TO THE POWER COST BASELINE PROPERLY CONSIDERED IN AVISTA'S CURRENTLY CONSOLIDATED ERM FILING, DOCKET UE-190222?

A. No. All of my adjustments discussed above relate to baseline power costs included in base rates established in a general rate case. Pursuant to the Commission's Order 04, issued in this proceeding on October 2, 2019, the filing deadline for testimony in Docket UE-190222 has been suspended, and parties have been directed to file a list of contested issues by October 3, 2019, with testimony on these issues to be rescheduled at later date. I will address any issues AWEC has with Avista's calculation of its owed refund to

[19/] Docket UE-170485, Order 07, ¶ 160.

customers in this rescheduled testimony. I also understand that AWEC will be filing its list of contested issues in Docket UE-190222 by the October 3 deadline, as set forth in Order 04.

b. Revenue Growth and EOP Rate Base (3.01E.A7; 3.01G.A7)

Q. WHAT RATE BASE CONVENTION HAS AVISTA PROPOSED IN THIS DOCKET?

A. In its results of operations, Avista's test period results are measured on an Average-of-Monthly-Average ("AMA") basis over the period January 1, 2018 through December 31, 2018. In adjustments 2.19E and 2.15G, Avista restates its rate base at the End of Period ("EOP"), December 31, 2018. Further, Avista also includes additional pro forma adjustments in 3.10E and 3.10G to restate its rate base at EOP, December 31, 2019 levels.

Q. IS AVISTA'S PROPOSAL TO USE EOP RATE BASE AND PRO FORMA ADJUSTMENTS THROUGH THE END OF 2019 SYMMETRICAL AND FAIR TO CUSTOMERS?

A. No. If the Commission is to accept Avista's proposal for end-of-period rate base, I believe is important for there to be consistency between the measurement of rate base and the measurement of revenues in any revenue requirement calculation.

Thus, if rate base is measured December 2019 levels, I recommend revenues be measured consistently, at the same point in time as the rate base. Like Avista's rate base, revenues are growing over time and the economic conditions in Avista's service territory have improved. Dr. Kaufman's testimony supports this conclusion.[20/] Accordingly, it is inconsistent to compare plant balances measured statically as of December 31, 2019 to

[20/] Exh. No. LDK-1T, Section VII.

revenues received ratably over the 12 months January 2018 through December 2018. Under Avista's method there is an approximate 1.5 year lag between the historical billing determinants Avista uses and the rate base valuation date.[21/]

Q. HOW DO YOU RECOMMEND ADDRESSING THE TIMING DIFFERENCE BETWEEN AVISTA'S RATE BASE AND ITS PROPOSED REVENUES?

A. I recommend adjusting revenues to reflect the additional 1.5 years of revenue growth that will occur between the revenue measurement period and the rate base measurement period. One way to do this is to recalculate Avista's rates using forecast billing determinants over the period July 2019 through June 2020. Note that the midpoint of such a period corresponds to the rate base valuation date of December 31, 2019. Given that Avista performed its cost of service study and designed its rates using historical billing determinants, updating the billing determinants in this case would represent a material change to Avista's filing.

An alternative way to address the issue, however, is to apply a production adjustment against revenue requirement, which is intended to account for revenue growth. This approach is simpler and does not require a billing determinant change. While either approach is acceptable, I have used a production adjustment to account for revenue growth over the approximate 1.5-year lag period between revenues and rate base.

[21/] Calculated from the mid-point of the revenue measurement period June 30, 2018 to December 31, 2019.

Q. HOW MUCH ARE AVISTA'S REVENUES EXPECTED TO GROW?

A. In response to AWEC Data Request 104, Avista provided its load and revenue forecast through the rate period for both gas services and electric services. I have summarized that forecast for both gas services and electric services in Mullins, Exh. No. BGM-8

Q. HOW MUCH ARE ELECTRIC SERVICE REVENUES EXPECTED TO GROW IN THE PRO FORMA PERIOD.

A. Page 2 of Mullins, Exh. No. BGM-8 shows the amount of electric service revenues Avista reported for the 12 months ending December 31, 2019. As can be seen, Avista reported an increase of kWh sales of 1.8% relative to the test period loads used in Adjustment 3.01E. Further, over the 12 months ending December 31, 2019, electric service revenues are expected to be 1.4% higher than the revenue amount Avista incorporated into Adjustment 3.01E. That equates to additional revenues of $7,137,894.

