(Shaded rows or percentages represent agreement between Company and Staff)		× • /	· · ·	,
Avista Revised Revenue Growth Escalator (K-Factor) Calculation	(a)	<b>(b)</b>	( <b>c</b> )	( <b>d</b> )
	Growth	Agreed-to	Revenue	Weighted Avg
	Rate 2013-	Growth	Portion of	Escalation
Category	2016	Rate	Category	(a) or (b) x (c)
Operating Expenses (1)		2.03%	42.75%	0.87%
Depreciation/Amortization	10.93%		20.79%	2.27%
Taxes Other than Income	5.21%		7.57%	0.39%
Net Plant After ADFIT (2)		5.02%	28.90%	1.45%
Annual Growth In Sales Revenue (2)			100.00%	-0.84%
Total Escalator % Compar	ıy			4.14%
See Exh. EMA- 14, page 4 for growth rates and page 2 for revenue proportion and	annual growth in s	sales revenue.		
(1) On rebuttal Avista agrees with Staff's operating expenses growth component.				
(2) Staff witness Mr. Hancock supports Avista's Net Plant after ADFIT and Annua	l Growth in Sales I	Revenue compoi	nents.	

# NATURAL GAS Avista Revised Revenue Growth Factor (K-Factor) for Rate Years 2 and 3 (May 1, 2019 and May 1, 2020)

Staff Composite Revenue Escalator Calculation	(a)	(b)	(c)	( <b>d</b> )
	Growth	Agreed-to	Revenue	Weighted Avg
	Rate	Growth	Portion of	Escalation
Category	2007-2016	Rate	Category	(a) or (b) x (c)
Operating Expenses - UTC Indices		2.03%	42.75%	0.87%
Depreciation/Amortization	6.17%		20.79%	1.28%
Taxes Other than Income	5.41%		7.57%	0.41%
Net Plant After ADFIT (2)		5.02%	28.90%	1.45%
Annual Growth In Sales Revenue (2)		-	100.00%	-0.84%
Total Escalato	r % Staff			3.17%
See Exh. CSH-4, page 1.				
(1) On rebuttal Avista agrees with Staff's operating expenses growth com	ponent.			

(2) Staff witness Mr. Hancock supports Avista's Net Plant after ADFIT and Annual Growth in Sales Revenue components.

#### AVISTA UTILITIES

WASHI (Shaded rows or %'s represent agreement between Company and Staff) K-FACTOR RESTATED COMMISSION BASIS STUDY TWELVE MONTHS ENDED DECEMBER 31, 2016 (000'S OF DOLLARS)

Restated Commission Basis Line TOTAL TOTAL No. DESCRIPTION Total Escalator % Company R-Ttl PF-STtl Workpaper Reference REVENUES Total General Business \$ 150,970 150,970 1 \$ 2 Total Transportation 4,477 4,477 3 Other Revenues 1,020 1,020 156,467 156,467 4 Total Gas Revenues EXPENSES Production Expenses City Gate Purchases 63,460 63,460 5 T Purchased Gas Expense 994 994 6 Net Nat Gas Storage Trans 7 Total Production 64,454 64,454 8 Underground Storage 974 9 Operating Expenses 492 10 Depreciation/Amortization 11 210 Taxes 12 Total Underground Storage 1,676 Distribution 13 12,050 Operating Expenses 9,853 14 Depreciation/Amortization 15 8,383 Taxes Total Distribution 30,286 16 17 6,812 Customer Accounting Customer Service & Information 18 963 19 Sales Expenses Administrative & General 20 Operating Expenses 13,350 21 6,260 Depreciation/Amortization 22 23 Regulatory Amortizations 1,079 Taxes Total Admin. & General 20,689 24 25 Total Gas Expense 124,880 31,587 OPERATING INCOME BEFORE FIT 26 FEDERAL INCOME TAX 27 Current Accrual (1,260) 28 Debt Interest 12 Deferred FIT 9,923 29 30 Amort ITC (17) 31 NET OPERATING INCOME \$ 22,929 RATE BASE PLANT IN SERVICE 32 Underground Storage \$ 26,868 \$ 33 Distribution Plant 390,508 34 General Plant 82.624 Total Plant in Service 35 500,000 ACCUMULATED DEPRECIATION/AMORT 36 Underground Storage (10,317) 37 Distribution Plant (129,098) General Plant (23,473) 38 39 Total Accumulated Depreciation/Amortization (162,888) 40 NET PLANT 337,112 41 DEFERRED TAXES (74,181) 42 Net Plant After DFIT 262.931 GAS INVENTORY 43 9,116 44 GAIN ON SALE OF BUILDING 45 OTHER (249) WORKING CAPITAL 46 14,800 47 TOTAL RATE BASE \$ 286,598 286,598 \$