Page 3 of Mullins, Exh. No. BGM-8 shows the amount of revenues Avista expects over the 12 months ending June 30, 2020. I view this period to be the equivalent to Avista's December 2019 EOP rate base assumption. Relative to Adjustment 3.01, Avista reports an increase in kWh sales of 2.2%, and corresponding revenue growth of 1.7%, over the 1.5-year period. That equates to additional revenues of $8,771,993.

Q. HOW MUCH ARE GAS SERVICE REVENUES EXPECTED TO GROW IN THE PRO FORMA PERIOD?

A. As can be seen on Page 2 of Mullins, Exh. No. BGM-8, Avista actually reported an expected reduction of therm sales of (-)0.6% in the 12 months ending December 31, 2019. Notwithstanding, Avista reported gas service revenues were expected to increase by 3.5% relative to the revenue amount Avista incorporated into Adjustment 3.01E. That

equates to additional revenues of $3,282,269. This revenue growth appears to be driven by growth in the number of large customers.

Finally, Page 3 of Mullins Exh. No. BGM-8 shows the amount of gas revenues Avista reported over the 12 months ending June 30, 2020. Relative to Adjustment 3.01, Avista reported a 0.4% increase in therm sales. Thus, sales declined slightly in 2019, but are expected to subsequently increase again in 2020. The corresponding revenue growth Avista reported was 4.8%, over the 1.5-year period. That equates to additional revenues of $4,339,223.

Q. WHAT DO YOU RECOMMEND?

A. I recommend applying a production adjustment equal to the revenue growth Avista has calculated in AWEC Data Request 104. Specifically, I recommend using the revenue levels expected over the 12 months ending June 30, 2020 as the basis for this adjustment. Those values can be noted on Page 3 of Mullins, Exh. No. BGM-8. In calculating the revenue requirement impact of this adjustment, I have also reduced operating expenses for the additional revenue sensitive costs associated with the incremental revenues. This produces a revenue requirement reduction of $8,771,993 for electric services and $4,339,223 for gas services.

c. Pro Forma Rate Base (3.10E; 3.10G)

Q. PLEASE SUMMARIZE YOUR REVIEW OF AVISTA'S RATE BASE CALCULATIONS.

A. As noted above, Avista's test period results are measured on an Average-of-Monthly-Average ("AMA") basis over the period January 1, 2018 through December 31, 2018. In

adjustments 2.19E and 2.15G, Avista restates its rate base at the End of Period ("EOP"), December 31, 2018. Further, Avista proposes pro forma rate base adjustments in 3.10E and 3.10G to restate its rate base at EOP, December 31, 2019 levels. With respect to Avista's pro forma rate base, I have the following recommendations with respect to Avista's rate base:

- Retirements (3.10E.A12; 3.10G.A12); I recommend accounting for retirements in the pro forma period.
- Corporate Jet (3.10E.A13; 3.10G.A13): I recommend removing historical lease expenses and cost of the corporate jet hangar.
- Customer Advances (3.10E.A14; 3.10G.A14): Customer Advances: I recommend considering additional customer advances capitalized in the pro forma period.

In addition to these adjustments, AWEC witness Kaufman will discuss pro forma capital issues related to Avista's investment in the AvistaUtilities.com Redesign project.

i. Plant Retirements (3.10E.A12; 3.10G.A12)

Q. WHAT ISSUE HAVE YOU IDENTIFIED WITH RESPECT TO RETIREMENTS?

A. In response to AWEC Data Request 111, Avista noted that it did not consider the effects of retirements when calculating its Pro Forma Capital Adjustment 3.10.

Q. WHAT DO YOU RECOMMEND?

A. I recommend including an amount in Adjustments 3.10E and 3.10G that considers the retirement activity expected over the pro forma period. Note that in response to AWEC Data Request 112, Avista confirmed that it also did not consider retirements when calculating its EOP adjustment for 2018, adjustments 2.19E and 2.15G

Q. HOW DO RETIREMENTS AFFECT REVENUE REQUIREMENT?

A. While retirements do not affect the level of rate base, since retirement accounting is a credit to gross plant and a debit to accumulated reserves, retirements do result in a reduction to gross plant balances. The gross plant balances are used to determine depreciation expenses. Accordingly, a reduction due to retirements results in a corresponding reduction to depreciation expenses.

Q. WHAT AMOUNT OF RETIREMENT HAS AVISTA HISTORICALLY EXPERIENCED?

A. In AWEC Data Request 109, Avista was requested to provide plant retirements by FERC account for both gas and electric services over the annual periods 2016, 2017, and 2018. Avista's response is summarized in Table 4, below. Table 4 details the historical level of plant retirements Avista has experienced. Table 4 also details the corresponding impact of the historical retirements on depreciation expenses, based on current depreciation rates.

TABLE 4
Historical Impact of Retirements on Depreciation Expense
Washington Allocated ($000)

	Electric				Gas			
	2016	2017	2018	3-yr Avg.	2016	2017	2018	3-yr Avg.
Retirements								
Elect./Gas Plant	(35,110)	(21,880)	(18,037)	(25,009)	(2,768)	(2,372)	(2,879)	(2,673)
Common Plant	(10,133)	(11,511)	(15,925)	(12,523)	(3,124)	(3,551)	(4,906)	(3,860)
Total	(45,243)	(33,391)	(33,962)	(37,532)	(5,892)	(5,923)	(7,784)	(6,533)
Wtd. Depr. Rate								
Elect./Gas Plant	0.0495	0.0407	0.0428	0.0453	0.0267	0.0281	0.0259	0.0268
Common Plant	0.0740	0.0748	0.0754	0.0749	0.0740	0.0748	0.0755	0.0749
Impact on Depr. Exp.								
Elect./Gas Plant	(1,739)	(890)	(773)	(1,134)	(74)	(67)	(74)	(72)
Common Plant	(750)	(861)	(1,202)	(937)	(231)	(266)	(370)	(289)
Total	**(2,488)**	**(1,751)**	**(1,974)**	**(2,071)**	**(305)**	**(333)**	**(445)**	**(361)**

As can be noted, the level of retirements Avista experiences each year are material, and produces a material downward impact on Avista's depreciation expenses. Note that the depreciation expenses are calculated based on the depreciation rates using the specific property that was retired in the respective years.

Q. HOW DO YOU RECOMMEND RETIREMENTS BE CONSIDERED OVER THE PRO FORMA PERIOD?

A. I recommend using a 3-year average amount for the retirements expected over the 2019 pro forma period. Based on the information detailed in Table 4, above, this recommendation results in a $2,071,142 reduction to depreciation expenses for electric services and a $360,781 reduction to depreciation expenses for gas services.

ii. Corporate Aircraft and Hangar (3.10E.A15; 3.10G.A15)

Q. PLEASE IDENTIFY YOUR ADJUSTMENT RELATED TO AVISTA'S CORPORATE AIRCRAFT COSTS.

A. In 2018, Avista decided to purchase the corporate aircraft, which it had historically leased. Accordingly, Avista is now recovering the cost of the corporate aircraft through rate base, rather than lease expense. In response to AWEC Data Request 115, however, Avista confirmed that it had incorrectly included certain amounts related to the historical aircraft lease expense, and that Avista had intended to remove the lease expenses as a pro forma adjustment.