2016 Restated

#### **REVENUE GROWTH FACTOR (K-FACTOR) CALCULATION**

	Authorized RC	OR				1	
974		Capital		Weighted			
492	Component	Structure	Cost	Cost		Tax on	
210	Total Debt	51.5%	5.20%	2.68%	Tax	equity return	
1,676	Common	48.5%	9.50%	4.61%	32.31%	1.49%	
	Total	100.00%		7.29%	<b>≜</b>		
		Tax o	n Equity Return	1.49%			
12,050			to apply to RB	8.78%			
9,853					Revised to in	clude 21% Tax	
8,383							
30,286							
6,812							
963			Portion	2013-2016	2018-2020		
-		Revenue on CB *	of Total	Growth Rate	Growth Rate		
	Depreciation		20.79%	10.93%		Agree to	
	0&M		42.75%	3.62%	3.26%	Staff	
13,350	Taxes OTI	6,045	7.57%	5.21%		•	
6,260	Net Plant After ADFIT						
1,079	262,931	23,084	28.90%	8.17%	5.02%	Reduction to Ga Plant 2019-2020	
-	(RB*8.78%)					Plant 2019-2020	Stan Agrees
20,689	Revenue	\$ 79,883 N	Non-gas cost re	venues (1)			
124,880		*includes revenue	related evnenses				
124,000		(1) Non-gas cost Re	•	investment-rela	ted costs and o	operating expens	es
31,587		(1) 11011 gus cost rec	rendes, corening	intestinent rea	ieu costs una (	peruting expens	00.
01,007	-						
	Revenues Grov	wth: (Per Adj. 18.04		rs from 2016 t	o 04.30.2019)		
(1,260) 12		\$ 1,625	Annual \$ 697				
		\$ 1,625					
9,923 (17)			0.87%				
(17)		Rate Yrs 2 & 3					
22,929		Kate 115 2 & 5 K-Factor					
22,727		2019-2020					
	Depreciation	2.27%					
	O&M	0.87%					
26,868	Taxes OTI	0.39%					
390,508	Net Plant After ADFIT	1.45%					
82,624	Revenues	-0.84%					
500,000		4.14%					
(10,317)							
(129,098)							
(23,473)							
(162,888)							
337,112							
(74,181)							
262,931							
9,116							
,,110							
(249)							
14,800							
1							

#### NATURAL GAS COST AND REVENUE TREND CALCULATIONS 2013-2016

 ${\bf AVI}$  (Shaded rows or %'s represent agreement between Company and Staff)

## WASHINGTON NATURAL GAS RESULTS

Commission Basis Results of Operations (000'S OF DOLLARS)