Q. WHAT IS THE AMOUNT OF THE ADJUSTMENT AVISTA IDENTIFIED IN AWEC DR 115?

A. Avista identified revenue requirement adjustments of $105,283 for electric services and $30,114 for gas services in connection with removing the historical aircraft lease

expenses. I have accepted Avista's response and applied those amounts as adjustments in my revenue requirement models.

iii. Customer Advances (3.10E.A16; 3.10G.A16)

Q. WHAT ARE CUSTOMER ADVANCES?

A. In responses to AWEC Rata Requests 16 and 134, it can be noted that Avista receives material amounts of customer advances that get capitalized to plant each year, reducing rate base and depreciation expenses. Customer advances are funds received from customers for line extensions and other contributions in aid of construction. In 2018, Avista received $9,441,045 in customer advances. Of that amount, $787,070 was refunded, while the remaining $8,096,088 was capitalized as a reduction to plant.

Q. DO CAPITALIZED CUSTOMER ADVANCES GET CAPTURED IN AVISTA'S REVENUE REQUIREMENT CALCULATIONS?

A. No. Avista adjustments 3.10E and 3.10G do not capture the incremental impact of new customer advances that get capitalized in the pro forma period.

Q. WHAT DO YOU RECOMMEND?

A. In adjustments 3.10E and 3.10G, I recommend including a provision for the pro forma amount of customer advances expected to be capitalized in the 2019 pro forma period.

Q. WHAT AMOUNT OF CAPITALIZED CUSTOMER ADVANCES DO YOU RECOMMEND FOR THE PRO FORMA PERIOD?

A. I propose to calculate the amount based on the historical average of capitalized amounts between 2016 and 2018. Given the upward for trend of these funds, it should be noted this proposal may understate the actual customer advances capitalized in the period. Other reasonable approaches would be to simply assume the 2018 level of capitalizations,

or to estimate test year revenues from customer advances based on the three-year trend, which has increased by approximately 20% each year. Table 5 below details the 3-year average amount of capitalized customer advances, separated by gas and electric services.

TABLE 5
Capitalized Customer Advances
(Whole Dollars)

	2016	2017	2018	Average
Capitalized Per AWEC DR 16	(5,060,838)	(6,586,280)	(8,096,088)	
Elect. %	*70.14%*	*70.14%*	*70.14%*	
Wa. %	*68.60%*	*68.60%*	*68.60%*	
Wa. Electric	(2,434,724)	(3,168,600)	(3,894,955)	(3,166,093)
Gas N.%	*20.55%*	*20.55%*	*20.55%*	
Wa. %	*72.27%*	*72.27%*	*72.27%*	
Wa. Gas	(751,594)	(978,140)	(1,202,364)	(977,366)

Thus, using the three-year average produces a Washington-allocated rate base reduction equal to $3,116,093 for electric services and $977,366 for gas services.

Q. WHAT IS THE REVENUE REQUIREMENT IMPACT OF YOUR RECOMMENDATION?

A. This recommendation produces a revenue requirement reduction of $265,857 for electric services and $82,051 for gas services.

d. Director Fees (2.12E.A2; 2.12G.A2)

Q. HOW DID AVISTA HANDLE DIRECTOR FEES IN ITS INITIAL FILING?

A. In the 2015 GRC, the Commission noted that its "practice is to allow the Company recovery of 50 percent of director fees from ratepayers."[22/] In this Adjustment 2.12E and

[22/] 2015 GRC, Order 05 at ¶ 220.

2.12G, Avista removed 50% of the director fees, resulting in an reduction to operating expenses of $365,000 for electric services and $113,000 for gas services. Notwithstanding, Avista only included the fee portion of the directors' compensation, and did not consider reimbursed directors' expenses when figuring the adjustment.

Q. WHAT AMOUNT OF EXPENSES WERE EXCLUDED FROM THE OFFICERS ADJUSTMENT?

A. In AWEC Data Request 135, Avista was requested to provide detail with respect to the adjustment amounts described above. In response, Avista provided its workpapers along with transaction detail supporting all reimbursed officer expenses. Based on that detail, it appeared there were $539,863 and $166,655 of reimbursed director expenses that did not get captured in Avista's adjustments 2.12E and 2.12G, respectively.

Q. WHAT DO THESE EXPENSES REPRESENT?

A. Based on Avista's response to AWEC Data Request 135, it can be noted that these amounts represent typical reimbursement expenditures, such as mileage reimbursement, airfare, hotel accommodations, and in one case $820 spent on ski passes at Lookout Pass ski resort. Some entries appear to be personal expenses, although most of those were charged to non-utility.

Q. DO YOU RECOMMEND THAT THESE REIMBURSED EXPENDITURES BE CONSIDERED IN THE 50% ADJUSTMENT FOR DIRECTORS FEES?

A. Yes. Based on the nature of expenses detailed in response to AWEC Data Request 135, I believe the additional reimbursed expenditures are appropriately considered in the 50% adjustment for directors fees.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. Including the additional reimbursed expenses in the 50% adjustment for directors fees results in reductions to operating expenses of approximately $103,572 for electric services and $31,966 for gas services.

III. RATE PLAN

Q. WHAT HAS AVISTA PROPOSED WITH RESPECT TO A RATE PLAN?

A. In addition to the pro forma revenue requirement discussed above, Avista has requested additional second-year rate increases, effective April 1, 2021, of $18,926,827 or 3.46% for electric services and $6,456,633 or 6.05% for gas services. Avista attempts to justify these rate increases based on revenue growth studies conducted by Avista witness Andrews. Functionally, the revenue growth studies Avista performed are similar to the attrition revenue requirement studies that Avista has presented in the past, by comparing historical trends in the Company's costs to forecast revenue growth. In contrast, in Mullins, Exh. BGM-9 and Mullins, Exh. BGM-10, I provide alternative revenue growth studies that justifies a second-year revenue requirement increases of $6,829,132 or 1.34% for electric services and a second-year margin revenue requirement increase of $1,182,365 or 1.17% for gas services.

Q. WHAT IS YOUR OVERALL RECOMMENDATION WITH RESPECT TO AVISTA'S REQUESTED RATE PLAN?

A. I recommend the Commission reject the rate plan. This recommendation is not based on a blanket opposition to rate plans, but on the basis that the revenue growth studies Avista relies on to establish second-year revenue requirement are an inappropriate basis on which to estimate just and reasonable rates, and are insufficiently detailed to demonstrate

Avista's need for the second-year rate relief it requests. As the party with the burden of proof in this case, Avista has failed to meet this burden, so I recommend the requested rate plan be rejected.

Q. WHY DO YOU DISAGREE WITH AVISTA'S USE OF A REVENUE GROWTH STUDY TO ESTABLISH A SECOND-YEAR REVENUE FORECAST?

A. There are several reasons why the Revenue Growth Study is not an appropriate form of rate relief to approve for Avista, given the current circumstances. First, the Revenue Growth Study is the equivalent of the attrition analysis that Avista proposed in prior proceedings, albeit at a less precise level.[23/] Second, the revenue growth model relies on historical trends that are not reliable estimates of future results, and that Avista has not adequately explained. Third, any expectation about the future plant levels, based on historical experience, is not accurate because Avista has new depreciation rates in place. As a result of all of these reasons, I recommend that the Commission not approve the revenue growth study.

Notwithstanding, if the revenue growth studies are to be used, I recommend several refinements to the approach Avista used. In Mullins, Exh. BGM-9 and Mullins, Exh. BGM-10, I have prepared alternative revenue growth studies that justify significantly lower revenue growth rates, than Avista has proposed.

Q. HOW IS THE REVENUE GROWTH STUDY SIMILAR TO THE ATTRITION ANALYSES THAT THE COMPANY HAS PERFORMED IN THE PAST?

A. The analysis Avista performs in the Revenue Growth Study, formerly called a K-Factor Study in docket UE-170485 (Cons.), functions in the same manner as the attrition study

[23/] Dockets UE-160228 and UG-160229 (Consolidated), Order 06 at ¶ 59.

that Avista has presented to the Commission in past proceedings, except that the Revenue Growth Study is performed at a higher level. Rather than detailing the historical trends by major cost categories, the Company aggregates the historical trending data into four categories: Depreciation, Operations and Maintenance (O&M) Expenses, Taxes Other than Income Taxes, and Net Plant. The historical trends are relied upon to develop an estimate of the rate of growth in these categories over the rate period. The rate of growth of these items is then compared to the rate of growth of sales, to develop an estimate of the percentage change in revenue deficiency in future periods.