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
line	DECODIDITION	Restated	Restated	Restated	Restated	Restated	Restated	Restated	Restated	Restated	Restated
No.	DESCRIPTION	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
1	Total Escalator % Company Total General Business	\$ 209,186	\$ 203,727	\$ 182,706	\$ 142,370	\$ 152,457	\$ 142,048	\$ 144.257	\$ 154.546	\$ 149,865	\$ 150,9
	Total Transportation	\$ 209,186 3,263	\$ 203,727 3,369		\$ 142,370 3,155	\$ 152,457 3,448	\$ 142,048 3,627	\$ 144,257 3,915	\$ 154,546 3,960	\$ 149,865 4,054	\$ 150,9
3	Other Revenues	5,265 68,416	5,509 153,093		3,155 115,257	5,448 98,841	68,107	5,915 403	3,960	4,054 7,129	4,4
	Total Gas Revenues	280,865	360,189		260,782	254,746	213,782	148,575	158,838	161,048	156,4
	EXPENSES	200,000	000,103	270,000	200,702	201,710	210,702	110,070	100,000	101,010	100,1
	Production Expenses										
5	City Gate Purchases	222,364	310,276	194,267	197,494	188,167	139,073	76,801	84,187	79,634	63,4
6	Purchased Gas Expense	792	(9,103		800	100,107	130	891	779	840	9
7	Net Nat Gas Storage Trans	283	2	10,720	(3,322)	(4,366)	4,352		-	-	
8	Total Production	223,439	301,175		194,972	183,815	143,555	77,692	84,966	80,474	64,4
	Underground Storage	-,	, .	,	. ,	,.	- ,	,	. ,	,	. ,
9	Operating Expenses	451	436	403	380	585	712	820	893	857	9
10	Depreciation/Amortization	310	430		348	395	438	380	402	439	4
11	Taxes	95	113		116	19	450	158	184	196	
	Total Underground Storage	856	825		844	999	1,167	1,358	1,479	1,492	1,0
12	Distribution	850	025	317	044	,,,,	1,107	1,556	1,475	1,492	1,0
13		6,467	6,123	7,700	7,696	8,854	9,511	10,820	10,704	12,315	12,0
13	Operating Expenses	5,605					6,978			9,088	12,0
14 15	Depreciation/Amortization Taxes	5,605 9,844	5,673 8,941	6,064 8,746	6,367 7,223	6,649 8,051	6,978 7,825	7,925 8,116	8,513 8,719	9,088 8,554	9,3 8,1
			<i>,</i>			,					
10	Total Distribution	21,916	20,737	22,510	21,286	23,554	24,314	26,861	27,936	29,957	30,2
17	Customer Accounting	4,487	4,692	5,586	5,234	5,740	5,796	6,270	6,108	6,632	6,
18	Customer Service & Information	4,487	4,092		5,234 9,505	5,740 9,777	6,955	983	865	837	0,
19	Sales Expenses	4,058	442		105	3,111	3	3			
	Administrative & General	510		477	105	5	5	5			
20	Operating Expenses	8,901	9,706	9,770	11,383	11,585	13,419	11,862	12,777	14,007	13,
20	Depreciation/Amortization	1,498	1,803		2,412	2,734	3,276	3,868	4,389	5,649	13, 6,
22	Regulatory Amortizations	(815)			2,412 216	(186)	5,276 171	3,808 91	4,589 (91)		6, 1,
22 23	Taxes	(815)	(242		216	(180)		91	(91)	(2,087)	1,
23 24	Total Admin. & General	9,604	11,284		14,035	14,133	(1) 16,865	15,821	17,075	17,569	20,
	Total Gas Expense	265,476	344,324	,	245,981	238,021	198,655	128,988	138,429	136,961	124,
25	Total Gas Expense	205,470	544,524	255,157	243,981	238,021	198,055	128,988	130,423	150,901	124,
26	OPERATING INCOME BEFORE FIT	15,389	15,865	14,929	14,801	16,725	15,127	19,587	20,409	24,087	31,
	FEDERAL INCOME TAX										
27	Current Accrual	5,010	506	2,468	(5,811)	(907)	(1,185)	4,253	(6,945)	(729)	(1,
	Debt Interest	5,010	200	2,100	(0,011)	63	3	(56)	(137)	(37)	(1)
29	Deferred FIT	(1,442)	3,320	1,238	9,594	5,691	5,033	1,403	13,105	7,842	9,
	Amort ITC	(1,442)	(31			(27)	(25)	(24)			,
0	Amortife	(51)	(51	) (30)	(23)	(27)	(23)	(24)	(20)	(20)	
1	NET OPERATING INCOME	\$ 11.852	\$ 12.070	\$ 11.253	\$ 11.047	\$ 11.906	\$ 11.301	\$ 14,011	\$ 14.406	\$ 17.031	\$ 22.
•		¢ 11,002	¢ 12,070	<i>ф</i> 11,200	φ 11,017	φ 11,900	φ 11,001	φ 19,011	¢ 11,100	φ 17,001	<b>v</b> 12
	RATE BASE										
	PLANT IN SERVICE										
2	Underground Storage	\$ 13,758	\$ 15,260	\$ 21,798	\$ 20,047	\$ 22,008	\$ 24,365	\$ 24,711	\$ 25,235	\$ 25,720	\$ 26,
3	Distribution Plant	229,417	240,778	255,976	269,469	281,279	296,152	313,469	337,894	360,612	390,
4	General Plant	21,708	24,256		33,401	38,971	44,809	52.223	59,169	75,514	82,
	Total Plant in Service	264,883	280,294		322,917	342,258	365,326	390,403	422,298	461,846	500.
-		204,000	200,294	505,521	522,717	C-12,200	565,520	570,405	,22,278	.01,040	200,
	ACCUMULATED DEPRECIATION/AMORT										
6	Underground Storage	7,427	7,581		7,912	8,286	8,677	9,088	9,521	9,906	10,
7	Distribution Plant	77,997	81,405		89,620	97,489	102,678	108,662	114,795	121,623	129,
8	General Plant	7,136	8,309	8,882	10,722	10,926	12,186	14,724	17,429	20,741	23,
)	Total Accumulated Depreciation/Amortization	92,560	97,295	100,710	108,254	116,701	123,541	132,474	141,745	152,270	162
	-		100.000	004.077							
	NET PLANT	172,323	182,999		214,663	225,557	241,785	257,929	280,553	309,576	337,
	DEFERRED TAXES	(26,823)	(28,945		(36,762)	(42,004)	(46,498)	(50,170)	(54,652)	(64,929)	(74,
	Net Plant After DFIT	145,500	154,054		177,901	183,553	195,287	207,759	225,901	244,647	262
	GAS INVENTORY	5,607	15,327		10,226	13,753	13,107	11,702	14,762	12,740	9,
4	GAIN ON SALE OF BUILDING	(197)			(44)	(14)	-	-	-	-	
15	OTHER	789	452	(1,359)	(1,163)	(1,012)	(816)	(332)	(479)	(485)	(
								5,695	10,073	16,069	14
16	WORKING CAPITAL	-	-	-							

## NATURAL GAS COST AND REVENUE TREND CALCULATIONS 2013-2016

AVISTA UTILITIES WASHINGTON NATURAL GAS RESULTS (000'S OF DOLLARS) Natural Gas Data for Escalators

			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			
Line															
No.	Exclude Gas Cost and Adder Sch														
1	Underground Storage	CBR Line 9	451	436	403	380	585	712	820	893	857	974			
2 3	Distribution	CBR Line 13	6,467	6,123	7,700	7,696	8,854	9,511	10,820	10,704	12,315	12,050			
3 4	Customer Accounting Customer Service and Information	CBR Line 17 CBR Line 18	4,487 4,658	4,692 5,169	5,586 7,609	5,234 9,505	5,740 9,777	5,796 6,955	6,270 983	6,108 865	6,632 837	6,811 964			
5	Sales	CBR Line 18 CBR Line 19	4,038	442	497	9,303	9,777	0,955	963	0	0	904			
6	Administrative and General	CBR Line 19 CBR Line 20	8,901	9,706	9.770	11.383	11.585	13.419	11.862	12,777	14.007	13,267			
7	Operating expenses excluding production	CDR Line 20	25,480	26,568	31,565	34,303	36,544	36,396	30,758	31,347	34,648	34.066			
8	Add Non PGA production O&M expenses		792	783	802	800	981	928	891	779	840	994			
9	Deduct Gas Cost Rev Related Expenses		-1,115	-1,054	-865	-564	-601	-535	-549	-602	-570	-454			
10	Deduct DSM Tariff Rider Expenses		-3,862	-4,412	-6,825	-8,477	-9,017	-5,984	0	0	0	0			
11	Deduct Decoupling Surcharge/Rebate Expenses	s	0	-3	-5	-3	-3	-1	0	0	0	0			
12	Adjusted Operating Expenses	_	21,295	21,882	24,672	26,059	27,904	30,804	31,100	31,524	34,918	34,606			
	Annual Percentage Change		3.33%	2.76%	12.75%	5.62%	7.08%	10.39%	0.96%	1.36%	10.77%	-0.89%			
	Depreciation/Amortization														
13	Underground Storage	CBR Line 10	310	276	393	348	395	438	380	402	439	492			
14	Distribution	CBR Line 14	5,605	5,673	6,064	6,367	6,649	6,978	7,925	8,513	9,088	9,866			
15	Administrative & General	CBR Line 21	1,498	1,803	1,999	2,412	2,734	3,276	3,868	4,389	5,649	6,260			
16	Total Depreciation/Amortization	_	7,413	7,752	8,456	9,127	9,778	10,692	12,173	13,304	15,176	16,618			
	Annual Percentage Change		6.46%	4.57%	9.08%	7.94%	7.13%	9.35%	13.85%	9.29%	14.07%	9.50%			
	Exclude Adder Schedule amortiza														
17	Regulatory Amortizations	CBR Line 22	-815	-242	440	216	-186	171	91	-91	-2,087	1,079			
18	Deduct Decoupling Surcharge/Rebate Expenses		-85 -900	-432 -674	-710 -270	-494 -278	-494 -680	-184 -13	0	0 -91	-2,087	0			
19	Adjusted Regulatory Amortizations	_							91	-91	-2,087	1,079			
20	Exclude Gas Cost and Adder Sch								150	104	10.5	210			
20 21	Underground Storage Distribution	CBR Line 11 CBR Line 15	95 9.844	113 8.941	121 8.746	116 7.223	19 8.051	17 7.825	158 8.116	184 8.719	196 8,554	210 8.383			
21	Administrative & General	CBR Line 15 CBR Line 23	9,844 20	8,941	8,740	24	8,051	/,825	8,116	8,719	8,554	8,383 0			
22	Total Taxes Other Than Income	CBR Lille 25	9,959	9,071	8,886	7,363	8.070	7,841	8.274	8,903	8,750	8,593			