Q. WHAT IS DRIVING THE REVENUE INCREASE IN THE REVENUE GROWTH ANALYSIS?

A. Since it was done at a less granular level than the former attrition study, the driving factors behind the results of the revenue growth study are even more difficult to ascertain. When approving the Company's attrition analysis in the 2015 GRC, the Commission established that claims of attrition should be based on factors beyond the control of the utility.[24/] Notwithstanding, it is not possible to ascertain from the revenue growth study whether the resultant rate increases are due to factors beyond Avista's control, since the analysis was performed at such a high level. As noted above, improving economic conditions in Avista's service territory are evidence that Avista is not experiencing attrition.

[24/] Dockets UE-150204 and UG-150205 (Cons.), Order 05, ¶136.

Q. WHAT ANALYSIS HAVE YOU PERFORMED?

A. I have performed a more granular revenue growth analysis in Mullins, Exh. BGM-9 and Mullins, Exh. BGM-10 for electric services and gas services respectively. The analysis reviews the historical growth in each category of cost in Avista's results of operations, and adopts a specific growth factor based on the historical characteristics of the particular cost category.

Further, in calculating the growth rate, I relied on linear interpolation, rather the fixed growth rates that Avista calculated between 2014 and 2018. The fixed growth rates imply compounding, or growth in growth, which I viewed to be not appropriately considered in a revenue growth formula. In addition, the growth factors are specific only to the respective years of 2014 and 2018, and do not consider the pattern of expenditures in the interim years of 2015, 2016, 2017. Linear interpolation is preferred because it considers all years in the historical period.

Q. WHAT GROWTH FACTORS DO YOU PROPOSE?

A. Tables 6 and 7, below, detailed the growth factors that I have calculated for electric services and gas services, respectively .

TABLE 6
AWEC Proposed Electric Service Revenue Growth Factors

Electric Revenue Growth Rate Calculation - Rate Year 2: Category	(a) Growth Rate	(b) Revenue Portion of Category	(c) Growth Rate % (a) x (b)
Operating Expenses [1]	1.69%	35.55%	0.60%
Depreciation/Amortization	4.30%	21.94%	0.94%
Taxes Other than Income	3.23%	10.05%	0.32%
Net Plant After ADFIT	2.11%	32.46%	0.69%
Annual Growth In Sales Revenue		100.00%	-0.88%
Total Revenue Growth Rate %			**1.67%**

[1] Reflects a 30 basis points efficiency adjustment in O&M expenses.

TABLE 7
AWEC Proposed Gas Service Revenue Growth Factors

Natural Gas Revenue Growth Rate Calculation - Rate Year 2: Category	(a) Growth Rate	(b) Revenue Portion of Category	(c) Growth Rate % (a) x (b)
Operating Expenses [1]	2.14%	39.53%	0.85%
Depreciation/Amortization	3.77%	22.38%	0.84%
Taxes Other than Income	2.81%	7.97%	0.22%
Net Plant After ADFIT	2.20%	30.13%	0.66%
Annual Growth In Sales Revenue		100.00%	-1.34%
Total Revenue Growth Rate %			**1.24%**

[1] Reflects a 30 basis points efficiency adjustment in O&M expenses.

Q. WHAT IS THE IMPACT OF APPLYING THESE GROWTH FACTORS IN THE REVENUE REQUIREMENT MODEL?

A. The revenue requirement impacts of applying these growth factors may be found on Page 5 of Mullins, Exh. No. BGM-3 for electric services and Page 5 of Mullins, Exh. No.

BGM-4 for gas services. As noted, applying these growth factors produces a revenue increase of $6,829,132 or 1.34% for electric services and $1,182,365 or 1.17% for gas services.

Q. DOES THIS CONCLUDE YOUR RESPONSE TESTIMONY?

A. Yes.