23	Deduct Gas Cost Excise Tax		-6,261	-5,917	-4,858	-3.171	-3,374	-3,003	-3,083	-3,380	-3,197	-2,548			
25	Deduct DSM Tariff Rider Excise Tax		-154	-176	-272	-338	-359	-239	0	0	0	_, 0			
26	Deduct Decoupling Surcharge/Rebate Excise T	ax	-3	-17	-28	-20	-20	-7	0	0	0	0			
27	Adjusted Taxes Other Than Income		3,541	2,961	3,728	3,834	4,317	4,592	5,191	5,523	5,553	6,045			
	Annual Percentage Change		-1.34%	-16.38%	25.90%	2.84%	12.59%	6.38%	13.04%	6.40%	0.54%	8.86%		er Rate Period S	
													2018	2019	2020
28		CBR Line 42	145,500	154,054	173,806	177,901	183,553	195,287	207,759	225,901	244,647	262,930	300,122	315,126	331,023
	Annual Percentage Change		3.35%	5.88%	12.82%	2.36%	3.18%	6.39%	6.39%	8.73%	8.30%	7.47%	14.15%	5.00%	5.04%
ANN	UAL AND COMPOUND GROWTH RAT	ES													
Line	Natural Gas K-Factor Growth I	Rate Analysis								Rate Year 1	R	ate Years 2 & 3			
No.	Compound Growth Rates to 2016	<i>j</i> ~		2007-2016	2008-2016	2009-2016	2010-2016	2011-2016	2012-2016	2013-2016		2018-2020			
5	Adjusted Operating Expenses			5.54%	5.90%	4.95%	4.84%	4.40%	2.95%	3.62%	-		ised Staff's propose	ed - 2	.03%
6	Adjusted Operating Expenses			9.38%	10.00%	10.13%	10.50%	11.19%	11.66%	10.93%					
	• •											3	See page 1		
7	Adjusted Taxes Other than Income			6.12%	9.33%	7.15%	7.88%	6.97%	7.11%	5.21%					
8	Net Plant After Deferred Income Taxes			6.80%	6.91%	6.09%	6.73%	7.45%	7.72%	8.17%		5.02%	(1)		
			Portion							2013-2016	Г	2019-2020			
9		Depreciation	20.79%	1.95%	2.08%	2.11%	2.18%	2.33%	2.42%	2.27%	- F	2.27%			
10		O&M	42.75%	2.37%	2.52%	2.12%	2.07%	1.88%	1.26%	1.55%			Agreed to Staff, See	e page 1	
10		Taxes OTI	7.57%	0.46%	0.71%	0.54%	0.60%	0.53%	0.54%	0.39%		0.39%	,	1 3	
12		Net Plant After	28.90%	1.96%	2.00%	1.76%	1.94%	2.15%	2.23%	2.36%			Rate Base Reduction	n (1) Staff Agre	ed
13		Revenues	-0.7070	-0.84%	-0.84%	-0.84%	-0.84%	-0.84%	-0.84%	-0.84%			Staff Agreed		
													0		
14		Total K Factor %	_	5.91%	6.46%	5.68%	5.95%	6.05%	5.61%	5.73%		4.14%			
		(1) Reduction in 1	net plant comp	ared to previou	s years trend w	arrants a growt	h rate reduction	for the 2-Year p	eriod 2019-2020.	This is based or	ı planned trans	sfers to plant an	d impacts of A/D	& ADFIT for t	hose years.

<sup>(1)</sup> Reduction in net plant compared to previous years trend warrants a growth rate reduction for the 2-Year period 2019-2020. This is based on planned transfers to plant and impacts of A/D & ADFIT for those years. Reductions in net plant in 2019 and 2020 results from: 1) timing of transfers to plant (less in 2019-2020); 2) the continuing impact of repairs and bonus depreciation on ADFIT through 2020; and 3) carrying forward A/D on all plant from December 31, 2016 on an AMA basis to each rate year, increases A/D, reducing the net plant adjustment amount in each year.